

# ONR's information discovery and sharing environment undergoes 'Marathon' experiment

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A response team of Sailors and Coast Guardsmen from the littoral combat ship USS Freedom (LCS 1) question four suspected drug smugglers after their "go-fast" vessel was intercepted by Freedom in the eastern Pacific Ocean. Freedom seized the vessel and four suspects and recovered one ton of cocaine during counter-illicit trafficking operations in the US 4th Fleet area of responsibility. Credit: US Navy photo by Lt. Ed Early/Released

The ability to catch international smugglers and terrorists just got upgraded with a Jan. 12 demonstration of collaborative software funded by the Office of Naval Research (ONR).

The Mission-Focused [Autonomy](#) (MFA) program was put into practice for the Joint Interagency Task Force (JIATF) South in Key West, Fla., during an exercise dubbed "[Marathon](#)." The collaborative information

discovery and knowledge-sharing tools sift through [government agency](#) databases to support efforts by federal law enforcement for information on foreign nationals intent on harming [national security](#) and those smuggling drugs and weapons.

The software is expected to prove invaluable to [Sailors](#) and Marines, for whom "everything is dependent on what you know—and when you know it—about your adversary," said Dr. Allen Moshfegh, program manager for ONR's MFA program, part of the Command, Control Communications, Computers, Intelligence, Surveillance, and Reconnaissance department. "The more rapidly we know about our enemies—their know-how, tactics and state-of-the art technologies—the better we are prepared and therefore can make the right decisions."

MFA fosters collaboration among organizations reluctant to share information due to its sensitivity, their differing policies and procedures, and the resources expended in attaining it. The system finds information from different agencies without having to reveal confidential or proprietary data. The software searches participating agencies' databases and returns either information—documents, photos, videos, etc.—cleared for sharing or confirmation that further material is available within a particular database.

"The goal is to develop a trustworthy system that pulls data and connects the dots for humans, who are the final decision makers on whether to allocate assets for further action," Moshfegh said. "It's a tool that speeds up the decision-making process by orders of magnitude, providing the right information at the right time to put scarce ships and airplanes in place."

MFA also can be tailored for various layers of command hierarchy, from the 'big picture' view needed by a senior leader to an in-depth, operational-level view. "The objective is to decompose a complex

problem into something simple," Moshfegh said.

The system runs on ONR's Command and Control Rapid Prototyping Capability (C2RPC) software, which was designed to pull together large amounts of data from disparate sources, sift and validate it. It was funded by ONR and developed by ONR, the U.S. Pacific Fleet and the Program Executive Office for Command, Control, Communications, Computers and Intelligence.

"With C2RPC we have seen enormous manpower and time savings," said Gary Toth, ONR program manager for command and control, who spearheaded C2RPC. "It minimizes the amount of time spent in information gathering and coordination, so you spend that time actually making decisions and executing a variety of mission outcomes."

To test MFA, ONR partnered with JIATF South, a multi-agency command that focuses on drug interdiction and also serves as an elite counterterrorism organization for U.S. Southern Command. JIATF South wanted help assessing tips and clues quickly and accurately, making decisions and monitoring events on the ground.

This demonstration is the first in a series, and it is part of a multi-phase process where cycles of research and development are followed by testing. "Each phase lasts approximately one year and contains three demonstrations to ensure that the research progresses in line with customer needs and requirements," Moshfegh said.

Provided by Office of Naval Research

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