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14. ABSTRACT

Operational Command and Control (C2) of joint air operations has evolved as an Air Force function, executed at the theater-level of war by the theater Commander Air Force Forces (COMAFOR) acting as the Joint Forces Air Component Commander (JFACC). The lack of authority of airmen at the Joint Task Force (JTF) level has precluded airpower from truly integrating into joint operations. As a result, air efforts have been coordinated, not integrated in the majority of joint operations. The centralized C2 of air at the theater-level has negatively impacted the mutual support and trust between the Air Force and its sister services. Also, the lack of properly delegated command authority at every echelon of command has drastically reduced the flexibility, cohesiveness, resiliency, and simplicity of joint air operation's C2 structure. Joint doctrine offers a multitude of C2 constructs for the JFACC, however, recent history shows that the theater JFACC has become an accepted norm and is further cemented in practice by the Air Force's creation of the theater Joint Air Operations Center (JAOC). The JAOCs are very capable C2 nodes, but lack the mobility to enable JFACCs to co-locate with the Joint Forces Commander (JFC). While air operations in Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF) suggest that joint air operations would benefit from an operational JFACC at the JTF-level, the JAOC's lack of mobility has precluded that C2 structure from emerging. Some current Air Force leaders recognize the benefit of a JTF-level JFACC and the costs of a theater-level JFACC, however, the Air Force widely accepts the theater COMAFFOR as the best solution to serve as the theater JFACC in support of separate JFC(s). One of the major counter-arguments against JTF JFACCs is the cost-benefit of having JAOCs for every JTF. By replacing 10 non-deployable JAOCs with four or five mobile JAOCs, the joint force would create a weapon system that meets the operational needs of today's complex war environment within reasonable costs. Deployable JAOCs would enable operational JFACCs to locate in close proximity with the JFC and maximize airpower's integration and lethality into joint operations. These mobile JAOCs would be smaller than the theater JAOCs, thus requiring close coordination and sharing of assets with the theater JAOC staff. The theater JFACC/JAOC would retain OPCON of theater assets while the JTF-JFACC would obtain OPCON of local air assets. The empowerment of operational commanders will help the JTF maximize synergistic effects and capitalize on enemy mistakes.

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Deployable JAOCs: A Way Ahead for Operational C2 of Joint Air Operations

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: _____

17 April 2012

Introduction

The U.S. has relied heavily on its technological and logistical superiority to win its wars. That superiority, however, is quickly diminishing. As near-peer enemies approach U.S. capabilities, it becomes critical that joint forces perform a self-assessment to determine if the U.S. is maximizing the synergy and lethality joint forces offer; joint air operations are an integral component to this joint force. An analysis of joint air operations yields many incongruent practices from theoretical and doctrinal principles. The most alarming of these practices is the command and control (C2) of joint air operations which has evolved exclusively as a U.S. Air Force mission executed at the theater level of war. This evolution runs contrary to sound C2 principles, fails to support joint doctrine, segregates airmen from the joint team, and results in convoluted command relationships. In order to maximize flexibility, cohesion, resiliency, and simplicity, operational C2 of joint air operations needs to be executed at the Joint Task Force (JTF) level by a Joint Forces Air Component Commander (JFACC), supported by a mobile Joint Air Operations Center (JAOC).

Sound C2 Principles

C2 is the most critical operational function. It is what facilitates the execution of the commander's intent. Dr. Milan Vego, a scholar of the practice of joint warfare, advocates that "a sound command organization should be flexible, cohesive, and resilient…above all be simple."[1] Flexibility empowers subordinate leaders to seize the initiative and take advantage of fleeting opportunities. Cohesiveness is the mutual trust that is promulgated through integrated planning, training, and execution; it binds a unit together in belief, purpose, and unity of effort. Resiliency is an organization's determination to achieve the mission despite setbacks and is derived from both the organization's flexibility and cohesion. Finally, simplicity provides clear organization roles, responsibilities, and a straight-forward chain-of-command.[2] Effective operational C2 of joint air operations should encompass these same principles.

Joint air operations rely heavily on organizational flexibility to accomplish the mission. In fact, centralized control and decentralized execution are tenets of airpower that Airmen espouse to foster flexibility. Decentralized execution "exploits the ability of front-line decision makers (such as strike package leaders, air

battle managers, forward air controllers) to make on-scene decisions during complex, rapidly unfolding operations."[3] Command structures that delegate the appropriate authority to each echelon of command empowers subordinate commanders, who best understand the complexities of their battlespace, to direct action and capitalized on enemy mistakes. As Dr. Vego warns, "there is no greater error for a higher commander than unduly interfering with the actions and decisions of a subordinate commander."[4] It follows that to maximize airpower's flexibility, C2 of joint air operations should be executed at the operational, or JTF-level. Rarely is this the case. Instead, operational C2 of air consists of coordination elements who lack authority and must rely on the theater JFACC to direct action. This default C2 construct has weakened the responsiveness of airpower to the ever-changing operational environment.

C2 of joint air operations should also promote cohesion within the JTF. One challenge facing the Joint Forces Commander (JFC) is his forces operate at sea, land, air, space, and cyberspace, each having "distinctive operational characteristics and environmental constraints."[5] Additionally, each service has its own beliefs and value systems which can further strain unit cohesion.[6] These conflicting factors can lead to "differing views of the mission's purpose or methods to execute it."[7]

Given these obstacles, it is imperative that airmen integrate at all levels of war and ensure airpower complements other joint actions. For a JTF to lack a JFACC or Operational Control (OPCON) over air assets would undermine the JTF's ability to effectively and efficiently execute joint air operations. As Lt Col Hoffman recognized in his Air Force analysis, "if the organizational structure is not supportive of the mission because required forces are neither assigned nor controlled by the joint force commander, the synergy of joint force employment can be diminished."[8] Air Force doctrine also recognizes that "while segregation may have some benefit and may appear the simplest way, from a command and control viewpoint…it may actually sub-optimize the overall effort."[9] Despite the recognition for operational C2 of air to be established at the JTF level, rarely does it happen. Rather, C2 of air is centrally executed at the theater level, effectively creating a parallel command structure for airmen and synchronization of airpower. This standard C2 construct has detracted from the joint team's cohesiveness.

Resiliency in joint air operations is also important and is derived from the unit's flexibility, cohesion, and experience working together. These experiences strengthen the unit's will and determination to achieve its mission. Only by being a fully invested partner at every level of war will the services learn the unique capabilities of airpower and how it can contribute to the JTF's unity of effort. For the majority of operational actions, airpower is coordinated, not integrated. This separation between airmen and the rest of the joint team has sometimes led to unfulfilled expectations and animosity between services, all of which negatively impact the JTF's mutual trust and resiliency.

The final principle in sound C2 is simplicity. As U.S. forces fight at high speeds across differing mediums, dispersed across thousands of miles with extremely lethal weapons, it is imperative that an effective C2 system is established.[10] If operational commanders are uncertain about their roles and responsibilities, the operational decision cycle will be slowed and will impose unnecessary risk to the mission. Dr. Vego highlights, "history is replete with examples in which a poor or unsound command organization was the principle reason for a lack of unity of effort, both within a service and among services or multinational forces."[11]

At the theater level, Geographic Combat Commanders (GCCs) are responsible for coordinating military operations with other USG agencies, non-government organizations (NGOs), international government organizations (IGOs), and partner nations to achieve unity of effort and meet theater-strategic objectives.[12] This mission is so critical that joint doctrine restricts GCCs from acting concurrently as a subordinate commander unless approved by the Secretary of Defense.[13] This restriction ought to apply to all theater-level commanders. While modern technology allows theater commanders to monitor operational and tactical operations, it should "not be used as a justification for not establishing an intermediate level of command."[14] Each level of war has its own mission which requires dedicated focus and intimate knowledge of the environment. Only through clear C2 relationships can each echelon of command focus on their mission and maximize the lethality of the joint team.

In summary, flexibility, cohesiveness, resiliency, and simplicity are fundamental C2 principles and should be the basis for operational C2 of joint air operations. But this is just theory. For actual guidance, one must turn to doctrine.

Joint Air Doctrine

Doctrine is the practical application of theory. It provides the guidance, based on the historical principles of war and past experiences, on how military force should organize, train, and fight. Joint doctrine requires unified action among the services, multinational partners, other USG agencies, NGOs, IGOs, and the private sector to fight and win our Nation's wars.[15] Joint air doctrine offers how to integrate airpower into achieving that mission.

Joint air operations' C2 structure is determined by the GCC. The GCC "determines whether air capabilities can be most effectively employed at the JFC level or by retaining them at the GCC level, or a combination thereof."[16] Doctrine recognizes each conflict and Joint Area of Operation (JOA) is unique, and as such, offers several possible air C2 arrangements.

First option: The GCC designates a JFACC for each subordinate JTF. The JTF JFACC is normally given operational control (OPCON) over the attached air forces and an independent air C2 capability. This structure "provides unity of command over the forces employed within the assigned JOA and greater direct control and predictability as to which air assets are available."[17]

Second option: The GCC designates a theater JFACC supporting subordinate JFC(s). The theater JFACC "determines the forces, tactics, methods, procedures, and communications to be employed in providing this support."[18] The JFACC will coordinate with the JFC to clarify logistics and airpower employment concerns. The theater JFACC normally deploys one or more Joint Air Command and Control Element (JACCE) to the JTFs to coordinate air support. "The JACCE will provide on-hand air expertise to the JTF commanders and the direct link back to the theater JFACC and the JAOC."[19] OPCON and tactical control (TACON), however, remain with the theater JFACC.

Third option: The GCC designates multiple JFACCs operating out of a single theater JAOC. "In this case, sufficient manning and infrastructure must be in place to support both individual JFACC missions prior to establishing such an arrangement."[20]

Fourth option: The GCC appoints either a theater JFACC or subordinate JFACC to operate simultaneously with a Joint Special Operations Air Component Commander (JSOACC).

Overall, joint doctrine recommends the JFACC role be assigned "to the component commander having the preponderance of forces to be tasked and the ability to effectively plan, task, and control joint air; however, the JFC will always consider the mission, nature, and duration of the operation, force capabilities, and the C2 capabilities in selecting a commander."[21] The exception to this tasking is the Army--while the Army has aviation, fires, and air defense assets, it is not tasked to perform C2 of joint air operations.

Doctrine vs. Practice

While doctrine must not be followed dogmatically, in general, the services' practices should complement joint doctrine. This is not the case with air doctrine. C2 for joint air operations have evolved solely as an Air Force mission, executed with Air Force values and beliefs. While the Air Force's expertise is air, space, and cyberspace, the Air Force believes that "because of airpower's unique potential to directly affect the strategic and operational levels of war, it should be controlled by a single Airman who maintains the broad, strategic perspective necessary to balance and prioritize the use of a powerful, highly desired yet limited force."[22] Gen Lyon, 9th Air Expeditionary Task Force-Afghanistan (AETF-A) Commander writes, "the current generation of Air Force senior leaders understand well the concept of the theater [J]FACC supported by a centralized C2 node embodied in the [J]AOC."[23]

The JAOC is the central C2 node for joint air operations and is networked to "provide the full range of air, space, and cyberspace capabilities to a joint force."[24] The JAOC allows theater commanders to observe air operations in near real-time, offers subject matter experts, service liaisons; and a dedicated staff that executes C2 of joint air operations. This centralized command is supported by decentralized execution with the JAOC's combat operations division, the Air Support Operations Center (ASOC), and ending with either a Joint Tactical

Air Controller (JTAC) or a Forward Air Controller-Airborne (FAC-A). See Figure 1 for Air Force-Army integration. Similar C2 relationships exist within the Navy and Marine Corps.

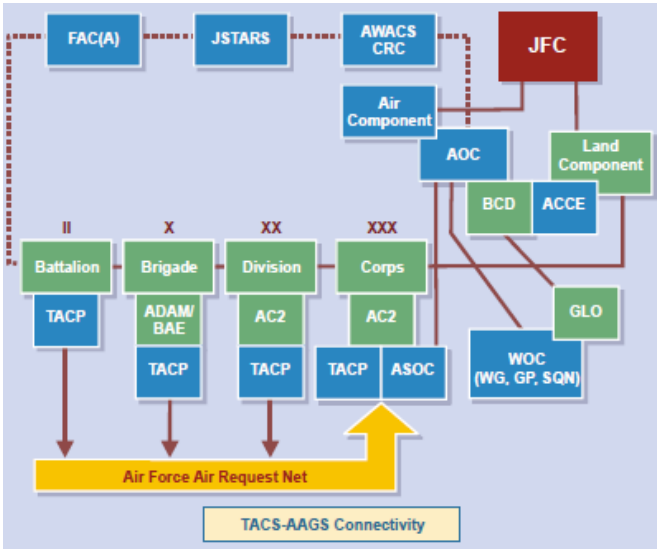

Figure 1[25]

Figure 1 suggests the JFACC is subordinate to the JFC, but that is only the case when the GCC is the JFC. All other JFCs are provided airpower through coordination elements, subordinate to the theater JFACC. This C2 structure has led air operations to become coordinated, not integrated, efforts in the joint fight. In fact Gen Hostage, former U.S. Central Command (CENTCOM) JFACC, recognizes that "although modern technology significantly reduces the need for close proximity to sustain communication or to command and control airpower, it comes with a cost…commanding and controlling airpower in multiple joint operating areas does not allow the theater [J]FACC to stand side by side with each ground commander- a fact that has hampered discourse and cooperation with our joint partners."[26] The physical separation of the JFACC from the JTF has hampered the interpersonal relationships that are fundamental to the joint team's cohesiveness, trust, and ability to accomplish the mission.

This separation has led some Air Force leaders, to include Gen Lyon, to recognize "that a 'one size fits all' approach to centralized C2 may not meet the needs of a protracted and complex COIN fight."[27] This argument can be applied to any conflict; war is complex. As such, operational C2 needs to be executed at the operational level of war, not the theater-strategic level. The Air Force's JACCE and AETF constructs fail to

establish that command structure or empower operational commanders. Moreover, the "limited OPCON" authority these entities are granted is not only inconsistent with doctrine, it is confusing.

Overall, joint doctrine and service practices need to be reconciled. Joint forces are often quickly assembled and enter into combat without any experience working together. Doctrine is the only tool joint forces have to understand each other's capabilities, practices, and beliefs. Of critical importance is the joint force's understanding of C2. Command relationships must be clearly defined and if practices are inconsistent with joint doctrine, the JTF will waste valuable time establishing basic command relationships versus finding and destroying the enemy.

Operational Air Case Studies

Case Study 1: Low Intensity Conflict--Operation Enduring Freedom (OEF). The JFACC for OEF is Air Forces Central Command (AFCENT) Commander. The 9th AETF-A Commander functions as the commander of Air Force Forces (COMAFFOR) Afghanistan, JACCE for International Security Afghanistan Forces (ISAF), Deputy Chief of Staff ISAF Joint Command (IJC), and the USAFOR-A Deputy Commander-Air. The 9th AETF-A Commander has administrative control (ADCON) and limited OPCON. Of note, the theater JFACC retains OPCON and TACON over combat air assets.

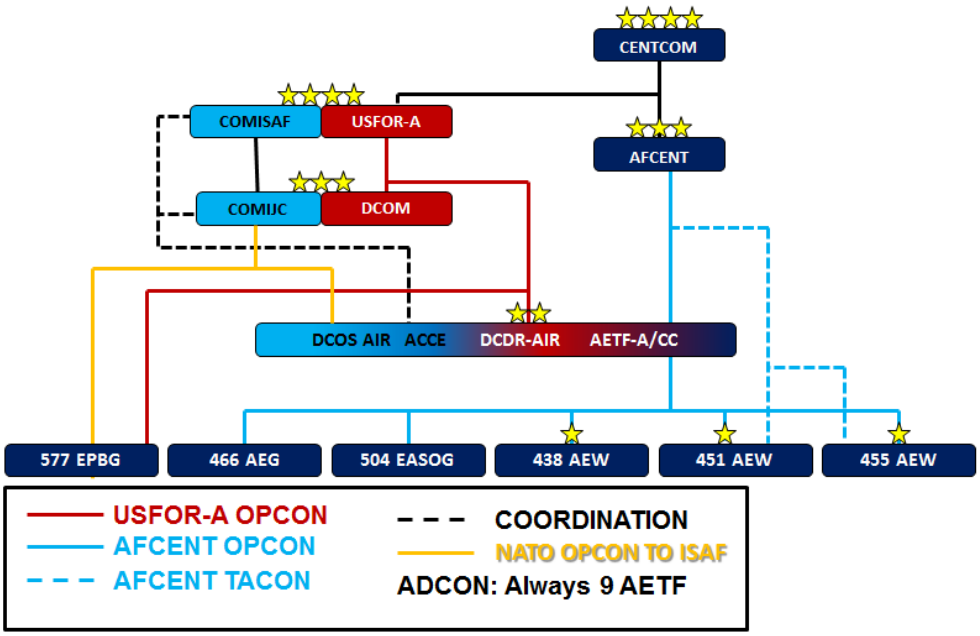

Figure 2[28]

The Air Force has executed OEF's joint air operations from the conflict's inception. In accordance with Air Force practices, the theater COMAFFOR assumed JFACC responsibilities in order to properly balance the high demand, low density air assets. The argument for the theater JFACC was especially convincing while OEF and Operation Iraqi Freedom (OIF) were both ongoing. 11 years later and with the conclusion of OIF, the continued use of the theater JFACC exemplifies how organizational biases have influenced joint air operations.

Decentralized execution of joint air operations has afforded airmen the flexibility to meet the ground commanders' intent at the tactical level. Tactical success, however, should not be mistaken for sound organizational practices. It has been a result of front-line warriors having "to rely upon personal acumen, professionalism, and cooperation to ensure the mission is accomplished. They are using personal and professional skill to overcome organizational deficiencies."[29] One need only to look at Operation ANACONDA to recognize that tactical efforts may not always overcome operational inadequacies.

One of OEF's over-arching C2 deficiencies has been the Air Force's insistence to maintain OPCON and TACON with the theater JFACC. Initially the JACCE, then Gen Hostage's "empowered" JACCE, were utilized to coordinate airpower into OEF operations.[30] These liaisons failed to meet the needs of the JFC, so in November 2010, Gen Hostage established the 9th AETF-A.[31] The AETF construct offers the advantages of "an Airman empowered with command authorities to the JTF commander, vice a liaison role, while allowing the theater COMAFFOR/JFACC to retain OPCON of forces across the AOR to address the CCDR's priorities."[32] The 9th AETF-A currently plans with the JTF staff, with reach-back support from the theater JAOC, and presents forces to COMUSFOR-A. Again, OPCON and TACON remain with the theater JFACC. What command authority the AETF commander has remains unclear to the author.

The different air C2 relationships in OEF have lacked simplicity and clarity. Each level of war requires straight forward roles and responsibilities—not just for the commanders, but for the entire organization. The JACCE and AETF, with their limited authorities, are convoluted constructs that do not follow doctrine, nor do they empower operational leaders. COMUSFOR-A warrants a subordinate JFACC with OPCON over combat assets in Afghanistan; the theater JFACC would retain OPCON over theater assets. The failure to recognize this

need is a result of Air Force beliefs and organizational inertia. Ultimately, these biases have hindered the effectiveness and efficiency of joint air operations in OEF—a complex war that needs to maximize every fleeting opportunity the enemy presents. In short, the 9th AETF-A should be delegated OPCON over Afghanistan air assets and assume the role of JFACC-Afghanistan. This not only would provide the operational component commanders the command authority they need, this would also enable the theater JFACC and staff to focus on the theater mission.

Case 2: Major Operations--U.S. Pacific Command (PACOM). The JFACC for PACOM is the 13th Air Forces (AF) Commander. In order to support the Republic of Korea (ROK), the Secretary of Defense has established a subordinate-unified command, U.S. Forces Korea (USFK). The JFACC for USFK is the 7 th AF Commander. See Figure 3.

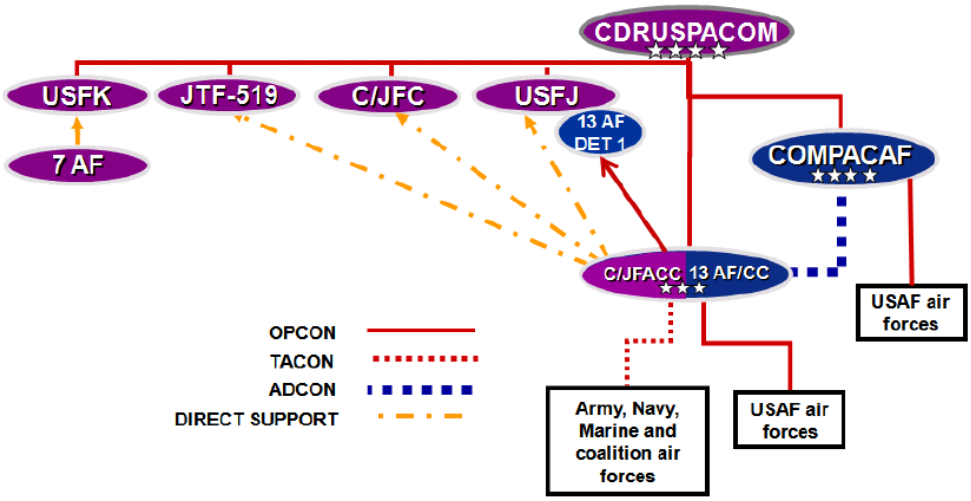

Figure 3[33]

The Air Force will assume the JFACC role and execute joint air operations in PACOM, with the exception of USFK contingencies, from the 13th AF headquartered in Hawaii. The question on this C2 construct is, again, whether or not it offers the most flexibility, cohesion, resiliency, and simplicity.

The creation of the sub-unified USFK Command, along with its own JFACC and JAOC, exemplifies that there is an inherent advantage to having the joint team co-located--living and training together--to better understand the operational environment. This intimate knowledge of the operating space and our partner's culture and capabilities is essential to USFK's success. Moreover, the integration in USFK provides the USFK

Commander the flexibility, cohesiveness, resiliency, and simplicity his coalition team requires to successfully deter and defeat, if required, the Democratic Peoples Republic of Korea.

USFK's C2 design and integration of coalition forces should apply to any other possible AOs within PACOM as well, but that is not the case. PACOM plans to utilize the 13th AF Commander as a theater JFACC to execute C2 for all other major air operations within PACOM. Even though Pacific Air Forces (PACAF) recognizes that a truly "theater JFACC becomes overwhelming" if multiple crisis develop.[34] Overall, PACAF concludes the theater JFACC is the embodiment of "centralized control of airpower, a foundational concept in Air Force and Joint doctrine proven in combat from North Africa in 1942 up until today in the CENTCOM AOR…it allows for the most efficient use of limited theater resources, allows the needs of multiple JTFs (and subunified commands) to be dynamically prioritized and serviced, and leaves forces best postured to handle the next arising crisis."[35] This broad statement over-simplifies the complexities different AOs and missions present and fails to allow for C2 alternatives that may be more effective and efficient. Also, as noted above, the theater JFACC in CENTCOM does not appear to have been the best solution to the COIN challenge, supporting the argument that a new C2 paradigm is in order.

While experiences in CENTCOM might not necessarily apply to PACOM, its traditional C2 paradigm fails to recognize the importance integration has in creating synergistic effects in joint operations, nor does it properly delegate command authority to each command echelon. Moreover, PACOM's operational factors of space, time, and force suggest that a theater JFACC and JAOC will be unable to C2 for such a diverse and complex AOR.

The primary operational factor that affects PACOM's operational C2 of air operations is space, namely its size. The theater JFACC structure greatly separates the JFACC from subordinate JTFs and the battle-space. If multiple operations were to initiate in PACOM, the theater JFACC would not have the intricate knowledge about the AO, which is crucial to maximize airpower's lethality. Nor would the space-time relationship provide the theater JFACC or the JTF the quick decision cycle needed to exploit enemy mistakes. As Dr. Vego

highlights, the operational factors of space and time still exist today regardless of technological advances, not to mention the need for leaders to still lead and motivate their forces.[36]

The political, social, and cultural aspects of space also support the JTF JFACC construct. The very reasons for establishing the USFK sub-unified command apply equally to all of PACOM's coalition partners--Japan, Taiwan, Singapore, and the like. Ethnic, religious, cultural, and societal understanding is important in any conflict, not just COIN operations. Total integration, not coordination, allows joint forces to understand each other, our partners, and is the key to building the trust multinational coalitions require. Forward presence also affords the most contact and understanding of the cultural environment that shapes joint operations and provides additional insight into the enemy's critical strengths and weaknesses. A single theater JFACC lacks the adaptability and situational awareness required to execute multiple operations consisting of differing cultures, religions, ethnicities, and social norms. Potentially, the theater JAOC could support multiple JFACCs, as proposed by joint doctrine, but that would introduce a slew of additional problems—lack of training, shortage of equipment, supplies, space, conflicts of interests, information sharing agreements, just to name a few.

PACOM's space is also primarily a maritime area of operation, whose security relies heavily on air and naval forces. The speed, distance, and lethality these forces bring to the fight introduces several C2 challenges in integrating air with maritime operations--the Air-Sea battle concept. Doctrine offers C2 to be executed by a theater JFACC from either the theater JAOC or Maritime Operations Center (MOC). The distance and time delay between this centralized C2 node and the dynamic Air-Sea battle would create a slow, inefficient, and likely a counter-productive C2 decision cycle. Again, the centralized C2 at the theater level for air operations would negatively affect the JTF's flexibility, cohesiveness, resiliency, and simplicity needed to execute such a complex mission. Ultimately, PACOM's space-time-force considerations necessitate that operational C2 of joint air operations be executed at the JTF level of war.

Lastly, military forces should attempt to minimize and safeguard their critical vulnerabilities. The theater JFACC and JAOC structure is entirely reliant on secure command, control, communications, computers, and intelligence (C4I). Cyberspace superiority is a necessity for the theater JFACC and JAOC to C2 joint air

operations, yet achieving it is far from certain. As such, C4I is a critical vulnerability unnecessarily introduced with the theater C2 model. This critical vulnerability is even more pronounced in PACOM where U.S. enemies are already waging cyberspace operations against the U.S. JFACCs co-located with the JTF offer one measure to minimize and protect this critical vulnerability.

Overall, PACOM is postured to execute the theater JFACC command structure to achieve unity of effort in joint air operations. While the theater JFACC has some advantages, it also has some significant disadvantages. The theoretical and time tested belief in centralizing C2 at the lowest possible level continues to hold true today. The recent experiences of joint air operations in OEF and OIF support this claim. Again, each conflict is unique so the C2 "solution" must consider operational factors, operational functions, and a multitude of other intangible factors. The only constant is that there is no "one size fits all" and that air operations must remain flexible to meet the ever-changing needs of the operational environment and the supported JFC.

Deployable JAOCs

Another argument for the theater JFACC comes from Gen Hostage who believes having JAOCs at the JTF level would not merit the costs. He states, the JAOC allows "Airmen to make full use of the inherent flexibility, speed, range, and mobility of airpower. The [J]AOC, however, lacks the portability that would allow a combined force air component commander (CFACC) to co-locate with every ground commander; the price tag for such redundancy in both personnel and equipment far exceeds the benefits."[37]

There is a C2 option, however, that would balance the benefits of a JTF-level JFACC within reasonable costs--deployable JAOCs. The benefits for a JTF-level JFACC have been enumerated above—proximity to the JFC, greater situational awareness, ability to motivate and lead--but there are intrinsic benefits to a deployable JAOC as well. For example, JAOCs rely extensively on secure C4I. In the event C4I is contested, mobile JAOCs offer measures to compensate for the C4I critical vulnerability—landlines, internal networks, radios, face-to-face communications, etc. Mobile JAOCs, by their very nature, will need to be smaller than the non-deployable JAOCs. In comparison, these mobile C2 nodes would be larger than the Navy or Marine Corps' Tactical Air Control Center (TACC) in order to C2 large-scale joint air operations. The mobile JOAC's smaller

footprint offers a leaner C2 node. This smaller staff will need to interact closely with the supporting theater JAOC staff, and as seen with the 9th AETF-A, provides greater reach-back and credibility. The primary issue, then, is money.

The acquisition costs for a deployable JAOC can be offset by reducing the number of fixed-JAOCs currently in inventory. The Air Force has 19 JAOCs. That is 10 non-deployable JAOCs outside the combatant commanders--each costing $60 million, staffs of approximately 1,000 personnel, and millions of dollars in equipment.[38] By replacing these 10 non-deployable buildings with four to five deployable JAOCs, the Air Force would not have to incur such a "redundant" price tag in personnel and equipment. There would be sunk costs associated with losing the 10 non-mobile JAOCs, however, there are numerous weapons systems that have been de-commissioned due to changes in mission, technology, and/or need. Joint operations need airmen and airpower to be integrated at the operational level of war; sunk costs should not be used as a reason to preclude building the capability joint forces need. Additionally, doctrine requires the Navy and Marine Corps to assume JFACC duties when directed. The TACC and MOC would be hard-pressed to fulfill this role in any large-scale air operation in addition to executing C2 of maritime operations. Deployable JAOCs would help support the Navy and Marine Corps to C2 joint air operations. As such, the Navy and Marine Corps could help subsidize the JAOC's conversion to a mobile weapon system.

Redundancy can be minimized in very much the same way that the 9th AETF is currently operating. The 9th AETF-A and CENTCOM CAOC provides an example of how staff "sharing" between the operational and theater level provides tremendous depth, flexibility, and cuts down on staffs, equipment, and supplies. Deployable JAOCs could have a smaller staff with reach-back support from the theater JAOC. The primary difference between this concept and current operations is the JTF level JAOC would be the primary operational C2 node with the theater JAOC would be back-up. Bottom line, deployable JAOCs can be instituted without incurring excessive acquisition costs or redundancy with double staffs or equipment.

Conclusion

Operational C2 should be executed at the operational level of war. Theater commanders have the complex mission of unifying efforts across military, non-military, coalition, NGO, and IGO actions in order to achieve theater-strategic objectives. The risk to this mission is far too great for theater commanders to become engrossed in operational or tactical issues. Budget constraints are expected, but the *supporting* C2 node should not limit the flexibility of airpower. Mobile JAOCs would enable JFACCs to be co-located with the JFC and offer the most integration and lethality for airpower in joint operations. In all, deployable JAOCs offer a true supporting C2 node that would enable an Air Force, Navy or Marine Corps JFACC at the JTF-level within reasonable costs. As Air Force doctrine states, "we must remain aware of the lessons of the past—alert and receptive to future technologies and paradigms that may alter the art of air, space, and cyberspace warfare."[39] Warfare is complex and becoming even more complex. Only by empowering warriors at every level of command will joint forces be able to maximize synergistic effects and capitalize on fleeting enemy mistakes.

1. Milan N. Vego, *Joint Operational Warfare: Theory and Practice* (Newport, RI: Naval War College, 2007), 620-21.
2. Ibid, 621.
3. Department of the Air Force, *Air Force Basic Doctrine, Organization, and Command*, Air Force Doctrine Document (AFDD) 1 (Washington, DC: U.S. Government Printing Office, 2011), 49.
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