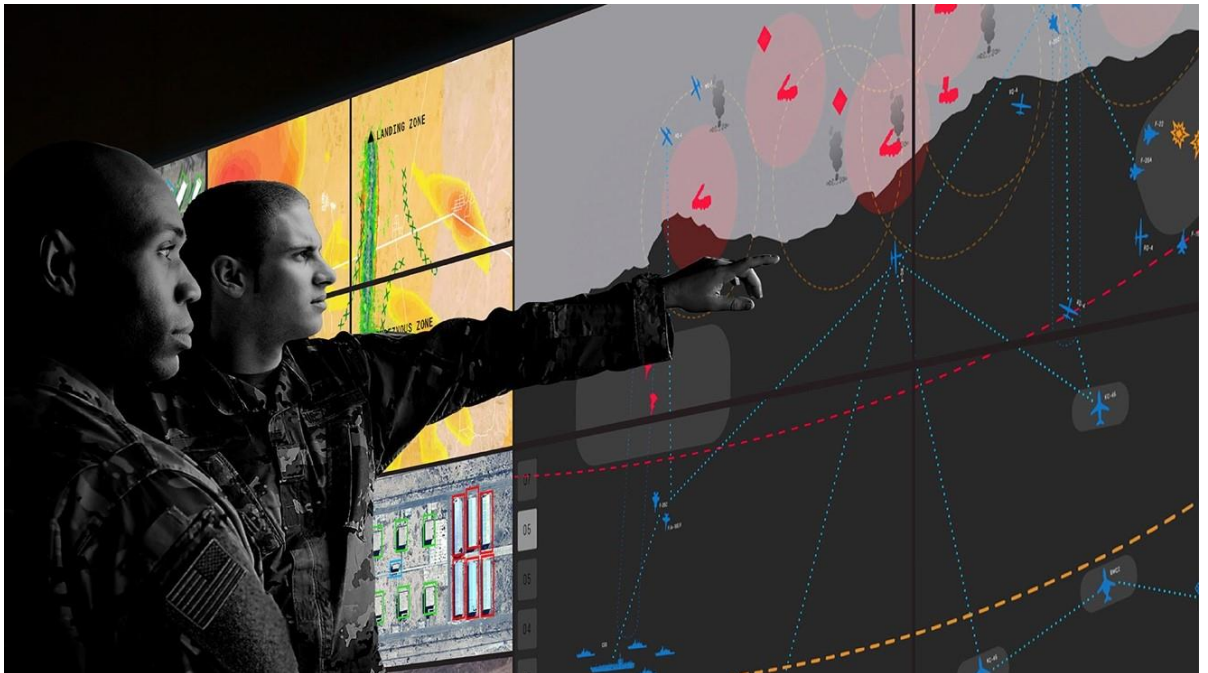


Ensuring Decision Superiority

The need for Joint All Domain Command and Control (JADC2)

A discussion with Barbara Borgonovi, Raytheon Intelligence & Space

*The Department of Defense's Data Strategy lays the foundation for how we manage, secure and use data to sharpen the U.S. national security's asymmetric advantage. **Barbara Borgonovi**, vice president of Intelligence, Surveillance and Reconnaissance Systems for Raytheon Intelligence & Space, shares insight on how Joint All Domain Command and Control will transform the use of data to win the future all-domain fight.*



Ahead of the C2ISR USA Online conference, taking place online 16-17 November, we reached out to our industry partner, Raytheon Intelligence & Space to better understand how they are accelerating the speed at which data is collected, analyzed and used in order to out-perform tomorrow's threats.

iQ *How has the global security landscape evolved to create the need for Joint All Domain Command and Control (JADC2)?*

Borgonovi: The National Defense Strategy shifts our focus from the counter terrorism operations

of the past decade to preventing and preparing for a conflict with peer threats. In what the NDS calls the Great Power Competition, victory will hinge on our ability to develop transformative

solutions that outpace adversaries' advancements in military capabilities.

Additionally, the Pentagon's recent release of its first data strategy underscores a second shift to instill a data-driven approach across its operations and next generation technology development. Given the deluge of data available, the data strategy serves as a guide for how we use data as a strategic asset to stay ahead of adversaries.



The case for effectively harnessing data has never been more relevant and imperative. In the global threat landscape, adversaries have invested substantially to extend their lethal effects range and combat capabilities. The complexity of future warfare in the highly contested environment will complicate employment of our forces and allies.

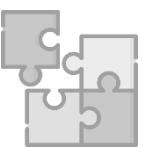
New survivable, integrated system of systems and multi-domain effects that support the vision for JADC2 will help us reach deeper and act faster to respond in the future environment. Finding faster, creative and more automated uses of existing data will be key. This will help strengthen our asymmetric advantage to deter and defeat our adversaries.

iQ *How is the aerospace and defense industry responding to the increased support from the services in architecting the capabilities for JADC2?*

Borgonovi: The precepts of JADC2 recognize that winning future wars depends on our speed to collect, analyze and use data to inform decision-making. To simplify a complex issue, we

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need an architecture that will enable the flow of data faster than ever before. Mission success depends on it.



The services' emphasis on cooperation is essential for our capabilities to work more effectively together. The U.S. Army and U.S. Air Force's two-year [collaboration agreement to co-develop the Combined Joint All-Domain Command and Control](#) in October signals their

Victory will hinge on our ability to develop transformative solutions that outpace adversaries' advancements in military capabilities.

priority to define this architecture. The U.S. Navy is also exploring a similar cooperation with the Air Force.

The Air Force's Advanced Battle Management System on-ramp demonstrations and the Army's Convergence Exercise serve as examples of partnership opportunities with the DoD to evaluate new capabilities, approaches, and to identify common standards.

Warfighting in the future will have at least one aspect that remains consistent with previous conflicts. Success will require partnership with allies and partners. From industry's perspective, the collaboration across the services and with coalition partners will help turn JADC2 into a reality. We are working with the services and allies to develop a data-driven, secure and highly networked environment. This will enable fast decision-making in any domain. As the services and coalition partners establish relationships to work together, we stand ready to help rapidly transition the way we deliver warfighter capabilities through an integrated solution that the future demands.

iQ *How is Raytheon Intelligence & Space (RI&S) in collaboration with Raytheon Missiles and Defense (RMD) contributing to JADC2?*

Borgonovi: RI&S and RMD are complementary because of our core technology areas. RMD contributes the smart multi-domain effects, while RI&S offers intelligence, surveillance and reconnaissance, cybersecurity and battle management command and control to securely move data. We are bringing these strengths



together to provide JADC2 solutions across every domain.

Since the inception of JADC2, we have been active partners with the U.S. services. We continue to participate in multiple consortia to establish the standard for open architecture. Open architecture will serve as one of the key elements to enable access to data. We are also working on the open mission systems consortium, which includes about 10 industry partners in addition to the U.S. Air Force and U.S. Navy. Our intended outcome from this effort is to develop a set of standard software messages so that advanced radars can connect to mission

systems. It will ultimately allow for any processor to plug and play into the network from open systems architecture sensors to secure communications to battle management command and control.

We are developing these future capabilities that are more connected and smarter to connect the dots between data. Our ability to rapidly synchronize data will give our customers the strategic advantage needed on the future battlefield.

Learn more about RI&S' Decision Superiority capabilities. ■



Barbara Borgonovi

Vice President of Intelligence, Surveillance and Reconnaissance Systems

Raytheon Intelligence & Space

Barbara Borgonovi is vice president of Intelligence, Surveillance and Reconnaissance Systems for Raytheon Intelligence & Space, a business of Raytheon Technologies. She is responsible for the strategic direction and operation of the mission area, which develops, produces and sustains airborne electro-optical/infrared sensors, active electronically scanned array/scanning radars and various special mission aircraft solutions. She also directs Raytheon Vision Systems, a leader in focal plane array technology.

Since joining Raytheon in 2001, Borgonovi has held numerous challenging positions in program management, supply chain, operations management and quality engineering. Most recently, she led Intelligence, Surveillance and Reconnaissance Systems at Raytheon Company's Space and Airborne Systems business prior to Raytheon Company's merger with United Technologies Corporation in 2020.

She was previously vice president of the Integrated Communication Systems mission area for Space and Airborne Systems. She also served as vice president of

Operations at Space and Airborne Systems and as director of Program Operations for the Electronic Warfare Systems mission area. Borgonovi was recognized with the 2017 Gold Stevie Award Most Innovative Woman of the Year in Manufacturing for her leadership and innovations in manufacturing.

Borgonovi earned an MBA from Pepperdine University and a bachelor's degree in mechanical engineering from California Polytechnic State University, San Luis Obispo. She is a graduate of Raytheon's Leadership Development and Leadership Excellence programs.

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