

JADO FOR 2035

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INTRODUCTION

The future of warfare is identified and Joint All Domain Operations (JADO) is the focus of how the Department of Defense and the Armed Services will fight. The National Defense Strategy creates new priorities for the military and focuses on peer and near-peer threats. Joint All Domain Operations is the key concept in defining the future of warfare. As the various military departments adjust to new technologies, training will need to reflect the growing threat, capabilities, and challenges to integration. Combatant Commanders require JADO Aggressors, to conduct live-fly exercises and virtual wargaming as a supportive approach to training JADO Blue Forces, Aggressors, and decision makers.

MAIN BODY

The Chairman of the Joint Chiefs General Mark Milley dictates the roles of JADO for the Department of Defense. The U.S. Army is responsible for logistics, the U.S. Navy for global and joint fires, and the Marine Corps and United States Space Force's roles have not been clearly defined in unclassified publications. The U.S. Air Force is responsible for the role of JADC2. As the service branches develop, train, and integrate, they need to train, fight, and experience defeat with a friendly opponent. The Department of Defense will also need to examine the existing joint structure and doctrine to create Aggressors for JADO exercises and wargaming (Hitchens, 2020).

The use of a tactical cloud within the Air Battle Management System (ABMS) is the latest technology to support JADC2. This suite of systems and sensors is designed to help integrate all domains for advanced communication. The intent has been called "the Uber of joint warfare" or "all sensors, all shooters" according to General Goldfein. These various technologies are being trained, tested, and evaluated at various stages of acquisition or operation. "JADC2 cannot be a single approach to achieving convergence but must be a composite of several

solutions tailored to the several different environments comprising the expanded battlefield,” (Broome, VIII). The technology needs to be tested and trained against every domain.

The U.S. Army War College published a report in 2020 called, *Command in Joint All-Domain Operations*. The authors dissect and re-examine the current armed services, excluding the Space Force and Coast Guard, for current and future joint capabilities. “The current joint culture prioritizes intra-component solutions rather all-domain approaches due to a lack of trust,” (Broome, IX). How does the military lead in a truly joint or all-domain conflict given this lack of trust? “The key ingredient to enable all domain operations is inter-service trust. Trust that leaders throughout the joint force, regardless of operational background or parent service, will be good stewards of other domain capabilities” (Broome, IX).

General Berger argues for the development of “multi-axis, multi-domain precision fires organic to all echelons, enabled by a federated system of networks to ensure all elements can fight in a degraded command and control environment” and “smaller but better-connected formations that organically possess a complete kill chain appropriate to echelon, and that can prevail in a contested operating environment” (Berger, 12). The proposed idea is to improve present day integration of JADO capabilities and decision making through all levels of the chain of command. For example, Bryan McGrath, founder of the FerryBridge Group LLC and a retired Naval Officer of 21 years, argues that whichever service domain is the focus of military action, is fully supported by the other services and compares the relationship to a Marine Corps Officer and a Naval Officer during an invasion in which “each supports the other during the phase in which the other predominated” (McGrath, 2019).

Training, standardization, and evaluation of JADO should begin once the technology and leadership has been finalized. Currently, units from different branches train together if they are in

the same warfighting domain. The USAF has two designated F-16 fighter squadrons and projects to incorporate a F-35A squadron for the air domain. The 527th Space Aggressor Squadron's mission is to train American and international allies for combat within the space domain. The United States Army trains against Red Teams at the brigade level at two different training areas for infantry and armored units. The United States Navy uses a variety of Red Teams at various fleet training exercises and for specific mission sets.

The Defense Science Board Task Force in 2003 published a report on *The Role and Status of DoD Red Teaming Activities*. Many lessons have been learned since 2003 and some lessons still ring true today. The first is “to deepen understanding of the adversaries the US now faces in the war on terrorism and in particular, their capabilities and potential responses to US initiatives.” The second is “to guard against complacency,” (DSB, 15-16) now the war on terrorism focus has shifted to peer and near-peer threats.

The Defense Science Board Task Force recommended steps for effective Red Team use throughout the department and the establishment of Red Teams in critical areas (DSB, 16). This Red Team requirement is critical across warfighting domains. However, if more exercises are conducted in multiple domains, they need to be challenged by a cohesive and joint Red Team and not a disjointed effort from a unitary domain. JADO commanders need to be able to count on a force that is trained together. “It is necessary to break down the barriers and stovepipes that have been built in each discipline. The key to this is to actually exercise MDO (Multi-Domain Operations)” (Rothstein, 20).

Red Teams need to organize appropriately to facilitate the various levels of training. Scenarios must match the National Defense Strategy and Combatant Commanders' focused areas of responsibility. Aggressors should rehearse as a force unto themselves. “Training should be

integrated into COCOM exercises that use actual systems processes in a contested environment with a ‘Red Team’,” (Rothstein, 11).

Two historical examples of Red Team training are carrier aviation in the Interwar Period and Operation Post Mortem. The U.S. Naval War College’s series of wargames during the Interwar Period tested the Navy. Decision making was influenced by the potential use of the aircraft carrier. The newest technology was proven superior over the old technology of the battleship, which a few decades previous was the dominant power of the seas. Operation Post Mortem was the Royal Air Force’s attempt to train and test captured Nazi German Radar Systems. Despite the lack of Luftwaffe fighters protecting the ground radars, the British were able to apply lessons learned on their systems (Gold 32).

Wargaming has the greatest potential for training JADO forces and Aggressors. “Exercises should strive to include multidomain realism and less ‘fairy dust’,” (Rothstein, 11). The various branches have different viewpoints and practices on wargaming. The Air Force’s Lemay Center hosted the Doolittle near-peer wargame scenario in late 2018 that lasted for a few days. The Navy has a century of history of wargaming at their Naval War College covering various phases of war and timeframes. The Army and Marine Corps have various digital wargames conducted on classified systems dubbed Fight Club for the past five years. (Jensen 2019) “The results are clear: Iron sharpens iron. Wargaming provides a competitive forum to test key assumptions and identify critical vulnerabilities and opportunities. Simulating mobilization planning, multi-domain operations, and the strategic risk of inadvertent escalation helps military professionals become better warfighters and understand modern capabilities and operational art,” (Jensen, 2019).

These various wargames can train leaders, prior to the financial investment accrued by large scale exercises. “Wargaming JAD connects in JPME (Joint Professional Military Education) offers immediate advantages to both students and concept developers. It teaches officers how to anticipate adversary actions across the domains, reinforcing JAD concepts while demonstrating shortfalls in planning,” (Catching, 2020). Ideally combatant commanders would host a two-week digital wargame where subject matter experts can provide input, Aggressors can react, and the breadth of options are available.

Think tanks and various vendors could help create a virtual library of information and smaller scale games. Ideally a Marine Infantry Officer could prepare for a joint exercise by completing a series of smaller tactical virtual wargames to gain more understanding of the other domains. The library could include doctrine, tactics, techniques, and procedures to help one gain understanding. Exercise sponsors could empower subject matter experts and Aggressors to help curate the wargaming library for all participants. This Marine Infantry Officer would go TDY to the Combatant Commander’s quarterly wargame ready for the JAD Commander and the defense of a single point or multiple positions (Jensen 2019).

CONCLUSION

JADO leaders need to train. For the next generation of Combatant Commanders to effectively utilize all domains, the Department of Defense requires the near-term ability to train, exercise, and wargame across the JADO environment. Creating multiple JADO Aggressor units would allow warfighting units to prepare for future conflicts and would enable effectiveness in military campaigns.

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