

Australasian Hydrographic Society

It is with great pleasure that the AHS announces that Vice-Admiral Chris Ritchie, AO, RANR, recently retired Chief of the Royal Australian Navy, has accepted the invitation of the AHS to be its patron. Our new patron has been a great supporter of hydrography in general, and its importance to national and regional interests, and in particular to our Society, its aims and its actions, during our transition to national autonomy and during Australasia's current chairmanship of the International Federation of Hydrographic Societies.

Vice-Admiral Ritchie's naval career really got underway when he graduated from the Royal Australian Naval College in 1968. He subsequently specialised in anti-submarine warfare and was later appointed to several sea commands, one of which, HMAS Brisbane, resulted in his participation in the first Gulf War (1991) in the Arabian Gulf. Senior staff appointments in flag rank have seen him as Maritime Commander Australia, Deputy Chief of Navy, Head of Capability Systems and Commander Australian Theatre, before promotion to Vice-Admiral to head the Royal Australian Navy.

During his period in uniform he demonstrated great strengths, not only as a naval officer, but also as a leader and promoter of industry; here he was particularly focused and adept at getting best results. In addition to the above patronage, Chris Ritchie has also accepted the post of patron of Australia On The Map (AOTM) 1606 to 2006 Commemorations, and chairman of its National Steering Committee and the National Commemorative Council. In retirement, then, a very busy man!

AOTM is, of course, a joint Australian/Netherlands venture celebrating the 400th Anniversary of the Dutch mariner Willem Janszoon's arrival in the Gulf of Carpentaria, during which he charted some 150 nautical miles of its eastern coastline from Cape York south.

Janszoon was master of the Duyfken (Little Dove). This vessel, of 60 English tons, had a crew of twenty. On this particular voyage his orders were to search for Nova Guinea and other lands to the south and east on behalf of the Verenigde Oostindische Compagnie (United East India Company, or VOC). The VOC operated out of Bantam in north western Java, mainly in the spice trade, particularly mace and nutmeg, but also in the search for gold.

West Australia Region

A very pleasing co-operative relationship recently founded between the WAR and the WA Division of the Society for Under-water Technology (SUT) was manifested by a very well attended, joint-venture, half-day seminar held on 15th September 2005 at the Hotel Ibis in Perth and organised by SUT's Joyce Bremner. The subject was "AUVs - What can they do for you?"

After the opening, welcoming address, delivered by WAR chairman, Bill Russell-Cargill, the seminar got underway under the chairmanship of Andy Lane from Woodside Energy. A presentation by Tony George of C & C Technologies, USA, entitled "Deepwater Seabed Features Imaged with AUV Technology" described how the bathymetric, side-scan and seismic-imaging performance of Hugin vehicles had been very successfully extended into commercial, deepwater survey.

This was followed by "AUVs for Seabed Surveys - Operational Experience to Date", presented by Andy Morse, Fugro Survey Ltd, Aberdeen, dealing with the advanced technical information needed to fully appreciate the functionality and operational capability of AUVs. This was demonstrated by presenting technical advances made by Fugro over recent years in mission control, data handling, propulsion and failsafe systems.

The last speaker of the first session was Roer Marthiniussen of Kongsberg Maritime AS, who presented "Hugin AUV & Developments to Date". In 2001 Hugin AUVs performed the first commercial, oil-related, deepwater, autonomous site surveys. Roer elaborated on how the early inefficiencies of deep-tow systems had been overcome, not the least of which was the highly unproductive "End of Line Ship Turns". An example of increasing efficiency by removing the tow cable was a survey that would have taken 27 days with a towed system actually taking only five days without the cable. Roer also presented the improved side-scan sonar imaging using new synthetic, aperture sonar.

The second session opened with John Ramsden, Sonardyne International, presenting "Techniques for AUV Acoustic Positioning & Telemetry Using Spread Spectrum Acoustics". He detailed how acoustic telemetry was applied to facilitate positioning and data transfer, and described the work done in South Africa by De Beers Maridan AUV in 120 metre water-depths. He finished with a presentation of Sonardyne AvTrak and the impact of wideband technology as the future product inter alia to advance AUV capabilities.

The next talk was "Acoustic Technologies for Navigation & Control of Underwater Vehicles" by Scott Elson, Nautronix. This detailed the Acoustic NASnet positioning system and Nautronix's work with Australia's Defence Scientific & Technology Organisation on AUVs deploying buoys demonstrating communication/navigation solutions based on UHF/VHF digital radio modem, synchronous HAIL, GPS position of buoys, and times of flight from buoy baselines.

The final presentation was "AUVs from an Oil and Gas Operator's Perspective", by Karl Bauer of BHP Billiton, which led into a panel discussion entitled "AUVs. What does it take to bring them to Australia? Ways and means of how AUV technology could be applied in Australasia were discussed. It was suggested that it may be that SUT and AHS should help industry to co-ordinate future AUV requirements so that optimal tactics can be implemented to satisfy better planned, multi-client surveys in this part of the world.

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