

## POSITION DESCRIPTION

GENERAL INFORMATION					
<b>Job Title: Structures, Design &amp; Naval Architecture Engineer</b>			<b>Level: Mid-Level Engineer</b>		<b>Location: Sydney</b>
<b>Reports To: Platform Engineering Manager</b>		<b>Direct Reports</b>			
		<b>Graduates</b>		<b>Operatives</b>	
OVERVIEW					
<p>The <b>Structures, Design &amp; Naval Architecture Engineer</b> is responsible for conducting whole of platform engineering associated mass, structures, buoyancy/stability and hull surveys for the AOR IAW N4, Seaworthiness requirements.</p>					

RESPONSIBILITIES
<ul style="list-style-type: none"> <li>• Support the Platform Engineering Manager in matters to do with the technical integrity of hull/structures engineering systems for the AOR Platform.</li> <li>• Adopt Systems Engineering practice in accordance with systems engineering requirements as set out in EIA 632.</li> <li>• Responsible for reporting the status of the ships structure that includes the hull, deckhouses, fixed ballast, penetrations, foundations, structural closures, welding and fastenings.</li> <li>• Analyse structural components relating to stress, fatigue, impact and shock compliance to DEF (AUST) 5000 requirements.</li> <li>• Using the Acquisition FORAN 3D model, develop a dynamics model (mass &amp; stiffness) for load calculations. After defining the sea going structural loads use Finite Element Analysis (FEA) for structural and fatigue calculations to support ship hull life predictions and capability upgrades.</li> <li>• Determine/develop a metric to report the status of the hull structural life (in % terms).</li> <li>• Undertake inspections and NDTs for analysis verification activities and technical assessments. Support the requirements of condition based monitoring for related applicability.</li> <li>• Liaise and support the CoA's Class Society/Flag strategy (Lloyds or else) and support technical assurance in relation to the AOR Certification Plan in relation to the scope defined above.</li> <li>• Perform stability calculations in support of technical compliance and inclining experiments/tests. Support compliance to the AOR Trim and Stability Handbook.</li> <li>• Support Hull Survey and Structural Certification (TH 118) IAW Navy Policy; coordinate and work with hull surveyor to conduct rolling hull surveys and Class continuous surveys IAW the AOR Usage Upkeep Plan.</li> <li>• Support engineering change IAW the CEMP and conduct relevant engineering change for the following types : <ul style="list-style-type: none"> <li>○ routine changes carried out as part of maintenance (Upkeep), for example replacing failed components;</li> <li>○ obsolescence-driven changes (Updates);</li> <li>○ system enhancements to deliver better performance or better maintainability (Upgrades).</li> </ul> </li> <li>• Conduct engineering trade-off studies to support systems engineering requirements and decision making; support Systems Engineering Review (SRR, SDR, PDR and CDR).</li> <li>• Coordinate any test verification activities in accordance with the AOR V&amp;V Plan and issue technical documentation.</li> <li>• Conduct Program CSSR and CSR Reviews (or support of).</li> </ul>

JOB REQUIREMENTS						
Required Qualification/s	Specialty	Languages				
<ul style="list-style-type: none"> <li>• Tertiary qualifications (BE, BNA)</li> <li>• Degree in Naval Architecture.</li> </ul>	Engineering Structures	<b>English</b>	Yes	<b>Spanish</b>		<b>Others</b>
Specific Knowledge / Experience						
<ul style="list-style-type: none"> <li>• Proven capable skills and experience in a systems/requirements engineering function</li> <li>• Experience within a Naval Architect Structural/Hull domain.</li> <li>• Minimum 5 years' experience in a similar role.</li> <li>• Excellent technical skills.</li> <li>• Very strong interpersonal skills.</li> <li>• Demonstrated ability to operate autonomously using initiative, sound reasoning, listening and decision making skills.</li> <li>• Demonstrated ability to deliver results in a high pressure environment.</li> <li>• Ability to communicate effectively and build positive relationships at all levels of the business and clients.</li> </ul>						
COMPETENCIES						
<b>Technical</b>				<b>Behavioural</b>		
<ul style="list-style-type: none"> <li>• Demonstrated knowledge of contemporary Engineering practice and skills in systems hull, mechanical, outfitting and reliability engineering.</li> <li>• Significant experience in a naval architecture with emphasis on structures and design.</li> <li>• Sound knowledge and experience in the Defence industry.</li> <li>• Experience in Hull rolling surveys.</li> </ul>				<ul style="list-style-type: none"> <li>• Demonstrate behaviours that promote positive team morale.</li> <li>• Demonstrate Navantia values at all times and encourage others to do so.</li> <li>• Develop relationships based on trust and support.</li> <li>• Develop and manage strong customer relationships.</li> <li>• Communicate effectively with all stakeholders.</li> </ul>		

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<ul style="list-style-type: none"> <li>• FEA analysis.</li> <li>• Desirable MAXSURF.</li> </ul>	
<b>Management</b> <ul style="list-style-type: none"> <li>• Demonstrated ability to work in a systems engineering team IPT.</li> <li>• Ability to work independently and communicate with stakeholders</li> </ul>	<b>Leadership</b> <ul style="list-style-type: none"> <li>• Lead people to promote a positive culture that promotes high performance</li> <li>• Lead change with energy and enthusiasm</li> </ul>
<b>Security</b> <ul style="list-style-type: none"> <li>• Ability to gain baseline as a minimum</li> </ul>	<b>Pre-employment Medical</b> <ul style="list-style-type: none"> <li>• Nil</li> </ul>

APPROVED			
Date		Date	
Director HR Signature		Managing Director Signature	