Anti-Submarine Warfare and Sonar Trainer (ASW)

KONGSBERG originally developed the high fidelity PROTEUS ASW and Sonar Trainer for the Royal Norwegian Navy’s Nansen Class ASW frigate sonar operators.

Building on the PROTEUS training solution’s proven sonar capability, KONGSBERG developed additional sonar simulations to create a dedicated ASW trainer.

ASW systems include: hull-mounted; variable depth; active towed array; and dipping sonars; plus air-dropped sonobuoys.

ASW tools include: sector screens; furthest on circle; torpedo danger area; torpedo danger zone; limiting lines of submerged approach; and submarine limiting course.

The PROTEUS ASW and Sonar Trainer can be configured for training sonar operators on any ASW platform including submarines, ASW frigates, helicopters and Maritime Patrol Aircraft (MPA).

FEATURES

• Proven in operational training - provides low-risk, cost-effective training solution
• Can be tailored to meet each user’s specific training requirements
• Runs on COTS PCs
• HLA evolved compliant (IEEE1516.2010)
• Can be federated with any other PROTEUS training system, or:
  • Kongsberg Maritime’s K-Sim. Navigation training systems
  • Third party trainers using either an HLA or DIS interface
• Long-term follow-on support contract available.
Training for the Naval Environment
During the Cold War, Norway guarded the gateway to the North Atlantic. During that time, the Royal Norwegian Navy’s ASW frigate, submarine and maritime patrol aircraft crews became experts in ASW. However, many of the skills they required cannot be learnt or practised in live training due to the expense and the risk of revealing tactics and procedures to ever watchful potential enemies. To address this training need, KONGSBERG developed the PROTEUS ASW and Sonar Trainer, which can be configured to represent the sensors and displays of any ASW platform including: submarines; ASW frigates; helicopters; and Maritime Patrol Aircraft (MPA).

KONGSBERG - Experts in ASW Training
To ensure the PROTEUS training solution meets current and future ASW training needs, KONGSBERG has worked closely with the Norwegian Defence Research Establishment (NDRE) with respect to sonar and environmental simulation. By incorporating NDRE’s acoustic ray trace model LYBIN into PROTEUS, KONGSBERG provides technically excellent sonar simulation. KONGSBERG then worked closely with operational ASW crews to develop the very high quality training and operational tools they required. ASW tools include sonar simulators and stimulators, which stimulate real sonar at the hydrophone level. Combining state-of-the-art sonar and ASW capabilities with the proven PROTEUS training solution, KONGSBERG was the natural choice when the Royal Norwegian Navy required an ASW and Sonar Trainer. Used initially to train sonar operators on Oslo Class ASW frigates, KONGSBERG has continually enhanced the PROTEUS ASW and Sonar Trainer to meet the training needs of sonar operators on the latest ASW frigates, such as Norway’s Nansen Class.

In parallel with developing the PROTEUS ASW and sonar training solution, KONGSBERG is a world-leader in building operational autonomous underwater vehicles (AUVs), which further enhance the Company’s sonar and underwater warfare expertise.