

## REMUS Demonstrates Operational Flexibility (Again!)

*REMUS 100 Deployed from MH-60 Helicopter*



The REMUS Uncrewed Underwater Vehicle (UUV) story of class leading flexibility and adaptability continues to grow with a demonstration by the US Navy in the Pacific, building on the innovation of a Royal Navy demonstration in the Atlantic (see link below).

In a US 7th Fleet Explosive Ordnance Disposal (EOD) expeditionary task force exercise in Guam, the expeditionary force continued to test REMUS operations from various assets of opportunity to maximise operational flexibility. In one exercise, the Mk 18 Mod 1 (REMUS 600) was Launched and Recovered (LAR) from MH-60 helicopters.

[REMUS Deployed by MH60 Helicopter](#)

## Leading a Mine Warfare Renaissance with Tested and Proven Technologies

*Replacing RHIB Technology with Performance Beyond Human Capability*

Many navies have the requirement to operate in the littorals close to shore, often on a coastline that the adversary defends with mines. That is one of the reasons why, over the past several years, in a series of US Navy and Marine Corps events, operators have field-tested a wide range of emerging technologies, many of them adaptable to the mine countermeasures (MCM) mission.

With the MANTAS T38 as the essential building block in providing an autonomous MCM solution, there are a number of commercially available mine-hunting sonar systems and Remotely Operated Vehicles (ROVs) that can be deployed aboard the MANTAS. Many of these are being used today by NATO nations and have been used extensively in mine clearing exercises and other operations. Thus, moving forward with a comprehensive commercial-off-the-shelf (COTS) autonomous MCM solution built around the T38 does not present a difficult engineering challenge.



[MANTAS USV for MCM Applications](#)

## Saab Seaeye Cougar XT for Royal New Zealand Navy

*Exceptional Launch and Recovery System for safe launch and recovery*



The Saab Seaeye Cougar XT Remote Operated Vehicle (ROV) is now operated by the Royal New Zealand Navy (RNZN) from HMNZS Manawanui for a broad range of tasks and subsea intervention operations.

The Cougar XT has the best power, thrust and payload in its class, with the widest and most comprehensive range of quick-change tool skids and was selected as the most technically compliant to specifications demanded by NORSOK, the RNZN and shipbuilder Østensjø Rederi of Norway.

The ability to safely launch the Cougar in sea states specified by the RNZN was of paramount importance. This set a special focus on the launch and recovery system





LARS and its position inside the vessel, with the Cougar launched from a mezzanine deck inside the vessel's ROV hangar.

When evaluating the best system, Østensjø Rederi concluded that the Cougar with a modified dipping and extending LARS with snubber, heave compensation and electric winch motors, was the best solution.

[Saab Seaeye Cougar XT for Royal New Zealand Navy](#)

## RON Camera System Upgrade

*Underwater Observation Enabled by Upgrade to COLLINS Class Submarine Camera System*

BlueZone has completed an upgrade to the underwater observation camera system for the COLLINS Class submarine.

In 2020 delivery of the RON IV Camera System has resulted in “evergreening” of the technology that serves Royal Australian Navy (RAN) submariners. The RON system now includes an IP camera solution and maintains fit/form/function compatibility with the submarine installation.



Beginning with an original installation in the Oberon Class submarines, BlueZone has provided innovative and value-for-money solutions to the RAN submarine fleet for more than 20 years.

This demonstrates the capability of a sovereign Australian SME to provide effective support to Navy in the rapidly developing technology field of CCTV video surveillance, and data distribution and storage. COTS technology developments in this field had driven many changes ranging from 1990s video tape to today's fully digital IP camera solutions.

## BlueZone Support in the West

*Restructuring for Defence Remote and Autonomous Systems Support*

BlueZone is pivoting to meet the needs of Navy on the west coast following the announcement of the Remote and Autonomous Systems (RAS) Strategy to 2040. As an experienced and capable Defence SME, BlueZone has over 20 years' experience in support of RAS. The east and west coast facilities maintained by BlueZone enable local support for Navy systems on both coasts.

For the immediate future our workshop facility at Bibra Lake will be closed for non-Defence work. BlueZone will continue to support and service equipment that we sell and will maintain the capability to manufacture custom cable assemblies and complete subsea moulding work.

We appreciate your understanding of any delays in our RFQ responses during this transition.

If you have any questions in this regard, please contact Mark Musarra in our Perth office.



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## New Products & Services

### Teledyne Marine Introduces New Ultra Compact Acoustic Modem



Teledyne Marine has announced the launch of its new Ultra Compact Modem (UCM). Sized at just 60mm x 50 mm, and weighing in at just 55 grams, the 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 700m; Original Equipment Manufacturer (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 Ultra Compact Modem 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.

[Teledyne Benthos Ultra Compact Modem \(UCM\)](#)  
[Top Five Reasons Why You Need a Teledyne Benthos Ultra Compact Modem](#)

### 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 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 the 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.



## End-of-Sale notification – Odom Digibar Sound Velocity Profilers

The Odom Digibar has served the market well for a more than a decade however due to challenges sourcing components for the future, Teledyne Marine has announced the End-of-Sale of all models, including models listed below.

Product name	Part number	Product Description
Digibar Pro with 100m cable	88090110-2040	Handheld sound velocimeter
Digibar Pro with 50m cable	88090110-2039	Handheld sound velocimeter
Digibar Pro with 30m cable	88090110-2038	Handheld sound velocimeter
Digibar Pro with 20m cable	88090110-2037	Handheld sound velocimeter
DigiBar S	88090150 DIGIBAR S,	SVP – 100m depth
DigiBar S	88090155 DIGIBAR S,	SVP – 500m depth

### Service and Repair

BlueZone will continue to provide service and support for our valued customers. We will continue to provide spare parts and repairs subject to obsolescence and availability, or alternatively propose an upgrade path to comparable system capability under commercial terms.

### AML Oceanographic End of Life Notice - MVP Fixed-Sensor Legacy Instrumentation

AML Oceanographic is ending general support including service, technical support, calibration, and repair of legacy fixed-sensor MVP instrumentation.

Fixed-sensor instrumentation refers to any instrument for use on an Moving Vessel Profiler (MVP) which has all of its sensors integrated into the instrument body; the sensors are non-removable. These instruments typically have a 7-digit item code such as PDC-A2000 and lack the "•X" moniker or blue collars associate with X•change instrumentation. Serial numbers are commonly 4 digits in length and the date of manufacture is typically prior to 2010.

This notice does NOT apply to MVP X•Change instruments and sensors which are denoted by blue sensor collars.

Users that have projects planned which require use of these instruments are encouraged to contact BlueZone at their soonest convenience to schedule service work.

AML is committed to ensuring MVP systems remain operational regardless of instrumentation obsolescence.

Customers seeking continued support for these instruments will be offered upgrade paths with modern replacements.

If in doubt about applicability to an instrument or sensor, please contact [BlueZone](#).

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