



## **Force TEWA Force Threat Evaluation and Weapon Assignment**

### **Aim**

The ForceTEWA (Force Threat Evaluation & Weapon Assignment)TD has as its main objective to develop and demonstrate next generation command decision support concepts to significantly improve the Canadian Navy's task group interoperability and mission effectiveness.

### **Background**

Future joint and combined operations will see Canadian naval forces operating in close co-operation with national and allied maritime, land and air forces and contributing to the wide Area Air Defence theatre. The theatre-wide threats posed by missiles in 2010 and beyond may include Theatre Ballistic Missiles (TBMs) in addition to the threats posed by current air threats.

Countering these threats will require advanced AWW and C2 capabilities for the Canadian Task Group warships that support the concept of group collective action through common, near real-time picture compilation, embedded command decision aids and cooperative response to threats.

### **Project Description**

The Force TEWA TD is a five-year project starting April 2003 with a one-year definition phase followed by four years of development. The TD plan will look at demonstrating ASMD scenarios and decision support capabilities on a single platform as a first milestone, then will demonstrate collaborative decision support capabilities from a Canadian task group perspective.



To do so, the ForceTEWA TD will define, develop, demonstrate and evaluate advanced heterogeneous computer-based command decision aid capabilities to support the single ship and task group command team for Anti-ship missile defence scenarios making use of actual and future a priori information in order to achieve a coordinated and successful exploitation of single ship and task group tactical resources.

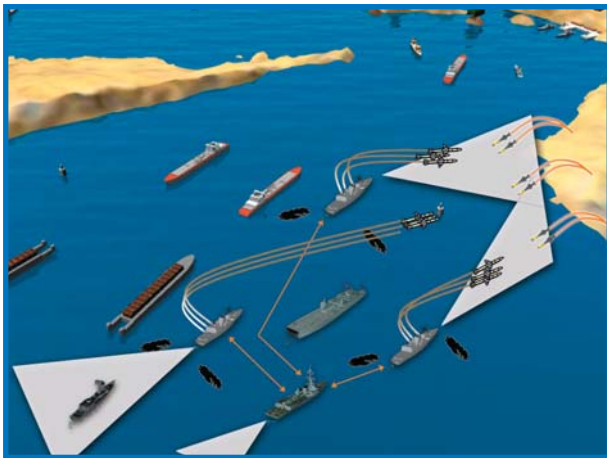
The Force TEWA TD will be leveraging mainly from the DRDC Valcartier work Advanced Threat Assessment Capability project and also from ongoing COMDAT and SISWS TDs.

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## Specific Objectives

The specific objectives of the ForceTEWATD are to:

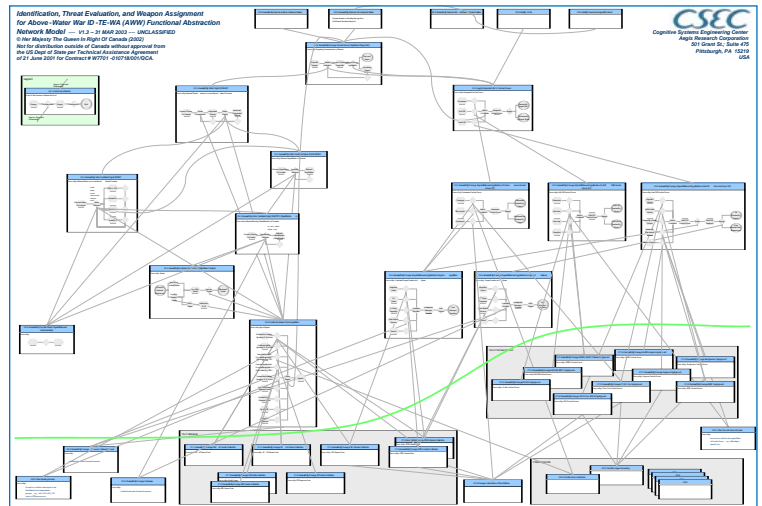
- **Contribute to the definition and validation of Requirements** - Define the Canadian Navy C2 AWW cognitive/decision support, communication and information exchange requirements for single ship, Task Group, joint and international coalition operations.
- **CONOPS** - Identify existing, or develop new, technological and human factor solutions leading toward new C&C ship and force-level CONOPS.
- **Systems** - Demonstrate, using legacy projects, single ship and force-level C&C decision support systems.
- **Evaluation and Performance** - Develop a knowledge base to support the evolution of the CCS-300 C2 system (HMCCS project) and the performance requirements of the CADRE C2 systems.



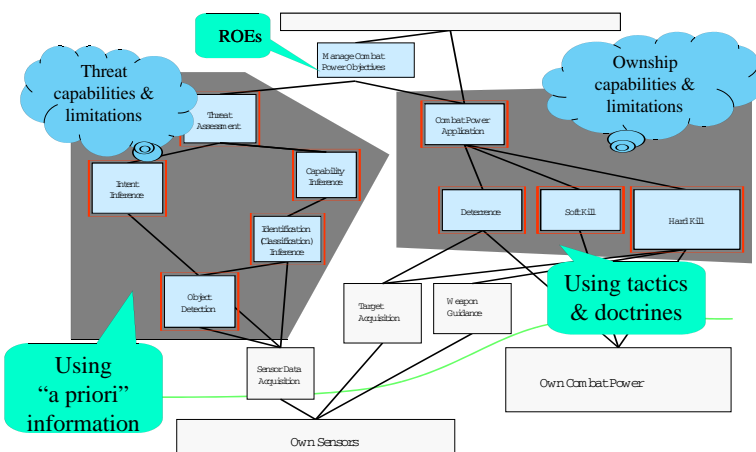
## Deliverables

The main deliverables yielding from the ForceTEWATD will be:

- Single and force-level AWW C2 decision support demonstrators with knowledge-based framework.
- Reports on Force TEWA:
  - Formal **cognitive/decision support requirements analysis** for single ship and task group (cycles I & II).
  - Conceptual study on **tactical information exchange** (cycle III).
  - **Human factor studies** (operator trust wrt automation, team decision-making, command effectiveness, inferring hostile intent).
  - Single ship and force-level TEWA **CONOPS**.
  - **MOEs/MOPs and results** of laboratory and at-sea experiments.
- Development of advanced M&S facilities with CFMWC and CFEC via CFXnet.



## High-level AWW Goals



## For more information

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