AUTOMATED SHIPS LTD AND KONGSBERG MoU

The world’s first unmanned and fully-automated vessel for offshore operations

On 1 November Kongsberg of Norway announced that it had signed a Memorandum of Understanding with the UK’s Automated Ships Ltd to build the world’s first unmanned and fully-automated vessel for offshore operations.

It is understood that in January 2017, Automated Ships Ltd will contract the vessel Hrönn, which will be designed and built in Norway in cooperation with Kongsberg.

Sea trials will take place in Norway’s newly designated automated vessel test bed in Trondheim fjord and will be conducted under the auspices of DNV GL and the Norwegian Maritime Authority (NMA). Hrönn will ultimately be classed and flagged, respectively it is reported.

Furthermore, Kongsberg will deliver all major marine equipment necessary for the design, construction and operation of Hrönn. This will include systems for dynamic positioning and navigation, satellite and position reference, marine automation and communication. All the vessel’s control systems including dynamic positioning, automation and ECDIS will be replicated at an Onshore Control Centre, allowing full remote operations of Hrönn.

Stene Førsund, EVP Global Sales & Marketing, Kongsberg Maritime commented: ‘We are proud and excited to be part of the first project to actually realise the potential of unmanned vessels by supporting the construction of the first full size, fully operational example. The Hrönn is an incredible ship and a great example of Kongsberg’s commitment to developing autonomous and unmanned vessels. We are involved in several major projects in this field including Autosea, which focuses on integrated sensor technology and fusion, and automated collision avoidance systems. Kongsberg is also a key stakeholder in the world’s first official autonomous vehicles test bed, which opened this September in the Trondheimsfjord’

About the ship

Hrönn will be a light-duty, offshore utility ship servicing the offshore energy, scientific/hydrographic and offshore fish-farming industries.

Its intended uses include, but are not limited to, survey, ROV (Remotely Operated Vehicle) and AUV (Autonomous Underwater Vehicle) Launch &
Recovery, light intermodal cargo delivery and delivery to offshore installations, and open-water fish farm support.

This vessel can also be utilised as a standby vessel, able to provide firefighting support to an offshore platform working in cooperation with manned vessels.

Automated Ships Ltd is currently in discussion with several end-users that will act as early-adopters and to establish a base-rate for operations and secure contracts for Hrönn offshore.

Hrönn will initially operate and function primarily as a remotely piloted ship, in Man-in-the-Loop Control mode, but will transition to fully automated, and ultimately autonomous operations as the control algorithms are developed concurrently during remotely piloted operations.

Currently, only small unmanned boats are being utilised for near shore operations. There are no technical limitations to constructing large, unmanned and automated systems, according to Kongsberg in a recently issued statement. Kongsberg went on to state that the only impediments are regulatory, but with the participation of DNV GL, the NMA, Norwegian and UK companies and institutions, it will be possible to rapidly and at low-cost be the first to market with a full-size unmanned ship.

Brett A. Phaneuf, Managing Director of Automated Ships Ltd., of Estover, Plymouth, commented: ‘The advantages of unmanned ships are manifold, but primarily centre on the safe guarding of life and reduction in the cost of production and operations; removing people from the hazardous environment of at-sea operations and re-employing them on-shore to monitor and operate robotic vessels remotely, along with the significantly decreased cost in constructing ships, will revolutionise the marine industry. Automated Ships Ltd will be at the forefront of that revolution, along with its many Norwegian partners.’

Of the partners involved in construction of Hrönn DNV GL will provide classification and technical assurance and the shipbuilder is to be Fjellstrand.

Picture caption

An artist’s impression of the first full-sized unmanned ship to be built through UK and Norwegian co-operation, the offshore vessel Hrönn, construction of which begins in January 2017 for it to enter operation in 2018.