KONGSBERG INTERACT Integrated Training Environment

KONGSBERG INTERACT (Integrated Naval Training Environment for Resource management And Crew Teamwork) provides a federated environment, to which any of the PROTEUS and POLARIS software solutions can be connected to create complex multi-skills, team and force-level integrated naval training scenarios.

Integrated training is essential to provide effective team and whole-crew training. KONGSBERG INTERACT provides a flexible environment that allows users to create the training environment they need. For example, a realistic threat environment can be created, in which all key elements of a defense against a swarm attack can be exercised in a common scenario.

Other uses of KONGSBERG INTERACT include linking appropriate trainers together to create an anti-submarine warfare (ASW) scenario, or for mission rehearsal, after action review, area access / area denial and naval or maritime security forces protection of economic exclusion zone (EEZ) and maritime infrastructure operations.

KONGSBERG INTERACT exercises can be competitive where appropriate to promote discussion and innovation, or scripted to meet specific team and procedural training needs.

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).
- Provides a federated environment, into which any other PROTEUS and POLARIS training system can be connected.
- The KONGSBERG INTERACT federation can also incorporate third party legacy trainers using either an HLA or DIS interface.
- Long-term follow-on support contract available.

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INTEGRATED NAVAL TRAINING

Effective naval training includes a number of well-proven stages. Initially, students study basic equipment skills in a classroom environment and practise them using part-task trainers. After mastering these skills, individual operators progress onto more complex trainers to learn their core skills, such as those needed by sonar or radar operators. Once operators have developed their individual skills, they are integrated into their team environment using an Action Speed Tactical Trainer (ASTT) representing a Combat Information Center (CIC) or a Ship Bridge Simulator representing a ship’s bridge.

Until now, such team trainers have been the limit for shore-based training. However, there are many naval environments where practising integrated naval operations is essential. To meet this need, some larger navies have developed integrated naval training environments involving multiple vessels and supporting assets. However, their focus is mainly on the interaction between vessel teams at CIC level, or with the tactical team on an ASW helicopter or other supporting assets. Such training mostly involves inputting data from sensors and intelligence; surveillance and reconnaissance (ISR) assets to build situational awareness to enable Command Teams to decide how to engage a simulated enemy – whole crews are rarely involved in the training.

KONGSBERG INTERACT provides the solution to many whole crew training needs. Using the KONGSBERG INTERACT run-time infrastructure (RTI) to link appropriate training systems together, such as individual operators, teams, crews, cooperating units and their supporting assets, the whole crew learns to work together in a common scenario as in real life and can practise and perfect their procedures. Unlike existing federated naval training systems, KONGSBERG INTERACT includes high-fidelity visual systems to supplement sensor information, thereby allowing bridge teams, lookouts and crew-served weapon operators to play their part in training scenarios. This is especially important in pressured situations where ship survival depends on a clear and coordinated whole crew response to a threat. Hence, an application of KONGSBERG INTERACT is as a counter-swarm training environment (see diagram above). Other uses include mission rehearsal, after action review, area access / area denial operations, training for security forces in maritime infrastructure protection, and developing and validating new concepts of operations (CONOPS).

KONGSBERG INTERACT can integrate customers’ existing PROTEUS and POLARIS trainers - plus existing third party trainers that use high level architecture (HLA) or distributed interactive simulation (DIS) protocols – to create whatever training environment they require. The system is scalable from whole crew training for a single ship, up to multi-ship task forces with their myriad of supporting assets.