

## UnderCurrents

June 2021 Issue 92

## REMUS 300 UUV for RNZN

First international order for four REMUS 300 unmanned underwater vehicles (UUVs)

BlueZone supplier Huntington Ingalls Industries has announced that the Royal New Zealand Navy (RNZN) has placed the first international order for four REMUS 300 unmanned underwater vehicles (UUVs).

Designed for modularity and portability, the REMUS 300 can be reconfigured with a range of sensors and payloads to meet mission requirements. In addition to the four vehicles, New Zealand acquired high-definition camera modules and additional swappable battery modules.

The REMUS 300 maintains the 7.5-inch diameter of the REMUS 100, increases the depth rating to 305 meters, and remains two-man portable. Built around the REMUS Technology Platform, the design also allows for reconfigurable payloads, sensors and energy modules to meet mission requirements.



Huntington Ingalls Industries Announces First International Order for REMUS 300 UUVs REMUS 300 a Game-changer for the small UUV class

### Teledyne Optech launches next generation bathymetric lidar solution Full geospatial bathymetric lidar solution with industry-leading depth penetration



Teledyne Optech has announced the launch of the CZMIL SuperNova, a full geospatial bathymetric lidar solution with industry-leading depth penetration. The CZMIL SuperNova is powered by Teledyne CARIS processing software for the creation of seamless topo/bathy data products

The CZMIL SuperNova boasts the best depth performance and the highest green laser point density in its class. Introducing SmartSpacing technology for even and efficient point spacing, real-time processing capability for reduced post-processing time and configurable modes for maximising performance in different water environments, the SuperNova provides a wide range of inputs for climate change modelling and is ideal for inland water environments, base mapping for coastal zones and shorelines.

To complete the solution, Teledyne CARIS has integrated its BASE Editor software for seamless data processing capacity. Leveraging AI techniques for land/water discrimination and noise classification, the CZMIL SuperNova bathymetric solution effectively delivers on marketplace demands for efficiencies in the processing workflow.

**CZMIL SuperNova - A Complete Geospatial Solution** 

#### MARTAC MANTAS T12 for MCM

Leading edge USV technology with state-of-the-art sonar technologies for mine countermeasure detection

The MANTAS T12 USV provides a technically mature Unmanned Surface Vessel (USV) as an option for mine detection. The T12-MCM configuration consists of a MANTAS USV system, a L3 KLEIN UUV-3500 High Resolution Side Scan Sonar and a NORBIT Wideband Multibeam Forward Looking Sonar. These technologies combine to a provide mine detection and real-time relay capability back to a shipside or shoreside monitoring and control station and operators.

At the core of the T12-MCM system is a custom MARTAC-designed and built MANTAS 3.6 m variant. The MANTAS T12 is a lightweight electric propulsion, carbon fibre body USV based on a patented aerodynamic/hydrodynamic catamaran hull designed for stability and superior manoeuvrability at higher speeds. MANTAS hulls have demonstrated hundreds of hours of runtime, are self-righting, and proven to operate and survive in high seas.

#### MARTAC MANTAS Accelerating Innovation in Unmanned Surface Vehicles

# Visit from the SPCC students who won the 2020 Subs in Schools Competition



BlueZone Group was lucky enough this month to host the St Philip's Christian College (SPCC) Newcastle students who won the 2020 Subs in Schools Technology Challenge. The students, along with their teacher Dave Bonzo, visited our site to personally thank the engineers who assisted them with their project.

BlueZone engineers acted as mentors and assisted the SPCC Newcastle students designing and building a Remotely Operated Underwater Vehicle (ROV) that they operated themselves. We are all very proud of the work the students did and of what they achieved.

Subs in Schools competition winners 2020

## **EVENTS**

Please join BlueZone Group at these upcoming events as travel restrictions ease around Australia!

We are keen to talk to you about how innovative new technologies offered by BlueZone can solve issues for your challenges in Australia's oceans, coastal seas, and rivers. We are happy to answer your questions and arrange on-site demonstrations and further discussion if required.

#### Join Teledyne Marine for a Celebration of Innovation – July 14 & 15 - Online!

While the world's been locked down, Teledyne Marine has been innovating new solutions for you! Join Teledyne Marine for an introduction to 13 new technologies rolled out of the past 15 months:

- \* Product Launch Overview, moderated by Mike Read, President, Teledyne Marine
- \* RESON SeaBat T51-R Multibeam Echosounder
- \* RESON SeaBat T20 Multibeam Sonar for ASV
- \* ODOM Hydrographic Echotrac E20 Singlebeam Echosounder
- \* BlueView MKII 2D Sonar Series
- \* PDS Software Spotlight Feature: Mosaicking
- \* RD Instruments Wayfinder DVL





- \* Benthos Ultra Compact Modem
- \* Benthos UTS-9500 Universal Topside
- \* Webb Research G3 Processor
- \* Webb Research Glider / JASCO Sensor Integration
- \* Gavia Osprey AUV
- \* Gavia AUV Advances
- \* Oceanscience Z20 Autonomous Surface Vehicle

#### Re-broadcast of "A Celebration of Innovation" virtual product launches for Asia on July 14 & 15 begining at 1:00 PM at GMT +8

#### AIDN Australian Sovereign Capability Showcase - 4 August 2021- Canberra

BlueZone will join with other Defence SMEs at the AIDN Australian Sovereign Capability Showcase to highlight the critical role the Australian defence industry plays in contributing to Australia's sovereignty, security, and safety. It will also demonstrate the integral role our industry plays in Australia's economy through our sovereign supply chains; modern manufacturing practices; research and innovation; skills development; and regional employment.

Key Government decision makers will then join industry SMEs and Primes at a showcase in the Great Hall of Parliament House, demonstrating how Australia's Defence Industry can support the Government in enhancing our self-sufficiency and contribute to our pro-growth national sovereignty strategy.

## New Products & Services

#### Tritech Diver Mounted Display Navigation and inspection in zero visibility conditions

The Diver Mounted Display (DMD) system has been designed to provide divers with the ability to navigate and carry out inspections in zero visibility conditions.

Utilising the Gemini range of multibeam imaging sonars allows the user to select the most suitable sonar for the type of operation required. The world's smallest multibeam imaging sonar, the Gemini 720im, provides a basic navigation capability, allowing a diver to locate large structures or objects while working in zero visibility water.



Where a higher degree of resolution is required the diver can opt for the Gemini 720ik or Gemini 1200ik multibeam imaging sonar, both of which provide increased range, resolution and field of view. These high specification multibeam imaging sonars provide a diver with a high degree of confidence while working in zero visibility conditions and allow searches to be undertaken far more efficiently than using conventional search pattern techniques.

The DMD systems have been designed to be used with the Inodive accessory rail system, allowing for the DMD system to be used with an extensive range of dive masks and helmets. All of the Gemini sonars, when supplied with a DMD system, are built-up with an Inodive interface to allow for seamless installation onto the dive mask/helmet.

#### Diver Mounted Display (DMD) system enables divers to navigate and carry out inspections in zero visibility conditions.

#### **Emergency Relocation Transponder for Diving Bells** Transponder and interrogator compatible with Sonardyne systems

Commercial diving companies operating in an area that requires their diving bell to meet offshore standard DNV-OS-E402, must have an emergency locating system that meets section 305 of that standard.

RJE International has developed the ATT-400/AODC transponder - a small battery operated underwater acoustic device, which is used to mark commercial diving bells for emergency relocation to depths of 1000 metres. The interrogation frequency is factory set to 38.5kHz (Ch-A) or 39.5kHz (Ch-B) and, when interrogated, replies to the pre-set emergency frequency of 37.5kHz and meets the DVN-OS-E402 standard.



A diver held interrogator for the transponder, the DTI-300/AODC interrogator, is also available. To ensure a smooth transition, the ATT-400/AODC transponder is compatible with the older Sonardyne systems and can be located with the Ranger2 USLB system and Homer-pro receivers presently in use and fielded.

**Emergency Relocation Transponder for Diving Bells** 

+61 2 4964 3500 21 Huntingdale Drive Thornton, NSW 2322, Australia Bibra Lake, WA 6163, Australia

Newcastle

Unsubscribe

Perth

+61 8 6595 1500 Unit 1, 41 Discovery Drive

www.bluezonegroup.com.au