

Kongsberg Integrated Vessel Concept for New-build Research Ship



A double-digit multi-million-euro contract was signed by Kongsberg Maritime and Fassmer Werft on 4 April 2017. This follows the German Federal Maritime and Hydrographic Agency's (BSH) approval of Kongsberg to deliver a technical solution based on its Integrated Vessel Concepts for the new-build research vessel *Atair II*, which will be built at the Fassmer yard in Berne. Kongsberg's Integrated Research Vessel concept will unite operational hydrographic and energy functions on board, facilitating seamless information sharing, enhanced efficiency and long-term life cycle benefits.

Scheduled for delivery in 2020, *Atair II* replaces the original *Atair* research vessel, which has been operational since 1987. At 74 metres in length, approximately 17 metres wide and with 5 metres draught, the new *Atair* will be the largest ship in the BSH fleet. It offers

space for 18 crew and 15 researchers. *Atair II* will be the world's first government-owned LNG powered research vessel, and will have a maximum speed of approx. 13 knots.

Integrated Operator Environment

Kongsberg's Integrated Vessel Concept for research vessels delivers a fully integrated operator environment, equipped with high level acoustic data acquisition, dynamic positioning, propulsion control, navigation and vessel automation. The concept delivers the tools needed to meet the most demanding research goals combined with flexible, intelligent energy management and propulsion solutions. Kongsberg, with its sub suppliers, will provide all electrical systems, telecom systems, the propulsion motor, cables and installation as a full engineering, procurement, construction and installation (EPCI) contract for the *Atair II*.

In parallel to the high levels of integration, *Atair II* features DNV-GL SILENT class notation – SILENT R, ensuring minimal impact on the marine environment and optimum conditions for scientific work aboard. *Atair II* also meets the strictest standards for Nitrogen Oxides (NOx) emissions according to International Maritime Organisation (IMO Tier III) requirements and US Environmental Protection Agency (US EPA Tier IV) soot particle emissions regulations, in addition to conforming to 'Blue Angel' standards for eco-friendly ship design (RAL-UZ 141).

Hydrographic Survey Equipment

Atair II will feature a large working deck including laboratories, an air pollution measurement station, a working crane and a scrollbar for geological work on the sea floor. The 200-square-metre free working deck offers space for laboratories and transport containers and an extensive diving equipment and diving Chamber are also included. For *Atair II*'s primary tasks of hydrographic survey and wreck search, Kongsberg will supply a substantial suite of the most sophisticated hydrographic survey equipment including multi/single beam echo sounders, sonar, sidescan sonar and sub-bottom profiler.

Atair II will operate in the North Sea and the Baltic Sea, conducting hydrographic surveys and wreck search operations in addition to marine environmental monitoring, as well as the technical testing of navigation and radar equipment. It can operate in dual fuel configuration on high quality diesel gas oil with a sulphur content below 0.1%, while standalone LNG-powered operational duration is 10 days, thanks to its 130 m³ LNG tank.