

Hydrographic Society Benelux

News

Corporate Workshop 8th September 2004

Simrad BV, on behalf of the Hydrographic Society, gave a corporate workshop on 8th September 2004 entitled "Shallow Water Survey"™. Almost eighty people attended this event held at the Rotterdam Airport hotel, which provided a good opportunity to gather information related to Innomar Technology, whose representative discussed parametric sub-bottom profilers, and Kongsberg Maritime, whose multi-beam, underwater instrumentation and motion sensors all came under review in the afternoon session.

Companies have a good record on proven projects with quality and performance of equipment for the offshore, hydrographic and dredging market. For Kongsberg Maritime, a new multi-beam EM3002, MRUs and the HAIN inertial Platform marked high points of this session. Advance technologies are used in these systems, backed by many years of experience in technology.

Innomar Technology, based in Rostock, manufactures parametric sub-bottom profilers for on and offshore and for shallow and deep water, with the SES-2000 Compact, SES-2000 ROV and SES-2000 FAN as the latest developments in its range of SES-96 products. Any of these systems is easy to install on all kind of vessels and all are currently at work in different applications worldwide, with proven sub-bottom results. Sabine M  ller, general manager of the company, shared the results of a parametric survey for objective results on the River Main, surveyed together with side-scan to a depth of six metres.

Kongsberg Maritime's Mr Freddy Pohner displayed a new high-resolution multi-beam echo sounder EM3002 in an quite impressive range of existing multi-beam echo sounders of both high and low frequency. The EM3002 is a new product using the EM3000 sonar-head in combination with a new processing unit with much more computer power to run EM3002 data together with the Kongsberg Maritime Seafloor Information Software (SIS) or third-party software. This produces a powerful system which can be run with Windows or Linux-based software on PC hardware. Beam forming of the 254 beams with a single-head system and 508 beams with a dual-head system is dynamically focused on receiving and is online stabilised for roll and pitch. A special signal processing technique - high-resolution beam processing - is used to reduce the acoustic footprint of each sounding and produce independent soundings. Impressive examples underlined the performance of the EM3002 Multi-Beam System.

Kongsberg Maritime Underwater Instrumentation's Mr Tore Osvold was cited as "well-experienced trainer"™, his career at Kongsberg having begun in the training department for underwater positioning systems. He opened his presentation with an impressive overview of acoustic underwater positioning systems for all kind of applications. An USBL was used for simple positioning of an ROV or object on the seabed as a fixed installation or as a portable system.

"The limit of thinking is the limit for the applications," according to Mr Osvold.

A Hipap 350 or a Hipap 500 is the most sophisticated underwater positioning system; the Hipap 350 is a successor of the existing HPR systems and the Hipap 500 of the most accurate underwater positioning in the whole range of systems. Combining these systems with the inertial sensor, HAIN, increased the accuracy; this was especially true for deep positioning; accuracy had been improved by a factor of three and four. Proven examples illustrated the increase in accuracy.

Kongsberg Seatex presented the new MRU-Z and MRU-D in its successful range of motion sensors. Mr Finn Otto Sanne once again explained the importance of a well-installed and aligned motion sensor as a must for obtaining accurate data for multi-beam or other systems. The new MRU-H model has an improved accuracy of 0.05 degrees in place of 0.1, and the new generation of MRU-5 has an improved accuracy of 0.02 degree. This is close to the limit for common sensors, as pointed out by Finn Otto Sanne. MRU-Z and MRU-D is meant for all kinds of applications, both onshore and offshore, including crane stabilisation or single-beam echo sounders. The techniques used for the last members of the MRU family led to a decrease in size of the MRU by 30% in length as compared to previously existent MRU models. All MRU models are now delivered with a calibration certificate and MRC software for easy set-up. A new HTD sensor is the Seapath 20 with an accuracy of 0.3 degree, which fits well into the Seapath 200 range of sensors.

Mr Magnus Leirvik informed the audience about a new, short-distance positioning system based on radar principles named Radius and based on an interrogator and a transponder measuring ranges and azimuths. It works in all weather conditions and tracking four transponders in coverage of 90 degrees is possible. The use of two interrogators together gives coverage of 180 degrees and, along with the included software, visible positioning on a computer screen controls the positioning of the vessel in relation to, for example, an oilrig. Easy installation and calibration is the advanced approach for success in difficult applications such as those associated with offshore activities.

The workshop was brought to a close with drinks and snacks, giving everyone the chance to meet and catch up with the latest developments after the summer season.

The presentations given at this workshop can be downloaded from our website.

Agenda

- 10th December 2004 - Oceanography, Delft

Contact
Att. T.H. Heringa
Postbus 175
1970 AD IJmuiden
The Netherlands
Tel: +31 255 545 622
Fax: +31 255 545 645
www.hydrographicsociety.nl

<https://www.hydro-international.com/content/article/hydrographic-society-benelux-23>
