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**NAVAL WAR COLLEGE
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**AMERICAN JOINT HELICOPTER COMMAND:
ADDRESSING A LACK OF OPERATIONAL COMMAND AND CONTROL OF ROTARY
ASSETS**

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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6 November 2007

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Abstract

In the current United States joint command and control structure, rotary assets from all services are inadequately involved in integrated planning, integrated operations, and collectively unable to achieve unity of effort. Based on the tenets of operational command and control by Milan Vego, across all services, the **United States helicopter forces fare lacking operational command and control.** In this paper I provide specific examples of three major failures of our current joint command and control structure, integrated operations, integrated planning, and unity of effort indicating a breakdown in operational command and control. After identifying these failures, I propose that a new joint command similar to the British Joint Helicopter Command (JHC) is a feasible option to resolve these failures.

Introduction

In the current United States joint command and control structure, rotary assets from all services are inadequately involved in integrated planning and integrated operations, and are collectively unable to achieve unity of effort. Based on the tenets of operational command and control by Milan Vego, across all services, the **United States helicopter forces are lacking operational command and control.**

Operational Command and control Tenets: Sound command and control should ensure unity of effort...Unity of effort is one of the main prerequisites of successful performance by a command. At the operational level and higher, success is difficult to achieve without having unity of effort through unity of command...Unity of command is achieved principally by establishing clear-cut division of responsibility, inter- and intra-service integration, cooperation, and interoperability.¹

In this paper I provide specific examples of three major failures of our current joint command and control structure, integrated operations, integrated planning, and unity of effort indicating a breakdown in operational command and control. After identifying these failures, I propose that a new joint command similar to the British Joint Helicopter Command (JHC) is a feasible option to resolve these failures. After a brief description of the JHC, I introduce issues that an American Joint Helicopter Command will need to address in order to be successful.

Through historical evolution, the United States armed services have created stovepipe cultures based on the medium in which they operate. Each service, Army, Navy, Air Force, and Marine Corps., had a clearly defined role and could operate nearly independently. The

¹ Milan Vego, *Operational Warfare* (NWC1004, Newport, RI: U.S. Naval War College) pg 187

Navy became the blue water force, Marine Corps. became the expeditionary force, and the Army focused on large-scale ground operations. The Air Force believed that strategic airpower trumped the other forces and focused on operations on the periphery². The belief that these inter-service rivalries were a hindrance to operations led to the Goldwater Nichols act of 1986, resulting in our current joint structure utilizing geographic component commanders with joint task force (JTF) commanders and component commanders.

The division of responsibilities for the component commanders fell in line with the comfort zone of each of the services³. The Joint Forces Maritime Component Commander (JFMCC) taking responsibility for the seas, The Joint Forces Land Component Commander (JFLCC) covering the ground forces, and the Joint Forces Air Component Commander (JFACC) taking the responsibility for controlling anything that flies in a given theater. Centralized JFACC control of theater assets allows their integration in the joint force commander's campaign plan. The JFACC develops the air portion of the campaign and applies the available assets to achieve desired effects. Centralized control enables a level of asset integration not otherwise possible⁴. This ownership by JFACC has successfully evolved into integrating Air Force, Navy, and Coalition aircraft through several campaigns. The ability to manage strike, reconnaissance, and logistical assets from all services requires the ability to adapt across a wide range of theaters. There is one essential element that has been absent from this evolutionary process and has resulted in a major flaw in this structure: the skies below 500 feet.

² Mark R. Lewis, Michael P. Noonan "Conquering the Elements: Thoughts On Joint Force (Re) Organization." *Parameters*, 22 September 2003. <http://www.encyclopedia.com/doc/1G1-109580223.html> (accessed 26 September 2007), 2

³ Lewis and Noonan, "Conquering the Elements", 2

⁴ Jeffrey Stambaugh, "JFACC: Key to Organizing Your Air Assets for Victory." *Parameters*, summer 1994. www.carlisle.army.mil/usawc/Parameters/1994/stambau.htm (accessed 16 October 2007) pg 2

A combination of the stovepipe cultures of the services and a contemporary evolution of strike warfare has either paid little attention to or simply failed to recognize an absence of integrating helicopter operations. I discuss in further detail how accepted deviations from doctrine have created a “subset” within the current U.S. command and control structure that has gone through an evolutionary process of its own, making integration of rotary assets increasingly difficult.

Failures in operational command and control

Failure to integrate operations

Following the First Gulf War in 1991, the United States lead a Coalition of nations designed to provide humanitarian relief to nearly one million Kurdish refugees in Northern Iraq. Entitled Operation Provide Comfort, efforts included air dropping of supplies and medicine while maintaining air patrols to ensure physical security of the area. To accomplish this task, a “No Fly Zone” was established prohibiting any Iraqi aircraft from flying in Iraq North of the 36th parallel⁵.

On April 14th 1994, two U.S. Army UH-60 helicopters were shot down by two U.S. Air Force F-15 pilots who were patrolling the no-fly zone. All 26 people onboard the helicopters were killed including the U.S. crew, British, French, and Turkish Officers and Kurdish civilians. This tragic event occurred in daylight, in clear weather, with both flights under Airborne Warning and Control Systems (AWACS) control.

⁵ “Blackhawk Fratricide Incident.” (1/C Capstone Seminars, United States Naval Academy, Annapolis, MD), <http://www.usna.edu/OfficerDevelopment/Capstone/Readings/casestudy1.htm> (accessed 5 October 2007), 1

Over the past 13 years, several studies, ranging from analysis using a Systems Model of Accidents to Why – Because Analysis (WBA) of sociological investigations, have attempted to explain the sequence of events that culminated in this friendly fire incident. Perhaps most notably is Scott A. Snook’s book entitled *Friendly Fire*. Snook offers a detailed causal analysis at the individual, tactical, and operational level. His causal map has been the genesis of even further studies designed to identify failures that occurred at multiple levels. In each method of analysis, operational command and control and a lack of helicopter integration have been identified as playing an underlying role.

Snook admits the difficulty in relating “non-integration” to an aircraft being shot down. To describe the differences between helicopter and fixed wing operations, he uses the analogy of music. Fixed wing aircraft typically fly as part of a package equivalent to a symphony. Under the control of the Airborne Command Element, or conductor, they fly to the air tasking order (ATO) as their sheet music, like classically trained musicians taking pride in the details. Helicopters fly more like jazz musicians, guided by a general scheme, but creating their music real-time based on emerging requirements of who they are supporting and surrounding terrain. These differences are typically not a problem because they play in different halls, fixed wing above 1,000 feet and helicopters 500 feet and below. The problem arises when they must play together. The longer two groups are separated, if the separation is identified at all, the more difficult it is to combine them⁶.

Snook references the work of Lawrence and Lorsch in 1967 involving differentiation and integration. When subunits are created from a larger group, the subunits take on different characteristics in accomplishing their goals. Over long periods of time these

⁶ Scott A. Snook, *Friendly Fire: The Accidental Shootdown of US Black Hawks Over Northern Iraq*. Princeton, NJ: Princeton University Press, 2000, 143

separate behaviors become the accepted norm making it more difficult to combine the subunits when desired⁷. Because the helicopter missions required flexibility beyond the scope of the ATO, they were viewed as a separate entity, a “subset” and were not a part of combined forces air component commander (CFACC) assets. Following the shootdown, the ACE stated that the AWACS only tracked the helicopters as a courtesy, the Assistant Director of Operations stated that helicopters were not considered part of the Operation Provide Comfort package, and the Senior Director stated that the package only included aircraft that fly above the hard deck.⁸ Bringing this back to the fixed wing-helicopter discussion, due to the flexibility, altitude, and terrain required by the majority of helicopter missions, the helicopter community had been allowed to deviate from the procedures practiced and followed by fixed wing assets. This tolerance for deviation led to the evolution of CFACC procedures that included helicopter involvement simply as a convenience or courtesy⁹ and fostered the development of the aviation subset outside the strict control of the aviation authority in theater, the CFACC. This exemplifies failure in integration and presumed standardized doctrine. Allowing this lack of coordination to continue is a failure to execute necessary integration. Assuming acceptability based on habits and practice will eventually result in accidents or death, which is exactly what happened.

Failure to integrate planning

A common belief following the 1994 Blackhawk incident was that simply including all helicopters on the ATO would resolve all problems of integration. This is certainly not the case and to this day the accuracy of helicopter representation is suspect at best. The lack

⁷ Snook, *Friendly Fire*, 143

⁸ Snook, *Friendly Fire*, 147

⁹ Snook, *Friendly Fire*, 148

of integration in the following years actually encouraged rotary assets to become isolated in their own planning. In 2002 Operation Anaconda exposed these fermenting problems. The lack of oversight and indifference to an ad hoc planning process over the previous years culminated in CFLCC planning the entire mission in a vacuum and not informing the CFACC until two days prior to the operation. It is important to emphasize how the Army and the Marine Corps view the helicopter as an extension of the battlefield. Thus, their missions typically fall under either CFLCC or CFSOC control requiring CFACC coordination.

The objective of Operation Anaconda was to kill or capture Taliban and al Qaeda leadership in the Shahi-Kot Valley of Afghanistan. CFLCC initially tasked Joint Special Operations Task Force- North to plan the mission, however, after realizing a larger force was required, the 10th Mountain Division was asked complete the planning process¹⁰. In the ensuing months of planning no one through CFLCC or Joint Forces Command informed the CFACC of the operation. To date, the reasons for this exclusion are not exactly clear. Had the CFACC been involved, they could have tasked intelligence surveillance and reconnaissance (ISR) assets and provided more accurate assessment of the battlefield.

The fact that CFACC was finally informed two days prior to the mission highlights the ad hoc mentality that had been prevalent over the previous years. For smaller missions such as leadership interdiction operations or direct actions, such late notification by rotary assets was tolerated. After several years of neglecting properly integrated planning resulting in mission successes, assumptions were made at the operational level that a standard was set

¹⁰Richard B. Andres, Jeffrey B. Hukill, "Anaconda: A Flawed Joint Planning Process." *Joint Forces Quarterly* issue 47, 4th quarter 2007. www.maxwell.af.mil/au/aunews/Articles/Anaconda.pdf (accessed 5 October 2007), 136

and tactically these details were already worked out. Instead there was a complete lack of understanding of what was required or what could have been acquired by planning a true Joint operation. There was a complete disregard for basing, over flight clearances, and tanker planning required to get the aircraft into the Shahi-Kot Valley. Additionally, the plan included neither Joint Terminal Area Controllers (JTACs) nor a kill box plan to get the ordnance where it was needed¹¹.

The plan created purely through CFLCC was influenced by Army doctrine, which utilizes strike fixed wing capabilities solely as fires. Had planners been integrated, they could have realized that CFACC assets could be used as a maneuver force to block enemy escape routes and mask friendly movements. It took several days for Operation Anaconda to develop this synergy that was familiar to special operations forces and CFACC assets and should have been planned for since the beginning.¹²

Failure of the CFLCC and CFSOC helicopter forces to properly integrate planning with CFACC turned what was expected to be a three-day mission against a force 150 combatants into a two-week battle against a force of nearly 2,000 resulting in eight American deaths.

Lack of unity of effort

As the United States continues to take the lead in the global war on terror, combined with the full range of military operations, the strain on all military assets is tremendous. Perhaps this strain is evidenced most by the ever-increasing demand for helicopter assets. Every component commander is able to task the rotary assets assigned to them. Some of

¹¹ Andres and Hukill, "Anaconda", 138

¹² Andres an Hukill, "Anaconda", 139, 140

these missions they are tasked with are service specific. For example, the Army takes pride in their deep strike capability to support ground forces, while the Navy carries the burden of anti submarine warfare and mine countermeasures responsibilities. There are, however, several mission areas along the seams of component commanders that are not service specific. Vertical lift, convoy escort, insertion/extraction, close air support, and maritime air support are missions shared by multiple services and provide great potential for interoperability. An obstacle to the interoperability is the tendency of the component commanders to default to the medium in which their respective services operate creating seams along geographic boundaries. Despite the potential to have additional forces along these seams, the stovepipe organization prevents efficient interoperability of assets. For example, a ground force commander under control of CFLCC may require vertical lift support. Nearby, in the littoral waters, may be rotary assets conducting riverine operations under CFMCC control. The ground commander would need to send his request up to CFLCC across to CFMCC then down to the supporting asset, making this an unlikely real-time option.¹³

Helicopter interoperability missions have typically been subject to an ad hoc planning process. Examples include basing Army helicopters on Naval ships in support of the Tanker Wars, operations off the coasts of Haiti, and Afghanistan, the Navy providing MEDEVAC support in Kuwait, and Naval helicopters flying ISR and convoy support in support of MND-SE. Both the need and capability are there. The ability to execute is simply constrained under the current command and control structure. Placing helicopters under a single authority, a joint helicopter command, would resolve this shortfall.

¹³ Lewis and Noonan, "Conquering the Elements", 5

Instilling operational command and control

The British model

For the last two hundred years, the dominant force in international affairs has been the nation state. Most wars have been caused by attempts to create or expand such states. In contrast, over the next twenty years, the risks to international stability seem as likely to come from other factors: ethnic and religious conflict; population and environmental pressures; competition for scarce resources; drugs, terrorism and crime.¹⁴

The above realization by the United Kingdom in the 1990s generated more questions than answers for the Ministry of Defense. In an attempt to shed some light on this issue, a foreign policy-led strategic defense review (SDR) was held in 1998. It was designed to reassess Britain's security interests and defense needs and consider how the roles, missions and capabilities of their Armed Forces should be adjusted to meet the new strategic realities.¹⁵ How to economically obtain these goals was also addressed.

The British discovered a massive shortage in their ability to meet helicopter requirements and were looking for a way to better manage the acquisition and maintenance of their helicopters and a cheaper way to train and equip their helicopter pilots. The results of this *Strategic Defense Review* included the creation of the Joint Helicopter Command.

“...responsible for training, standards, doctrinal development and support for operations. The Command will draw on the equipment, personnel and expertise of the single services and be charged with providing the Joint Force Commander tailored packages of battlefield helicopters (from one or more service), support equipment and personnel, to meet operational requirements. The Command will provide a single focus for the ready transfer of best

¹⁴ United Kingdom. Secretary of State for Defence. *Strategic Defence Review: Modern Forces for a Modern World*, Ministry of Defence. July 1998, 14

¹⁵ *Strategic Defence Review*, 8

practice from service to service and for removing, over time, differences in current operating procedures.”¹⁶

The Joint Helicopter Command was formally established in October of 1999. The SDR acknowledged that the battlefield helicopters were owned by all three services and were essential assets in the new strategic environment. In order to maximize their effectiveness the Navy's commando helicopters, the Army's attack and light utility helicopters, and the Royal Air Force's support helicopters would be commanded by one tri-service rotational two star commander under the operational command and budgetary control of Headquarters Land Command.¹⁷ Individuals remain part of their current parent service, including for the purposes of their career management. The JHC would also look for best practice across the three services in order to gain greater efficiencies in training and operating battlefield helicopters.¹⁸

In 2004 the Comptroller and Auditor General conducted an audit to assess the progress made by the JHC. Following are some of the takeaways from that audit:

- The Joint Helicopter Command has a unique organizational structure, to which all three services contribute assets. This has allowed for greater operational flexibility, for example, by further developing the deployment of battlefield helicopters onboard naval platforms.¹⁹
- As the JHC's assets primarily support land operations, it is logical that it should reside within Land Command. Although Headquarters Joint Helicopter Command is at two-star level, it reports directly to the four-star Land Command. This structure helps to give a focus and a higher profile to the employment of battlefield helicopters.²⁰

¹⁶ *Strategic Defence Review*, 200

¹⁷ *Strategic Defence Review*, 281

¹⁸ *Strategic Defence Review*, 281

¹⁹ United Kingdom. National Audit Office, Report by the Comptroller and Auditor General. *Ministry of Defence: Battlefield Helicopters*. HC 486 Session 2003-2004: 7 April, 13 2004.

²⁰ *Ministry of Defence: Battlefield Helicopters*, 13

- Prior to the formation of the JHC, battlefield helicopters were not necessarily deployed in the most efficient manner, as illustrated in Bosnia in 1996 when all three services deployed a total of 28 helicopters as part of the NATO Implementation Force. The Department has subsequently estimated that the United Kingdom deployed nearly 40 percent too many helicopters to that operation, often duplicating capabilities, particularly combat service support.²¹
- The JHC allows the Department to draw on equipment and personnel from the three services to provide joint force commanders with tailored packages of battlefield helicopters to meet operational demands.²²

The British have realized the benefits of all three services working in the same command that provides oversight to ensure focus and integration while allowing flexibility and tailored packages for a higher command.²³ This endeavor has been such a success that the Ministry of Defense is currently considering the creation of a joint search and rescue command that follows the same structure. This concept could work in the United States.

An American solution

The intent behind component command structure is to ensure unity of command in the attempt to achieve centralized planning with decentralized execution. The problem with rotary assets is that doctrinally they typically fall into a grey area between the components. They fly above CFLCC yet below CFACC forcing them into a previously described “subset” of each component command. Since all of the United States services have rotary assets, the “subset” problems of integrated planning, integrated execution and asset management could be resolved by the creation of an American Joint Helicopter Command (AJHC).

²¹ *Ministry of Defence: Battlefield Helicopters, 2*

²² *Ministry of Defence: Battlefield Helicopters, 13*

²³ *Ministry of Defence: Battlefield Helicopters, 13*

The greatest and most obvious difference from the British model is the number of assets involved. The United States has several thousand helicopters under its command, while the British JHC currently has a force of less than 500. Falling under the Joint Forces Command²⁴ would facilitate the transfer of command of such a large number of assets, allowing the AJHC to utilize much of the preexisting command structure.

Another deviation from the JHC should be the exclusion of any platforms. The British limited the JHC to battlefield helicopters. They only desired to include platforms with similar mission sets; therefore RN anti-surface warfare, anti-submarine warfare, airborne early warning helicopters, and RN and RAF search and rescue helicopters, were not included under the JHC.²⁵ To properly address the unity of effort concern, the AJHC would need to include all rotary platforms. This would allow the Joint commander to take full advantage of mission sets currently shared by the four services.

Tasking of assets by the AJHC for service specific mission areas such as the aforementioned deep strike and anti submarine warfare would remain relatively unchanged, satisfying the need and desire to maintain service identity. The advantages of Joint command become apparent when addressing the seams in our current command and control structure. Based on the requirements of a Geographic Component Commander (GCC), the AJHC would be able to create a helicopter force based on the mission requirements for that region. If one service becomes over tasked, the JHC would recognize shortfalls and have the knowledge and authority to augment the services by mission area.

²⁴ Chris D.Hayes, "Joint Helicopter Command: The 'Purple' Evolution of Rotary-Wing" research paper, Newport, RI: U.S. Naval War College, Joint Military Operations Department, 2006, 17

²⁵ *Strategic Defence Review*, 281

A very primitive version of this concept is being practiced in Afghanistan. JTF Wings is a multi-functional Aviation Brigade supporting Combined Joint Task Force 76²⁶. JTF Wings is responsible for intelligence surveillance and reconnaissance, vertical maneuver, command and control, and medical evacuation. Using a modular design, Army and Marine assets are combined under one headquarters to accomplish these missions.²⁷ The JTF Wings mission set is primarily logistic support and is simply a microcosm of what is required. If we extrapolate this example to the operational level and include all rotary missions for a GCC, the AJHC could task assets with similar mission capability in the same region. Positioning assets with interoperable capabilities would promote unity of effort and create a backup in rotary capability in lieu of a seam.

In order to address the remaining problems of integrated planning and execution, the AJHC would need to attack the residual effects created by both sides of the “subset” culture. In order to accomplish this, the AJHC would need to sell itself as the single source for rotary matters both internal and external to the helicopter community. It would need to standardize tactical training publications across the services. Some shared mission areas such as combat search and rescue have already gone through this process between Air Force and Navy assets. This standardized doctrine must also complement the pre-existing doctrine of fixed wing aviation and supported ground forces. Once this is accomplished, rotary assets will smoothly accomplish their integrated or independent missions within the existing operational framework. Sole authority and shared employment doctrine will promote a standardized

²⁶ E.J. Sinclair, “Combat Operations in Afghanistan and Iraq”, www.quad-a.org/Archives/0502.htm (accessed 28 September 2007) pg 2

²⁷ Sinclair “Combat Operations in Afghanistan and Iraq”, pg 2

approach to integrating helicopter planning, eliminating the ad hoc mentality that is prevalent in the “subset” culture.

To promote integrated operations, the AJHC should introduce a rotary cell for each component commander operations center to ensure proper integration with other air and land forces. This cell would provide the expertise for common planning shortfalls including communications and airspace/battle space deconfliction. Within the Air Operations Center this will include representation in the ATO process in an attempt to make it more conducive to helicopter operations. Having the rotary cell to provide real time information to the component commander will be a large step toward ensuring integrated operations.

Conclusion

“Operational command and control...binds together all other functions with the joint forces and assets deployed in a given theater...a divided command invariably has been a source of great weakness, often yielding fatal consequences.”

- Milan Vego

A review of the Blackhawk friendly fire incident from Operation Provide Comfort provides valuable insight into failures in our current command and control structure. Although this incident occurred in 1994, many of the causal effects can easily be repeated today. The majority of effort has been placed on simply trying to better incorporate

helicopter missions into the ATO. Significantly less effort has been placed on addressing how the ATO inadequately portrays the flexibility required by several a helicopter missions.

Snook explained the sociological effects of creating a subset within a system. In effect, at the operational level, the helicopter community has become a subset culture for the component commanders. For many routine operations the differences between the larger group, fixed wing aviation for CFACC or ground forces for CFLCC, and the subset go unnoticed, creating a false sense of effective and efficient command and control. As the group and the subset evolve independently, they at times become self-defeating. The Blackhawk incident is an example of the larger group failing the subset. Operation Anaconda is an example of the subset failing the group. Although Anaconda was a CFLCC mission, the requirement for rotary assets should have initiated CFACC involvement. Instead, the years of evolving as a subset became clearly evident. There was belief that the operation was small enough that CFACC would not need to be involved in the planning, leading to a complete disregard for necessary preparations should more assets, to include close air support, be required.

Another failure I addressed was the lack of unity of effort. Rotary assets are currently unable to efficiently exercise mission interoperability along the seams of the component commanders. The lead-time required for planning is incompatible with the flexibility required by most helicopter missions. These failures are evidence that the current operational command and control structure does not adequately address the unique requirements and capabilities of rotary operations. The proposed solution to this problem is to unify all of the “subsets” under one joint helicopter command. The British model, although the genesis was

predominantly economic in nature, has produced brilliant results in integration of assets as well as increased efficiency and unity in effort.

The AJHC would face significantly greater challenges and skepticism than its British counterpart. The greatest obstacle would be the ability to balance the needs of service specific mission areas while standardizing common mission areas across the services. This standardization is essential to finally resolving the long-standing problems of integrated helicopters with fixed wing and ground operations. Rotary cells at the component headquarters should relieve some of this resistance.

The AJHC would enhance unity of effort by allowing interoperability of rotary assets between the services along the seams of the current component commands. This interoperability would also provide the GCC additional options despite asset limitations along the entire range of military operations.

Proving inter- and intra-service integration, ensuring common doctrine, and maximizing unity of effort through interoperability properly adheres to the tenets of operational command and control and makes an American joint helicopter command a feasible solution.

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