

Hydrographic Society Benelux

News

On Wednesday 22nd October 2003 the Hydrographic Society held a workshop sponsored by MacArtney Benelux. The theme of the afternoon meeting was Ocean Profiling Systems and the programme consisted of three lectures that gave attendees the opportunity to learn more about the subject systems and MacArtney in general.

The first lecture was by Ron Voerman, General Manager of MacArtney Benelux. He gave the attendees an introduction to and overview of the MacArtney group and their activities world-wide. Mr Arnold Furlong of Brook Ocean Technology (BOT) Canada, followed on with a detailed description of their Moving Vessel Profiler (MVP). For this product the MacArtney group acts as agent.

The MVP is a fish fitted, for example, with a sensor to make a vertical CTD profile of the water column. The fish is deployed with a computerised winch and a boom and is launched from the deck of a vessel; the vertical profile is made automatically and at the end of the profile the fish will be recovered on board of the vessel. The computer of this system gets the actual depth from the vessel and measures its own depth via a pressure sensor. At a pre-set depth above the seabed the system will stop the winch and will recover the system, after which the fish is ready for its next deployment or can be towed behind the vessel.

Mr Furlong showed a nice example of a system installed onboard of a cruise liner, which proves the fact that science can be luxurious. This vessel regularly sails the same route and scientists take advantage of this to conduct a survey of the route area. Mr Furlong continued, saying that besides a CTD sensor, it is possible to equip the fish with different kinds or combinations of other sensors. The MVP 30 is the smallest system and reaches a depth of 30m at a vessel speed of 12 knots; the MVP is the biggest system, for the time being, and will reach a depth of 300m at 12 knots. Of course, the depth reach can be increased when vessel speed is reduced. In the near future a system will become available with a Free Fall Cone Penetrometer, also in combination with other kinds of sensors.

After a coffee break the workshop continued with a presentation on the Triaxus by Mr Hans-Jorgen Hansen - Ocean Science Product Manager of MacArtney. The idea of having more or even total control over the movements and position of subsurface towed sensors has become reality with the introduction of the Triaxus. It is a towed vehicle made of carbon fibres providing a very stable platform and can be controlled in X, Y and Z direction and equipped with a wide range of sensors. The dimensions of the vehicle are 120 x 120 x 175cm and it can handle payloads of up to 40kg.

The Windows-based software takes care of all the movements of the vehicle and is programmed such that a fixed line pattern can be followed or that the vehicle can be used in a mode to follow a pipeline. Changing sensors on the towed platform is very easy due to the fact that an integrated multiplexer takes care of differing kinds of signals. The multiplexer employs fibre optic techniques and therefore the tow cable diameter may be reduced to 11mm. This platform may be used by scientists performing investigations on water quality and biological activities; for survey activities side-scan sonar, multi-beam echosounder, cameras or other equipment may be installed.

System development took place at the mother-company of the MacArtney Group in Denmark. Mr Hansen said that development had taken a lot of effort and numerous sea trials - nice in the summer time but hard in the winter, with snow and very low temperatures - but no problems for a real Viking, concluded Mr Hansen!

The workshop ended traditionally with an informal social event, drinks and snacks offered by MacArtney Benelux.

The presentations will soon be available at the HSB Web-site.

Agenda

- 12th December 2003:
Deepwater and Hydrography, Delft
- 13th February 2004:
AGM, Delft
- 16th April 2004:
Corporate workshop Noordhoek Offshore bv. Zierikzee
- 18 thJune 2004:
Ecology, Environment and Hydrography, Antwerp
- 8th September 2004:
Corporate workshop Simrad bv. Rotterdam
- 15th October 2004:
Airborne survey, Delft
- 10th December 2004:
Oceanography, Delft

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