



Defence R&D Canada – Valcartier

Advanced Threat Assessment Capability (ATAC)

Objective

The Advanced Threat Assessment Capability (ATAC) is an R&D project with the aim of providing Canadian warships with a revolutionary Decision-Centered Threat Assessment Capability.

Background

Initiated by the Canadian Evolved Sea Sparrow Missile (ESSM) program and now sponsored by the Canadian Navy Halifax Modernized Command and Control System (HMCCS) Capital Project, ATAC was developed after a DRDC Valcartier Threat Evaluation (TE) study elaborated a number of limitations to the current legacy Command and Control System (CCS) of both IROQUOIS and HALIFAX Classes.

Project Description

Defence R&D Canada - Valcartier has undertaken the ATAC project with the objective of developing a capability explicitly designed to make automation transparent and provide warfighters with effective and trustworthy decision support.

This new capability is:

- a user-controlled and reconfigurable computerbased decision support system interfaced with an innovative decision-centered user display;
- designed to easily evolve as equipment and threats change in the future;
- designed for warships, but adaptable to any other type of platform dealing with threat assessment.



Technical Description

ATAC design uses cognitive system engineering and state-of-the-art information system technologies to support threat evaluation. ATAC work was validated and demonstrated using Valcartier Centre's unique Decision Support Modelling and Simulation facilities.





Current Status

DRDC Valcartier completed ATAC Phase I and delivered the final report on the Above Water Warfare Threat Assessment Decision Support Requirements for the HALIFAX Class CCS to the Canadian Navy Evolved Sea Sparrow Missile Program Manager. A proof-of-concept decision support prototype was successfully demonstrated.

Future Work

ATAC Phase I results are now foundation work for DRDC Valcartier Force TEWA TD and also for the Canadian Navy Halifax Modernized Command and Control System (HMCCS) Capital Project for which DRDC Valcartier is now playing a significant role. Finally, DRDC Valcartier efforts in maritime C3I, specifically in ATAC, were presented recently to the Chief Maritime Staff VAdm Buck.



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