Queensland companies shaping a tech-savvy naval force

The Australian maritime sector demands a strong supply chain, and it’s here that Queensland companies are positioning themselves to give the Royal Australian Navy (RAN) the competitive edge with advanced technological solutions.

Communications systems are a prime example of an area requiring reliability and performance to allow the RAN to remain responsive. With this in mind, Brisbane-based EM Solutions have adapted their highly-regarded land-based mobile satellite communications system, satcom-on-the-move, for maritime use to ensure uninterrupted broadband communications at sea.

“The system includes very robust tracking mechanisms to lock onto chosen satellites, and can switch to other frequencies and satellites if congestion or weather means certain satellites are unavailable,” EM Solutions CEO, Dr Rowan Gilmore, whose business goal is to deliver real-time telecommunications anywhere in the world, said.

Also ensuring the RAN can achieve first-rate connectivity is ImmersaView, who develop immersive training and simulation systems using advanced software technologies.

“We’ve successfully developed products that leverage the functionality of PC components so we can replicate and enhance solutions built in custom hardware electronic boxes,” ImmersaView’s managing director, Dr Andy Boud, said. “Combined with our ability to span multiple projectors and stream content to almost any destination using existing networks, we provide the navy unique capabilities.”

Similarly, a number of Queensland companies possess emergent capabilities in composite development, drawing on experience from both the defence and commercial sectors. This includes Buchanan Advanced Composites, who designed and manufactured a fibre composite yard arm for HMAS Anzac and did original design work for components of the Collins Class submarine.

Furthermore, LSM Advanced Composites from Toowoomba and Brisbane-based Lavender have proven their fibre composite capability on an international scale, having developed and supplied the carbon fibre linings and prepregs respectively for the 'Deepsea Challenger'—the custom-built submersible that took acclaimed film director James Cameron to the deepest point on earth, the Mariana Trench, in 2012.

Brisbane-based Cameron Engineering is also putting innovative solutions at the forefront of their business with the benefit of having one of only two non-ferrous foundries in Australia.

“Our company is innovative and creative and we try to find custom solutions for our clients,” director, Ross Cameron said. “Examples of this are our cast-foil bronze rudders and deck hatches that we’ve developed for both commercial and defence use.”

While smart technologies form the cornerstone of naval modernisation, adequate facilities to support Australian fleets and trusted maintenance and repair services are required for operational efficiency, and according to Olav Groot, CEO of Norship Marine in Cairns, Queensland’s strengths in these areas are often understated.

“From the LHD support capability in Townsville to the hydrographic survey vessel and patrol boat support capability in Cairns, Queensland is quietly performing a wide range of services backed by an extensive SME network, and this provides mature technical support capabilities,” Groot said. “On top of that we have significant infrastructure in the state that supports dock ing, refit, wharfage, maintenance, engineering, supply and other associated services.”

Having worked in the marine sector worldwide for more than 25 years, Groot also has great confidence in the people operating within Queensland’s defence industries.

“My experience in Queensland has been very positive, primarily because of the people and their culture, capability and experience, which, properly nurtured, will serve the RAN well into the future.”