

## **UnderCurrents**

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#### SUEX Diver Propulsion Vehicle – Upgrade your Underwater Navigation "SINAPSI" special navigation nose enables underwater reception and processing



"SINAPSI" is a special navigation nose fitting that can be installed on a SUEX Diver Propulsion Vehicles (DPVs) to enable underwater reception and processing of navigation data. SINAPSI makes it possible to expand the navigation system by selection of multiple way points on a map based on a plan enabled through the CALYPSO app.



SINAPSI is available for XJ-S and XK SUEX models and its use together with ERON D-1 makes the EXTENDED mode of the dashboard possible. Navigation capability includes:

- Heading
- Waypoints
- Latest generation Attitude and Heading Reference System
- Proprietary fusion firmware
- DPV speed through the water
- DPV travelled distance through the water

SUEX DPV Upgrade your Underwater Navigation

## FlexiClean for Falcon

#### Powerful and cost efficient cleaning using less expensive vehicles in challenging environments

Adding to the Falcon tooling options, Lateral of Norway has released the first images of their game changing FlexiClean tool integrated into a Falcon skid. The electrically-powered FlexiClean Micro reduces the need for using large-scale work class ROVs (WROVs) and the associated costs of a specialist vessel and additional manpower for biofouling cleaning tasks. The FlexiClean Micro is a 'little brother' to the larger FlexiClean innovation, which was launched in 2014 and is now used worldwide - most recently on a deepwater marine growth cleaning project in Brazil. The Micro has a single layer of polyurethane fingers that remove growth more efficiently than many jetting and conventional brush options.



#### Biofouling removal tool for smaller ROVs to reduce costs and save time

#### The Wave Glider as a Development Platform A trusted platform for rapid autonomous systems development



The Liquid Robotics Wave Glider is well known for its ability to travel extreme distances autonomously, powered only by waves and the sun. What is less known is how straightforward it is to integrate custom payloads, creating unique opportunities for surveillance and environmental assessment. Using the Software Development Kit available for the Wave Glider, together with the highly capable SMC and Regulus operating system, a fully functioning system can be built and deployed in weeks, not years.

## Engineers Australia IWD 2021 Event - Newcastle Celebrating women in Engineering

BlueZone attended the Engineers Australia International Women's Day 2021 Event in Newcastle on 10th March 2021. It was a fantastic event and so inspiring to hear from the brilliant engineers on the panel and the keynote speaker, Dr Mae Jemison.

The event heard about the research and advancements that have been made in space exploration and the projects they are working on for the future. Developments made by scientists and engineers for use in space, such as the Mars rover 'Perseverance', have a real impact on life on Earth and for the subsea environment.



#### Engineers Australia IWD 2021 Event - Newcastle

## International Women's Day 2021 – Celebrating our CEO Elizabeth Karpiel – CEO and Engineer



In March, when we are celebrating International Women's Day, BlueZone would like to take a moment to celebrate Elizabeth Karpiel (Liz), our CEO. Liz has been CEO for a year but has been part of BlueZone since 2006 when she joined us as an engineer and project manager. She has been an invaluable member of the team, is an inspiration to her colleagues, and proves women can achieve great things with hard work and perseverance.

Liz completed her Engineering degree through the University of Newcastle and is currently studying for her Masters of Business Administration. She has mastered balancing work, study and personal life, including studying for her first degree while being a mother and primary carer. With such big changes happening in the world today, Liz acknowledges that flexibility and recognising everyone has commitments external to their work is key to a strong and engaged team.

#### International Women's Day 2021 - Celebrating our CEO

## BlueZone CEO Panellist for Hunter Defence Conference BlueZone CEO Elizabeth Karpiel on the Expert Panel

BlueZone Group is proud to announce that our CEO, Elizabeth Karpiel, will be a panellist for the Hunter Defence Conference 2021. The conference themes this year include skilling and workforce readiness, capability development, investment opportunities for SMEs and driving collaboration in the defence industry.

Ms Karpiel has said of the appointment, "it is an honour to be asked to speak on the panel for what is always an important event for Hunter Defence and the regional businesses in the defence industry. The Hunter plays a key role in the defence sector and SMEs are an extremely important part of our industry."



BlueZone CEO Panellist for Hunter Defence Conference

**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.



**Army Robotics Exposition 2021 (ARX 2021) - 20 April 2021 – Brisbane** Army is hosting the Army Robotics Exposition 2021 (ARX 2021) in the Brisbane Exhibition and Convention Centre on 20 April 2021, to facilitate observation and demonstration of Robotics, Autonomous Systems (RAS) concepts and technologies. ARX 2021 will provide an opportunity for Defence personnel, including Capability Manager Delegates to view available technologies and innovations such as Sea Wasp.

#### Accelerating Trusted Autonomous Systems Symposium - 20 to 22 April 2021 – Townsville

BlueZone Group will join Trusted Autonomous Systems Defence CRC at the Accelerating Trusted Autonomous Systems Symposium, 20-22 April 2021 at 'The Ville, Townsville. A breadth of perspectives will be on offer and opportunities for interactions for those in academia and industry with senior Australian Defence Force (ADF) staff in leadership roles in Robotics, Autonomous Systems and Artificial Intelligence (RASAI).



#### Hunter Defence Conference - 22 to 23 April - Crowne Plaza, Hunter Valley

BlueZone will join with other Hunter-based defence companies to meet with defence primes, SMEs, researchers and the Department of Defence at this year's conference, with a focus on the key themes of:

- defence industry skilling and workforce readiness
- defence capability development
- supply chain and contract opportunities for SMEs, and
- driving collaboration in the defence industry.



## New Products & Services

Teledyne Marine Introduces New Ultra Compact Acoustic Modem

# A-Comms at Your Fingertips Introducing the New Ultra Compact Modem!

Teledyne Marine has announced the launch of its new Ultra Compact Modem (UCM). Sized at just 60 mm x 50 mm, and weighing in at just 55 grams, the Original Equipment Manufacturer (OEM) version of the UCM is the smallest acoustic modem ever designed by Teledyne Benthos.

The UCM is based on Teledyne Benthos' proven signal processing technology to address the need for reliable wireless underwater acoustic communications onboard the growing number of autonomous micro vehicles and other subsea instruments. As the size of these micro vehicles continues to decrease, Teledyne Marine has responded with lightweight, low power, proven sensors and systems to expand the usefulness of these platforms, increasing the number of tasks they can perform.



The self-contained UCM is rated to 700 m; OEM versions are available with multiple remote transducer options for greater depths. The UCM boasts increased transmit power resulting in increased range and improved data reliability, as well as a decreased power draw, both of which are critical for autonomous vehicles and extended subsea instrumentation deployments.

As with Teledyne's ATM series modems, the UCM is compatible with the feature-rich UTS-9400 Universal Top Side (UTS), and the soon to be launched CE marked UTS-9500, and is fully compatible with the NATO Janus underwater communication interoperability standard.

<u>Teledyne Benthos Ultra Compact Modem (UCM)</u> <u>Top Five Reasons Why You Need a Teledyne Benthos Ultra Compact Modem</u>

#### Teledyne Benthos UTS-9500 Universal Topside Highly Intuitive and Flexible Graphical User Interface ideal for RHIBs or smaller vessels

The Teledyne Benthos UTS-9500 Universal Topside UTS-9500 offers a CE marked, enhanced replacement to the previous UTS-9400 unit. The updated portable topside delivers a highly intuitive and flexible Graphical User Interface (GUI) that removes the need for an additional laptop, something particularly useful for deployments from RHIBs or smaller vessels.

The redesigned UTS-9500 is also lighter than its predecessor, adding to system portability, and features new rechargeable lithium ion battery technology that will lessen required maintenance cycles. Other new features include enhanced corrosion resistance, improved system safety, and an upgraded communication port.

Effective immediately, the 9500 will replace the UTS-9400



Teledyne Benthos UTS-9500 Universal Topside UTS-9500 Universal Topside

#### Newcastle

#### Perth

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