BAE Systems Selected by DARPA to Create Autonomy Software for Multi-Domain Mission Planning

BAE Systems will develop software for military operators that will enable semi-autonomous multi-domain mission planning. BAE Systems.

BURLINGTON, Mass. — BAE Systems has been awarded a contract by the U.S. Defense Advanced Research Projects Agency (DARPA) to develop software that will enable semi-autonomous multi-domain mission planning, the company said in a Dec. 3 release. The technology will be designed for military operators to leverage battlespace resources from across various domains, such as space, air, land and sea, for more effective, efficient missions, according to the company.

Military operators currently use manual processes to assess availability and coordinate use of sensors, communications, weapons and other assets across domains. DARPA's Adapting Cross-Domain Kill-Webs (ACK) program will seek to help operators adapt to dynamic situations with software technology that automatically identifies the best options. In response, BAE Systems' FAST Labs research and development organization, along with teammate Carnegie Mellon University, will create software called Multi-domain Adaptive Request Service (MARS).

MARS aims to help operators make informed decisions by automatically identifying available capabilities across domains, and then rapidly assessing the costs and benefits to use those capabilities when adjusting mission tasks. The software also includes a visual interface that will allow the

exploration of available asset options, helping operators arrive at the best course of action to deliver the desired effect on targets.

"Multi-domain mission planning is complex because it involves a tremendous amount of distributed variables such as domains, systems, resources, and manned and unmanned platforms," said Chris Eisenbies, product line director of the Autonomy, Controls and Estimation group at BAE Systems. "Our hope is that MARS will provide warfighters with the ability to automatically leverage the resources they need and quickly determine the most effective way to accomplish their mission no matter what type of battlespace they are operating in."

MARS builds on BAE Systems' robust autonomy portfolio and 20-year history pioneering autonomy technology. Work on the ACK program, valued at $3.1 million, is being performed at the company's facilities in Burlington, Massachusetts, and Arlington, Virginia.