

Visit to Fugro Academy Training Centre, Plymouth

It is becoming something of a regional tradition in the South West that the Christmas and summer meetings are hosted by one of our Regional sponsors. So, in line with tradition our last meeting for 2017 on the 9th December was a visit to the Fugro Academy Training Centre in Turnchapel, Plymouth. A festive affair with a buffet, light refreshments and plenty of mince pies! Conveniently for our new Regional Chairman Iain Slade his first official meeting was at his own office!

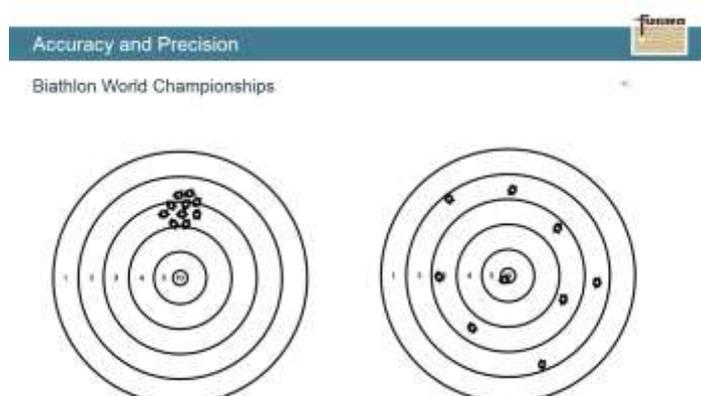
To begin with it was standing room only as everyone huddled into Fugro's canteen concentrating on eating and drinking with visitors reluctant to explore the other things which were also on display for the evening. Once everyone was fed and watered we moved in to the larger lecturer theatre where a selection of USBL systems peripherals and external sensors were exhibited in keeping with the subject of the evenings talk: The golden chalice of calibration free USBL. Iain began the proceedings by introducing the evening's speaker Rob Dixon a Fugro Academy Trainer, Acoustics guru and Sonardyne veteran. Rob's delivery of the subject was excellent manging something which few achieve being both informative and humorous.



The Golden Challis of Calibration Free USBL

by Rob Dixon, Acoustics Trainer, Fugro Academy

Rob started with a review of USBL systems how they operate, highlighting the importance of external sensors robust installation, and environmental considerations. Rob had a great ditty regarding accuracy versus precision. He told a story about shooting in the winter Olympics biathlon: two targets and the ricochet gunshot sound effects added to the scenario. Rob then asked the audience who was the better marksman? Clearly the room was divided (possibly divided into Engineers and Surveyors?) but who would win a medal?



A discussion of the complexities of USBL calibrations followed and examples of different methods, before discussing the evolution of USBL systems into what has been coined 'calibration free USBL'. Using a review of manufactures marketing material which was available online, Rob highlighted the conflicts between system specifications, marketing descriptions and what could be misconstrued by the end user.

The 'take home message' was: Know the difference between accuracy and precision. Understand the difference in positioning confidence levels quoted by manufactures, and have an appreciation that a good standard deviation for a position fix is not a true qualifier for the surveyor's quest for absolute position.

Following the talk there was also an opportunity to pilot a work-class ROV utilising the Fugro Academy's IMCA Class A ROV simulator, or to terraform with their augmented reality sandpit. The evening was another great success but there were still quite a lot of leftover mince pies!