

AUTONOMOUS UNDERWATER TECHNOLOGY (AUT) CONFERENCE

Report on Conference & Exhibition

Thursday, 22nd October 2015

By Dr Ian Finnie, AUT Conference Committee Member (Vice Chair of the SUT Perth Branch)



The Australasian Hydrographic Society (AHS) and the Society for Underwater Technology (SUT) held their 9th Autonomous Underwater Technology (AUT), Technical Conference & Exhibition, known as AUT 2015, on 22nd October 2015 at the Parmelia Hilton Hotel, in Perth, Western Australia.

In focus of the broad support that the AHS and SUT provide to AUT developments in a wide range of industries, this one day conference was held to disseminate information and ideas. Many delegates came from the local industry in Perth, and several from other parts of Australia and also overseas. It represented one of the most important networking opportunities in this field, one of best attended SUT seminars for the year. It allowed unique contact between pipeline engineers, geophysicists, environmental scientists, geotechnical engineers, hydrographical surveyors, defence organisations, oil & gas field development specialists, government bodies, equipment manufacturers, academic & research bodies, oceanographers, survey companies and port & security operators. In a diverse programme, there were more than a dozen speakers and many more eager questioners after each presentation.

The programme commenced with an eloquent welcome by AHS Chairman, Phil Wells. Ian Finnie, from Fugro Advanced Geomechanics, got the show on the road with the morning session, and was delighted to introduce the first speaker, Magnus McNeil-Windle of Fugro Survey, who gave an outstanding keynote address concerning Fugro's Search for MH370, focussing on how to deal with the massive amount of data in a systematic and robust manner.

Ross Dinsdale from Blue Ocean Monitoring then went on to describe the use of autonomous Slocum gliders in a variety of industries. From an academic perspective, Nathan Kemp, of the Australian Maritime College, followed with fascinating description of robotic characterisation of pipelines in high energy environments.

After morning tea the session continued with a presentation by UTEC (Simon Hird & Bryan Keller), concerning AUV pipeline inspection with particular emphasis on high resolution geophysical Data.

Brian Anderson, from Autonomous Surface Vehicles., gave an absorbing showcase of the potential use of unmanned support vessel in the context of offshore surveys, but with reference to other uses, such as military applications. Len Ricketts, of DOF Subsea ended the session with his description of how to use a laser on an ROV. This concluded the first session.

After a vibrant networking lunch, the second session commenced with Anthony Kerr giving introductions for the first quick presentation from Grant Rawlinson, Kongsberg, on the Hugin AUV Sensor Suite.

Despite being the graveyard shift, i.e. after lunch, the next presentation of the afternoon was the one that received the most praise in the audience feedback. Using “medieval techniques”, needing audience participation, Paul Kennedy oozed enthusiasm for his subject which continued on from Magnus’ keynote presentation in the morning. This related to the search for MH370 and operating AUVs in extreme seabed terrain. He showed that the search area was akin to New Zealand in size, and even more mountainous. At one stage, the medieval scroll, which made up of dozens of AO bathymetric plots, was unfurled around the auditorium. After Paul’s talk, Darren Burrowes of UVS gave an interesting presentation about wave glider operations. Followed by another quick presentation by Kongsberg on the new Seaglider Turbulence Sensor.

After the tea-break, Max Gwynn of Fugro AG dived below the seabed in his description of Fugro’s state-of-the-art SeaFloorDrill (SFD) robotic drilling unit. This showcased the success of a number of recent projects in seabeds that ranged from soft clays in the Gulf of Mexico to hard limestone on the North West Shelf of Australia. This included exclusive videos of the deployment and operation.

The last, but by no means least, presentation of the day, was by Dr Andrew Woods, of Curtin University, who gave arguably the most visually appealing presentation relating to the 3D imaging of the WWII wrecks of HMAS Sydney II and HSK Kormoran. This gave a poignant end to the day before Julie Morgan, the SUT Chair, wrapped up in her inimitable way, thanking all the participants and sponsors.

It was another fantastic AUT conference which wouldn’t have been possible without the sponsors: DOF Subsea (Platinum), Fugro Survey (Gold), Fastwave (Silver), Neptune Geomatics (Silver), Kongsberg Maritime (Bronze) or the exhibitors: DOF Subsea, Fastwave Communications, Fugro Survey, Gardline Marine Services, Kongsberg Maritime, Western Advance and UTEC.

Lastly special mention to our conference committee: Bruce Baker, Land Surveys; Karl Bernet, Raytheon; Adam Culley, Gardline; Steve Duffield, Fugro Survey; Ian Finnie, Furgro AG; Ross Hendricks, FMC Technologies; Ben Hunt, Gardline; Peter Ramsay, Marine GeoSolutions; and Ray Steel, Freudenberg O&G Technologies.



Conference room during Paul Kennedy’s interactive presentation



Presenters and Chairs from Session One



Presenters and Chairs from Session Two