

Sonardyne Supports Future Korean Submarine Rescue Capability



Underwater positioning and tracking technology from Sonardyne International Ltd. is to be used to support search and recovery operations undertaken by the new auxiliary submarine rescue ship (ASR-II), belonging to the navy of the Republic of Korea (RoKN). Through a contract with GE's Power Conversion business, the ASR-II will be fitted with Sonardyne's Ranger 2 Ultra-Short BaseLine (USBL) system. This will interface onboard the vessel with GE's class-leading Seastream™ Dynamic Position (DP) control system providing accurate and fast position reference updates during critical station-keeping activities.

Deep Search Rescue Vehicle

The Ranger 2 onboard the ASR-II will also be used to simultaneously track the position of, and communicate with, Sonardyne instrumentation fitted to the new, untethered Deep Search Rescue Vehicle (DSRV) that is being built to operate from the ship when it comes into service.

Ranger 2 is installed on a global fleet of DP vessels operating within defence, offshore energy, ocean research and commercial survey. Its success in meeting the diverse operational requirements of these sectors is built around Sonardyne's versatile 6G hardware and Wideband 2 signal technology platforms. This combination enables underwater targets to be tracked beyond 11 km, position updates to be acquired every second, and for a vessel to work in any water depth, shallow or deep.

South Korea's Defence Acquisition Programme Administration

The ASR-II and its moonpool-deployed DSRV are being built under South Korea's Defence Acquisition Programme Administration as a replacement for the submarine rescue ship RoKS Cheonghaejin. The 5,200-tonne ASR-II is expected to be delivered to the RoKN by the end of 2022.

Sonardyne's order from GE's Power Conversion business includes everything the ASR-II will need to achieve the best performance from its Ranger 2 USBL during exercises or in the event of a submarine rescue operation. This includes a seabed-deployed 3,000 m-rated Dynamic Positioning Transponder 6 (DPT 6) with recovery floatation collar to provide high accuracy USBL positioning for reliable station-keeping, even when operating near sources of potential noise interference such as other naval vessels.

Sending and Receiving Status Messages

The control room software will be fitted with a Ranger 2 Marine Robotics Pack, which unlocks an additional range of features to enable the vessel crew to both track the DSRV and also communicate with it by sending and receiving status messages.

Finally, Sonardyne will also supply a deployment machine and gate valve, through which the Ranger 2 HPT 5000 USBL transceiver will be deployed through the hull of the ASR-II. The HPT 5000 enables underwater targets to be tracked over a wide range of water depths and elevations, so it is perfect for vessels needing to undertake different tasks on a regular basis.