



The SUBSEA newsletter

Publisher: Kongsberg Maritime
 Editor: Subsea Division
 Tel.: +47 33034100
 Fax: +47 33044753
 e-mail: subsea@kongsberg.com
 www.km.kongsberg.com

content

Kongsberg Wins Repeat Order From US Coast Guard and GSA for Underwater Surveillance Systems

Kongsberg Maritime buys UK Company GeoAcoustics Ltd.

PAGE 2

The Dual Full Picture

PAGE 3

New HID Lamps at Seawork

FEMME 2009

PAGE 4

Gardline Purchases EM 710 Multibeam System for its latest Survey Vessel Vigilant

PAGE 5

New easy-to-use HAIN

HUGIN Conference & Demonstration

PAGE 6

Hydroid integration process underway



FROM LEFT: Tom Healy - President KUTI Seattle, Arnt-Helge Olsen - Vice President Sales & Market, KM Subsea, Bjørn Jalving - Vice President AUV Dept. KM Sub-sea, Graham Lester - Director Hydroid Europe, Svein Otto Schjerven - Manager Sales & Market, AUV KM Subsea, Christopher von Alt - President Hydroid, Rolf Arne Klepaker - Executive Vice President KM Subsea, Duane Fortheringham - KUTI moving to Hydroid, Kevin McCarthy - Vice President Market, Hydroid.

The acquisition of Hydroid Inc was completed by the beginning of June this year. It was followed up with an immediate meeting in Horten to get the integration process of Hydroid going, including the marketing and sales issues. This last meeting of 12-13th August at the beautiful Pocasset, Cape Cod premises was a follow up for the marketing and sales of our new range of AUV's

Svein Otto Schjerven, the AUV, Marketing and Sales manager said that we are looking to get our Web pages updated with information as soon as possible. We will also visit our sister companies and agent's involved soon to introduce the new AUV Range. We plan to produce new marketing material and brochures for our sales network. This job starts immediately as does cooperation between Hydroid and KM Sales in Horten. We will focus on the market and sales network world wide,

and get it operational as soon as possible; we therefore have to make sure that our network has all the information needed to support the sale of the Hydroid AUVs.

Hydroid Inc is one of the world leaders in autonomous underwater vehicle technology and they have an impressive range of AUVs ranging from the Remus 100 to the Remus 6000. The joint forces of Hydroid and Kongsberg mean that our customers will have a wider and more comprehensive product range with more choices of sensor capability. Our service and support will be strengthened through merging our networks.

After the completed acquisition process between Hydroid LCC, USA and Kongsberg Maritime AS, a management team from the two companies met in Horten for the first time. The mission was to start the integration process and share knowledge and information between the two.

Kongsberg Wins Repeat Order From US Coast Guard and GSA for Underwater Surveillance Systems



Kongsberg Maritime is pleased to announce that its Lynnwood, Washington-based division, Kongsberg Underwater Technology Inc., recently delivered an equipment re-order from the US Coast Guard for the USCG's Integrated Anti-swimmer Systems (IAS) program. The equipment contract follows an initial IAS contract and is administered through a continuous contract with the U.S. federal government's General Services Administration.

Following 9/11, the US Coast Guard was charged with assessing the level of threat, and the capability to

deal with it, within every US port. A large concern was the threat of malicious swimmers and divers to commercial piers, government and military vessels, cruise ships, terminals and other high-value assets. The IAS program was developed in response to this threat.

Kongsberg underwater surveillance system technology forms the basis of the IAS system and combined with software enables the IAS teams to detect, track, classify, localize, notify and respond to potential underwater threats.

The system's processor captures a wide acoustic swath and then classifies the acquired contacts and alerts system operators to their presence. Sonar images positively identify whether the detection is a swimmer (threat) and not just debris, marine life or some other object. The system design is mobile and is deployed when necessary to protect high-value assets and events. The additional components supplied by Kongsberg will further enhance the US Coast Guard's

IAS program and its future success.

About Kongsberg Underwater Technology

Since 1990 Kongsberg Underwater Technology Inc. has been established in Lynnwood, Washington as the North American centre for hydrographic survey systems engineering, production, integration and customer support. Kongsberg Underwater Technology Inc. is a leading supplier to the U.S. Navy, academic institutions and commercial markets for underwater acoustic systems and solutions. Kongsberg Underwater Technology Inc. is a division of Kongsberg Maritime.

Kongsberg Mesotech Ltd., (KML) based in Port Coquitlam Canada is the manufacturer of the diver detection sonar. KML supplies a worldwide customer base with a range of products for defence, fisheries, oilfield, scientific and other underwater acoustic applications. KML is also part of Kongsberg Maritime Subsea.

Kongsberg Maritime acquire UK Company GeoAcoustics Ltd.



PHOTO: *Deep Tow 2000
Combined Seabed Survey Package
from GeoAcoustics*

Kongsberg Maritime has signed an agreement to purchase the UK based sonar company GeoAcoustics Ltd. of Great Yarmouth, for approximately MNOK 42 - about 5.3 mill EURO.

The acquisition will enhance Kongsberg Maritime's market position as

GeoAcoustics' products will complement KONGSBERG's product portfolio.

GeoAcoustics has 30 years of experience in underwater acoustics. It has an excellent reputation in the market, especially for side scan sonars and technology for sub-bottom profiling. In 2007/08 GeoAcoustics had a turnover of approximately MNOK 42 and had 43 employees, including its subsidiaries in Mumbai and Singapore.

For further information, please contact:

- Executive VP Rolf Arne Klepaker
- cellphone: +47 9920 3975 or
- Executive VP Bjørn Tore Frøshaug
- cellphone: +47 9921 4431.

About GeoAcoustics Ltd.

GeoAcoustics Ltd is a world-leading manufacturer of sonar seabed survey equipment. The business was founded in 1978 and has its headquarters in a modern well-equipped factory in Great Yarmouth, UK. In the early 1980's the business was acquired by Ferranti, who at the time were a leading UK defence contractor. In 1991 the business was bought back from Ferranti by way of a management buyout, led by its original founder. Our customer list includes commercial survey companies, navies and marine research establishments in over 60 countries and, in order to provide this worldwide customer base with a high level of support, we have established regional sales and support facilities in Singapore, Houston and Mumbai.

The Dual Full Picture



FROM LEFT: Miguel Angel Lleches, Project Manager; Agustin Mayans, Managing Director, Simrad Spain SL, Jose Ignacio Díaz, Project leader, Oceanographic Institute, Vicente Carrasco, Sales Manager, Subsea, Simrad Spain SL, Miguel Angel González, Financial Manager, Simrad Spain SL.

I remember when we were younger when the stereo sound systems came into the music devices it was a little revolution. The same has happen this week for Subsea Dept. from Simrad Spain S.L., which has been signed contracts to supply two research vessels for the Spanish Oceanographic Institute (I.E.O. – www.ieo.es).

The contract for the construction of both vessels, are for multipurpose applications, was awarded by M Cies Shipyards.

The twin research vessels both have a length of 45 meters and are specially designed for research on coastal areas with autonomy of 10 days maximum. One of them will operate on Atlantic coast and the second will operate on

Mediterranean coast although both of them will take Vigo as port base.

The first vessel will be delivered in December 2009 and the second in December 2010. Both vessels will be silent and the owner and the shipyard has made a huge effort in order to fulfil the recommendations of ICES 209.

The first contract was signed with M Cies Shipyards in Vigo. The contract consists of the supply and the installation for each vessel of Integrated K-Bridge, VDR, K-Pos with C-Joy, and other navigation sensors. The equipment for fishery research includes EK60 multifrequency, FS20/25, ITI and other systems. To complete the whole configuration Seapath 200, SSU, MDM400 and EA 600 will also be installed.

Several reasons including complete integration, similar project references and local support capability factored in Kongsberg and Simrad being chosen for the contract. Especially useful for the successful progress of the project is our premises in Vigo and the engineers there that have participated on similar projects before.

The second contract has been awarded through a public tender directly with the I.E.O. and consists on the supply and installation of a huge research package, identical on each vessel. The scope of supply consists of Multibeam Echo sounder EM 710 0,5°x1°, Scientific Multibeam Simrad ME70, Acoustic Positioning System HiPAP 500 and Parametric Profiler TOPAS PS18.

New HID Lamps at Seawork



The new oe11-143 Underwater HID Lamp was shown for the first time on the Kongsberg Maritime's stand at Seawork 2008.

This High Intensity Discharge lamp provides a tremendous increase in light output compared to a conventional filament based lamp, whilst still only using the same amount of power.

Designed specifically for ROV/AUV and other underwater vehicle use, the oe11-143 gives in the region of 5 times the light output - 5600 Lux @ 1 metre - of a conventional 250 Watt filament lamp so by replacing conventional bulbs an immediate increase in lumens without additional power demand is obtained. And this leads to higher quality pictures from the underwater cameras the ROV/AUV is carrying.

The oe11-143 is particularly useful when upgrading to High Definition cameras as in addition to the increased illumination, the colour temperature of 3200K exactly matches the 'indoor' setting of the Kongsberg Maritime oe14-502 HD camera and also matches the colour

temperature of conventional filament bulbs. This means that existing colour cameras that have been set for 'indoor' colour temperature on the ROV will still provide true colour rendition.

The oe11-143 uses the same power input as conventional lamps and boasts a bulb life of at least eight times longer compared to halogen bulbs, at more than 4000 hours.

It features a depth rating of 4500 metres and can operate in water temperatures from -5°C to +40°C making it suitable for every ROV/AUV job possible. It is also simple to install as the lamp head and ballast units are in separate housings.

FEMME 2009



We have the pleasure to inform you that plans for the FEMME 2009 conference in Portugal are rapidly developing. The multibeam user conference will take place in Lisbon in Week 17, 21-24 April 2009. Invitations will be sent out in September 2008.

FEMME is Kongsberg Maritime's forum for users of our multibeam echo sounder systems. The objective of the

conference is to improve the skills of the users, and the performance of the Kongsberg Multibeam systems themselves. We aim to achieve this through the exchange of experience and ideas among the users and the development of hydrographic communities around Kongsberg Maritime systems.

All participants to the last conference in Amsterdam in 2007 will receive an invitation in addition to our new 'multi-beam customers'. If you would like to receive an invitation or have any questions regarding the conference, or wish to submit a paper, please contact Nina Hovland on this e-mail address: km.femme.2009@kongsberg.com or by telephone +47 33 02 39 38.

For more information and on-line registrations please visit:
<http://www.km.kongsberg.com/femme2009>



Preliminary program:

April 21, Tuesday

- 10:00-19:00 Registration
- 12:00-16:00 Kongsberg tutorials
- 19:00-22:00 Ice-breaker event at the conference hotel

April 22, Wednesday

- 07:00-09:00 Registration/Mob. Presentations/poster presentations
- 09:00-17:00 Conference program; presentations and discussions
- No official program in the afternoon

April 23, Thursday

- 09:00-17:00 Conference Program; presentations and discussions
- 18:30-24:00 Conference Dinner

April 24, Friday

- 09:00-12:00 Kongsberg tutorials

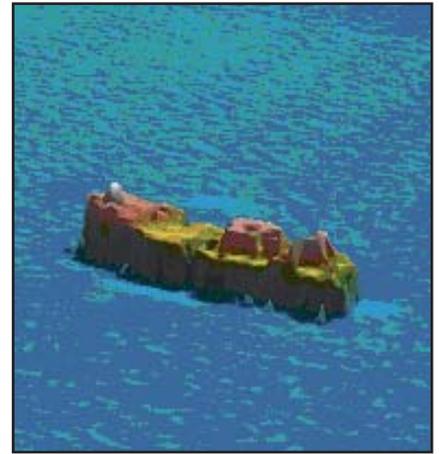
Gardline Purchases EM 710 Multibeam System for its latest Survey Vessel Vigilant

Gardline has purchased its third medium depth EM 710 multibeam system. This latest system is a 1 x 1 degree version with full FM pulse and dual swath capability and is to be commissioned on Gardline's latest survey vessel the Vigilant, a former fisheries patrol vessel.

Gardline is a leading geophysical, geo-technical, hydrographic and environmental survey specialist, operating a fleet of dedicated multi role survey vessels and coastal survey vessels permanently mobilised with fully integrated equipment packages, which can be readily deployed and can easily accommodate additional specialised equipment as each survey dictates.

This purchase brings a total of 16 Kongsberg multibeam systems permanently installed on Gardline's fleet of survey vessels, providing clients with a full multibeam survey capability in any depth from a few metres to full ocean depth.

The latest EM 710 installation on the Vigilant will have a depth capability down to approx 2,000m utilising the FM pulse, and the system will provide a high data density output from the dual swath function. Initial trials on the survey vessel Tridens 1, have shown promising results so far, with a doubling of the data density delivered from the single swath EM 710 system.



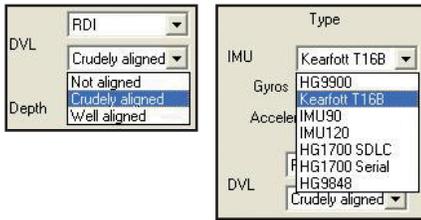
Vigilant, with its enhanced survey speed capability is expected to enter service in Q3 2008. For further details contact hydro@gardline.com



**GARDLINE
MARINE SCIENCES**



New easy-to-use HAIN



The HAIN (Hydroacoustic Aided Inertial Navigation) system from Kongsberg Maritime has been criticized as having high user threshold, but the introduction of a new front-end should put an end to this criticism.

HAIN is an add-on to Kongsberg Maritime's traditional acoustic positioning. It provides the user with stable and continuous measurements of position, attitude and speed. HAIN may often improve the quality of positioning by a factor of two or more.

The old system used text files to specify the settings of the system. Users had to open these in a text editor and manually edit the different entries. This usually led to many copies of the same text file, which was hard to keep track of. Careful checking of the text input was required as wrong settings were hard to identify and sometimes led to system malfunction.

The new HAIN user interface is now fully integrated into Kongsberg Maritimes APOS, which is the Acoustic Positioning Operator Station of the

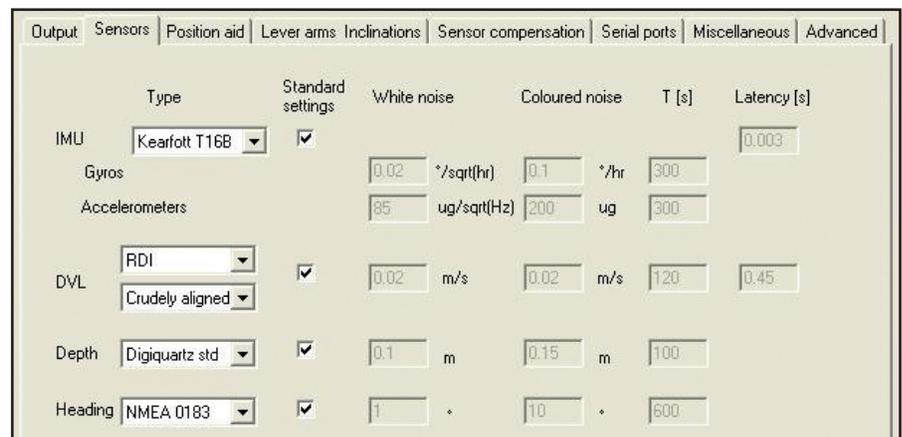
HiPAP (High Precision Acoustic Positioning) system. This means that HAIN operators can now set up and view all necessary settings for HAIN in a familiar way.

The interface also checks the operator's input for obvious errors, and explains what values are available. A complete and context sensitive online help is also available from the user interface. This allows the operator to get immediate help while setting up the system, and makes the old hard-to-find paper manual more or less obsolete. The online help is also always up to date.

The new front end was released February of this year and was immediately very well received by both customers and Kongsberg Maritime's own service personnel. The inherently complex system has from being difficult, now become easy-to-use.

The new front end of HAIN is available with releases HAIN 2.0 and APOS 4.8 and higher.

Kongsberg Maritime has also announced that HAIN will provide users with automatically post-processed data. The post processed navigation from HAIN is available to the user after a set delay. The length of the delay will determine the increase in quality (longer delay = better quality). Post-processing of navigation data greatly enhances the quality, sometimes by a factor 3 or more. As of today post processing of navigation data is done manually with dedicated software like Kongsberg Maritime's NavLab. However this is often time consuming, and extra work. The feature will be fully available to customers towards the end of 2008. Interested customers may contact subsea@kongsberg.com for details on this.



The HUGIN Conference and Demonstration

The HUGIN Conference and Demonstration in Bergen is postponed to January 2009. New dates are 27th and 28th January and a final program will be forwarded mid September 2008. This time the program will include also

the REMUS 100 vehicle and introduction to the REMUS vehicles in general. Change in operational priority by the Royal Norwegian Navy is the reason for the change of schedule.

