



**CHIEF OF STAFF
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WASHINGTON**

Enhancing Multi-domain Command and Control...Tying It All Together

This paper outlines my third and final focus area, Multi-Domain Command and Control (MDC2). In the first two papers – Revitalizing Squadrons, and Strengthening Joint Leaders and Teams – I laid out how an evolving operating environment demands a renewed focus on developing our Airmen and organizations. The changing national security environment also requires us to examine how we sense, decide, and act rapidly and in concert across all domains – or put it another way, master command and control of the multi-domain battle.

While we dominate the air, space and cyber domains today, our adversaries have invested heavily in technologies to deny us the superiority we have come to rely upon. To counter this, we must integrate our advantages across these domains in new and dramatically effective ways. Linking operations moving at the speed of light with operations moving at the speed of sound requires we bring it all together: the skills of our Airmen, the vision of our leaders, and the audacity and technical innovation found throughout Air Force history.

Multi-domain battle is more than the ability to work in multiple domains. We already do this quite effectively in today's Air Operations Centers. It is also more than operations in one domain supporting or complementing operations in another domain. An advanced multi-domain operating concept (CONOPS) will exploit current and new capabilities as well as integrate joint and coalition capabilities across all military operations. It will allow us to both see more opportunities and generate more options for our nation's leaders. Nominally, as either the Joint Forces Air Component Commander or Joint Forces Commander facilitating a campaign, we will be responsible for the delivery and articulation of joint fires. This responsibility mandates that we master MDC2.

To use a football analogy, we have developed and employed the greatest running attack the sport of football has ever seen. Over time, our opponents adjusted and built their defenses to limit our running-style. Therefore, we must shift to develop a new kind of offense. We will not abandon the run but will enhance our passing game and create a multi-dimensional attack that not only keeps the defense off balance (because we can attack in multiple ways) but also plays at an increased tempo so they will not have time to adjust. We must be able to overwhelm the enemy.

This evolution in our command-and-control capabilities requires new thinking, new training, and perhaps new technologies or new ways to use older technology. We will need to integrate real-time information from a variety of sources – some non-traditional -

- and evaluate that information as fast as systems can process it. If an enemy blocks actions in one domain, we quickly “call an audible” to change the play and attack or defend from another. Future multi-domain operations will be high velocity, agile, and joint by their very nature.

The elements to make command and control work are situational awareness, rapid decision-making, and the ability to direct forces to achieve commander’s intent.

The first essential element is situational awareness. Our ability to collect and distribute data and transform it into intelligence is robust, but we need to better integrate non-traditional sources of information. We also need to leverage our interagency, commercial, and foreign partners’ capabilities. To make sense of that volume of information, we need common architectures, standardized data formatting, increased machine-to-machine and artificial learning systems, and better integration to rapidly identify, synthesize, and present timely, decision-quality information to the right leader in the most useful format possible.

Situational awareness is most powerful when it enables effective and timely decision-making at the right level whether tactical, operational or strategic. Making such decisions at the needed operational tempo presents both a human as well as a technical challenge. We must continue to develop and empower Airmen at all levels: tactical, operational, and strategic, with the skills for joint planning, battle management, and better understanding of how to optimize joint capabilities across multiple domains. We need both leaders and tools that can visualize multiple battlespaces and execute rapid decision-making in an outright fight or in competition short of armed conflict.

Finally, advanced multi-domain C2 must enable commanders to leverage this enhanced decision-making capability to direct forces across domains and missions. I don’t see this as the top-down issuance of orders. It is more of a continuous feedback loop that includes command direction but also real-time reporting of the changing battlespace, battle management of emerging threats and opportunities, and dynamic status updates of forces, their supporting structures and enabling elements.

Just as we did with the first two focus areas, I have assigned a Brigadier General and a CMSgt to drive this dialogue forward and deliver on expectations. Brigadier General Chance Saltzman and CMSgt Brian Stafford, HAF A3, will lead the MDC2 effort.

This final paper completes the series of focus areas that link together the organizational, developmental, and conceptual elements of where I will focus as your Chief for the remainder of my tenure – joint warfighting excellence. Tying it all together:

- **Revitalizing Squadrons** resets our most critical warfighting organization and ensures command teams have the tools, training, and guidance to improve in the core elements of a successful command tour.

- **Strengthening Joint Leaders and Teams** ensures Airmen better understand the operational art of integrating air, space, and cyber capabilities with other elements of national power. It also relooks at how we present ready forces to combatant commanders to support their operational plans.
- **Enhancing Multi-Domain Command and Control** provides the concept of operations (CONOPS) and the technological foundation for better situational awareness, rapid decision making, and employment of the force across multiple domains.

All of these efforts will require significant input from the field and active participation and ideas from all levels is encouraged and welcomed. I look forward to working with our Secretary, MAJCOM commanders, leaders from across the Air Force and other services, as well as, leaders from the other stakeholder organizations to advance our multi-domain operations C2 capabilities. As always, I am proud to serve with you.

Fight's on!


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