blue zone GROUP

UnderCurrents

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Robotics and Autonomous Systems Announced as a new Sovereign Industrial Capability Priority

Significant announcement that backs local development of a key future Defence technology

BlueZone Group strongly supports the announcement by The Hon Melissa Price MP, Minister for Defence Industry, of a new Sovereign Industrial Capability Priority for Robotics, Autonomous Systems and Artificial Intelligence (RAS-AI).

Providing sustainment to the ADF for robotic systems for more than twenty years, BlueZone has been a key contributor in the enablement of robotics capability for our war fighters and stands ready to support exciting future developments.

Beginning with full spectrum sustainment of the Double Eagle Mine Disposal System in 2000, BlueZone has developed a sovereign in-country support capability for a range of maritime robotics systems employed by Navy and Army littoral elements. In 2011 BlueZone supplied eight Wave Glider Unmanned Surface Vessels (USVs) to Navy, and has developed a comprehensive locally based overhaul and support program. This now extends into a systems engineering and integration capability that is engaged in delivering on Project P17-246768 - Theatre ASW - Off board DCL using Wave Gliders for the Defence Innovation Hub. In 2019 BlueZone delivered REMUS Unmanned Underwater Vehicles (UUVs) to Project SEA 1770 Rapid Environmental Assessment and is now working closely with the OEM, Huntington Ingalls Industries, to develop a sovereign sustainment capability based in workshops located in Newcastle, NSW and Perth, WA.

RAS-AI Announced as a new Sovereign Industrial Capability Priority

MARTAC Devil Ray T38 Unmanned Surface Vessel

Fastest Autonomous International Run Ever

Maritime Tactical Systems, Inc. (MARTAC), an innovator in Maritime Unmanned Surface Vessels (USVs), has announced completion of a Devil Ray T38 USV fully autonomous run from Palm Beach, Florida Inlet across the Florida Straits to West Bank, Bahamas in under one hour.

Bruce Hanson, MARTAC's CEO said "We are excited that our Expeditionary Class Devil Ray T38 is the first USV to autonomously perform this high-speed international run. This is a culmination of 10 years of product development and thousands of hours testing and running our patented X- and Expeditionary Class USV systems for reliability and accuracy. This is the first run in a series that will continue to vet and refine our technology to address the needs of our military, scientific and commercial customers' missions and applications. MARTAC's USV classes simply operate Beyond Human Capability."

At the US Navy Inaugural Unmanned Systems Integrated Battle Problem the T38 Devil Ray was assessed as the best USV candidate to meet USN needs today. Unlike many USVs that are in various stages of development, the Devil Ray is certified as Technical Readiness Level Nine (TRL 9), meaning it is ready for deployment now. Integrating Devil Ray into the Fleet requires no special accommodation, since it matches the size of the eleven-meter RHIB currently carried by many U.S. Navy ships.

MANTAS Expeditionary Class Devil Ray T38 – Beyond Human Capability

Mine Counter Measures (MCM) - Start with the End in Mind

The final stages of MCM are the hardest steps and need a strong focus for any Navy to claim a credible MCM capability

There is no doubt that the rapid development of UUV technology shows great promise for revolutionising the first two stages of MCM: search and classification of seabed objects.

The final two stages of identification and disposal are tightly connected. Any plans that rely on an option to avoid a minefield will ultimately be doomed to failure. Opposition forces make their own assessments of areas that are sensitive to minefields, and will no doubt select straits and passages that are unavoidable for a naval force wishing to shape the maritime environment through freedom of navigation. Mine warfare is likely to be a feature of any 'grey' conflict and the location of minefields (or even the threat of mining) will be selected to cause the maximum inconvenience to naval and civil maritime movements. A naval force that aims to shape their region of interest must have a credible and reliable 'all-weather' capability for mine disposal.

Multi-shot Systems such as the Saab Multi-Shot Mine Neutralisation System (MuMNS) are the next step for effective mine destruction, combining high-quality identification and assured destruction with the additional benefit of increased clearance rate. The ROV pilot has the control authority to manoeuvre with precision near to the mine like object and high-quality sensors that enable positive identification and gathering of valuable intelligence data. Finally, a powerful disposal charge is deployed very accurately assuring sympathetic destruction on detonation. Multiple disposal charges can be deployed in one mission with the destruction timed as required for tactical needs.

Multi-Shot Mine Neutralisation System (MuMNS) - high-quality identification and assured destruction

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New Products & Services

New SeaBat T51-R Multi-Beam Echo Sounder

The SeaBat T51-R brings on a revolutionary and industry-unique true 800kHz sonar which allows for surveys with the highest level of detail while still maintaining an amazing up to seven times water depth survey efficiency. The best of both worlds.

Besides the revolutionary 800kHz performance, the SeaBat T51-R also comes with a flexible 350-430kHz lower frequency range – intended for those surveys where extended range performance is required, giving you a truly flexible solution for all occasions.

Benefits:

- Revolutionary and frequency flexible 700-800kHz sonar array for up to seven times water depth efficiency with extreme resolution to improve your decision making
- 350-430kHz sonar operation for traditional and extended range survey requirements maximising your sonar usage
- Autonomous AI Sonar Controls – allowing the operator to focus on tasks other than controlling the sonar
- Unprecedented clean and ultra-high data quality for faster operational surveys and reduced processing time
- Three-year standard warranty to give you peace of mind

XMi-2.0 Iridium beacon

Independently powered, self-contained and fully submersible to 11,000 m

Xeos have announced development of the XMI-2.0 self-contained, submersible Iridium Micro beacon. This beacon is a replacement for the XMI-11K, one of Xeos' oldest and most popular beacons. The XMI-2.0 is an upgraded version of the XMI-11K.

The XMi-2.0 is an independently powered, self-contained Iridium beacon that is fully submersible to 11,000 m (36,089 ft). This beacon has been designed to protect your valuable assets and make their recovery even easier. The XMi-2.0 features an ultra-low power water sensor to optimise battery life while ensuring you will be notified of any surfacing event. The enclosure is all titanium with a solid state surface sensor and an optional remote head.

Key Features

• Miniaturised design in a titanium enclosure

• User selectable transmit frequencies

• Available remote head

• Solid state surface sensor

• Configuration control via smartphone with Bluetooth 4.0

• Low power consumption for extended deployments

• Pole-to-pole coverage through the Iridium system

The XMi-2.0 is designed to meet or exceed your operational requirements for an ultra deepwater submersible beacon.

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