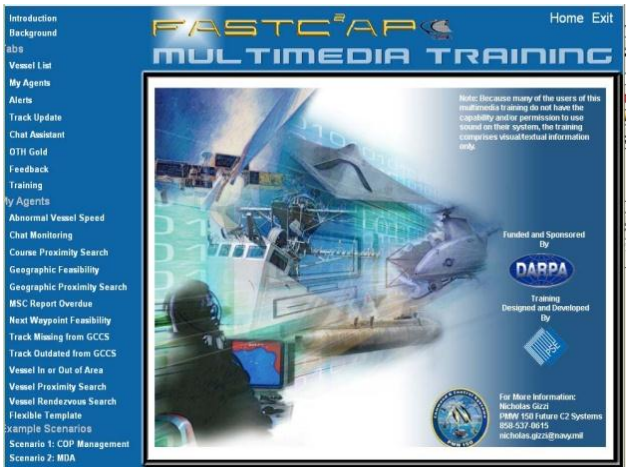
Fast Connectivity for Coalitions and Agents (FastC^{2}AP)

PROGRAM DESCRIPTION

The Fast Connectivity for Coalitions and Agents (FastC^{2}AP) program was undertaken by the United States' Defense Advanced Research Projects Agency (DARPA) to assist US Navy users in conducting Maritime Domain Awareness (MDA). FastC^{2}AP is an easy-to-use, Web portal-based system designed to enhance the ability of Maritime Fusion Centers and other MDA watch standers to more easily identify trends and detect anomalies.



HSI CHALLENGE

The complex vessel monitoring tasks performed as part of MDA require that the FastC^{2}AP system enables operators to quickly, easily, and accurately identify, track, and respond to a wide range of vessel activities. This capability requires an easy to use interface, immediately accessible, context-sensitive help, and a clear concept of operations (CONOPS).

APPROACH

PSE performed knowledge engineering with users at US Navy 6th Fleet to generate recommendations for system capabilities, create operationally-based training (briefs, quick reference guides, and multi-media products), conduct operational assessments of prototyped and installed systems, provide feedback on the human-computer interface, and develop user CONOPs.

SOLUTION

PSE provided operational context-based training and system design recommendations that became part of an improved version of the FastC^{2}AP system. PSE's operational assessments supplied valuable feedback to further improve FastC^{2}AP, and PSE's training materials helped operators gain competence with FastC^{2}AP's features and functionalities.

BENEFITS

Using a variety of highly-configurable software agents, FastC^{2}AP dramatically increases the number of vessels and amount of vessel data an operator is able to gather, monitor, and evaluate, and it automatically alerts the operator when a vessel meets user-defined criteria. Once configured by members of the watch team or their supervisors, FastC^{2}AP agents operate automatically to analyze past and current vessel data for unexpected, unusual or illegal behavior. Examples of activities that FastC^{2}AP can help identify include:

- Weapons smuggling
- Illegal migrant activity
- Illegal fishing/fishery violations
- Smuggling of drugs and other contraband
- Terrorist incidents
- Acts of piracy
- Incursions into restricted areas/territorial waters/economic exclusion zones
- Unexplained changes in a vessel's flag, owner, call sign, etc.

FastC^{2}AP was sponsored by the Defense Advanced Research Products Agency (DARPA). Results from this effort supported Maritime Domain Awareness (MDA) watchstanders at U.S. Navy Europe/U.S. Navy 6th Fleet and NATO Component Command Maritime (NATO CCMAR). After the prototype system transitioned to PMW 150, FastC^{2}AP was modified and installed at numerous U.S. Navy locations/commands around the world.