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NEWS FROM THE AUSTRALIAN MARITIME COLLEGE

Media Advisory

Chiefs of Staff, News Directors

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Research and education vital for the Naval Shipbuilding Plan

Comment by Associate Professor Jonathan Binns, Director of the ARC Research Training Center for Naval Design and Manufacturing (RTCNDM)

- RTCNDM is a collaboration between the University of Tasmania, the University of Wollongong and Flinders University, alongside industry partners ASC Pty Ltd, Babcock Pty Ltd, Defence Science and Technology Group, Defence Materials Technology Centre, Thales Australia Ltd, PMB Defence Engineering Pty Ltd, Serco Defence and Austral.

As the director of the ARC Research Training Centre for Naval Design and Manufacturing (RTCNDM), Associate Professor Jonathan Binns oversees researchers focused on solving problems aligned with the manufacture, design and sustainment of naval vessels spread across Australia.

Associate Professor Binns welcomes the recently released Naval Shipbuilding Plan as providing vital detail for executing Australia's defence strategy, which was communicated in the Defence White Paper published in 2016.

With at least 5,000 extra skilled engineers, scientists, naval architects, specialists and tradespeople needed by 2026 to support, modify and tailor the future warships and submarines, A/Professor Binns sees research and education as critical to fulfilling the plan.

More than half of the personnel hours that go into the production of a ship are needed to design the ship and facilitate the production. The need for more professional naval architects is therefore paramount for the success of the Naval Shipbuilding Plan and will secure the life-long careers for a great many graduate naval architects.

The research A/Professor Binns oversees at RTCNDM is also a critical for the innovation demanded by the Plan.

"PhD education forms only one part of the training and education system demanded by the Naval Shipbuilding Plan," Associate Professor Binns said.

"But it is a vital component for producing research engineers who can address the most advanced challenges. No other education programs can actually tackle real problems whilst fulfilling the education requirements of future researchers.

He says that work-integrated learning is a hallmark of industry-relevant education and has been rightly emphasised in the National Shipbuilding Plan.

“The key to the ARC Research Training Centre is to bring our PhD programs even closer to industry and defence, and each student must do a 12-month internship placement, bringing all the benefits of work integrated learning to our PhDs.”

“The value of these work placements is two way. First, our students get the best education in terms of how industry can actually use research, which is something that can be discussed in the classroom, but until you live and breathe it, you won’t understand.

“Second, the industry-driven research that our PhD students are completing is translated directly to the final innovative applications it was always designed for.”

The RTCNDM supports 13 RTC researchers — based at the three universities — who are working with industry on research including:

- controlling flow induced vibrations and noise;
- minimising the build-up of organic matter on acoustic sensors;
- using robots to efficiently inspect confined spaces;
- optimising maintenance procedures;
- allowing greater re-welding of complex submarine structures;
- modelling the response of underwater structures; and
- improving the energy devices critical to submarine operation.

Associate Professor Binns is available for comment on +61 429 427 931

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BACKGROUND

The \$3.8 million Research Training Centre for Naval Design and Manufacturing is funded via \$2.4 million in federal money and more than \$1.4 million in industry cash and in-kind contributions administered under the Australian Research Council’s Industrial Transformation Training Centres scheme.

It is a collaboration between the Australian Maritime College at the University of Tasmania, the University of Wollongong and Flinders University with industry partners ASC Pty Ltd, Babcock Pty Ltd, Defence Science and Technology Group, Defence Materials Technology Centre, Thales Australia Ltd, PMB Defence Engineering Pty Ltd, Serco Defence and Austal.

More information: www.rtcndm.com.au