

JADC2 Will Not Win the Conflict: Rethinking C2 in a China-Taiwan Scenario

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### **Abstract**

Joint All-Domain Command and Control (JADC2) is touted as an upgrade to current military command and control by integrating kinetic platforms, intelligence, surveillance, reconnaissance (ISR) assets, and various nodes across an all-domain and wide-ranging battlespace. This resilient network will allow for interoperability between systems that previously had no ability to communicate with one another and a commander will be able to control effects from capabilities in every domain: air, sea, land, space, and cyberspace. JADC2 aims to shorten timelines and quicken processes which in turn preserves how the US fights and brings all-domain effects against peer adversaries. While high-level integration is a logical goal, JADC2 as a stand-alone is a technically infeasible solution in a China-Taiwan scenario given Chinese capabilities that are designed to degrade or deny US networks and systems of systems. Instead of further consolidating management of military action and disempowering tactical leaders, the US military should organize forces into joint units that operate using mission type orders semi-autonomously across distributed environments. By fully embracing mission command and decentralized execution, units can operate at the speed of relevance against a peer adversary like China during high-intensity conflict.

## **Introduction**

Within the last decade, the Department of Defense (DOD) has emphasized America's waning military dominance. The 2018 National Defense Strategy stated that the United States (US) "cannot expect success fighting tomorrow's conflicts with yesterday's weapons or equipment." It called for the development of "resilient, survivable, federated networks and information ecosystems." The 2021 Interim National Security Strategic Guidance furthers the claim stating "China, in particular has rapidly become more assertive. It is the only competitor potentially capable of combining...power to mount a sustained challenge". In response, the Joint Chiefs of Staff synchronized efforts and thus Joint All-Domain Command and Control (JADC2) was initialized. The core concept of JADC2 is a "cloud-like environment" designed to share intelligence, surveillance, and reconnaissance (ISR) data across a common network of robust datalinks to provide commanders a decision-making advantage in major combat operations. Simply put, JADC2 will connect sensors and shooters from all military services in multiple domains for faster effects on enemy forces.

Though it is a compelling argument, JADC2 will not guarantee victory on a battlespace such as that of a China-Taiwan scenario. The most robust and durable communications systems will not withstand the sheer magnitude of kinetic and non-kinetic effects directed at them and while the goal of linking various kill chain nodes seamlessly is sound, it should not be the end in itself. The US should assume that any expected conflict with China will include degradation of battlefield information and loss of centralization. Leaders should aim for the design of a truly joint command and control structure that embraces mission command, organizes forces into small, flexible all-domain teams and delegate authorities to the lowest possible tactical level.

Though it is enticing to continue operating using organizational principles that have proven successful in the past, potential future high intensity conflicts with China in and around Taiwan will not look the same as those of the past. And neither should the US military.

### **JADC2 in a Disputed Environment**

In the final paper of his CSAF series, Gen David Goldfein wrote “Situational awareness is most powerful when it enables effective and timely decision-making at the right level whether tactical, operational or strategic”. To achieve such a level of synchronization and awareness, the DoD plans to use JADC2 to align capabilities from and through multiple levels (tactical, operational, strategic) of war. Leaders argue that only by leveraging JADC2 will the joint force effectively coordinate the distinct mix of capabilities and effects across multiple domains. As military technology has grown to become more complex, from gravity bombs to the evolution of GPS-aided bombs, the necessary coordination between platforms and personnel has likewise grown in complexity.

Learning from previous conflicts like the Vietnam War that showed alarming quantities of aircraft loss against then-modern air defense systems, the US drove towards highly technical solutions: advanced radars, faster, stealthier aircraft, electromagnetic warfare capabilities, and the systems and radios required to link users with systems. This proved successful and historically, the US overshadowed adversary attempts at competing strategies. This is no longer the case. In its 2020 report to Congress, the Office of the Secretary of Defense admitted “China has already achieved parity with – or even exceeded – the United States in several military modernization areas”. China has had years of observation and study of the “American Way of War” and how the US military has been effective in major combat operations through command

and control of its forces across multiple domains. Therefore, removing said C2 infrastructure is the logical first step in a modern battle. This is seen as China continues to develop longer-range air-to-air and surface-to-air missiles against targets such as airborne early warning and control systems (AWACS), more capable anti-satellite systems, and increased electronic warfare and cyber-attack capabilities. For this very reason, putting faith in JADC2 to ensure complete military success in a China-Taiwan conflict is misplaced.

Rather than only developing technology to employ a strictly top-down decision-making approach, the US military should do what it has spent years championing – mission command – and further rethink C2 by jointly structuring forces spanning all domains and delegate the ability to operate in distributed units thereby complicating and presenting multiple targeting dilemmas for the adversary.

### **Mission Command and a New Organizational Construct**

Joint Publication 3-0: *Joint Operations* describes that if a commander loses reliable communications, “mission command... enables military operations through decentralized execution based on mission-type orders”. Subordinate leaders must understand a situation and their commander’s desired end state while exercising the ability to act independently to accomplish the mission - this cannot happen without mutual trust between commander and subordinate and clearly established intent. In theory, the US military has adopted the concept of mission command but in practice, modern military operations echo a rigidly hierarchical decision-making structure. Current combat operations in the Middle East are overseen by large teams of lawyers, intelligence officers, pilots, commanders, and numerous entities all attempting to coordinate information and authorities to reach decisions. This has created a contradictory

predicament where an organization will accept risk (e.g. striking targets based on limited intelligence) but an individual will not (fear for their career, legal ramifications, etc.). With so many people involved in the decision-making process with responsibilities diffused through large staffs, things become routine. Routine ISR, routine strikes, routine maneuvers, routine operations. JADC2 will only continue this trend as it strives to link previously separated platforms to users allowing commanders to drive processes from a “centralized operation center”; it is essentially no different than how the military currently operates and will not singularly bring victory for the US in a China-Taiwan conflict.

How then can a commander leverage its forces across multiple domains in a highly contested environment against a capable adversary like China? Rather than solely pursuing an all-knowing, operational-level network, the US military should expect communications degradation in a high-intensity conflict and groups of tactical units encompassing multiple domains are likely to operate organically rather than while connected to a large central operational node. Parallel to technological advances, leaders must also look at organizational change. Rather than service and functional exclusive components, forces should be organized into joint all-domain teams consisting of a multi-service mix of various platforms and capabilities, equipped with the necessary staff and assets to execute joint functions (ex. Intelligence, fires, etc).

Subordinate to an overall Joint All-Domain Task Force commander, these all-domain components would be assigned to specific areas of responsibilities within the overall battlespace and would operate semi-autonomously. Using mission-type orders (MTO), commanders would now have complete and broad authority to conduct ISR, develop targets, and authorize necessary ground actions or strikes within compressed timelines. Thus, even if C2 systems fail, a

commander could execute higher headquarters' intent and maintain a fast operational tempo against an enemy. This realignment of forces would also facilitate a greater ability to conduct joint exercises and not just hypothetical experimentation. While large training events like Indo-Pacific Command's Valiant Shield are a step in the right direction, prioritizing live tactical integration and robust training in a combined effort would further joint proficiencies on a regular basis rather than in one-off annual evolutions.

Recent examples of this type of force organization can be found in Iraq and Syria during Operation Inherent Resolve (OIR). In order to more effectively support partner ground forces with close-air support (CAS), strike cells were developed. Though non-doctrinal, strike cells through synchronization of ISR and fires, empowered dynamic decision-making and ultimately enabled quicker targeting and effects that would be impossible working through a traditional Air Operations Center (AOC). Though radical at the time, the overall success of the campaign against the Islamic State demonstrates the achievability of smaller modular teams that given the appropriate authorities can apply effects across multiple domains.

### **Conclusion**

The US military is at a point of inflection. After years of focus on the counter-terrorism fight in largely permissive, uncontested environments, it now appears ready to wholeheartedly invest in JADC2 as the technological solution to high-intensity conflict. Though successful in past major combat operations, JADC2's objective of a fully immersed, wide-ranging network – while well-intentioned – is unrealistic in a densely contested environment. Layering that with a determined adversary like China that has shown proven intent and capability to degrade and deny systems, the US military must look to rethinking C2 in a China-Taiwan scenario. Instead of

micro-managed conflict, emphasis should be placed on reorganizing and training forces into joint all-domain teams armed with mission type orders. Thus, distributed units can semi-autonomously carry out commander's intents while introducing multiple dilemmas to an adversary. Even with degraded communications, commanders can hold confidence that their subordinates are working towards larger goals and ultimate victory over the adversary. JADC2 is a worthy goal, but the US military will not be successful in a China-Taiwan conflict unless it fully accepts mission command, empowers subordinate commanders, and rethinks C2 and force organization for potential future near-peer conflicts.



## Bibliography

- Boot, Max. "The New American Way of War." *Foreign Affairs*. Council on Foreign Relations, January 29, 2009.  
<https://www.foreignaffairs.com/articles/united-states/2003-07-01/new-american-way-war>.
- Cowie, Leland, et al. "To Build Joint Command and Control, First Break Joint Command and Control." *War on the Rocks*, 2 July 2021, [warontherocks.com/2021/07/to-build-joint-command-and-control-first-break-joint-command-and-control/](http://warontherocks.com/2021/07/to-build-joint-command-and-control-first-break-joint-command-and-control/).
- Department of Defense. *Summary of the 2018 National Defense Strategy of the United States of America*. Washington, DC: Department of Defense, 2018.  
<https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>.
- Garamone, Jim. "Joint All-Domain Command, Control Framework Belongs to Warfighters." US Department of Defense. DOD News, November 30, 2020  
<https://www.defense.gov/Explore/News/Article/Article/2427998/joint-all-domain-command-control-framework-belongs-to-warfighters/>
- Goldfein, David. "CSAF Letter to Airmen." *U.S. Air Force*, 10 Mar. 2017,  
[www.af.mil/News/Article-Display/Article/1108931/csaf-letter-to-airmen/](http://www.af.mil/News/Article-Display/Article/1108931/csaf-letter-to-airmen/).
- Hitchens, Theresa. "New Joint Warfighting Plan Will Help Define 'Top Priority' JADC2: Hyten." *Breaking Defense*. Breaking Media, January 16, 2021.  
<https://breakingdefense.com/2020/01/new-joint-warfighting-plan-will-help-define-top-priority-jadc2-hyten/>.
- Hoehn, John R. *Joint All-Domain Command and Control (JADC2)*, CRS Report No. IF11493 (Washington DC: Congressional Research Service, 2021),  
<https://crsreports.congress.gov/product/pdf/IF/IF11493>.
- Joint Chiefs of Staff, *Doctrine for the Armed Forces of the United States*. JP 3-0. Washington, DC: Joint Chiefs of Staff, 2018.  
[https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3\\_0ch1.pdf?ver=2018-11-27-160457-910](https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_0ch1.pdf?ver=2018-11-27-160457-910)
- Seip, Mark. "Bad Idea: All Sensors, All Shooters, All the Time – a Joint All-Domain Command and Control System That Prioritizes Centralization." *Defense360*, 15 Dec. 2020,  
[defense360.csis.org/bad-idea-all-sensors-all-shooters-all-the-time-a-joint-all-domain-command-and-control-system-that-prioritizes-centralization/](http://defense360.csis.org/bad-idea-all-sensors-all-shooters-all-the-time-a-joint-all-domain-command-and-control-system-that-prioritizes-centralization/).