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STRATEGY RESEARCH PROJECT

OPERATION ALLIED FORCE: CASE STUDIES IN EXPEDITIONARY AVIATION – USAF, USA, USN, AND USMC

BY

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U.S. Army War College CARLISLE BARRACKS, PENNSYLVANIA 17013

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ABSTRACT

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In this project, two themes will be woven together and analyzed in the context of Operation Allied Force, the 1999 NATO campaign against Serbia. This campaign was executed exclusively by means of an air operation. The first theme is transformation by each of the United States' military services in response to the post-Cold War strategic environment. While the general focus of this theme is transformation, service core competencies as they relate to expeditionary air operations are also reviewed. The second theme focuses on the air arms of the four United States military services (Air Force, Army, Navy, and Marine Corps). Critics contend that the United States military has four different air forces. They point to this redundancy as inefficient and wasteful. Supporters see each service with its own core competencies and complementary capabilities rather than waste. After reviewing the post-Cold War strategic environment and individual transformation plans, this project will examine how each service deployed to support Operation Allied Force. An analysis will be made of the strengths and weaknesses of how each service's air component supported the campaign, with a focus on organization and deployment away from home base. Planners might find the conclusions and recommendations useful in designing future campaigns.

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OPERATION ALLIED FORCE: CASE STUDIES IN EXPEDITIONARY AVIATION – USAF, USA, USN, AND USMC

THE STRATEGIC ENVIRONMENT AND AVIATION

After the end of the Cold War, the United States entered into an unprecedented strategic situation. Not only is it the only remaining superpower, but the strategic military environment is unique in the nation's history. The environment is characterized by: global responsibilities, reduced forward basing, reduced forces, lack of a peer competitor, and accelerated operational tempo. These characteristics combined to result in a situation which is part Cold War (due to global responsibilities), part pre-World War II (due to reduced forward basing and reduced forces), and part new world order (due to no peer military competitor and accelerated operational tempo). In this demanding climate of expanded mission and constrained resources, the appropriate structure of the military and balance between the individual services' core competencies are more crucial that ever.¹

Military structure was examined in post-Cold War Quadrennial Defense Reviews and Roles and Missions Commissions. Specifically, the apparent redundancy of each service having its own air arm has been examined, with an eye toward making the military structure more efficient (and less costly). On the surface, it seems redundant to have tactical jet aircraft in the Air Force, Navy, and Marine Corps. Likewise, the presence of helicopters in all four services does not appear as an efficient use of resources. ² The increased cooperation among the services mandated by the Goldwater-Nichols Act of 1986 has only served to increase the debate, as service self-sufficiency has given way to joint operations where the services' capabilities complement, rather than compete with, each other. ³

When the subject of aircraft redundancy is examined, the argument of effectiveness has won over the argument of efficiency. ⁴ That is, for each service that has aircraft to be able to accomplish its core competency effectively, it needs the aircraft in its force structure. For example, the Air Force needs aircraft to accomplish its core competencies of air and space superiority, precision engagement, global attack, and rapid global mobility. ⁵ Likewise, the Army needs closely integrated attack and support helicopters in its role as the dominant land power. Since World War II, the role of the aircraft carrier and naval aviation in ensuring control of the sea lanes, power projection, and forward presence is unquestioned. Finally, the role of the Marine Corps as the nation's expeditionary, combined arms (ground forces and aircraft) force is well understood. ⁶

The redundancy issue is also alleviated by the ability of each service's air arm, under the leadership of a Joint Force Air Component Commander (JFACC), to work together through the

joint air operations plan (JAOP) to achieve unity of effort. The JFACC's responsibilities "...include, but are not limited to: planning, coordination, allocation, and tasking of joint air operations..." ⁷ Under joint doctrine developed by the Air Force as the lead agency and demonstrated during the Gulf War (as commonly interpreted), the available aviation assets of each service are tasked by the JFACC. The JFACC concept—more than any other factor—has diffused the debate over aviation force structure. It is the culmination of an evolutionary process dating back to World War II, which seeks to put control of all available airpower in the hands of a single air commander (normally the component commander with the preponderance of air assets and the capability to command and control joint air operations) ⁸ in order to achieve unity of effort and take advantage of airpower's flexibility and decisive effects. ⁹

TRANSFORMATION AND EXPEDITIONARY OPERATIONS

Consistent with the strategic military environment described above, transformation has been the focus of the Defense Department at the dawn of the 21st century. To differing degrees, all of the military services have embarked upon transformation, consistent with their own cultures and core competencies. Although differing rationales are given, their respective transformation efforts are attempts to conform to the new strategic environment and to address organization, training, or equipment (or a combination of the three). For example, in reaction to increased operational tempo and force reductions, the Air Force developed the Expeditionary Air Force concept as an organizational component of its transformation process. In order to improve its rapid response capability and ensure continued relevancy, the Army has embarked on a transformation effort focusing primarily on equipment and the desire to deploy more rapidly. With the end of the Soviet Union, the Navy is left without a peer blue-water competitor, and has therefore increased its brown-water focus. The Marines argue that the current environment validates their core competencies as they underline their expeditionary capability.

The common denominator in these efforts is a focus on expeditionary operations. As might be expected, each service has its own unique view of exactly what expeditionary means. As a point of reference, the approved Department of Defense joint definition of an expeditionary force is "An armed force organized to accomplish a specific objective in a foreign country." ¹² Before examining individual service efforts in Operation Allied Force (OAF), it is important to explore their respective approaches to transformation and expeditionary operations.

THE EXPEDITIONARY AIR FORCE (EAF)

Due to the rapid rate of development of aerospace technology, the U.S. Air Force (USAF) has arguably been in a state of transformation since its inception as the Aviation Service in the Army Signal Corps. It views transformation as a continuous process, rather than as an end in itself. This transformation process translates the Air Force vision–tempered by experience–into an operational concept. It requires conceptual, technological, and organizational innovations over time. The EAF concept is an organizational element of Air Force transformation and is a vision for how to organize and train while efficiently managing personnel tempo and improving quality of life. It also aims to create a mindset and cultural state that embraces the unique expeditionary characteristics of aerospace power. ¹³

The reduction of permanently stationed forces in Europe, cutbacks in force structure, and open-ended commitments (such as Operations Northern and Southern Watch in southwest Asia) placed a severe burden on Air Force personnel and aircraft/equipment. The EAF concept aims to balance this burden more equitably among the Air Force Total Force by dramatically changing the way the Air Force assigns forces (squadrons) to both current contingencies and theater Commander-in-Chief (CINC) operational plans. Rather than depending exclusively on forces stationed in theater and reinforcing them haphazardly on an ad-hoc basis, Air Force units are now being assigned force packages with similar capabilities called Air Expeditionary Forces (AEFs). The goal is to increase stability for airmen by assigning them to AEFs with a predictable rotation cycle. Eventually, the CINCs will be able to depend on standard capability sets of aerospace power that can be tailored to meet their needs or surge during times of crisis. ¹⁴

This (organizational) transformation rests on a context comprised of four major factors:

- A new strategic environment; i.e., the end of the Cold War.
- Reduced permanent basing overseas (66% reduction in overseas bases since the height of the Cold War).
- The increased number, scope, and intensity of USAF operations (a 400% increase in USAF deployments during an end-strength reduction of 40%).
- Readiness challenges due to aging equipment (an average increase in airframe age of 10 years with an accompanying drop in mission capable rates of 8.8%).¹⁵

The EAF concept marks a proactive shift away from the Cold War USAF. It involves both structural and cultural changes designed to improve force management. The EAF concept represents a change in USAF structure, culture and concepts of operations. Overall, the EAF

enables the Air Force to provide operational capability to warfighting CINCs while preserving and sustaining a viable force for future operations. ¹⁶

The Aerospace Expeditionary Force (AEF) is the nucleus of the deployable EAF. The EAF intent is to organize the USAF total force into AEFs, with the goal of providing more stability and predictability for both airmen and theater CINCs. By defining the level of deployment its combat and combat support units can sustain, the USAF will reach its objective of improving long-term retention and readiness. A cultural change in its airmen is desired as well. Air Force leadership hopes to promote an expeditionary and warrior mindset coupled with a global mission focus in bold, decisive leaders who excel in austere, unpredictable environments.¹⁷ The nominal footprint for an AEF is 150 aircraft (70% fighter-bomber and 30% airlift, refuelers, and other support), 15,000 personnel, and 10,000 short tons of equipment. This represents about 10% of the Air Force's available deployable units (those not already assigned to a geographic CINC). AEFs are not autonomous fighting organizations, but force packages (of squadrons) that are scheduled or are ready for world wide deployment. "An AEF, by itself, is not a deployable or employable entity." ¹⁸ Squadrons—the basic fighting and deploying units of the USAF—combine to form Aerospace Expeditionary Wings (AEWs). AEWs are the normal command echelon of forces assigned to Air Force Component Commanders (COMAFFORs). Once deployed, AEWs report and are assigned to the COMAFFOR in theater.19

The USAF's EAF concept represents sweeping organizational change. It is driven by the overwhelming operational tempo exacerbated by significant force reductions and overseas basing reductions. OAF was the first large contingency in which this post-Cold War force structure was put to the test during what amounted—for the Air Force—to a major theater war (MTW).²⁰

ARMY TRANSFORMATION

The Army's vision for responding to the new strategic environment was the genesis of the term "transformation." In October 2000, the Chief of Staff of the Army unveiled his transformation plan. The Army sees the current strategic environment as an historic opportunity for change, due to the lack of a peer competitor that can threaten the United States with a global war. It aims to capitalize on this period of relative peace, rapid technological advancement, and robust economic power to implement this change. Transformation is an integral part of the current Army Vision, which is comprised of three components: people, readiness, and transformation. The people component recognizes an oft repeated refrain that:

"...the Army is people, and the soldier remains the centerpiece of our formation."²¹ The readiness component addresses the Army's "non-negotiable contract with the people of America to fight and win our nation's wars;" ²² i.e., while transforming to meet the challenges of the future, the Army must still be able to fight and win today. The transformation component is a plan to plug a hole in Army capability between light and heavy forces, in addition to making all of its forces more responsive and relevant.²³

Army transformation is in large measure a reaction to the changed strategic environment, especially the end of the Cold War, which had driven Army organization, training, and equipment. For example, on average during the Cold War the Army made large-scale deployments only once every four years. However, "since the Berlin Wall fell, the Army has averaged a deployment once every 14 weeks." ²⁴ Additionally, the optempo for soldiers has increased about 300% at the same time force structure has decreased by 33% from Cold War levels. The new strategic environment also illuminated a gap in Army capability to address a range of missions from global war, for which Army heavy forces were designed, to humanitarian assistance, which can be accomplished by its light forces. This gap is in the regional or small scale contingency, where the heavy forces take too long to respond, and the light forces are neither lethal nor survivable enough to be relevant. Moreover, recent military operations have demonstrated the need for agile forces that can rapidly slide along the spectrum of operations from low to high; e.g., peacekeeping to warfighting, and then back again. ²⁵ The medium forces envisioned in Army transformation will be capable of making those transitions with a force that is "...more responsive, deployable, agile, versatile, lethal, survivable and sustainable than the present force." ²⁶ In designing its transformation concept, the Army synthesized its warfighting philosophy and doctrine into five rules:

- Win on the offense.
- Initiate combat on our own terms—at a time and place and with a method of our choosing—not our adversary's.
- · Gain the initiative and never surrender it.
- Build momentum quickly.
- Win decisively.²⁷

The deployment/responsiveness goals for this transformed force are to be able to move: a combat-capable brigade anywhere in the world in 96 hours, a division in 120 hours, and five divisions into the theater in 30 days.²⁸

The Army's transformation strategy is a three-pronged approach composed of the Legacy Force (the current force), the Interim Force (fielded in eight-ten years), and the Objective Force (fielded in 15-20 years). The Interim Force is centered around the Interim Brigade Combat Team (IBCT) equipped with Interim Armored Vehicles (IAVs), which are based on the Marines' light armored vehicle (LAV). IBCTs serve two purposes. They fill the gap in Army capability by fielding a medium strength force (tank versus IAV versus infantryman as weapon systems) that is more responsive than the Army's heavy tank divisions, yet more lethal and survivable than its light infantry divisions. The Interim Force also serves as a test bed for the Objective Force, which at this point is more of a concept than a plan. The Objective Force hopes to capitalize on emerging technologies to turn the concept into reality. Eventually, the entire Army will be transformed into the Objective Force.²⁹

Despite the mantra of the individual soldier being central to Army transformation, the actual transformation plan primarily addresses the equipment piece. Training is only discussed as it pertains to the new equipment, and the organizational piece—similar to the Objective Force—is more of a concept than a plan. The transformation plan is ground-centric; i.e., Army Aviation is peripheral to the plan, being included as part of the legacy force. It's interesting to note the timing between OAF and the development of the Army's transformation plan. The role of the Army in OAF, and the performance of Task Force Hawk in particular, clearly provided the motivation for change.

"... FROM THE SEA"

The Navy also grappled with the new strategic environment and its impact on organization, training, and equipment. "...From the Sea," the seminal White Paper on naval transformation, was released by the Secretary of the Navy in September 1992. It was also signed by both the Chief of Naval Operations and the Commandant of the Marine Corps. In it, the Navy outlined the rationale for change due to the end of the Cold War, shifted its priorities, and assessed the future direction of naval forces. Its strategy changed "...from a focus on a global threat to a focus on regional challenges and opportunities." ³⁰ Specifically, the goal was a plan to "...resize our naval forces and to concentrate more on capabilities required in the complex operating environment of the 'littoral' or coastline of the earth." ³¹ This plan resulted in a fundamental restructuring of the Navy towards a significant brown water capability; i.e., power projection and amphibious operations. However, the Navy retained its traditional role of preeminence in control of the high seas and its deterrent role by maintaining a (reduced) ballistic missile submarine fleet.

Key to the restructuring of the Navy was an expansion of its traditional expeditionary role. To the Navy, the word expeditionary implied a "mindset, a culture, and a commitment to forces that are designed to operate forward and to respond swiftly." ³² Specific capabilities of this naval expeditionary force were to:

- Respond swiftly, on short notice, to crises in distant lands.
- Build power from the sea.
- Sustain support for long-term operations.
- Operate unrestricted by the need for transit or overflight approval from foreign governments.
- Act as Joint Task Force Commander for maritime operations or when otherwise directed.
- Seize/defend a hostile/friendly port or coastal airfield to enable the entry of heavy follow-on Air Force and Army units.
- Provide strategic sealift.³³

To operate in the littorals, the Navy needed to change the way it organized, trained, and equipped itself, as the nature of this environment was different from blue-water operations. Specific concerns dealt with anti-access threats such as coastal cruise missile batteries and patrol boats, mines, and shallow water submarines. In response, aircraft carrier battle groups (CVBGs) and amphibious ready groups (ARGs) were redesigned, and increased focus was placed on mine warfare, special warfare units, integration of submarines, and synchronization of CVBG and ARG work-up training and deployment. The mix of aircraft in the carrier air group was changed, also. The number of F/A-18 strike-fighters was increased and the number of F-14 air superiority fighters was decreased. Additionally, the F-14s were modified to enhance their air-ground/strike capability.

The Navy's transformation effort was started early, and included across the board changes in organization, training, and equipment/procurement priorities. The limitation on the Navy has been the huge capital investment required in sourcing the fleet. In order to maintain the quality of the fleet, the number of ships has drastically been reduced from over 600 during the Cold War, to 315 today.³⁴ Moreover, execution of its forward presence mission requires a rationing of the force in order to rotate, rest, and maintain both ships and sailors. Specifically, only about 25% of the fleet is forward deployed at one time. Another 25% is getting ready to go and 25% have just returned from their six-month deployment (these two groups represent the

surge capability of the Navy in response to crises). The final 25% is in major overhaul or maintenance. Naval participation in OAF was consistent with its "...From the Sea" strategy, although it was more of a force provider in that context than the early enabler that is more widely envisioned.

MARINES: DEFINING EXPEDITIONARY

In the words of the Commandant of the Marine Corps: "For compelling reasons, America's armed services have embarked on efforts to revitalize their expeditionary capabilities...The Marine Corps, however, requires no such renovation." ³⁵ These statements reflect the belief that the Marine Corps remains the nation's premier expeditionary force. This belief stems from a different, more comprehensive idea of what expeditionary means.

Marines believe the term "expeditionary" encompasses far more than simple task organization and a mission involving actions beyond US borders. To Marines, the term "expeditionary" describes a pervasive mindset, a perspective that influences all aspects of organization, training, and equipment. [Their] description of an expeditionary force is: An agile and flexible force organized to accomplish a broad range of military objectives in a foreign country or region. Such a force must be able to deploy rapidly, enter the objective area through forcible means, sustain itself for an extended period of time, withdraw quickly, and reconstitute rapidly to execute follow-on missions. ³⁶

Marines believe that being expeditionary means integrating a set of attributes. These attributes include: agility, flexibility, versatility, speed, forcible entry capability, and sustainability. Agility in this context is a product of mobility and utility. That is, the force must be deployable by a multitude of means and be able to go anywhere in the world and operate immediately. Flexibility refers to the ability to rapidly shift missions and/or reconstitute while still deployed, with minimal infrastructure requirements. Versatility means being organized, trained, and equipped to handle missions—commensurate with the size of the unit being tasked—across the spectrum of conflict from humanitarian assistance to major theater war. Marines measure "expeditionary speed as the time required for a unit to transition from its pre-crisis state to the actual conduct of operations." A forcible entry capability is required for scenarios where no friendly port, airfield, or staging base is available through which to flow friendly forces. This capability increases in importance as the number of advanced American bases decreases. Sustainability is a function of austerity, maintainability, and economy.³⁸

According to the Marines, merely demonstrating the attributes listed above is insufficient. They must be internalized as a product of service culture. This process starts in recruit training and follows into the operating forces, as austerity, perseverance, and economy become second

nature. Another important factor in Marine Corps service culture is its partnership with the Navy. By deploying aboard amphibious shipping, all of the expeditionary attributes listed are enhanced significantly. ³⁹

Although only Marine Corps aviation units were used in OAF, the conflict tested all of the attributes with the exception of forcible entry. The insights gained are interesting in that the squadrons involved were not all part of normal forward presence forces; i.e., Marine Expeditionary Units (MEUs) deployed as part of ARGs. In fact, the majority of squadrons that participated were based in the continental United States (CONUS) and deployed into the theater.

OPERATION ALLIED FORCE

OAF was a NATO campaign conducted against Serbia in the spring of 1999. Its purpose, consistent with <u>United Nations Security Council Resolution 1199</u> (23 September 1999) was threefold:

- 1) to force the Serbian President Milosevic to withdraw from Kosovo;
- 2) to degrade his ability to wage military operations; and
- 3) to rescue and resettle over one million refugees.

The campaign was an overwhelming success, accomplishing its purpose with the loss of only two aircraft and no aircrew to enemy fire. ⁴⁰ It can be studied on many levels and is somewhat controversial, due to unique aspects of its execution. For example, OAF was the largest combat operation ever conducted by NATO. It was also the most recent use of United States military power on a large scale. Additionally (and more pertinent from the perspective of expeditionary aviation), it was the first ever military campaign conceived and executed by airpower alone. This characterization has fueled many debates, as airpower supporters trumpet the ultimate realization of airpower theories advocating the dominance and decisiveness of air components (rather than being viewed as supporting components to decisive land operations), and land power proponents contest the effectiveness of a one-dimensional campaign.

The Supreme Allied Commander Europe (SACEUR) delegated authority for the execution of the operation to the Commander-in-Chief of Allied Forces in Southern Europe, who further delegated control to the Commander, Allied Air Forces Southern Europe. "Operational conduct of day-to-day missions was delegated to the Commander 5th Allied Tactical Air Force, at Vincenza, Italy." ⁴¹ The operation lasted 78 days, from 24 March to 9 June 1999. The 13 participating NATO countries contributed over 1000 aircraft (700 American). Many of these were deployed from home bases to Europe or from Europe to Italy, other NATO countries, or

aircraft carriers. Over 38,000 total sorties were flown, including approximately 14,000 strike sorties. About half of the strike sorties and 70% of the support sorties were flown by United States aircraft. Roughly 35% of the 23,000 bombs and missiles that were dropped and launched were precision guided, the largest percentage of any air operation in history (at that time).⁴² The operation was conducted in five phases:

- 1) Phase 0 was the deployment of air assets into the theater.
- 2) Phase 1 was the establishment of air superiority over Kosovo and the degradation of the enemy command and control throughout the former republic of Yugoslavia (FRY).
- Phase 2 attacked military targets in Kosovo and FRY forces south of 44 degrees north latitude.
- 4) Phase 3 expanded air operation to include targets throughout the FRY.
- 5) Phase 4 was post-hostility redeployment. 43

Initially, only 450 aircraft (250 American) participated. Included in this total were the 24 attack helicopters of Task Force Hawk and naval aircraft from the USS Theodore Roosevelt, as well as three Air Force AEWs. In week three, SACEUR requested 400 additional aircraft and another 200 in week six. ⁴⁴ Among these additional aircraft were Marine F/A-18s that deployed to Hungary. These deployments and the combat flight operations that followed, when reviewed against the expeditionary context provided in the preceding sections, provide insight into the visions of transformation espoused by the services.

THE EAF IN ACTION

According to the USAF year 2000 posture statement regarding OAF: "Expeditionary operations worked. With seeming ease, our airmen deployed to more than 20 expeditionary bases, bringing with them the force protection, logistics, sustainment, and communications systems that supported expeditionary combat operations." ⁴⁵ This accomplishment was enabled by the improvements made to expeditionary organization, such as the 86th Contingency Response Group (CRG), and the procurement of expeditionary equipment, such as the Harvest Eagle and Harvest Falcon systems.

The CRG was an experiment pioneered by US Air Forces in Europe to further streamline the process of deploying AEFs and AEWs to expeditionary bases. As was explained earlier, AEFs and AEWs are not autonomous fighting organizations, but individual units identified to exercise and deploy together in response to crises. Previously, these stovepiped units (e.g., engineers, medics, security forces) sent large and cumbersome survey teams in advance of

their deploying squadrons. Due to a lack of synchronization by these teams, this procedure was both slow and inefficient. The "CRG is designed to be a multidisciplinary, cross-functional team whose mission is to provide the first on-scene Air Force forces trained to command, assess, and prepare a base for expeditionary aerospace forces." ⁴⁶ The group numbers about 134 from over 40 specialties. During OAF, the CRG was employed in Tirana, Albania. Within two days of notification, they were operating at the expeditionary site and had set up base operations, established a secure perimeter, set up appropriate communications. Within weeks, they had increased the airfield capacity from 10 to over 400 takeoffs and landings per day.⁴⁷

Air Force expeditionary equipment sets are another crucial enabler. Harvest Eagle and Harvest Falcon are complete deployment packages intended to provide necessary facilities for bare base airfields. They are designed to support 1,100 personnel each. The difference between them is in their intended use. Harvest Eagle is primarily a housekeeping unit to provide basic troop support; i.e., tentage, water, latrines, power. Harvest Falcon is larger; in addition to housekeeping it includes industrial (sewage, warehouse, field exchanges) and flightline (airfield lighting and hangars) support. Current Air Force Harvest Falcon systems can support 55,000 personnel and 750 aircraft at 14 expeditionary bases. ⁴⁸ The Air Force also has organic engineer and combat service support units, known as Rapid Engineer Deployable Heavy Operations Repair Squadron Engineers (RED HORSE), Base Emergency Engineering Force (PRIME BEEF), and Readiness In Base Services (PRIME RIBS), respectively. When the Harvest Falcon and Harvest Eagle equipment sets are married up with RED HORSE and PRIME BEEF to perform runway and ramp construction/repair, and with PRIME RIBS for food services, billeting, and laundry, they provide a robust bare base expeditionary capability.

However, the most important expeditionary function performed by the Air Force during Allied Force was the creation, deployment, and control of expeditionary forces. This was a huge undertaking on an unprecedented scale, as "aircraft were deployed to existing main operating bases, contingency bases, allied air bases, and one international airport." ⁴⁹ The initial squadrons that deployed were formed into three AEWs. As additional aircraft were required, this increased to 10 AEWs. Deployed bases soon filled to capacity and additional bases were required. Some Europe-based squadrons had to return home to make room for others, while other Europe-based squadrons were backfilled in England and Germany by aircraft deploying from CONUS. Moreover, the same staff was planning deployment and executing mobility operations while simultaneously supporting the aircraft flying combat missions. This logistical puzzle was performed not prior to, but during the height of the campaign. By the end of OAF, the 10 AEWs were operating from 27 different bases in 10 countries!

TASK FORCE HAWK

The deployment of Task Force Hawk was the most controversial aspect of OAF. In late March, just days before the start of OAF, SACEUR directed the Army V Corps, based in Germany, to plan deployment of 48 AH-64s, 1700 people, and a small number of multiple launch rocket systems (MLRSs) to Macedonia. This was an initial estimate (by SACEUR) of the force package that would be required. The idea behind sending the attack helicopters was to more effectively prosecute the air campaign by providing a different air platform to directly attack Serb forces in Kosovo. Shortly after notification, the deployment base was changed to Tirana, Albania.⁵¹

TF Hawk's stated mission was to: "conduct attack operations into [Kosovo] in support of NATO's Phased Air Operation in the Federal Republic of Yugoslavia." Its specified tasks included:

- Conduct deep attacks to destroy enemy forces.
- Force protection: offensive, defensive, local.
- Be prepared to provide ground forces for peacekeeping.⁵³

After mission analysis by V Corps, TF Hawk planners developed a force package that included 24 AH-64 Apache helicopters and multiple-launch rocket systems for deep operations, ground maneuver units for the high priority force protection task, and additional combat support and combat service support units commensurate with the austere base site in Albania and Army doctrine. The number of AH-64s was politically constrained by the National Command Authorities. ⁵⁴

For a single squadron of 24 AH-64s, ⁵⁵ the fully deployed and operational support package included:

- 31 support aircraft (for command and control, combat search and rescue, forward refueling, medical evacuation, and logistical/administrative support).
- One MLRS battalion with 27 launchers.
- Two infantry battalions (one mechanized with M1 tanks and M2 infantry fighting vehicles, one airborne).
- One signal battalion.
- Headquarters, command and control, and logistics support units (transportation, ordnance, medical, quartermaster/supply, finance, personnel, and engineers).

Total footprint was 55 aircraft and 5000 personnel.⁵⁶

According to critics, this footprint was disproportionate to the assigned mission. Not only did the inflated size cause deployability problems, it increased the difficulty of the force protection task and necessitated the V Corps Commanding General (including his personal staff and a large part of the Corps staff) assuming command of TF Hawk–which further compounded the problem. Additionally, the large footprint exacerbated the base-loading problem at Rinas Airfield in Tirana, which was also supporting aircraft participating in Operation Shining Hope (a United Nations humanitarian operation) as well as host nation civil aircraft operations (Tirana being the capital city). ⁵⁷

As stated above, the sheer size of the task force compounded the problem of having to deploy—relying solely on tactical and strategic airlift numbering 500-600 C-17 sorties (Army numbers are low end⁵⁸, Air Force (USAF) numbers are high end⁵⁹)—a distance of 1,100 miles through Germany, France, Italy, and Albania.⁶⁰ Confusion over joint inspection procedures (USAF airlift requirements) and a shortage of trained Army air movement personnel caused further delays.⁶¹ Finally, self-deploying helicopters had to wait for two weeks in Italy (during transit) while engineer supplies were delivered from the US in order to improve trafficability conditions at the airfield (which were poor due to heavy freezing rain and mud).⁶²

Upon closure at Tirana, Apache crews needed significant additional training before being certified as ready to assume their mission. This was due in part to TF Hawk units not having habitually operated together. Additionally, 65% of Apache pilots had less than 500 flight hours and no pilots or gunners were night vision goggle current."⁶³

Most importantly, rather than integrating into the air campaign as it was their charter to do, TF Hawk effectively acted as an independent miniature corps in Albania. They expended innumerable man-hours implementing a Deep Operations Coordination Cell (DOCC) at the airfield, adapting corps doctrine to their available force list. Unfortunately, the DOCC is a tool used to coordinate deep fires from organic corps units in the prosecution of a land campaign. In this case, the Apaches should have received their targeting from the JFACC (vice the TF Commanding General) in the prosecution of such air operations. It was the overriding reason for their being deployed in the first place.

USS THEODORE ROOSEVELT

Due to the nature of OAF and the size of U.S. Navy (USN) participation, OAF was not a true test of USN transformation efforts. However, naval contributions to the campaign are

reviewed in terms of proportionality (did the USN pull its weight?) and joint interoperability (a stated goal of USN transformation).

During OAF, the USS Theodore Roosevelt flew over 3,000 sorties in support of the NATO effort. These included roughly 1,700 strike missions. ⁶⁶ This equates to 8% of the total effort and 12% of the strike sorties, a proportionate contribution by a carrier air wing with a 5% share of NATO's participating aircraft. The self-sustainability (during the typical six-month deployment) of carrier based aircraft helped reduce the base loading issue in theater. Its inherent mobility offshore also gave the JFACC flexibility, as the carrier maneuvered to find good weather when land-based aircraft were hindered by weather. ⁶⁷ Joint/combined interoperability improved from Vietnam and Gulf War era operations, also. Naval aircraft were tasked by the JFACC and flew as integrated participants in NATO packages without ever having briefed together on the ground. ⁶⁸

Strategic sealift support showed mixed results. A success story was the "timely intertheater movement of stocks of preferred munitions, including prepositioned munitions ships, and effective and efficient management of theater fuel distribution, including use of prepositioned fuel ships." ⁶⁹ However, sealift in support of movement to theater was not used to capacity. This fact was primarily due to a sense of urgency on the part of the logistics planners to get units into the theater as quickly as possible, even when the situation did not always call for such urgency. Improvements have been made in both the size and quality of the Ready Reserve Force of sealift ships to ensure reliability and speed. ⁷⁰ According to Defense Secretary Cohen and Joint Chiefs Chairman Shelton, "increased use of sealift assets should be considered in future conflicts and contingencies." ⁷¹

MARINE CORPS EXPEDITIONARY AVIATION IN SUPPORT OF ALLIED FORCE

Marine participation in OAF was small in scale, also. Marine air operations in OAF are examined in comparison to Task Force Hawk (to assess criticisms about the size of Task Force Hawk). Additionally, Marine Corps consistency with its own definition of expeditionary operations is evaluated.

The Marine contribution to the campaign consisted of:

- aircraft from three of the four Marine EA-6B Prowler Tactical Electronic Warfare Squadrons;
- a small detachment of KC-130 aircraft that provided in-theater tanking, and interand intra-theater airlift for NATO aircraft;

- AV-8B Harriers from the two MEU(SOC)s, the 24th and 26th, that were in the theater during the operation; and
- 24 F/A-18D Hornets flying a variety of strike and reconnaissance missions.

With the exception of the Harriers that were embarked aboard amphibious shipping, the aircraft deployed from CONUS and Turkey (where three of the EA-6Bs were supporting Operation Northern Watch) to various airfields. Similar to the Air Force effort, but on a much smaller scale, these bed down sites ranged from a robust NATO airfield in Aviano, Italy for the Prowlers to an austere expeditionary base in Taszar, Hungary for the F/A-18s.⁷²

The deployment of the Hornets to Hungary, just 40 miles north of the Serbian border, provides the best insight on the Marines' performance as an expeditionary unit in this operation, as it required many of the expeditionary attributes delineated by the Commandant. Agility, versatility, and speed were showcased as these two squadrons rapidly deployed to an austere site and quickly commenced combat operations as an integral part of the JFACC air tasking order (ATO). The time from receipt of the initial order to deploy to combat operations in theater was 14 days. This included six days between notification and aircraft self-deployment, as the Marines waited for their turn in the air bridge queue. The Marine Air Control Group (MACG) and Marine Wing Support Squadron (MWSS) detachments, organic to the Marine Aircraft Wing, provided communications architecture, air traffic control, and aviation ground support. Similar to Task Force Hawk in their geographic proximity to enemy forces, force protection was an important issue for the Marines. Anti-terrorism and force protection assets were designated as early deployers, to ensure the protection of the high value aircraft upon arrival. The 800-Marine task force included military police (MPs) from the MWSS. The MPs, augmented by Marines from throughout the task force, developed and employed a robust force protection capability responsible for: "perimeter security, security of the ammunition supply point, rapid reaction force requirements, flight line security, and entry and exit point control." 73

With the organic capabilities of the MACG, and the joint training and experience gained through dedicated effort to maintaining currency in the joint/combined arena, the Hornets were essentially able to plug into the JFACC ATO planning and execution process. Flying missions from Hungary apparently caught the Serbs off guard, as minimal integrated air defenses were encountered by aircraft coming from the north. This was different than the experience of carrier based aircraft, which ran into heavy concentrations of surface-to-air missiles in the southern and southwestern approach corridors. ⁷⁴

CASE STUDY ANALYSIS

The USAF's EAF concept was tested and validated in OAF, despite the immense challenge of large scale deployments occurring during combat operations. Forces flowed into expeditionary bases that ranged from robust to austere, and were formed into ten AEWs by the end of the campaign. Those AEWs that required additional support to operate out of bare base airfields were supported by Harvest Falcon, REDHORSE, PRIMEBEEF, and PRIMERIBS. Consistent with its culture, EAF doctrinal issues that surfaced during its practical application in Kosovo, such as building and commanding expeditionary units, are now being addressed. Moreover, effective solutions to other application problems, anticipated before the campaign, were implemented successfully. The most notable of these experiments was the CRG. Based on its performance in OAF, it is clear that the organizational, training, and equipment facets of Air Force transformation were up to the challenge of the expeditionary environment. The USAF effectively deployed, organized, and sustained the NATO air armada in the most successful use of unilateral airpower ever demonstrated.

Task Force Hawk is another story. Although excuses can (and have) been made for deployment timelines, and risk is the primary reason for their not being used in the campaign, the organizational problems highlighted by the deployment are startling. Perhaps the AH-64 Regimental Commander, around whose unit Task Force Hawk was built, said it best: "What was the [Task Force] Hawk experience? A tactical and doctrinal mess; too much, too late; an indicator of current Army woes: too heavy, too big, too slow; [and] poorly trained units." ⁷⁵ Although the Army transformation plan that resulted is a step in the right direction, it is not only one dimensional—focusing as it does on equipment—but due to the Army's land power focus, it does little to address the Army's role as an additional color in America's airpower palette. The primary problem with Task Force Hawk was not its lack of mobility but its lack of agility. The assigned forces were not able to break free of their doctrinal rigidity in order to send 24 attack helicopters to supplement the air armada. The result was a three-star Corps Commander and 5,000 soldiers (including tanks) that were of no use to the campaign and cost dearly in terms of airlift.

The Navy's participation in OAF speaks volumes about the utility of carrier aviation. The "...From the Sea" doctrine continues to ensure forward deployed naval presence ready to augment power projection through airpower. Through a limited surge capability and robust sustained air operations, the USS Theodore Roosevelt was able to contribute sorties to the effort in proportion to its size. Moreover, the joint connectivity that was demonstrated between the Navy and Air Force is reassuring.

Likewise, Marine aviation demonstrated the expeditionary capabilities that it advertised, and was able to plug and play in the joint arena. Whereas Task Force Hawk supported 24 attack helicopters with 5,000 soldiers, the Marine Task Force supporting 24 Hornets was 800 Marines strong. Even allowing for differences in the sites, the contrast is blatant, and highlights the oft-argued difference between the two services. In OAF the Marine Corps was Spartan, agile, and versatile—characteristics required of an expeditionary enabling force.

CONCLUSIONS AND RECOMMENDATIONS

The analysis of the strengths and weaknesses of how each service's air component supported OAF provides insight into the effectiveness of their individual transformation efforts and the validity of their transformation rationales. The campaign was consistent with earlier post Cold War forecasts regarding the nature of the strategic environment, as reduced forces and reduced (permanent) forward bases were issues that challenged campaign planners. Additionally, the preeminent role that the United States played in a European conflict reinforced the global nature of its leadership and the resulting strain likely to remain on its forces. It is also interesting to note that all four services' air components were involved from the very start, with the exception of Task Force Hawk, which deployed but was not used due to the risk involved. Finally, the continued effectiveness of the CJFACC further cements the concept of functional componency and provides a model for the other functional components; i.e., land, maritime, and special operations component commanders.

OAF is an affirmation of USAF transformation. Therefore, organizational changes made to transform the Air Force Total Force into the embodiment of the EAF vision should continue. Moreover, the positive benefits gained from including available squadrons into AEFs should be expanded to include all squadrons, including those now apportioned to geographic CINCs and therefore unavailable for inclusion into AEFs. By enlarging the AEF squadron pool, the positive benefits to force management that result would be shared by all squadrons in the Total Force. Force reconstitution would also be aided by having more units available for AEF assignment.

Both the speed of Air Force transformation and its continuous nature are consistent with USAF service culture and lend credibility to its efforts. On aerospace related matters, the Air Force rightly takes the lead and does a commendable job. Consistent with their own service cultures and core competencies, the other services' air arms should follow the USAF lead to increase interoperability in aviation operations. One such interservice aerospace issue needing additional refinement under USAF leadership is the incorporation of Army deep (helicopter) operations that proved so problematical during OAF.

While USN transformation doctrine was not rigorously tested during OAF, the nature of Navy participation was a positive reinforcement of the ability of carrier aviation to support brownwater operations, albeit in a very low (naval) threat environment. The increased proportion of strike-capable aircraft in the carrier air group and the carrier's connectivity with the Combined Air Operations Center (CAOC) enabled this contribution. However, the limited nature of their contribution (five% of participating aircraft) also offers a lesson for planners. That is, due to forward presence requirements coupled with crew rotation, the ability of the USN to surge carriers is limited and their availability is finite, in circumstances short of global war.

Marine Corps service compatibility with the current strategic environment was also affirmed during OAF. As the service whose air arm is viewed by most as the most susceptible to being either cut or dismantled altogether (especially the fixed-wing portion), this affirmation is critical. The Marines performance in OAF was consistent with their stated capabilities, which helps their already high credibility. Additionally, the availability and capability of their air arm to act independently of Marine ground forces in support of a USAF-led air operation weakens the argument that they are superfluous, redundant, and/or inefficient. Their plug and play capability enables unity of effort for JFACC execution of the Joint Air Operations Plan (JAOP) in support of the CINC and/or Joint Force Commander mission.

Much has been made of the performance of the Army's Task Force Hawk in OAF. Its size and lack of mobility have been debated and defended. If its performance was in fact the impetus behind Army transformation then something positive resulted despite the fact that TF Hawk was not used in OAF. However, the doctrinal rigidity that characterized TF Hawk limited the ability of Army aviation to interface with the JFACC and CAOC independently of Army ground forces. This limitation calls into question the utility of Army aviation in the prosecution of future air operations. This doctrinal rigidity can be overcome, as recommended earlier, by having the Army—under the lead of the USAF—make organizational and doctrinal changes to enable independent Army aviation operations under the tactical control of the JFACC. The dearth of concrete Army (organizational) transformation action is also worrisome, and consistent with the lack of agility that characterized TF Hawk. More attention should be paid to organizational changes in the Army, consistent with its transformation vision. Current Army transformation plans place an over reliance on equipment changes without the organizational, structural, and training modifications that are also necessary.

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GLOSSARY

Core Competency

The basic areas of expertise or the specialties that the Service brings to any activity across the spectrum of military operations whether as a single Service or in conjunction with the core competencies of other Services in joint operations.

Function

Specific activity assigned to one or more Services in the accomplishment of their role; e.g., close air support.

Mission

The task, together with the purpose, that clearly indicates the action to be taken and the reason therefore. In this context, missions are assigned to combatant commanders; they are not assigned to Services.

Role

A broad and enduring purpose provided to a Service; e.g., the Army's role is to man, train, and equip forces for operations on land.

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