

# **UnderCurrents**

December 2023 Issue 120

# Merry Christmas from BlueZone!

See you in 2024!

The Team at BlueZone wish you a very Merry Christmas and a happy and safe new year! We look forward to seeing you all again in 2024.

Christmas & New Year Shutdown: Newcastle and Perth Offices

Last working day: Friday 22<sup>nd</sup> December 2023 All offices re-open: Monday 8<sup>th</sup> January 2024



Merry Christmas from BlueZone!

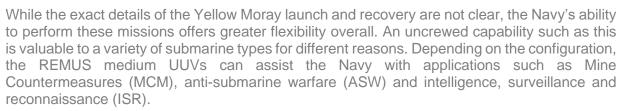
## Submarine Readiness Squadron 32 Successfully Launch & Recover REMUS UUV

U.S. Navy submarine significantly enhances capabilities worldwide with latest mission.



The U.S. Navy has successfully completed a ground-breaking mission: the first end to end submarine torpedo tube launch and recovery of a REMUS medium unmanned underwater vehicle (UUV) using the Yellow Moray System. The crew of the Virginia class attack submarine USS Delaware (SSN 791) tested the Yellow Moray at the start of December 2023 from the Navy's Submarine Readiness Squadron 32. The Yellow Moray system will provide the U.S. submarine force with additional mission capability while enhancing what the U.S. Navy's submarines can provide the nation's unified combatant commands around the globe.







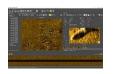
Submarine Readiness Squadron 32 Successfully Launch and Recover REMUS UUV

# Klein Marine Systems Dr. Peter Ramsay Is Travelling to Australia in January 2024 MIND Technology Licence Agreement with Klein Marine Systems for SpectralAi Software Suite

Klein Marine Systems Director of Strategic Hydrographic Programs, Dr. Peter Ramsay is coming out to Australia in January 2024 to promote the latest MIND SpectralAi software suite and conduct a series of demonstrations. Following the recent sale of Klein Marine Systems to General Oceans, MIND have licenced its Spectral AI software suite to General Oceans for certain applications such as side-scan sonar.



Klein side scan sonar systems are respected as the standard of excellence in the industry and are deployed by governments, navies, port authorities, surveyors, oil companies and universities worldwide. The MIND Spectral Ai software suite includes Scribe which analyses and displays survey data, Nexus that is used to train models that Scribe ATR then employs to find new classes of targets in the survey data, and after training, run the model in Scribe ATR to find targets automatically. For more information about the upcoming demonstrations of the Klein products with the SpectralAi software, contact the team at BlueZone.





Klein Marine Systems Dr. Peter Ramsay Is Travelling to Australia in January 2024

### SUEX & Blueprint Subsea's Military Diving Capabilities

BlueZone supports Military Diving operations for Australia and New Zealand.



SUEX and Blueprint Subsea's partnership with BlueZone offers customers in Australia and New Zealand Military Diving capabilities. BlueZone provides through life sustainment of advanced technology for propulsion and underwater navigation for dive teams. As emerging and future maritime technology and capabilities continue to evolve, it is important for defence forces to modernise and re-invest in current military diving capabilities. BlueZone has worked closely with world leading manufacturing experts from SUEX and Blueprint to deliver the latest military diving equipment to Australia and New Zealand.



SUEX and Blueprint are experienced design and production partners having developed high quality products ranging from the SUEX NERO Blueprint ELITE DPV to Diver Handheld Navigation/Sonar and SUEX advanced thrusters. World-renowned for quality and portability, SUEX offers the single-hull Artemis SX and dual-hull Artemis ELITE diver propulsion vehicles integrated with navigation solutions from Blueprint Subsea.

**SUEX & Blueprint Subsea's Military Diving Capbilities** 

#### **SRS FUSION System Options**

SRS offer a variety of optional items for the FUSION system.

The SRS FUSION vehicle is unique in that it comes equipped with all required sensors, features, and components to accomplish most tasks/missions. In addition to the essential components, FUSION has a variety of optional items to tackle different requirements such as manipulators, releasable payloads, and sensors. System options for the FUSION include an increased tether length from the standard 500m copper tether to 1,000m or 2,000m.



The FUSION can be fitted with a dual five function manipulator package that provides a full ten degrees of motion. Coupled with the FUSION's precise control system the dual five function package adds a whole new level of capability for the FUSION. Alternatively, a two-function grabber is available that includes an open/close and 270° wrist rotation. Going a step further the sonar display has a graphical overlay of the grabber for zero visibility sonar only operations. Additionally, the 2F continuous rotate grabber is a higher strength continuous rotate grabber which is also available. Watch the FUSION bag open video and valve turn video.



**SRS FUSION System Options** 

## MARTAC's T38 Devil Ray: Leading Example of the Latest USV Technology

Digital Horizon Exercises Demonstrate the Development of Unmanned Surface Vehicles.



The article by George Galdorisi's outlines the key goals of Digital Horizon and the future of Unmanned Surface Vehicles (USVs) in the maritime industry. The international community has been tremendously proactive in undertaking operations, exercises, experiments, and demonstration to accelerate the development and fielding of unmanned surface vehicles, reflecting the real importance of these systems to world navies. Much of this work has occurred in and around the Arabian Gulf under the auspices of Commander U.S. Fifth Fleet and Task Force 59.



During the exercises, MARTAC's T-38 Devil Ray was equipped with multiple state-of-the-art COTS sensors to provide persistent surveillance. The T-38 provided AIS, full motion video from SeaFLIR-280HD and FLIR-M364C cameras, as well as the display of radar contacts on a chart via the onboard Furuno DRS4D-NXT Doppler radar. These were all streamed back to Task Force 59's Robotics Operations Centre via high bandwidth radios and SATCOM.



MARTAC's T38 Devil Ray: Leading Example of the Latest USV Technology

#### Keeping the Huon Class MHC in Service

RAN Mine Warfare – Stepping out, but not tripping up

Since the mid-90s the Huon Class MHCs have served well but have gone largely ignored in terms of capability evolution. When they entered service, they introduced a raft of new capabilities such as complex mine hunting sonar, world class ROVs for mine disposal and Mine warfare specific combat systems. The hulls themselves remain sound and could serve on for many years to come as a platform for 'spiral development'. These ships are designed to operate as safely as possible in the vicinity of modern mines and provide a valuable opportunity to be a development platform for uncrewed systems capability. Read more in this article published by Australian Pacific Defence Reporter through the link below.



RAN Mine Warfare - Stepping out, but not tripping up

### Women in STEM – STEM Speed Mentoring Session

Females in STEM Speed Mentoring Session for Rutherford Technology High School Students.



The Females in STEM Speed Mentoring Session is a program that has been developed by Rutherford Technology High School (RTHS), the Hunter Academy of STEM Excellence (ASE), SISP, and The Orbispace Initiative. The program is designed by females in STEM for females in STEM to teach female high school students how to mentor primary school students and share their knowledge, skills and confidence needed to excel in STEM and industry leadership roles. The program included a "speed mentoring session" where female professionals from STEM or STEM adjacent industries were able to sit down with students, share their experiences, and inspire the next generation of female professionals.

Women in STEM - STEM Speed Mentoring Session

#### **New Products & Services**

#### **Klein Marine Systems**

Klein System 5900

Klein Marine System's 5900 sonar is the flagship in our exclusive family of multi-beam side scan sonar systems offering advanced ultra-high resolution side scan imagery with integrated gap filler sonar technology and swatch bathymetry. This system is ideal for high speed MCM and surveillance missions.



The system is a highly configurable multi-functional platform that allows high-speed surveys up to 12 knots with 100% bottom coverage. Its non-magnetic tow body is hydrodynamically designed to provide a stable towing for increased acoustic performance, natural depression capabilities and overall robustness.



Klein System 5900

#### Teledyne LBV SeaBotix ROV

Second Hand SeaBotix ROV for Sale



A second-hand Teledyne SeaBotix LBV is available for sale to our customers. The LBV vehicle was originally purchased in 2009, is in good condition and has had several updated performed.



The SeaBotix ROV products are equipped with a variety of standard features, SeaBotix MiniROVs are extremely manoeuvrable. All systems perform a multitude of tasks and are designed for harsh underwater environments. All LBVs include a high-resolution video camera, LED lighting that tracks the camera, depth, temperature and heading sensors, auto-depth, heading, and trim (speed), and intuitive controls within an Integrated Control Console (ICC) that includes a 38 cm (15 in) daylight-readable LCD monitor.

If you are interested in this vehicle, contact the team at BlueZone for more information.

Teledyne SeaBotix LBV

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