



The Royal Institution of Naval Architects  
**Warship 2019: Multi-Role Vessels**  
 25-26 June 2019, Bristol, UK

Sponsored by:



Tuesday 25 <sup>th</sup> June		
09.00-09.25	Coffee and Registration	
09.25-09.30	<b>Welcome Address</b> , Karl Monk, Technical Director, Royal Institution of Naval Architects, UK	Session 1: Rachel Pawling, UCL, UK
09.30-09.35	<b>BMT Welcome</b>	
09.35-10.10	<b>KEYNOTE:</b> <i>Capt. Tim Currass and Capt. Jules Lowe, Royal Navy Command Headquarters</i>	
10.10-10.45	<b>Allied Maritime Forces Transformation: Towards a Defence Planning Process that Includes Adaptable Warships</b> <i>Richard Logtmeijer, Ministry of Defence, NL</i> <i>David Manley, Ministry of Defence, UK</i> <i>Co-authors from NATO partner AUS and NATO countries CA, GE, IT, NL, UK and USA</i>	
10.45-11.20	<b>Multi-Role Vessels: Manning, Design &amp; Cost Drivers</b> <i>Daniel Smith, Naval Design Partnering Team, UK</i>	
11.20-11.50	Coffee	
11.50-12.25	<b>The Multi Role Combatant - Jack of All Trades Master of None?</b> <i>David Andrews, UCL, UK</i>	
12.25-13.00	<b>When is the Adaptable or Multi-Role Ship the Right Answer?</b> <i>Charles Moss, Andy Kimber, BMT, UK</i>	
13.00-14.00	Lunch	
14.00-14.35	<b>The Affordable Surface Combatant, the Application of Modularity and Flexibility in Delivering the Future Fleet</b> <i>Malcolm Robb, David Lewis, BAE Systems Maritime, UK</i> <i>Giota Paparistodimou, University of Strathclyde, UK</i> <i>Charles McPartland, Ministry of Defence, UK</i>	Session 2: David Andrews, UCL, UK
14.35-15.10	<b>The Importance of Onboard Infrastructure to Enable Future Vessel Enhancements at Build and Through Life</b> <i>Simon Willmore, BMT, UK</i>	
15.10-15.40	Coffee	
15.40-16.10	<b>The Use of CAD Systems to Manage Modularity in Multi-Role Warships</b> <i>Rodrigo Perez, Erno Peter Cosma, SENER, Spain</i>	
16.10-16.45	<b>Inline-Slot Ejector Diffuser for a Warship to Suppress IR Signatures</b> <i>Lakhvinder Singh, Sidh Nath Singh, Indian Institute of Technology Delhi, India</i>	
16.45-	General Discussion & Evening Drinks Reception	



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09.00-09.25	Coffee and Registration	
09.25-10.00	<b>Norway's New Multi-Role Logistics and Support Vessel (LSV)</b> <i>Simon Jones, Alex Aitken, BMT, UK</i>	Session 3: Daniel Smith, Naval Design Partnering Team, UK
10.00-10.35	<b>Pushing the Limit: The Role-less Multirole Warship</b> <i>Dr Rachel Pawling, Dr Nick Bradbeer, UCL, UK</i>	
10.35-11.10	<b>Development of a Twin Stern Ramp Lars for Rapid Response Craft on a Multi-Role Naval Vessel</b> <i>N L Koh, D B Wong, Y M J Tan, B H Chew, T S Gan, Defence Science and Technology Agency, Singapore</i>	
11.10-11.40	Coffee	
11.40-12.15	<b>The Multi-Role Support Ship and Humanitarian Assistance and Disaster Relief Operations</b> <i>Wade Carson, Derek Buxton, VARD Marine Inc., Canada</i>	
12.15-12.50	<b>The Development of a Modular Multi-Role Vessel for Naval and Coastguard Operations</b> <i>Andrew Humphries, Les Davies, Chris Browning, John Fox-Robinson, Vectis Marine Design Ltd, UK</i>	
12.50-13.50	Lunch	
13.50-14.25	<b>Standardisation of Naval Containerised Modules - Enabling Interoperability across NATO</b> <i>Hayden Cole, Julia Alvarez, Naval Design Partnering, UK</i>	Session 4: Alex Aitken, BMT, UK
14.25-15.00	<b>A Review of UCL MSc Warship Designs</b> <i>Cat Savage, Dr Rachel Pawling, Dr Nick Bradbeer, UCL, UK</i>	
15.00-15.35	<b>MissionEase Boat Handling System for Multi-Role Mission Ships</b> <i>Rolf Andreas Wigand, Atle Klave, Vestdavit AS, Norway</i>	
15.35-	General Discussion & Coffee	