

## Ocean surface powers data collection

UVS Chief Technology Officer, Darren Burrowes, presented to the IEEE NSW Section – Joint Chapter on Communications, Signal Processing and Ocean Engineering, a topic covering Wave Glider Autonomous Surface Vehicles and the Pacific Crossing ([www.liquidr.com/pacx](http://www.liquidr.com/pacx))

On 20 November 2012, UVS supported Liquid Robotics in the recovery of the “Papa Mau” Wave Glider when it became the first robot to cross the Pacific, completing the journey in just three days over one year. On 14 February 2013 UVS supported the recovery of the second Wave Glider “Benjamin” that completed a 9,380 nautical mile journey and achieved a Guinness World Record for the longest journey of an unmanned autonomous surface vehicle.



Darren’s presentation provided an introduction to Wave Glider technology, lessons learned from the PacX crossing and information on upcoming Wave Glider developments. The presentation was very well received, eliciting many questions from the audience of experienced science and ocean engineering professionals.

Darren compared Wave Glider technology to the impact of helicopters to the aerospace industry. “Wave Gliders have unique characteristics for marine technology and new applications will be found, just as the helicopter was developed for many new roles not previously possible with other aircraft,” said Darren.

Opportunities that were enabled by the persistent and pervasive presence of Wave Gliders were the source of many ideas for new applications that emerged in networking discussions that followed the presentation.

## Conference focus on inland waterways measurement

Last month, UVS and Teledyne RD Instruments hosted the second “ADCPs in Action” conference and exhibition at Southport Yacht Club on Queensland’s Gold Coast.

Following the success of the inaugural “Marine Measurements” conference last year, UVS and Teledyne RDI joined forces to provide an educational and networking opportunity for hydrographers, scientists and engineers operating in the Water Resources community.

Representatives from Teledyne RDI demonstrated the RiverRay and other products that provide highly accurate Doppler technology for flow measurement and discharge applications in the inland environment. Thanks to Griffith University and its research vessel, delegates were able to witness demonstrations of equipment from Teledyne Odom and Teledyne BlueView.

The conference was opened by Adjunct Professor David Hood AM FIEAust CPEng. who gave a passionate presentation concerning the uncertain future resulting from anthropogenic global warming and climate change.



Professor Hood is currently working with the Faculty of Science and Engineering, and Program Leader for Sustainability in Infrastructure at the CRC for Infrastructure and Engineering Asset Management (CIEAM) to infuse sustainability across research, teaching and learning at the Queensland University of Technology.

He is an Accredited Presenter (trained by Al Gore) for The Climate Reality Project and his presentation provided a great deal of food for thought in considering the impact of the measurement and management of water resources as they become impacted by climate change.

Teledyne Odom Hydrographic Survey Support Specialist, David Andrews, presented the features and capabilities of the MB1 Multi Beam Imaging Sonar. The sonar was deployed used to identify scouring and sand ripples in the sea floor. David said that the water was very shallow at around two metres; however, the versatility of the MB1 showed that it was a useful tool for operating in the Southport area.

Brian Berna, Teledyne BlueView Commercial Sales Manager – Americas & Australia, presented the innovative range of BlueView 2D and 3D sonar. This state of the art, compact acoustic imaging and measurement solutions are ideal for civil engineering, transportation, and water resources applications where water turbidity prevents visual inspection.

Harry Maxfield, Teledyne Vice President Sales and Marketing, briefed the audience on the recent reorganisation of the Teledyne companies and the ongoing effort by Teledyne RDI to provide outstanding service to ADCP customers in all markets, including water resources. Harry noted the long term partnership between RDI and UVS and recent initiatives to establish a service centre in Australia for RDI products to provide a new level of service, repair, modification and upgrade capability for the region.



A busy conference program comprised two paper presentations, chaired by UVS' Neil Trenaman and Jim Rogers of Teledyne RDI. The day was wrapped up with a lively and informative presenter panel discussion and Q&A session that provided many valuable insights into the industry and issues facing hydrographers.

Industry experts Henning Hang, Asia Pacific Manager & Principal Hydraulic Engineer, presented classroom training on SxS Pro, Moving Bed condition and recommendations for High Quality ADCP Discharge Measurement.

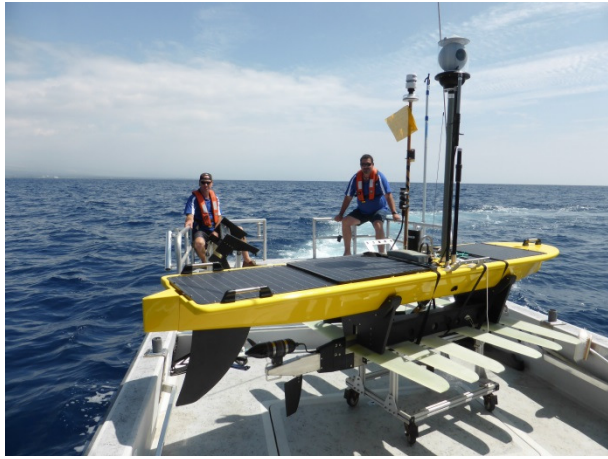
More information at <http://www.uvs.com.au/AiAiA>

## Hawaii Wave Glider Training For UVS

As the Wave Glider's Australian sales and support company, UVS recently sent a technical team to the Liquid Robotics facility in Hawaii to take part in advanced operational training.

The Liquid Robotics Wave Glider Autonomous Surface Vessel is a breakthrough technology for autonomous ocean observation, providing an innovative method for monitoring the ocean for science, industry and government.

Supported by funding from Skilling Australia's Defence Industry (SADI) the UVS team of Paul Montgomery, Erik Wilson and Stephanie Mayoh completed three days of training. The program included deployment and recovery of the original SV-2 and the new SV-2 Wave Gliders.



Sessions included Wave Glider architecture, will management system, route planning and conducting live operations and piloting. This theory was backed up by operational experience including deployment and recovery operations for both SV2 and SV3 vehicles conducted on the “Big Island” of Hawaii at the LRI facility at Kawaihae.

UVS Chief Operating Officer, Neil Trenaman, said that the Wave Glider training would assist UVS to provide world class service to Wave Glider customers in Australia, including the Royal Australian Navy.

“This training enables UVS to work more effectively with the Navy to develop new methods for Wave Glider operations to meet Defence needs and to service and support Wave Gliders from our offices in Newcastle, Melbourne and Perth”, said Neil.

## Senator Johnston visits UVS facility

UVS recently hosted a visit by David Johnston, Shadow Minister for Defence and Senator for Western Australia.



Senator Johnston was accompanied by Bob Baldwin MP, Shadow Minister for both Regional Development and Tourism and Jaimie Abbot, Candidate for Newcastle.

UVS General Manager, Jennylee Taylor, introduced the visitors to UVS’ role as a world class defence support partner for the Double Eagle Mine Disposal System operated by the Royal Australian Navy.

The full lifecycle for the System, including repairs and maintenance, engineering design, spares supply and maintenance training is supported by UVS.

CEO, Neil Hodges, explained that the Double Eagle System was the primary weapon system for the HUON Class Minehunter Coastal.

“Without the Mine Disposal System the Royal Australian Navy would be reduced to methods such as using clearance divers who are limited in their operating depth and endurance.

“Taking the man-out-of-the minefield was a key role of the Double Eagle System and the way forward for 21st century mine warfare,” said Neil.

UVS has introduced innovative and value adding initiatives to their Royal Australian Navy's Mine Disposal System. Some of these have also been supplied to Saab Systems and other navies.



Senator Johnston observed the testing of a Double Eagle Mine Disposal Vehicle in the 250,000 litre ATSA Test Tank, as well as the “SeaVision” Autonomous Underwater Vehicle and Elemental Energy Technologies' SeaUrchin™ tidal power generator, the winner of an Engineers Australia's 2012 National Engineering Excellence Award.

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