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14. ABSTRACT

The utility of a Joint Force Space Component Commander (JFSCC) as an additional functional component commander in a Joint Task Force (JTF) has been explored and debated repeatedly since Operation DESERT STORM witnessed the first substantial use of space assets in military operations. Most studies have focused on force planning by considering the feasibility of an independent U.S. Space Force. This study aims to examine the question from the perspective of joint doctrine and operational art. Joint Pub 3-14 requires "a single authority to coordinate joint theater space operations and integrate space capabilities." Historically, this authority has been granted to the Joint Force Air Component Commander (JFACC) because the Air Force service component traditionally possesses most military space assets. Doctrine does not adequately address how space power can be related to elements of operational art. A qualified JFSCC would be uniquely positioned to take full advantage of trends in space technology and integrate space missions into campaign planning. Projected trends include space force application and operationally responsive space systems. Until such projections become reality, the space coordination authority is best left to the Joint Force Commander to implement within the existing JTF organization structure.

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THE ROLE OF A JOINT FORCE SPACE COMPONENT COMMANDER AT THE OPERATIONAL LEVEL OF WAR

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.

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Abstract

The utility of a Joint Force Space Component Commander (JFSCC) as an additional functional component commander in a Joint Task Force (JTF) has been explored and debated repeatedly since Operation DESERT STORM witnessed the first substantial use of space assets in military operations. Most studies have focused on force planning by considering the feasibility of an independent U.S. Space Force. This study aims to examine the question from the perspective of joint doctrine and operational art. Joint Pub 3-14 requires "a single authority to coordinate joint theater space operations and integrate space capabilities." Historically, this authority has been granted to the Joint Force Air Component Commander (JFACC) because the Air Force service component traditionally possesses most military space assets. Doctrine does not adequately address how space power can be related to elements of operational art. A qualified JFSCC would be uniquely positioned to take full advantage of trends in space technology and integrate space missions into campaign planning. Projected trends include space force application and operationally responsive space systems. Until such projections become reality, the space coordination authority is best left to the Joint Force Commander to implement within the existing JTF organization structure.

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INTRODUCTION

Advances in space technology have the potential to revolutionize warfare at the operational level. Since Operation DESERT STORM (ODS), theater space operations have been traditionally delegated to the air component commander. The prospect of a functional component commander dedicated to space has been repeatedly debated. Although a separate Joint Force Space Component Commander (JFSCC) has yet to be implemented, it remains an important subject to the contemporary Joint Force Commander (JFC). Most previous studies on JFSCC utility have been conducted before Operation IRAQI FREEDOM (OIF); not all addressed future trends.[1] The evolving role of space systems had led to marked differences in joint warfighting between ODS and OIF. Global space forces can produce theater effects; therefore, the JFC will have to contend with how best to employ space assets for military force application at the operational level. Technological advances available to both friendly powers and potential adversaries will continue to make this decision more urgent.

Research and analysis from the perspective of joint doctrine and operational art indicate the need for a JFSCC in the future. Current command and control structures will not remain sufficient to account for future space-based capabilities, making a JFSCC necessary to fully exploit space power in order to achieve operational objectives. Integral to this thesis is the assumed eventual transformation of military space assets from instruments of force

[1] A good representation of previous studies includes the following: Thomas A. Doyne, "Space and the Theater Commander's War – Statistical Data Included," Joint Force Quarterly (Winter 2000). <http://www.findarticles.com/p/articles/mi_m0KNN/is_2000_Winter/ai_80305804> [7 December 2004]; Maj. Shawn P. Rife USAF, "On Space-Power Separatism," Airpower Journal, Spring 1999, EBSCO Military and Government Collection database, (15 December 2004); Lt. Col. Brian K. Anderson USAF and LtCol Robert H. Bogart USMC (Ret.), "Space Forces – Supporting Today's Joint Force Commander," Military Review (November-December 2001). <http://www.leavenworth.army.mil/milrev/English/NovDec01/bogart.htm> [7 December 2004]; Larry G. Price, "Space Operations in the Joint Warfighting Arena: The Viability of a Joint Force Space Component Commander," (Unpublished Research Paper, U.S. Air Command and Staff College, Maxwell Air Force Base, AL: 2000). <http://www.au.af.mil/au/awc/awcgate/acsc/00-144.pdf> [15 December 2004].

enhancement to that of force application. From this analysis will emerge a recommendation on an organizational structure that best wields space power at the operational level of employment.

JOINT SPACE RESPONSIBILITIES

The Commander of U.S. Strategic Command (STRATCOM) exercises combatant command of Department of Defense (DoD) space forces. Prior to 2002, the Commander in Chief of U.S. Space Command (SPACECOM) exercised this authority. Under that year's Unified Command Plan, STRATCOM absorbed SPACECOM and its missions. Throughout this paper, references to SPACECOM and STRATCOM should be regarded as interchangeable and are differentiated by date only.

National space assets have global reach. Therefore, regional combatant commanders must coordinate with STRATCOM to operationally employ space assets in theater. Much of this coordination is achieved through STRATCOM's deployable Joint Space Support Teams (JSSTs), which ensure that the theater commander has all the resources necessary to integrate space power or capabilities into theater operations.

DoD space policy (contained in DODD 3100) outlined the responsibilities of SPACECOM and the other combatant commands. SPACECOM's duty was to assist the combatant commander in space campaign planning and to conduct the actual operation of space forces.[2] The combatant commanders were charged with establishing their operational requirements, integrating space capabilities into regional planning orders, and coordinating

[2] Department of Defense, Memorandum on Department of Defense Space Policy, DODD 3100 (Washington, DC: 1999), 19.

with SPACECOM for implementation.[3] Given the global reach of space operations, liaison between the combatant commander and STRATCOM can be projected as a constant requirement, regardless of the state of technological development. Within that framework, the variables will be the degree of coordination and the nature of the operational command structure.

THE LEGACY OF SPACE OPERATIONS IN THE JOINT ENVIRONMENT

ODS was the first conflict in which space assets contributed significantly to mission accomplishment.[4] The primary areas of impact were maneuver, satellite weather imagery, and satellite communications. However, space functions were not integrated into operational planning. The Joint Force Air Component Commander (JFACC) had the greatest exposure to the strategic space infrastructure, but was not officially assigned as the theater space coordinator.[5] Significantly, Air Force General Chuck Horner argued that in his role as JFACC, he needed a separate space deputy as he could not devote adequate attention to the medium.[6]

Lessons learned from ODS started a trend to "operationalize" space over the ensuing decade.[7] Doctrine matured to specifically consider space operations. Joint Publication 3-14, Joint Doctrine for Space Operations, laid out four primary mission areas: space control, force

[3] Ibid.

[4] General Merrill McPeak, Air Force Chief of Staff, quoted in "The Synergy of Air and Space," Airpower Journal (Air University Press, Maxwell AFB, Summer 1998): 7.

[5] Price, 2 and Ricky B. Kelly, "Centralized Control of Space: The Use of Space Forces by a Joint Force Commander," (Unpublished Research Paper, School of Advanced Airpower Studies, Maxwell Air Force Base, AL: 1994), 20. <http://www.fas.org/spp/eprint/p187.pdf> [16 December 2004].

[6] Price, 5-6.

[7] William B. Scott and Craig Covault, "High Ground Over Iraq," Aviation Week & Space Technology, 9 June 2003, ProQuest database, (20 December 2004), 2.

enhancement, space support, and force application.[8] Space control was defined as the assurance that friendly space forces have freedom of action and includes the defense of space systems.[9] Force enhancement provided warfighter support through the functions of intelligence, tactical warning, environmental monitoring, communications, and navigation.[10] Space support included the launch, deployment, sustainment, and recovery of space forces.[11] Finally, force application was termed to consist of "attacks against terrestrial-based targets carried out by military weapons systems operating in or through space."[12] Joint Pub 3-14 emphasized the current role of space in joint operations as one of support and force enhancement. Regarding force application, it explicitly stated that no such space forces currently operate.[13] Notably, Joint Pub 3-14 failed to address the practicality of implementing force application at a date to be determined.

Technological advances also spurred the integration of space missions in operational planning. Space capabilities have increased dramatically since ODS, but still lay primarily in the realm of force enhancement. The fields of navigation, communications, and missile warning improved significantly because of space technology. Precision guided munitions, high bandwidth satellite throughput, and Blue Force Tracking were noteworthy examples.

The 2000 Commission to Assess U.S. National Security Space Management and Organization (commonly referred to as the Rumsfeld Commission, for its chairman) designated the U.S. Air Force as DoD's executive agent for space.[14] Therefore, the growing

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[8] Joint Chiefs of Staff, Joint Doctrine for Space Operations, Joint Pub 3-14 (Washington, DC: 9 August 2002), ix.
[9] Ibid., IV-5.
[10] Ibid., IV-8.
[11] Ibid., IV-10.
[12] Ibid.
[13] Ibid.
[14] Report of the Commission to Assess United States National Security Space Management and Organization (Washington, DC: 2001), 31-32.

body of space operations doctrine was heavily influenced by Air Force doctrine, which directly stated that the JFACC was normally responsible for both air and space operations in theater.[15]

In OIF, U.S. Central Command (CENTCOM) officially designated the JFACC as its theater space coordinating authority.[16] Air Force Lt. Gen. Michael Moseley (JFACC) worked as the operational space boss from the Combined Air and Space Operations Center (CAOC). Perhaps mindful of Gen. Horner's warning, he used an Air Force Space Command colonel as his on-site senior space expert.[17] The JFACC then served as the central decision-maker for prioritizing space capabilities in theater. OIF featured a Space Tasking Order (STO), distinct from the more prominent Air Tasking Order (ATO). The STO detailed how satellite constellations were to be used in support of air strikes and reconnaissance.[18]

CENTCOM's relationship with STRATCOM was illustrated by repeated field requests for space-based infrared monitoring.[19] The JFACC submitted requirements through the combatant commander to STRATCOM, which deconflicted the requests with those from other combatant commands while also considering strategic early warning requirements.[20]

Space capabilities were well represented throughout OIF. Their use was spread among all functional component commanders. The JFACC satisfactorily executed his dual-hatted mission.

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[15] U.S. Air Force, Organization and Employment of Aerospace Power, AFDD 2 (Washington, DC: 17 February 2000), 76.

[16] Maj. Samuel L. McNiel USAF, "Proposed Tenets of Space Power," Air & Space Power Journal, Summer 2004, EBSCO Military and Government Collection database, (15 December 2004), 73.

[17] Scott and Covault, 2.

[18] Ibid.

[19] Brian E. Fredriksson, "Space Power in Joint Operations: Evolving Concepts," Air & Space Power Journal, Summer 2004, ProQuest database, (3 December 2004), 3.

[20] Ibid.

PROJECTED FUTURE TRENDS

OIF illustrated that the JFACC structure was sufficient for joint space operations from a force enhancement perspective. One might postulate that there is no need for a separate JFSCC, but this argument fails to account for the changing nature of space missions.

Planning for future space operations must consider the likelihood of force application and operationally responsive systems. These trends will prompt a significant paradigm change. Force enhancement has a limited nature. Space forces do not currently achieve operational objectives; rather, they support conventional forces in doing so. For example, the objective of eliminating the Republican Guard during OIF was accomplished by a combination of conventional land and air forces engaging in terrestrial combat. Space power facilitated the task, as exemplified by Global Positioning System (GPS) guidance in precision munitions. However, it could not be legitimately stated that GPS achieved the objective. Such would be a credible claim only if the fires themselves were space-based. Warfare objectives are achieved in the terrestrial environment. Should space force application become a reality, terrestrial military systems effectiveness could potentially be impacted.[21]

The weaponization of space is a controversial issue. The 1967 Outer Space Treaty stated that nuclear or other weapons of mass destruction could not be placed in space.[22] The 1972 Anti-Ballistic Missile (ABM) treaty with the U.S.S.R. prohibited the development of a space-based ABM system.[23] Certain conditions are immediately apparent. First, no specific mention was made of laser-based technology, which is one foundation of modern weapons

[21] Rife, 28.

[22] Department of State, "Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies," 10 October 1967, United States Treaties and Other International Agreements, TIAS no. 6347, vol. 18, pt. 3, 2413.

[23] Department of State, "Limitations of Anti-Ballistic Missile Systems," 3 October 1972, United States Treaties and Other International Agreements, TIAS no. 7503, vol. 24, pt. 4, 3441.

research. Second, the reference to "countries" loses relevance with regard to non-state adversaries. Finally, the U.S. regards the ABM treaty as void because the Soviet Union no longer exists as a political entity. The Rumsfeld Commission acknowledged policy implications but specifically warned the DoD not to ignore the potential capability: "…the U.S. must develop means both to deter and to defend against hostile acts in and from space."[24] Put simply, if an adversary were to employ space weapons, then the U.S. may be obligated to respond in like manner to protect its existing space capabilities.

Other nations possess and continue to develop space capabilities that could be readily adapted to weaponization. Potential options for hostile nations include anti-satellite instruments (ASATs).[25] There is a ready spacelift market for boosting ASATs into orbit. The Russian Proton, Chinese Long March, and European Ariane offer relatively affordable means of orbiting military or commercial payloads to those willing to pay the price.

Finally, there is the emerging field of operationally responsive spacelift and satellite systems. DoD's Office of Force Transformation is leading an effort to standardize a microsatellite bus[26] as a means of facilitating the rapid launch of small satellites designed to execute very specific missions.[27] An example is the TacSat line, which specifically aims to make space capabilities directly available to operational users. Projected missions range from imagery to communications, signals collection, and weather monitoring. Future applications could include constellations of space-based unmanned aerial vehicles launched

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[24] Report of the Commission, 19, 100.

[25] Maj. Timothy E. Winand USMC, "Space-Based Weapons: The Next Dimension in Force Application," U.S. Naval Institute Proceedings (July 2004): 46.

[26] A bus is the infrastructure that connects specific satellite payloads to the booster. A microsatellite bus would offer "plug and play" capability for payload designers to use with generic space lift assets. Mark Hewish, "Making Space Fast and Cheap," Jane's International Defense Review (February 2004): 51.

[27] Amy Butler, "Common Microsatellite Bus Key To New Space Business, Transformation Officials Say," Defense Daily (22 April 2004). <http://www.oft.osd.mil/library/library_files/article_361_Common%20Microsatellite%20Bus%20Key%20To%20New%20Space%20Business.doc> [2 December 2004].

solely to support a single theater of operations.[28] Such a system would conceivably fall under a regional combatant commander's operational control. Should the JFC have operationally responsive space systems formulated to his criteria that could be implemented within a highly compressed timeframe (as short as a few days), the need to reach back to STRATCOM would be diminished.

The following sections will analyze operational space employment from the perspectives of joint doctrine and operational art in order to provide justification for the thesis that a JFSCC will be required in the future.

ANALYSIS OF SPACE EMPLOYMENT ACCORDING TO CURRENT DOCTRINE

With respect to functional command of space assets, Joint Pub 3-14 is vague: "To facilitate unity of the theater/joint operations in space effort, the supported combatant commander or a JFC may designate a space authority."[29] Further, "the JFC can either retain authority or designate a component commander to coordinate and integrate space operations."[30] Finally, the "coordinating authority typically will be the joint force air, land, or maritime component commander…the space authority designated by the JFC will coordinate space support of established objectives and act on behalf of the combatant commander with primary responsibility in theater for joint space operations planning."[31]

The joint space doctrine contains two key points. First, there is no definite command and control structure for space operations; rather, the JFC is to designate space coordination

[28] McNiel, 77.
[29] Joint Pub 3-14, ix. The emphasis is the author's.
[30] Ibid.
[31] Ibid.

authority based on "the complexity and scope of operations."[32] This leads to the question of how the JFC is to determine which functional component commanders are required for a given operation.

Joint Publication 3.0, Doctrine for Joint Operations, states the basis for all functional components: "Functional componency can be appropriate when forces from two or more Military Departments operate in the same dimension or medium."[33] Joint Publication 0-2, Unified Action Armed Forces, establishes the criteria for a JFC to assign specific functional component commanders: "JFCs may decide to establish a functional component commander to integrate planning, reduce their span of control, or significantly improve combat efficiency, information flow, unity of effort, weapons systems management, component interaction, or control over the scheme of maneuver."[34] The designation of a JFACC is justified by all of these reasons for most contemporary operations. In the case of OIF, these criteria did not justify a separate JFSCC; the JFACC demonstrated the ability to integrate space mission planning and achieved combat efficiency, information flow, and unity of effort with a manageable span of control. Space weapons system management was not an issue. In a future operation with space force application, it will be pertinent. The management of space-based fires would logically require the same level of committed expertise as that dedicated to fires in other media. Expanded span of control would also be an issue and shall be considered below in the discussion of operational art.

Joint Publication 5-00.2, Joint Task Force Planning Guidance and Procedures, contains the specifics for the JFACC. "The Commander of the Joint Task Force (CJTF) will

[32] Ibid.

[33] Joint Chiefs of Staff, Doctrine for Joint Operations, Joint Pub 3-0 (Washington, DC: 10 September 2001), II-16.

[34] Joint Chiefs of Staff, Unified Action Armed Forces, Joint Pub 0-2 (Washington, DC: 10 July 2001), V-18.

normally designate a JFACC. The CJTF will base the decision to designate a JFACC on several factors."[35] Two pertinent factors will be examined below, with comments pertaining to OIF and a future operation with space force application effects.

- Mission and tasks assigned. OIF included the application of air strike and the use of air and space assets to support other means of terrestrial force application. A future operation is assumed to include the same in addition to the application of space strike. In both cases (OIF and future operation), a JFACC is clearly warranted for the strike application. The existence of space force application could justify a separate JFSCC by this criterion.
- Duration and nature of command and control. In OIF, significant air assets were dedicated to the JFC's theater. The space forces were strategic assets and were not dedicated to theater. A future operation is assumed to feature air and limited (operationally responsive) space assets dedicated to theater. Both cases require a JFACC. The latter case also justifies a separate JFSCC.

The second major point of joint space doctrine is that it allows for the possibility that space operations could be placed under any of the existing functional component commanders, but not necessarily the JFACC. Joint Pub 5-00.2, Joint Task Force Planning Guidance and Procedures, expands on the service identification of the JFACC: "The CJTF will assign JFACC responsibilities to the [service] component commander having the preponderance of air assets and the capability to plan, task, and control joint air operations."[36] Applying the same logic to space assets, it is clear that the Air Force component has the best capability to plan, task, and control joint space operations due to

[35] Joint Chiefs of Staff, Joint Task Force Planning Guidance and Procedures, Joint Pub 5-00.2 (Washington, DC: 13 January 1999), III-5.

[36] Ibid. The author inserted the bracketed item for clarity and to convey the quotation's context.

satellite communications capability, service training and specialty.[37] Therefore, it was entirely reasonable for the OIF Air Force service component commander (dual-hatted as the JFACC) to act as the theater space coordinating authority. The key is that the service identity, not the functional nature of the JFACC, was the determining factor. This counters the argument that a JFACC must always have control over theater space assets.

ANALYSIS OF SPACE EMPLOYMENT ACCORDING TO OPERATIONAL ART

Joint Pub 3-14 notably does not mention specific elements of operational art.[38] A previous study has viewed space force application through the lens of operational art and outlined the advantages of space-based weapons in operational flexibility and arranging operations for full spectrum dominance.[39] Specifically, it highlighted the ability of space-based weapons to deter, engage, seize the initiative, act in decisive operations, and transition.[40] While clearly advocating the advantages afforded the JFC, it did not address the issue of the JFSCC. The operational factors and elements expounded below offer insight into the functional utility of a JFSCC in future operations.

Counterspace operations, defined as those to prevent an adversary's space capabilities from negatively affecting a theater commander's possible courses of action, are an example of operational fires. These operations would heavily involve a JFC's theater. Such a situation would likely demand the JFC use assets under his operational control to delay,

[37] This paper intentionally does not address the potential establishment of a separate armed Space Force service as this would shift the perspective from that of joint operations to one of force planning. Were a Space Force service component to exist, it would likely have the requisite specialty training to provide a JFSCC. The point remains that the traditional designation of the JFACC as theater space coordinating authority is due to service background, not functional nature.

[38] Doyne, 1.

[39] Winand, 46-47.

[40] Winand, 46.

disrupt, deny, or destroy the threatening space systems.[41] The fires would conceivably be used as a preliminary operation to shape the battlespace for follow-on terrestrial operations. There is no assurance that a JFACC would be properly equipped or focused to manage future counterspace operations. As an example, consider an AEGIS cruiser employed in theater ballistic missile defense. Such a mission would have to be closely coordinated between the Joint Force Maritime Component Commander (JFMCC) and the JFSCC.

The operational factors of space, time, and force would be completely changed with space-based weapons. Aspects of operational space such as distance, topography, and geostrategic position would be relatively minimized. For example, distance is essentially meaningless for a laser moving to its target at the speed of light. Similarly, force would be revolutionized as the military sources of power would rely less on such traditional areas as air and sea superiority or logistical lines. Time could remain the critical factor because one means to effectively apply force might depend on the implementation speed of operationally responsive systems. No implementation standard has been established, but it is instructive to note that emerging commercial rapid launch timeframes are as low as 72 hours.[42]

The prospect of a space functional component commander in addition to the JFACC is ultimately an issue of operational command and control (C2). Proper C2 allows the JFC to monitor the situation without unduly interfering with a subordinate.[43] Three elements of operational C2 support a separate JFSCC in future operations with space force application: decentralized execution, span of control, and simplicity in command organization.

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[41] Kelly, 41.

[42] "Launch on Demand," Kistler Aerospace Corporation, 2004. <http://www.kistleraerospace.com/k1vehicle/launchondemand.html> [4 February 2005].

[43] Milan N. Vego, Operational Warfare, (Unpublished Text, U.S. Naval War College, Newport, RI: 2000), 187.

Decentralized execution results when authority is properly delegated by the source of centralized direction. The principle is applicable to the supported and supporting commander relationship and the theater geography. The STRATCOM-combatant commander relationship is a unique illustration of a decentralization challenge. As the nature of the space environment dictates that such weapons be globally focused, the JFC would have to "reach back" to STRATCOM for strategic employment. In order to maximize responsiveness, however, it may be possible to designate selected assets for the JFC's operational or tactical command.[44] In such a case, STRATCOM would retain combatant command of the asset while the JFC would have operational and tactical command of the asset when allocated to the theater. The latter would occur only when the satellite's orbit over flies the theater. The JFC would never have direct control over the actual satellite, but only the mission payload.[45] The Space Tasking Order would clearly define the time and scope of the operational or tactical command.[46] In essence, the JFC would hold trigger release authority on a system that otherwise belonged to STRATCOM. The greatest challenge in such a scenario would be the reconciliation of the JFC's theater requirements with those of the other combatant commanders, given the global coverage of STRATCOM's asset.

Decentralized execution also has a geographical significance. One need only consider whether the control node of theater space forces should be co-located with the Combined Air Operations Center (CAOC), which is the JFACC's domain. While transparent during OIF, this issue will loom larger with the advent of space-based threats. One need only

[44] Winand, 48.
[45] McNiel, 77.
[46] Ibid.

consider the impact of a "Space Pearl Harbor"[47] to see an advantage of dispersing the ground control links to theater space assets.

The second element of operational C2 applicable to the JFSCC is the span of control. This is defined as the number of persons or functions administered by a single individual.[48] It is inversely proportional to the number of command echelons and is one criterion for the designation of a functional component commander.[49] The tradeoff for the extra bureaucratic layer of command echelon is a more manageable span of control for a given commander. Based on the performance of the JFACC in OIF, it can be stated that the responsibilities of theater space coordinating authority allowed reasonable span of control. With the added duties of designing and employing operationally responsive systems and controlling space-based fires, it is a reasonable assumption that a future JFACC would not enjoy a similarly manageable span of control.

The final C2 element for consideration is the simplicity of command organization. This aims to prevent the confusion of overlapping responsibilities or authority.[50] Simplicity could have conceivably supported the designation of a separate JFSCC in OIF. In a force enhancement role, space aided the efforts of all the functional component commanders, and not just the JFACC. Were the theater senior space operator to remain a subordinate to the JFACC, then it is entirely possible that the space forces would be employed primarily as supporting air operations. Gen. Horner noted that a continuation of the current setup means that "tradeoffs will be made between air and space, when in fact the tradeoff should be made

[47] Report of the Commission, 1.
[48] Vego, 193.
[49] Joint Pub 0-2, V-18.
[50] Vego, 192.

elsewhere."[51] Similarly, in a force application role, a separate JFSCC would be a superior arrangement. His focus would properly be space defense and weapons employment without subjugation to air power, thereby ensuring a more equitable application of space power across all functional component requirements.

RECOMMENDATIONS

Joint doctrine, specifically Joint Pub 3-14, should be revised to specify the conditions under which a JFC should appoint a separate JFSCC. While not stripping a JFC of his prerogative to best organize his forces, doctrine must offer something more concrete than current prescriptive statements. More importantly, the doctrine should officially recognize the potential of future technologies and offer related guidelines to the JFC.

The conditions under which a JFC should strongly consider a JFSCC are delegated command and control of space force application or operationally responsive space systems. The JFSCC would be a peer of the other functional component commanders. His theater center of operations should not normally be co-located with the CAOC. While the JFSCC would likely be an Air Force officer, he may or may not be dual-hatted as the service component commander.

The JFSCC's responsibilities must be clearly laid out in joint doctrine. The following list summarizes the JFSCC's proposed roles:

- Developing a joint space operations plan to best support the JFC's objectives
- Recommending to the JFC apportionment of the joint space effort, after consulting with other component commanders

[51] "Air Force Space System Control Questioned," Space News (8 September 1997): 2; quoted in Rife, 1.

- Allocating and tasking of space capabilities/forces made available by STRATCOM
- Providing oversight and guidance during execution of joint space operations in conjunction with STRATCOM
- Coordinating joint space operations with operations of other component commanders
- Evaluating the results of joint space operations
- Accomplishing various mission areas, to include counterspace, space attack, and spaceborne surveillance
- Functioning as a supported/supporting commander, as designated by the JFC[52]

If a primary condition is not met, then the doctrine must reiterate that the role of theater space coordination authority resides with the functional component commander most logically suited for the purpose (for example, the JFMCC for a theater ballistic missile defense mission.) This will often be the JFACC due to service affiliation, not functional responsibility. Any joint or service reference to the JFACC assuming this role as a matter of course should be stricken. Consideration may be given to moving the space center of operations away from the CAOC as warranted by the situation. Additional consideration may be given to keeping the space coordination function inherent to the JFC's staff.

[52] This list was modeled after JFACC responsibilities laid out in Joint Chiefs of Staff, Command and Control for Joint Air Operations, Joint Pub 3-30 (Washington, DC: 5 June 2003), II-2.

CONCLUSION

A proposal to reorganize joint task force functional command structure will surely be met with resistance in some quarters where commanders fear the erosion of their existing authority. History provides precedent in the struggle for an independent Air Force during and after the Second World War. A significant difference is that service restructuring is not at the heart of the JFSCC issue. The modern era is one in which joint warfighting has eclipsed individual service combat capabilities. Therefore, this paper has intentionally avoided the persistent controversy surrounding the issue of a separate space service. The pertinent issue from the perspective of the JFC is the operational employment of theater space forces, regardless of the uniform employing them.

The recommendations contained herein do not relieve the JFC from organizing his forces according to the situation. Findings may be summarized that a JFSCC was not justified in the past, but likely will be sometime in the future. In light of this indefinite forecast, the need for the judicious application of operational art is paramount. Existing doctrine and principles of operational art afford the JFC the tools necessary to make the proper decision on the designation of a separate JFSCC.

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