

# Adaptive Training for Combat Information Center Teams (ATCIC)



## EXHIBIT FACT SHEET

The purpose of the ATCIC program is to develop individual and team-based Adaptive Training methods to assess and diagnose trainee performance deficiencies and provide tailored remediation for those deficiencies.

The focus of the work to date has been to establish the building blocks with which to develop individual and team adaptive training in a scenario-based environment. The most notable of these building blocks are:

- Decomposition of a multi-mission tactical scenario, which serves as a reference point for knowledge elicitation and provides opportunities for the development of Adaptive Training concepts (performance measurement, diagnostic techniques, and remediation strategies). The scenario is focused on individual and team level Adaptive Training for Commanding Officers, Tactical Action Officers, and Mine Warfare Evaluator performance in a multi-mission environment.
- Tactical scenario-based training simulations with assessment, diagnosis, and remediation capabilities. This integrated software provides the capability to assess proficiencies on targeted skill sets in a tactical scenario, pass commands to the simulation, and deliver remediation via feedback to the student and instructor – or by making changes to the scenario. This integrated software serves as an initial prototype to evaluate the effectiveness of adaptive training strategies and support integration with shore-based training architectures.

*The Combat Information Center of a ship is the environment in which a multi-mission tactical scenario will be presented to trainees. Currently, ATCIC includes individual and team level Adaptive Training for Commanding Officers, Tactical Action Officers, and Mine Warfare Evaluator performance.*



The transition path for ATCIC Science and Technology (S&T) is the Littoral Combat Ship (LCS) Shore-Based Training Facility (SBTF), which faces the challenge of implementing “Train to Qualify” (T2Q) and “Train to Certify” (T2C) processes to prepare Sailors prior to reporting for duty. The objective of ATCIC is to produce an adaptive training plug-in capability for spiral integration into LCS SBTF tactical simulations. Initial prototype deliverables are being provided to the Surface Warfare Officers School (SWOS) to meet their immediate training requirements of assessing the tactical proficiency of Prospective Commanding Officers (PCOs) and for developing curricula to remediate any identified deficiencies in student performance.

## Research Challenges and Opportunities

- Real-time or near-real-time assessment, diagnosis and remediation capabilities in tactical scenarios.
- Individual and team-based adaptive training measures using automated data capture.
- Developing principles and concepts for tailored remediation of training deficiencies via the system and instructor through real-time feedback and/or after action review.



*Training regimens for the two versions of the Navy’s Littoral Combat Ship are intense and dynamic. The ATCIC program develops Adaptive Training methods to diagnose trainee performance and provide solutions for training shortfalls.*