



POSITION DESCRIPTION

Position:	Combat System Engineer – Defence Operations Australia
Reports To:	Engineering Manager
Supervises:	Systems Engineers as assigned
Location:	Adelaide
Tenure:	Full Time
Conditions:	Normal company terms and conditions apply Some interstate and overseas travel may be required.
Authority:	<i>Authority limits are defined in the Company Policies and Administrative Procedures (901AAT003).</i>

General Responsibility:	<p>The Combat System Engineer supports the Combat System Architect and engineering organisation in the establishment of the detailed design of the Combat System, including the identification and specification of the lower-level products that collectively become the system, analysis and definition of interfaces, and refinement of the architectural design.</p> <p>The Combat System Engineer will apply operational analysis and systems engineering methods including functional and physical modelling of the system and its interfaces for the determination of if and/or how well a system can perform its intended function(s). This will include:</p> <ul style="list-style-type: none">• Elicitation and analysis of stakeholder needs, both internal and external.• Analysis and design of complex systems.• Establishment of engineering strategies and associated planning for internal and external prime and subcontracted interactions.• Leadership of assigned system analysis and design activities.• Documenting and presenting analysis results in support of both project and business development activities. <p>Interaction with Systems Engineers and other specialists responsible for segments and sub-systems.</p> <p>These activities will be performed under the guidance and direction of the System Architect and appropriate Group Technical Authority to satisfy the safety, certification and design authority requirements of the company and the regulatory frameworks.</p>
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Specific Areas of Responsibility:	<p>Depending on the nature of the assigned tasks and the make-up of the assigned team, the Combat System Engineer will be responsible for some or all of the following:</p> <ul style="list-style-type: none">• Act as Technical Point of Contact (TPOC) for significant combat system subsystems.• Participate in and/or lead Teams in Combat System development
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activities.

- Develop and maintain estimates for assigned combat system design and engineering work.
- Ensuring that assigned system designs meet the requirements of the overall Combat System.
- Completing elements of the Combat System design and for assuring technical integrity, cost and schedule are maintained in the lower-level products.
- The selection and application of analytical techniques, tools and modelling methods with the goal of verification and validation of function and performance of the system and subsystem elements.
- The determination of the performance of system and subsystem elements that are not yet realized, to understand the system from a performance perspective, define performance measurements for a system, and provide answers to performance questions that are asked in terms of their stated requirements
- The conduct of detailed trade studies, including the forecast and comparison of the performance of design alternatives.
- Assessing the technical, performance and program impact of customer recommended changes and internal (to the program) engineering changes.
- The preparation of the detailed architecture description of the system, including the identification and characterization of the major architectural components.
- Assuring that the system solution complies with standards (e.g., Navy technical standards, product safety, human factors, environmental, regulatory etc).
- The preparation of material to support mandatory system reviews and other major presentations.

Customer Contacts

- *Internal* –Software teams, System Design team, Integration team, CSI team and ILS team.
- *External* – Customer representatives, subcontractors, end users and other stakeholders.

Qualifications and Experience:

Essential

- Tertiary qualifications in engineering or related technical discipline.

Desirable

- Postgraduate engineering qualification.
 - Chartered Professional Engineer, CP Eng.
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Experience

- **Essential**
 - At least 10 years relevant experience in both naval combat system integration and combat system / platform integration
 - A thorough understanding of operational concepts associated with naval combat systems
 - Systems Engineering design experience in a Combat System or a major Combat System subsystem
 - Experience in producing and reviewing Combat System level technical documentation
 - Experience with Combat System related Installation Control Drawings, Technical Data Packages and/or other information
 - Demonstrated awareness and ability to address whole-of-system, whole-of-life requirements and design issues such as environmental, EMI/C, safety and ILS as well as business and commercial needs
 - Thorough understanding of Combat System level V&V
 - **Desirable**
 - System architecting experience in Combat System or sub systems or in similar complexity equivalent systems
 - Familiarity with ship construction and combat system platform interfaces
 - Experience through all phases of the lifecycle of defence systems
 - Experience with shipboard combat systems computer programs, land based test facilities equipment and simulations, data extraction, reduction and analysis methodologies, modern techniques of system integration, and naval configuration management policy and guidelines
 - Advanced naval ASW systems experience
 - Experience with the development of test planning documentation, including test plans, test requirements, test specification and test procedures for Naval Integrated Combat Systems
 - Experience in interoperability systems such as Tactical Data Links (TADLs)
 - System level functional modelling and simulation and analyses
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Personal Qualities:

- Customer focussed
- Exceptional communication skills (both written and oral)
- Ability to work with others in a team environment, including sharing knowledge and experiences
- Ability to plan, schedule, prioritize tasks and to meet deadlines
- Ability to work under pressure
- Good problem solving skills and the ability to develop creative and innovative alternative solutions
- Ability to adapt to new tasks, technologies, processes and procedures
- Display behaviours, which reflect company values

Note: *To comply with Defence Industry security requirements, candidates for the position must be Australian citizens or able to meet citizen eligibility requirements.*