"Navy/Marine Corps TacAir Integration: Providing the MAGTF Increased Capability on a Budget"

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Subject Area Aviation

PREFACE

The discussion of Naval/Marine Corps Tactical Aircraft (TacAir) Integration has reached a feverous pitch over the last several months. Emotions run high both for and against the concept. In an effort to achieve greater combat capability, while using the limited resources planned for by the Department of the Navy, it is the Navy/Marine Corps Team's collective goal to streamline its ability to support the Marine Air-to-Ground Task Force (MAGTF) without sacrificing efficiency. To that end, the Chief of Naval Operations and the Commandant of the Marine Corps have enthusiastically endorsed the concept. It is my intent to provide a point of departure as we investigate and discuss the advantages and disadvantages associated with the plan.

In conducting my research, I was supported by Headquarters Marine Corps, Aviation Plans and Policy (APP). I would like to thank Colonel Robert "Whaler" Walsh, Branch Head for APP, who offered his facilities and personnel to assist my investigation. In particular, Lieutenant Colonel Russell "Sprout" Emons, Project Officer for TacAir Integration, provided keen insight into the program. In addition, Colonel Douglas "Smash" Yurovich assisted in my research and provided a unique interpretation of the findings as he is slated to assume command of Carrier Air Wing 9. Collectively, these experts streamlined my research and I am extremely grateful.

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NAVY / MARINE CORPS TACAIR INTEGRATION: PROVIDING THE MAGTF INCREASED CAPABILITY ON A BUDGET

CHAPTER 1: WHY TACAIR INTEGRATION?

Guidance from the Secretary of Defense

> *The Department of the Navy will conduct a comprehensive review to assess the feasibility of integrating all Naval Aviation force structure. Naval Aviation structure must continue to provide flexible, responsive, interoperable, and expeditionary forces that support Combatant Commanders and Joint Forces. The integration of aviation capabilities should seek both effectiveness and efficiency.*
>
> *SecDef's Defense Planning Guidance of March 2001*

The concept of Navy/Marine Corps Tactical Aircraft (TacAir) Integration has been around for some time. However, it surged to the forefront, as President George W. Bush's administration demanded both fiscal responsibility and transformation in the military. As a result, the Secretary of Defense (SecDef) issued the Defense Planning Guidance (DPG) dated March 2001. With this, the SecDef ordered the Armed Forces to make an in-depth assessment of their respective services and proactively seek transformation through a more effective, efficient fighting force. The order, as laid out by the administration, was to challenge the status quo and embrace change, not for change's sake but in an effort to reinvigorate a military debilitated by years of modernization neglect while facing existing fiscal constraints.[1] So, transformation along with budget realities were the impetus for TacAir Integration that selectively reduces the sheer numbers of aircraft while increasing the mobility, flexibility, agility, and speed of response of naval TacAir through modernization and improved readiness.[2]

[1] Walsh, Robert S., Colonel, "Naval TacAir Integration: Capabilities-Based Relevance," *Marine Corps Gazette*, May 2003, 37.
[2] Walsh, 37.

Historical Perspective

Historically, Navy and Marine Corps aviation have enjoyed significant levels of integration including:

- Acquisition of aviation platforms and logistical support
- Depot level maintenance
- Undergraduate training for Naval Aviators and Naval Flight Officers
- Selected Fleet Replacement Squadron (FRS) training and manning
- Technical training of aviation maintenance and supply personnel
- Ordnance procurement
- Annual budgetary submissions

Operationally, Navy/Marine aviation integration predates World War II and has commonly occurred since then. Four USMC squadrons have been continuously integrated into Navy Carrier Air Wings (CVWs) for the past decade. The most recent partnership developed as the Marine Corps was summoned to relieve pressure on the CVWs by augmenting their air wings and populating the flight decks of the aircraft carriers with Marine fighter aircraft.

VMFA-115 aboard USS HARRY S. TRUMAN (CVN-75).
Photo courtesy of the author.

The partnership provided the Marine Corps squadrons with an increased opportunity to see combat action, but at a cost. As USMC squadrons "chopped", or shifted Operational Control (OPCON) to the Navy, they were unavailable to support the Marine Air-to-Ground Task Force (MAGTF) directly until post-deployment detachment from the Carrier Air Wing. Ironically, the Marine squadron's combat readiness would steadily decline throughout the course of the deployment cycle. This decline is attributed to the air wing's obligation to support the carrier's surface warfare requirements. In particular, core qualifications such as Close Air Support (CAS) were neglected as the squadrons flew missions in support of the Carrier Battle Group.

Fiscal Problems

Despite an aggressive attempt by both the Navy and Marine Corps to do "more with less", severe procurement limitations manifested themselves in early 2000. The Department of the Navy (DoN) realized the 1990's "acquisition vacuum" left the Navy and Marine Corps with an aging fleet of aircraft and insufficient funds to buy replacements (*Figure 1. "Procurement Mismanagement").* Unfortunately, the DoN did not possess the fiscal resources to fund the acquisitions designated in the 1990s. Furthermore, the Navy lacked maintenance resources and struggled with increasing problems associated with the aging legacy aircraft.

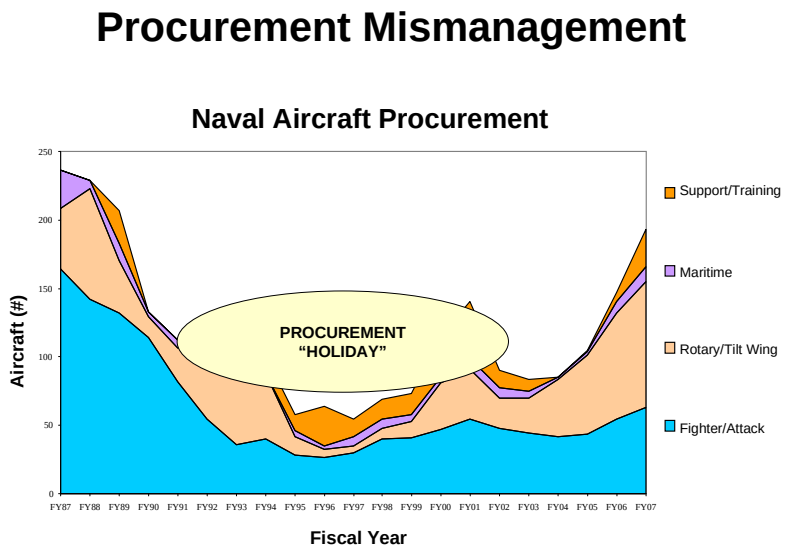

Figure 1. "Procurement Mismanagement"
Source: TacAir Integration, MAWTS-1 Information Brief

Collectively, the Navy/Marine aviation team was forced to stretch resources in an attempt to keep both the Carrier Air Wings and Marine Aircraft Wings operational. Unfortunately, this situation was not unique to the Navy and Marine Corps as both the Army and Air Force were also forced to tighten their belts and do more with less. As a result, the DPG was issued in which the SecDef challenged the services to streamline their programs and provide a less expensive, more responsive military to the taxpayers.

The Study

The DPG challenged all the services to transform and seek increased effectiveness and efficiency. In December of 2001, officials from the DoN and the Headquarters Marine Corps (HQMC) solicited the expertise of Whitney, Bradley, & Brown, Incorporated (WB&B). WB&B is an independent "think-tank" composed predominantly of retired Navy and Marine Corps officers, and other experts in military affairs. WB&B was tasked to head the in-depth study of Naval Aviation and provide the Navy/Marine Corps Team with a recommendation satisfying the DPG.

The study focused solely on fixed-wing TacAir assets, as previous opportunities for integration have occurred in this area and fiscal requirements for TacAir represented the most significant portion of overall aviation budgets.[3] The study was guided by the following assumptions:

- Future force structure would include twelve Carrier Strike Groups (CSGs) supported by ten active and one reserve CVW.
- The capacity of aviation-capable ships mirrored that of today's forces.
- The Unit Deployment Program (UDP) supporting Korea would continue.

[3] Whitney, Bradley, & Brown, Incorporated (WB&B), *Navy-Marine Corps Aviation Integration Final Report*. (Vienna, VA: WB&B, May 2002), ii.

- TacAir aviation units would maintain of minimum of ten aircraft per squadron after the transition to the F/A-18E/F and the Joint Strike Fighter (JSF).

Additionally, the study examined the feasibility of disestablishing units, reducing the number of aircraft in units, and reducing the number of aircraft in non-deployable status. The effectiveness of the program recommendation was measured relative to today's force and the program of record.[4]

Although the guidance from the SecDef's DPG was specific, the problem set underpinning the order was not. Subsequent discussions within the DoN and HQMC provided the focus: Maximize utility from strike-fighter forces that would be severely resource-constrained as it was modernized. WB&B tasking focused on assessing integration and force structure alternatives compared to today's strike-fighter inventory and the inventory projected in the program of record.[5] The Navy's specific requirements centered on providing sufficient striking power from the Carrier Strike Group (CSG) while the Marine Corps' centered on providing direct support to the MAGTF. An additional focal point was the ability of each service to fulfill the other's missions, from both capability and training perspectives. Lastly, the study reviewed the procurement plan of the JSF. In particular, the Marine Corps' requirement for Short Takeoff and Vertical Landing versus the Navy's requirement for the CV-JSF. The WB&B study recommended a mix of both JSF aircraft.

The Recommendation

The results reached by WB&B recommended the following: (1) Decommission three active Navy squadrons and two reserve (total of 64 reduced to 59), (2) Reduce number of aircraft in squadrons from twelve to ten, (3) Reduce aircraft overhead inventories from

[4] WB&B, *Navy-Marine Corps Aviation Integration Final Report*, iii.
[5] Ibid, 6.

approximately 95 percent to approximately 62 percent of authorized active/reserve force structure, (4) Transform business practices of inventory/supply management and training, (5) Integrate ten USMC squadrons into Navy Carrier Air Wings (one per wing), and (6) Integrate three Navy squadrons in the USMC Unit Deployment Program rotation to the Western Pacific (WestPac). Additionally, the final recommendation suggested a force structure of 1,026 aircraft (408 F/A-18E/F and 618 JSF), a procurement reduction of 611 aircraft. The fiscal savings associated with this recommendation is approximately $32 billion in Fiscal Year 2002 dollars. WB&B suggested shifting the planned procurement funds from the program of record to the modernization of the services' legacy aircraft.

WB&B stressed the importance of accepting their proposal totally. They cautioned Navy and Marine Corps leadership against a piecemeal acceptance of their recommendation: "The recommendation of this study must be viewed as an interrelated set which only reaches its full potential when implemented *in toto*; piecemeal implementation may not result in either efficiencies or effectiveness and may actually cause a decrease in one or both."[6]

Endorsement of the Recommendation

Viewed more broadly, the recommendation had three general tenets involving integration: (1) Increase Marine presence in CVWs, (2) Increase Navy participation in the UDP rotation, and (3) Ensure capability of both services to surge in support of land-based operations in times requiring extensive air support of ground operations. Because of this, the response from both the Navy and Marine Corps TacAir communities was optimistic despite both services sticking to deep-rooted cultural biases.

[6] WB&B, *Navy-Marine Corps Aviation Integration Final Report*, 19.

Eventually the leadership from the Navy and Marine Corps recognized the intent of the SecDef and set parochialisms aside. In August 2002, the Secretary of the Navy (SecNav), Chief of Naval Operations (CNO), and the Commandant of the Marine Corps (CMC) signed a Memorandum of Understanding (MOU) pledging an end to "single service positions." Days later, a Memorandum of Agreement (MOA) was signed between the Navy's Deputy CNO (Warfare Requirements) and the Marine Deputy Commandant (Aviation). The MOA formalized the vision, force structure, operational control, training, funding, tempo, and manpower agreements. It was clear that the leadership expected the agreement to foster an interchangeable tactical aviation force that is capable to support both service requirements. *But how?*

CHAPTER 2: THE ARGUMENTS AGAINST TACAIR INTEGRATION

The critics of the concept of TacAir Integration have clung to the multitude of parochialisms that abound in the respective services. From the Marine Corps perspective, critics cite this as another attempt by the Navy to absorb Marine tactical aviation. Others are concerned with the myriad of operational hurdles associated with merging two services whose cultural predispositions restrict incorporation. Many Marines question why the Navy would be willing to change what many regard as the finest Navy in history of the United States. Ironically, the feelings are mixed in the Navy despite clearly having the most to gain and least to lose in the arrangement. Both sides argue that the whole transformation is happening too quickly, and serious concerns exist regarding the perceived lack of in-depth study and planning. These critics are armed with ammunition aimed at delaying TacAir Integration indefinitely.

The End of Marine Corps Tactical Aviation

When the news broke, many experts predicted TacAir Integration would lead to the end of Marine Corps tactical aviation as legacy aircraft died out. Others argued that it is the first step in eliminating Marine aviation altogether. To counter these arguments, Colonel Robert Walsh pointed out that Marines who fly the F/A-18A and F/A-18C will simply continue to augment Carrier Air Wings while those who fly the F/A-18D, and the AV-8B Harrier will be the first to transition to the Joint Strike Fighter.[7] He went on to argue that TacAir Integration would ultimately solidify the position of Marine TacAir vice undermine it.

Other critics worry that the traditional ground-support mission of Marine aviation is in jeopardy. They cite current joint publications that refer to the obligations of Marine TacAir.

[7] Brown, David, "Lean, Mean And Greener: Officials Hope Integrating Marine Corps Hornet Squadrons Into Air Wings Improves Capabilities, Cuts Cost," *Navy Times*, 10 March 2003, 1.

These publications state that in all joint operations, "nothing shall infringe on the authority of the Joint Force Commander in the exercise of operational control, Marine tactical aviation will be available for up-front sorties such as air defense, long-range interdiction, and long-range reconnaissance, as well as sorties in excess of direct support requirement."[8] However, the current view among most Marine supporters is that Marine TacAir exists for one purpose: to provide support for the MAGTF.[9] "The Marine Corps cannot afford to integrate more than four squadrons; the price is simply too high," Marine Captain Sean Garick wrote in an article published by the Naval Institute. "The more squadrons the Corps commits to carriers, the fewer are available to air-ground task force commanders."[10] Walsh said, however, that in addition to the three Navy UDP squadrons, other Navy squadrons that aren't currently deployed aboard carriers could be used to plug gaps in the Marine expeditionary squadrons. "If the Navy will help solve the Marine Corps surge requirements, we're basically getting smaller and more efficient," he said. "To be truly integrated, we felt the integration had to go both ways."

With regard to cultural perspectives, Navy and Marine Corps TacAir capabilities are as follows: Navy's primary mission is long-range power projection from the Carrier Strike Group. Its Core Competencies lie in Air Interdiction and Strike, Maritime and Air Superiority, and Suppression/Destruction of Enemy Air Defenses (SEAD/DEAD). The Navy's primary customer is the Combatant Commander. In contrast, the Marine Corps' primary mission is direct support of the MAGTF. Its Core Competencies lie in CAS, Strike Coordination and Reconnaissance (SCAR), Battlefield Coordination (Forward Air Controller (Airborne) FAC (A), Tactical Air Controller (Airborne) (TAC (A)). The Marine Corps' primary customer is traditionally the

[8] Joint Chiefs of Staff, Joint Pub 0-2, *Unified Action Armed Forces (UNAAF)*, Washington, DC: GPO, 10 July 2001. Cited hereafter as Joint Pub 0-2.
[9] Garick, Sean B., "Enough Marine Air on Carriers Already," *United States Naval Institute-Proceedings*, August 2002, 62.
[10] Garick, 62.

MAGTF Commander. In order to be most effective, TacAir Integration requires the merging of the Navy and Marine Corps' TacAir philosophies and the creation of a truly interchangeable Strike Fighter Force. Service specific ideologies must be put aside as we strive to attain the greater good of the Navy/Marine Corps Team.

Although the concerns are well founded, Navy/Marine Corps leadership remains steadfast in their support for the TacAir Integration plan and recognize the value each service brings to the partnership. They argue that the flexibility and capability provided through TacAir Integration will outweigh any desire to further consolidate the service's air forces. In short, TacAir Integration is an evolutionary step that mutually benefits both Services and threatens neither one's existence, it is a plus for the Navy-Marine Team.[11]

Why Will The Navy Be Willing To Change?

Deep-rooted cultural biases have threatened the concept of TacAir Integration. The agreement, referred to as a "two-way street," is a union depending on the total commitment of both services. To that end, both services acknowledged the need to relinquish control of some assets. The Marine Corps will be required to send an additional six squadrons to the Navy's CVWs and decommission one reserve squadron. Conversely, the Navy will send three squadrons to the Marine Corps in order to support the UDP rotation while eventually decommissioning three active and one reserve squadron. More cynical critics state the position more straightforwardly. They argue that the Navy's commitment is assured because they simply cannot afford not to be committed. The answer is simple-because of fiscal limitations; they realize that they have no other choice.[12]

[11] Walsh, 38.
[12] Walsh, 43.

Emblematic of the friction associated with this partnership is the agreement to assign a Marine to command a CVW. Soon Marine Colonel Douglas "Smash" Yurovich will assume command of Carrier Air Wing 9. As a result, a rift has developed among the Navy's mid-grade officer corps. Critics claim that the position traditionally held by a Navy Officer is compromised by the Marine assignment. Although Colonel Yurovich has extensive experience aboard the aircraft carrier (he commanded Marine Fighter Attack Squadron 251 deployed aboard the USS *John F. Kennedy* (CV-67)), some Navy officers argue that his assignment "steals" one of their most sought after billets. Regardless, the assignment of Colonel Yurovich demonstrates the level of commitment offered by Navy and Marine Corps leadership.

Admiral Vern Clark (Chief of Naval Operations), in his testimony before the House Armed Services Committee, acknowledged the hurdles the two services face while bringing their air forces together. "This is a tough one, because this has incredible cultural ties deep in our services," he told lawmakers. "And we, in effect, hired an outside negotiator to help us work through this." Admiral Clark was referring to the employment of WB&B. WB&B very pointedly stated that in order for their recommendation to work, the agreement must be a two-way street; both services would be required to make sacrifices.

Ultimately the Navy *is* willing to integrate TacAir because the rewards far outweigh the costs. They will enjoy significant fiscal savings as they decommission three active and one reserve squadron, yet they will still maintain the ability to support ten active and one reserve Carrier Air Wing. Conversely, the costs are minimal; the Navy will relinquish command of one Carrier Air Wing while making fundamental changes to the management of their training and readiness cycle. All in all, these actions appear to satisfy the SecDef's challenge of increased fiscal responsibility while maintaining the traditional effectiveness of the Carrier Air Wing.

Inability to Maintain Effectiveness During High-Intensity Conflicts

As stated in Joint Publication JP 0-2, "The primary mission of the MAGTF ACE is the support of the MAGTF Ground Combat Element (GCE)." Yet, many argue that with fewer numbers of aircraft, and the fact that a significant number are populating the decks of the aircraft carriers, the MAGTF's Air Combat Element (ACE) loses potency. Agreeably, the Marine Corps has a great deal at risk by accepting a smaller force and these force structure reductions provide ammunition to the critics who argue that the ACE will struggle to support the MAGTF during a major conflict. Regardless, experts report that TacAir Integration should provide an increase in capability of sea-based aviation assets to support the Joint Force Commander, and should provide a more capable forward deployed combat power.

Viewed in micro, the Marine Corps is an organization, single in culture, which trains as an air-ground-sea team. In macro, that is what the Joint Force needs to be, an efficient, cohesive air-ground-sea team. With this in mind, experts acknowledge that the Joint Force Commander would respond to the TacAir requirements of the MAGTF. Ultimately, it is the Joint Force Air Component Commander's (JFACC's) understanding of MAGTF requirements that is critical to ensuring the MAGTF is properly supported.

The apportionment of carrier-based Marine TacAir in direct support of the MAGTF is a point of contention by Marine critics. This point reduces the certainty and responsiveness of the MAGTF commander and amplifies the requirement for a more robust TacAir capability indigenous to the Expeditionary Strike Group. To this end, supporters of TacAir Integration point out that the TacAir capability of the Expeditionary Strike Group will be bolstered by TacAir Integration and the arrival of the JSF.

The operational capability of integrated Navy and Marine Corps TacAir to effectively support the MAGTF is presented in the WB&B study. The numbers provide a data point to counter the argument that TacAir Integration is incapable of supporting a major conflict. The study states that in a high-intensity campaign, fewer aircraft are available in the most stressing case (eight CSGs and eight ESGs deployed). However, the projected number of targets serviced exceeds the capability of today's forces by a wide margin, and represents a larger capability than that seen in Operation Desert Storm.[13] Regardless, the Marine Corps must have a voice in the determination of TacAir support requirements for the MAGTF and the ESG.

[13] Bouchoux, Donald R., "Navy-Marine Corps TacAir Integration is the Future," *United States Naval Institute-Proceedings*, March 2003, 106.

CHAPTER 3: ADVANTAGES OF TACAIR INTEGRATION

> *I strongly support the tactical aviation integration plan. The Joint Strike Fighter will reduce the total number of aircraft in the Navy and the Marine Corps, it will mean more operational capability, more targets per sortie.*
> *Commandant of the Marine Corps, General Michael Hagee*

Fiscal Savings

Throughout the 1990s, Naval TacAir, as did many other programs within the Department of Defense, underwent a procurement "holiday". While force structure and procurement budgets were reduced and operations increased, funding priorities migrated to readiness accounts.[14] Facing this "bow wave" of projected funding requirements for naval aviation in 2007 and beyond, both services sought ways to reduce the requirements.

The TacAir Integration plan is a culmination of a long-term effort to achieve greater combat capability with regard to Naval TacAir and represents a shared commitment to use the resources provided to the DoN as judiciously as possible and will enhance the core capabilities while providing a more potent, affordable fighting force.[15] Integrating the two services is expected to save

VMFA-115 aboard USS HARRY S. TRUMAN (CVN-75)
Photo courtesy of the author.

[14] Walsh, 38.
[15] Walsh, 39.

$975 million through 2009, while not buying 497 Super Hornets and JSFs will provide another $35 billion of cost avoidance through 2025.[16] (*Figure 2. TacAir Integration Procurement Savings).*

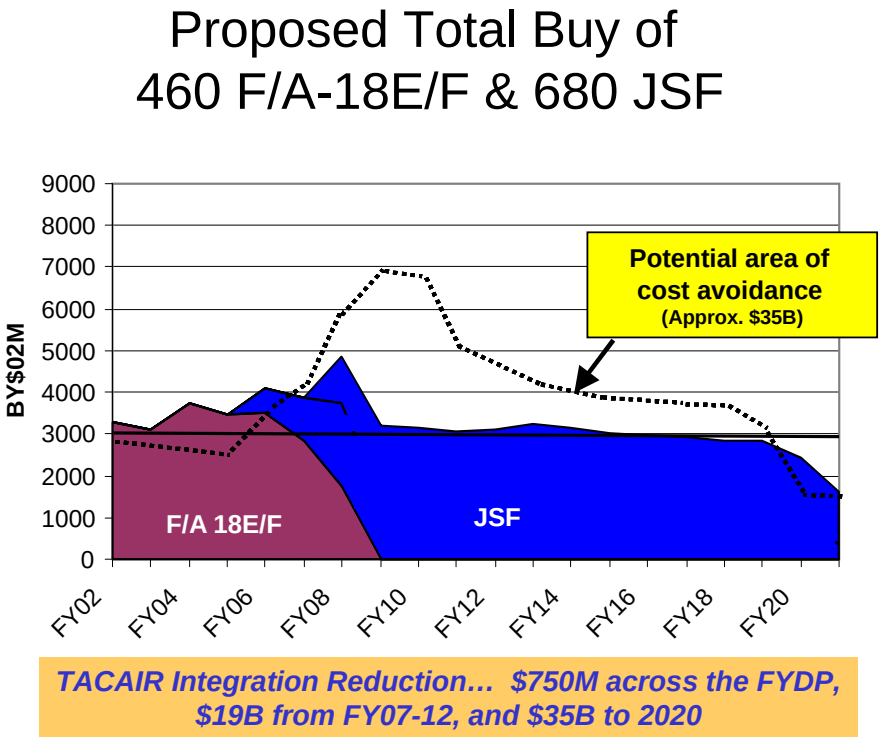

Figure 2: TacAir Integration Procurement Savings
Source: "TacAir Integration, MAWTS-1 Information Brief"

Modernization of Legacy Aircraft

Because the "bow wave" of future costs facing naval aviation was rocketing out of control, and the fact that the Naval TacAir Program of Record was unaffordable, officials are seeking alternatives to modernize the aging fleet of F-14 Tomcats and F/A-18 Hornets. Not surprisingly, concerns regarding the status of future upgrades proliferate the Ready Rooms of Strike-Fighter squadrons throughout the Navy and Marine Corps. Pilots are looking for avionics upgrades to their aircraft in order to maintain relevancy regarding the modern battlefield.

[16] Brown, 1.

In particular, the AAS-38 A/B Nighthawk Forward Looking Infra-Red Targeting (FLIR) pod is considered obsolete by most standards. It was designed with 1980s technology as a deep-strike targeting sensor aimed at preplanned targets. However, with the nature of current conflicts, pilots are walking to their aircraft without preplanned target packages. This renders the Nighthawk marginal at best and essentially useless versus smaller targets in a concealed or congested urban environment. The TacAir Integration plan will aid the fielding of replacements to the Nighthawk and other significant upgrades to the F/A-18 such as: Multi-Functional Information Distribution System (MIDS), and Joint Helmet Mounted Cueing System (JHMCS) among others.

A separate, and possibly more significant issue is Engineering Change Proposal 583 (ECP-583). ECP-583 is the avionics upgrade to F/A-18A aircraft that modernizes the weapons suite enabling the employment of Joint Weapons and the Advanced Medium Range Air-to-Air Missile (AIM-120 AMRAAM). ECP-583 costs approximately $5 million per aircraft, a bargain upgrade that brings the most aging F/A-18s up to date. Most experts consider ECP-583 the most important single upgrade to the F/A-18A.

Concerns that center on airframe lifespan issues relate to the fielding of the F/A-18 through fiscal year 2018. In order to meet that timeline, the F/A-18 will potentially require adjustments to current airframe limits. Of particular concern are the 2,000 Catapult and Arrested Landing (cat/trap) limits on F/A-18A/Cs. In order to meet the current fielding requirements, Engineering Inspections (EIs) are anticipated to determine the feasibility of adjusting the cat/trap limits in order to extend the current lifespan of legacy aircraft. These EIs will potentially extend the cat/trap limit to 2,250, the equivalent to an additional work-up and deployment.

Although the concerns regarding the airframe limits of the F/A-18 are understandable, it is the cost of level readiness that has most critics worried. The readiness costs for the Navy and Marine Corps to achieve level readiness may far exceed the ability to upgrade. In addition, readiness levels associated with the current implementation of TacAir Integration will not allow the DoN to surge more aircraft in the future than is within our means today. The lynchpin in the TacAir Integration plan is the improved business practices proposed by WB&B. These improved business practices coupled with sincere DoN commitment to maintenance and readiness accounts will ensure the modernization of legacy aircraft until suitable replacements are delivered to the Navy and Marine Corps. Improvements to business practices must be made and the reinvestment of savings will make the smaller force more capable.

Cultural Ties - Closer than Most Think

The Navy-Marine Team provides a unique capabilities-based force that exploits its maritime superiority by transforming the sea into a formidable and flexible sovereign base and an extension of the most powerful nation in the world in its ability to maintain global influence and protect our nation's interests.[17] TacAir Integration has meant, by nature, a closer tie to battlefield support and Marine missions. The *Gulf War Air Power Survey* stated that the Navy only flew 21 missions defined as Close Air Support in all of Operation Desert Storm. During Operation Enduring Freedom, Navy and Marine squadrons flew CAS missions 61 percent of the time.[18]

The plan is to complete the tactical aviation integration within a decade. Officials say the integration will not require much of a cultural shift, since four Marine squadrons already deploy with Carrier Air Wings. Rear Admiral Thomas Kilcline, head of aviation plans and

[17] Walsh, 38.
[18] Walsh, 38.

requirements, said the Carrier Air Wing as a whole benefits from having Navy and Marine Corps aviators operating together: Navy pilots learn Close Air Support and ground combat scheme of maneuver from Marines; while Marines learn more about Naval Strike Warfare from Navy brethren. "There is an awful lot of cross-talk between squadrons, and the air wing is better for it," he said.[19]

Diverse Training Opportunities

Under the integration plan, Navy and Marine strike fighter squadrons will train, deploy, and fight side-by-side as part of Carrier Air Wings and land-based, deployed expeditionary squadrons. This training and deployment will produce well-trained, well-rounded aviators skilled at operating in a myriad of environments. "Sending Navy fliers to a land-based squadron between fleet deployments," Rear Admiral Mark Fitzgerald said, "will keep those aviators at a higher level of readiness." The move will counteract the "readiness bathtub," in which aviators' skills bottom out between deployments, and significant energy is expended to get them battle-ready before deploying again.[20]

Pre-deployment training would mirror the new integration. Navy pilots who fly with Marine expeditionary squadrons would train at Marine Corps Air Station Yuma, Arizona, alongside Marine pilots. Marines who join the Carrier Air Wing will fly with the Navy's pilots at Naval Air Station Fallon, Nevada.[21] The commonalities of the aircraft offer opportunities for aviators to build tactics and doctrine across a spectrum that is applicable to a wider variety of missions. In addition, this commonality should ease the transition from one version to the other,

[19] Brown, 1.
[20] Brown, 1.
[21] Brown, 1.

thereby increasing career flexibility for both services.[22] Marine Commandant, General Michael Hagee said, "Having ten Marine squadrons fully integrated into Carrier Air Wings and three Navy squadrons joining the Marine Corps UDP rotation will greatly improve our cross-training, coordination and overall warfighting capabilities."

Closely Tied to Sea Basing

Operation Enduring Freedom provides a contemporary model that highlights the intrinsic value of Sea Basing. During the operation, both Navy and Marine fighters launched from aircraft carriers and flew as far as seven hundred miles inland to provide support for Army Special Forces embattled in the mountains of Afghanistan. From this experience, and other high-tempo operations throughout the world in 2002, the outlines of a new global military model look to underscore the asymmetrical advantages offered by sea-based forces.[23] Sea Basing more of our Marine aviation force makes that force more relevant to the MAGTF by positioning Marine warfighting assets on the aircraft carrier and at the spear's point where the MAGTF needs them.[24]

Since the advent of the aircraft carrier, the Carrier Battle Group (CVBG), or future Carrier Strike Group (CSG), has always been one of the first response options to which military leaders and planners took. With less access to basing throughout the new strategic landscape, the aircraft carrier's importance as an intermediate support base and attack position will increase, while dependence on forward land-bases to support joint operations will be reduced.[25] With Marines onboard, the CSG provides the influence and uniqueness for which Marine TacAir is

[22] Bouchoux, 106.
[23] Truver, Scott C., "The U. S. Navy in Review," *United States Naval Institute-Proceedings*, May 2003, 88.
[24] Walsh, 38.
[25] Walsh, 38.

famous, while committing the Navy more fully to the land battle.[26]

In support of a multi-theatre or high-intensity conflict, the Expeditionary Strike Force (ESF) concept, consisting of the Expeditionary Strike Group (ESG), CSG, and Maritime Pre-positioning Force (Future) (MPF(F)), will accelerate deployment and employment times for naval forces while providing the commander flexibility to position networked assets to the critical area in a timely manner.[27] Likewise, Sea-Basing Marine TacAir demonstrates more clearly and credibly the capabilities that Ship To Objective Maneuver (STOM) provides the Joint Force Commander by providing a robust air arm that is, in part, facilitated by TacAir integration.[28] As TacAir becomes a key component for projecting power ashore, the Sea Base and our ability to operate from it provide the Nation a capability that is unique, naval in character, and will prove decisive in our Nation's battles at sea, in the air, and on land.[29]

Closer to the Fight

It would be a grievous mistake not to recognize that every aircraft carrier to deploy since 1998 has conducted combat operations. Many of the Marine Corps' most experienced F/A-18 pilots have flown off the decks of Navy aircraft carriers and have not been land based.[30] It has been Navy and Marine pilots flying off of carrier decks that have supported Marines on the ground while we struggled to gain basing, cargo lift, and strategic tankers to get our land-based expeditionary forces to the fight.[31] TacAir Integration will continue to provide a platform for Marine aviation to get to the fight and support the MAGTF or Joint Force Commander.

[26] Walsh, 38.
[27] Walsh, 41.
[28] Walsh, 38.
[29] Walsh, 38.
[30] Walsh, 38.
[31] Walsh, 38.

Although not OPCON to the MAGTF, TacAir Integration puts more Marine air forward to support the Joint Force Commander, and thereby the MAGTF. TacAir Integration is complementary to the small TacAir force resident in our Marine Expeditionary Units (Special Operations Capable) (MEU(SOC)s).[32] Furthermore, operating from enhanced sea bases, optimized austere bases, and right-sized expeditionary airfields (EAFs) with a new generation of lethal aircraft, the Naval Services have the potential to project power like never before seen in naval warfare.[33]

A recent study by the Center for Naval Analyses to determine the extent of aviation support required for MAGTF operations throughout the range of peace-time, wartime, and various combinations in between concluded that 31 ten-plane JSF squadrons would be required for a major theatre war, and 35 squadrons would be needed for a simultaneous small-scale contingency and major theatre war response.[34] The study determined that the higher carrier-based sortie rates coupled with increased effectiveness per sortie achieve an improved level of effectiveness in support of the MAGTF. In short, the carrier would get the aviators closer to the fight and the pilots flying modern tactical aircraft would deliver ordnance on target with unprecedented effectiveness for the MAGTF commander.

Freedom of Maneuver – Sovereignty at Sea

Throughout the 1990s, nations at all levels of development sought to alter U.S. policies by selectively extending and retracting access to facilities within their borders. For example, Italy denied the U.S. F-117 Stealth Fighters access to Aviano Air Base during the 1999 Kosovo campaign. Bowing to domestic pressures, Saudi Arabia forbade the launching of tactical aircraft

[32] Walsh, 38.
[33] Walsh, 41.
[34] Robinson, David A., "TacAir Integration Must Optimize JSFs," *United States Naval Institute-Proceedings*, December 2003, 52.

in support of operations in Iraq.[35] It is because of these developments and others like them, that Sea Basing has garnered the attention of policy-makers and military officials throughout the Department of Defense.

For much of the past decade, even as it has struggled to formalize its "expeditionary" concept of operations, the Air Force has struggled to obtain (and maintain) rights to base aircraft in foreign lands during periods of combat.[36] During Operation Enduring Freedom in Afghanistan, the Air Force negotiated for months to gain access to bases among the nations of central Asia. During preparations for Operation Iraqi Freedom, political imperatives restricted Air Force use of bases in Saudi Arabia and Turkey so much that the United States spent years and a significant portion of its overseas budget building and equipping.[37] Operational and geographic realities of the Afghan theater of war have shown the value of naval platforms in the new geopolitical environment. The USS *Kitty Hawk* (CV 63) and two Amphibious Ready Groups with embarked Marines provided the platforms for various missions ashore while denying the enemy the opportunity to strike back.[38]

At a time when warfare is becoming more "expeditionary," and land bases are a tough political sell in many countries around the world, the threat to forward air bases will grow. The fact of the matter is that tactical aviation is tied to those fixed forward bases. Sometimes we do fail to gain access to those bases for political reasons.[39] As the access debacle in Turkey unfolded in March of last year, thoughts turned to what kind of permanent, mobile, sovereign sea base could have been built for the $30 billion in grants and loan guarantees offered to the

[35] Hendrix II, Henry, "Exploit Sea Basing," *United States Naval Institute-Proceedings*, August 2003, 61.
[36] Hendrix, Henry, "An Expeditionary Air Force Needs Tailhooks," *United States Naval Institute-Proceedings*, May 2003, 140.
[37] Hendrix, 140.
[38] Hoffman, Frank G., "Early Lessons From Enduring Freedom," *United States Naval Institute-Proceedings*, April 2002, 2.
[39] Erwin, Sandra I., "U.S. Scales Back JSF, Super Hornet Buys," *National Defense*, March 2003, 21.

Turkish government in exchange for temporary access to their interior.[40] One of the key concepts behind Admiral Vern Clark's "Sea Power 21" is Sea Basing, "the ability to operate anywhere in the world without a permission slip, by utilizing the inherent sovereignty of naval platforms at sea."[41] How can we build and operate such a force? We only need to look at the funds allocated over the past twelve years to the building and maintenance of overseas bases to find the answer. We have spent billions in Europe and central and southwest Asia, and our hosts have restricted our access to operations.[42]

Historical Examples

Navy and Marine Corps aviation forces have enjoyed significant levels of integration since their inception prior to World War I. During World War II, the services frequently supported each other's missions. Today, integration includes acquisition of aircraft, undergraduate and selected fleet replacement squadron training for aircrews, and technical training for maintenance personnel.[43] This integration contributed directly to the impressive results enjoyed during Operation Enduring Freedom and Operation Iraqi Freedom.

The Navy estimates that its aircraft struck 2,000 mobile, though not necessarily moving, targets in Afghanistan. The service also estimates that its aircraft flew 75 percent of the total number of sorties, while the Air Force dropped 75 percent of the total tonnage from heavy bombers.[44] Operation Enduring Freedom in Afghanistan clearly showed the "first on station" capability of the aircraft carrier. With Marine squadrons on board each of those aircraft carriers,

[40] Hendrix II, 61.
[41] Hendrix, 140.
[42] Hendrix, 140.
[43] Bouchoux, 106.
[44] Keeter, Hunter, "Key Navy Lessons From Afghanistan: Invest in SOF, PGMs, Sea Basing," *Defense Daily*, 09 July 2002, 1.

the influence was applied, through training and mission planning, which inevitably provided the required support to the Marine, Joint, and Coalition ground forces.[45]

The ability to use sea-based forces in the earliest phase of the campaign to generate strategic strikes on Taliban and al Queda forces correlated with strategic and tactical U.S. Air Force assets. From their sea-bases in the northern Arabian Sea, U.S. Navy and Marine Corps tactical aircraft from carrier battle groups flew more than 12,000 tactical sorties, and naval forces accounted for more than half of all precision weapons employed. Surprisingly, both Marine and Army Special Forces units operated from aircraft carriers and amphibious assault ships some 400 to 700 miles distant from land-locked objectives.[46]

[45] Walsh, 38.
[46] Truver, 88.

CHAPTER 4: REQUIREMENTS FOR SUCCESS

> *To be effective, Naval TacAir must exploit the complementary capabilities of the Carrier Strike Group, and the Expeditionary Strike Group, while merging the deep strike and strategically minded Navy strike fighter force with the Expeditionary Maneuver Warfare and tactically oriented Marine strike fighter force. The complementary capabilities of both Services will maximize the benefits of seabasing and the flow of combat power ashore in support of the joint warfighter.*
>
> *Colonel Robert S. Walsh*

The success or failure of TacAir Integration rests on the Navy/Marine Corps Team's ability to compromise on the issues involving equipment, manpower, and readiness. The devil is indeed in the details as planners embark in satisfying the requirements both services bring to the agreement. The issues requiring immediate attention are: (1) Global Sourcing, (2) Distribution of manpower, (3) Standardization of Training and Readiness, and (4) Improved funding for legacy aircraft. Fulfilling these requirements will be instrumental in the successful implementation of TacAir Integration.

Global Sourcing

Global Sourcing is a term to describe the distribution of forces across the earth. Under that premise, aircraft would be less rigidly apportioned to a specific Carrier Air Wing or Marine Aircraft Group to more flexibly respond to various crises.[47] Global Sourcing is an institutional change in the way the Navy and Marine Corps sources contingency requirements. It is a cooperative effort to improve the efficiency of utilizing Navy and Marine Corps aircraft. Under

[47] Butler, Amy, "'Global Sourcing' a Potential Force Realignment Tool, Abizaid Says," *Defense Daily*, January 2004, 1.

the current MOA, Navy continental United States (CONUS) based squadrons that are not deployed to the sea base will be available to support MAGTF training, contingency, and operational plan requirements. However, this arrangement requires a dedicated commitment to the development of a TacAir force whose readiness will allow such global sourcing of aviation assets.[48] If focused strictly on the sheer number of squadrons and aircraft, regardless of training and readiness, it has been proven that the Navy/Marine Team does possess the requisite squadrons and aircraft to fulfill contingency requirements (*Figure 3. Impact of Global Sourcing-Forces Available for Surge).*

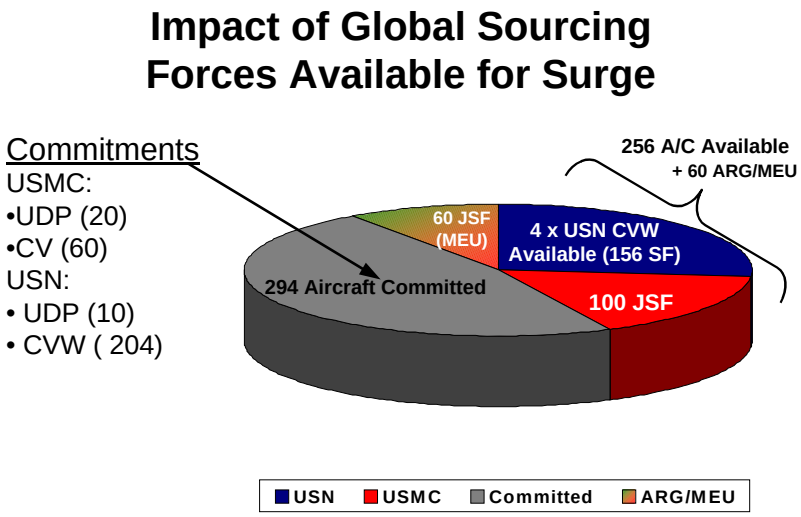

Figure 3. Impact of Global Sourcing-Forces Available for Surge
Source: TacAir Integration, MAWTS-1 Information Brief

As stated by the proponents of the TacAir Integration, "Global Sourcing mitigates the risk of a smaller USMC force." In order to validate the preceding statement, Navy and Marine Corps leadership must address the following questions: (1) Does the Navy/Marine Team possess the requisite squadrons to fill contingency requirements? (2) Is the squadron's readiness

[48] Walsh, 38.

commensurate with the needs of the MAGTF? Leadership from both services agree that Global Sourcing is vital to the plan as we source each service's warfighting requirements from the pool of non-deployed DoN aircraft, but the concept seems easier said than done.

As the requirements of the MAGTF are addressed, sheer numbers of aircraft do not tell the entire story. Equally important to the number of aircraft, are the number of trained pilots to fly them, and troops to maintain them. When addressing the support that TacAir Integration can provide the MAGTF, we must address the issue of Training and Readiness.

Traditionally, Marine squadrons have striven for a level readiness curve throughout the training and deployment cycle. That is to say that Marine squadrons tend to maintain a relatively constant level of combat readiness regardless of their deployment status. Conversely, the Navy has consciously sacrificed combat readiness of non-deployable squadrons to support those in the deployment cycle. Historically, a typical deployable squadron would acquire the requisite pilots just prior to commencing the Carrier Air Wing work-up. The combat readiness of the pilots and the squadron as a whole would improve throughout the work-up and would peak at some point during the onset of the deployment. As the deployment wore on, the combat readiness would start to decline until it bottomed just prior to returning home. Once a deployment is complete, Navy and Marine squadrons alike tend to "burst" as personnel are allowed to accept transfers, or satisfy ground-training requirements.

Simultaneously, the non-deployable squadron's fleet of aircraft would dwindle as aircraft were transferred to the next deploying squadron, were inducted for scheduled or unscheduled depot level maintenance, or were simply victims of insufficient maintenance funds at the squadron level.

Consequently, the undesired consequence of the cyclic readiness during the deployment cycle is the "readiness bathtub". Global Sourcing makes peaks and valleys in readiness unacceptable. Squadrons suffering from this effect will be unable to effectively support the MAGTF, and this problem must be eliminated. Level readiness will allow a squadron at any stage in the deployment work-up cycle, whether carrier- or land-based, to surge to support contingency operations. Since, non-deployable units must be able to meet MAGTF requirements for war and peace, leadership of both the Navy and Marine Corps must support a change in philosophy that will enable squadrons to attain and maintain a level readiness cycle.

Distribution of Manpower

Traditionally, the Navy and Marine Corps have manned their squadrons uniquely, for mission specific reasons. Unfortunately, this dissimilarity in manpower creates concerns with regard to two critical areas: (1) Crew seat ratios for CVW squadrons, and (2) Maintenance manning for both USMC and USN squadrons. As stated in *Naval Power 21, A Naval Vision,* "Sailors and Marines are the foundation of our naval capabilities. Our physical platforms have no "asset value" to the nation until manned by trained, educated, and motivated people." The success of TacAir Integration depends on the intelligent allocation and training of personnel.

The current USMC table of organization has twelve-plane squadron's manning goal at nineteen pilots, with a staffing goal of seventeen pilots. Historically, Marine squadrons have been manned with eighteen pilots, or a crew/seat ratio of 1.5:1. Under a current Navy initiative, manning levels will target from twelve to sixteen pilots per squadron, or a crew/seat ratio of approximately 1.4:1. Assuming that the Marine squadrons will continue to meet current operational planning and contingency requirements, twelve to sixteen pilot squadrons are simply inadequate. Experience has shown that Marine squadrons struggle to meet core competency

requirements with less than eighteen pilots. Therefore, the Navy and Marine Corps must agree that eighteen pilots will be the staffing goal for all deployed squadrons and adjust the crew/seat ratios to reflect the change.

Maintenance manpower issues exist in the Navy and in the Marine Corps. Specifically, shortfalls in the type and number of specialists assigned to each service's squadrons are significant. For example: the Navy squadrons expected to be assigned to Marine Aircraft Groups do not possess embarkation personnel, armorers, or flight surgeons and/or additional corpsmen. Furthermore, Navy squadrons are deficient of personnel qualified to augment Intermediate Level (I-Level) maintenance activities (Marine CVW squadrons are augmented with I-Level personnel prior to "chopping" to the Navy). These deficiencies must be addressed prior to the first deployment of a Navy squadron to UDP. Failure to do so will result in under manning at the MAG level and a net reduction in effectiveness and efficiency.

VMFA-312 overhead USS *Harry S. Truman* (CVN-75) .
Photo courtesy of Major Doug Brune.

Standardization of Training and Readiness

The Training and Readiness goal is to doctrinally tie the Navy and Marine TacAir forces. Consequently, there are several training requirements linked to TacAir Integration. First of all,

the merger of the training philosophies of both services is crucial to the development of a "single service" position on training plans as well as operational concepts of execution. In addition, the consolidation of the service's schoolhouses is essential to the integration of each service's area of expertise. The result will be service specific cultures that are fused to a common objective. Finally, the determination of a common operational concept will create a truly interchangeable strike-fighter force. Common doctrine that is truly integrated and trained will allow the projection of power from a sea base to include phasing ashore from an ESF to achieve operational effects independent of or in support of MAGTF operations.[49]

The merger of training philosophies is a key enabler of the integration plan. This merger extends beyond the development of basic Training and Readiness (T&R) requirements and the merger of the service's schoolhouses. TacAir Integration requires the two services to bring planners together to review and revise T&R goals and requirements. In an effort to streamline the services, we must develop a plan to merge all education and training of Naval and Marine aviators. There should be a single source document that details all T&R requirements. If this is accomplished, Navy and Marine aviators, each with service specific culture, will bring increased effectiveness to the warfare commander.

Despite standardizing T&R, Navy aviators skilled in maritime interdiction, deep strike, air superiority, and suppression and destruction of enemy air defenses will still be able to focus training on those areas. Marine aviators schooled in the art of ground warfare, in addition to air delivered fires in support of ground maneuver, will still be able to focus training on CAS, Strike Coordination and Reconnaissance (SCAR), Armed Reconnaissance, and Battlefield Coordination. In order to maintain flexibility, both services should train and maintain minimum

[49] Walsh, 41.

proficiency in core plus mission skills to enable surge operations in a more narrowly defined mission set. The net result will be an increase in operational effectiveness of naval airpower.

Although the alignment of T&R requirements is a USN initiative, it makes sense that the services incorporate a set of common guidelines qualification and designation requirements. It is not important that the services weigh the requirements the same, however, it is important that they possess the same. Consider the following: both services regard the same requirements for a specific qualification or designation, but are allowed to deviate in terms of currency and combat readiness reporting. This scenario would satisfy the prerequisites for qualifications or designations, but would allow each service to weigh the value of the qualification against their service-specific culture.

By leveraging the centers of excellence, namely Naval Strike Air Warfare Center (NSAWC), Marine Aviation Weapons and Tactics Squadron One (MAWTS-1), Naval Weapons Center, and Marine Corps Combat Development Command, the goal is to develop a "single-service" position on training plans as well as operational concepts of execution.[50] Colonel Walsh said officials would strive to make sure Marines retain the Corps culture even as they blend into the Carrier Air Wing. "The training is getting closer and closer, but we still want to keep that service culture," he said. "We consider it a complementary capability." "We have the most ready force in our history," Admiral Clark reiterated. "During the past year, our investment in training, spare parts, ordnance, and fuel accounts enabled our fleet to be ready earlier, deploy at a higher state of readiness, and build a more responsive surge capability."[51] If TacAir Integration is executed properly, the Navy and Marine Corps Team will be the most ready, most capable, most lethal force in the history of the world.

[50] Walsh, 40.
[51] Truver, 88.

Improved Funding for Legacy Aircraft

> *It is imperative that readiness accounts are properly funded to ensure adequate readiness levels to support the integration.*
> *Commandant of the Marine Corps, General Michael Hagee*

The Navy and Marine Corps Team have embarked on a TacAir Integration plan that will enhance core combat capabilities and provide a more potent, cohesive, and affordable fighting force. A cornerstone of this plan is DoN funding and maintenance of legacy aircraft at the highest levels of readiness until replacement by the JSF. This requires a heightened strike fighter readiness across the DoN.[52] The readiness levels associated with integration will allow the DoN to surge more aircraft than is within our means today.[53] These adjustments will provide a more capable force, ensure better use of our precious assets, and create significant savings that will be applied to Navy and Marine Corps recapitalization and readiness.[54]

While proposed force structure slightly reduces the number of aircraft in certain squadrons, it retains enough aircraft to fully populate the flight decks of aviation-capable ships. Improved reliability of both legacy and future aircraft is key to this aspect of the TacAir Integration. It preserves the daily sortie generation capability of the current sea-based force while increasing the level of effectiveness.[55] Furthermore, increased precision and lethality will serve as additional force multipliers that will allow a ten-plane JSF squadron to achieve effectiveness equal to or greater than a traditional twelve-plane strike-fighter squadron.[56]

[52] Hough, Mike, "The Future of Marine Corps Aviation," *Naval Aviation News*, May/June 2003, 8.
[53] Hough, 8.
[54] Hough, 9.
[55] Bouchoux, 106.
[56] Robinson, 52.

CHAPTER 5: CONCLUSION

> *The TacAir Integration initiative represents a critical piece in the Department of Navy transformation effort. Along with doctrinal changes already effecting Naval operations, TacAir Integration represents a path to greater combat capability through the efficient use of all available Department of Navy resources.*
>
> *General Michael Hagee, Commandant of the Marine Corps*

TacAir Integration is a concept that has been rooted in the foundation of Naval Aviation for nearly a century. From the initiation of Marine aviation during World War I, to the epic battles fought in World War II, through Desert Storm, Operation Enduring Freedom, and most recently, Operation Iraqi Freedom, Naval Aviators from both the Navy and Marine Corps have proven the combat effectiveness the integrated Navy/Marine Corps Team.

The current vision of Navy/Marine Corps TacAir Integration satisfies the challenge presented by the Secretary of Defense. It provides a flexible, responsive, interoperable, and expeditionary force that supports the Combatant Commander while saving the taxpayer's dollars. The leadership of the Navy and Marine Corps endorsed the concept and pledged an end to "single service positions." With a formalized vision, and a plan for force structure, operational control, training, funding, tempo, and manpower, the Navy/Marine Team is poised to take advantage of the benefits offered by TacAir Integration. However, neither the MOU nor the MOA signed by the Navy and Marine Corps leadership put the *how* into TacAir Integration.

The critics of the concept of TacAir Integration have clung to parochialisms that are deeply rooted in each of the services. Critics cite TacAir Integration as another attempt by the Navy to absorb Marine tactical aviation. Others are concerned with the plethora of operational hurdles plaguing the development of the concept. Still others are simply concerned that the

Navy/Marine Team is rushing into the agreement without fully analyzing the ramifications. Arguably, each of these concerns has merit. However, engaged thoughtful discussions and planning will mitigate the majority of these concerns and TacAir Integration will be judged solely on its effectiveness vice the perceptions of service partisans.

TacAir Integration requires the merging of the Navy and Marine Corps' TacAir philosophies. If properly constructed, it should develop into a truly interchangeable Strike Fighter Force. However, critics still worry that the traditional ground-support mission of Marine aviation in jeopardy. Viewed from a different perspective, critics are concerned that the Air Combat Element is losing control of a key asset, while the Joint Force Commander gains control of Marine Air. Arguably, it is for the greater good, but the Marines on the ground remain skeptical.

Despite the cultural biases that have threatened TacAir Integration since inception, leadership of both the Navy and Marine Corps have pledged total commitment. The "two-way street" has forced both services to relinquish control of assets. Ultimately, the agreement is based on the following tenets:

- Increased Marine presence in the CVWs.
- Increased Navy participation in the UDP rotation.
- Capability of both services to surge in support of land-based operations.

To sum up the agreement, Deputy Commandant (Aviation), LtGen Mike Hough said, "The days of doing it on our own are over, and we must work together as a Navy-Marine Corps Team to ensure continued wellness of TacAir in the DoN."

Arguably, the Marine Corps has a lot a stake by accepting a smaller force and these force structure reductions provide critics with ammunition to argue that the ACE has lost potency and

will struggle during a major conflict. However, experts have pointed out that TacAir Integration should provide a more robust capability through increased sortie rates coupled with increased effectiveness per sortie. TacAir Integration is expected to exceed the capability of today's forces by a wide margin, thus increasing the support provided to the MAGTF.

Bowing to the pressure of fiscal constraints, Navy and Marine Corps leadership sought an efficient yet combat effective alternative to the costly plan of record. Procurement mismanagement during the 1990s contributed to the "bow wave" of future costs now faced by the Navy/Marine Corps Team. These costs were climbing out of control and the aging fleet of legacy aircraft was suffering from years of neglect. TacAir Integration is a solution that resulted from a long-term endeavor by the Navy/Marine Team. Its goal is to provide a more robust combat capability by leveraging increased spending on the modernization and upkeep of legacy aircraft with the savings from decreased aircraft procurement. The concept represents a shared commitment to utilize the resources allotted by the DoN as frugally as possible while providing a more effective fighting force.

The Navy/Marine Team provides the nation with a unique capabilities-based force that exploits the sovereignty of the carrier at sea by projecting power to all corners of the globe. TacAir Integration brings both Navy and Marine TacAir closer to the battlefield, in terms of both location and support. TacAir Integration will provide a platform for both services to get into the fight and support the MAGTF or JFC. LtGen Hough said, "Naval TacAir, with a smaller, more efficient force, will continue to provide Combatant Commanders and Joint Force Commanders with a flexible, scalable, full-spectrum response capability from the sea."[57]

At a time when warfare is becoming more expeditionary, and land bases are a tough political sell in many countries around the world, the threat to forward bases will grow. Recent

[57] Hough, 8.

operational and geographic realities have validated the value of naval platforms in the new geopolitical environment. *"Sea Power 21"* and Sea Basing provide the Joint Force Commander with "the ability to operate anywhere in the world without a permission slip."[58]

Despite still being in the developmental stages, the capabilities garnered from such an agreement have been enjoyed by Marine squadrons since the mid-1990s. However, there are still many difficult problems that must be worked out. The problems that need immediate attention are Global Sourcing, distribution of manpower, standardization of Training and Readiness, and improved funding for legacy aircraft.

Global Sourcing is a key enabler that provides the backbone in TacAir Integration. Global Sourcing is the pooling of resources to service the needs of the MAGTF or the Combatant Commander. These assets will be pulled from squadrons not currently in the deployment rotation, but can be quickly ordered to deploy, either attached to a Carrier Air Wing, or attached to a Marine Aircraft Group (MAG).

Global Sourcing is not strictly about numbers of aircraft. An equally important requirement for successful sourcing of potential contingencies is level readiness. Navy and Marine squadrons can no longer accept the "readiness bathtub" after returning home from deployment. Since non-deployable units must be able to meet MAGTF requirements for war and peace, the leadership of the Navy/Marine Team must support this fundamental change in philosophy that will enable more squadrons to attain a more level readiness and be available to surge in support of a potential contingency.

The distribution of manpower must also be uniform from one service to the other. The table of organization of squadrons in both services must reflect the desire for true

[58] Clark, Vern, "Persistent Combat Power," *United States Naval Institute-Proceedings*, May 2003, 46.

interoperability. Gone are the days of cross-decking personnel and equipment from one squadron to another to another, in order to support deployment requirements. Leadership of both services must agree to man squadrons at sufficient levels to support CVW and MAG requirements.

Standardized Training and Readiness is a goal that will doctrinally tie the Navy and Marine Corps. Three components will contribute to truly standardized Training and Readiness. First of all, the merger of training philosophies of both services is crucial to the development of the "single service" position on training. If this is accomplished, Navy and Marine aviators, each with service specific culture, will bring increased effectiveness to the MAGTF. In addition, a consolidation of the service's "experts" is essential in the integration of each service's expertise. Although the respective schoolhouses will remain at current locations, all should seek common ground with regard to tactics and training. The result will be service specific cultures that are fused to a common objective. Finally, a common operational concept must be developed to provide focus to the training. Common doctrine that is truly integrated and trained will result in increased operational effectiveness.

A VMFA-312 F/A-18 prepares to launch in support of Operation Southern Watch in February, 2001.
Photo courtesy of author.

The final requirement demanding immediate attention with regards to TacAir Integration is the funding of readiness accounts for legacy aircraft. The success of TacAir Integration will rely on the effectiveness of the Navy and Marine Corps' current inventory of aircraft. Two key areas requiring increased funding are the modernization and upkeep of legacy aircraft. Current plans call for funds saved in the restructuring of the future force be applied to the maintenance of legacy aircraft. Navy and Marine Corps leadership is challenged with ensuring that this occurs.

Regardless of the beliefs of its critics, TacAir Integration is the future of Naval Aviation. Fiscal limitations have left the Navy/Marine Team no other choice, and integration and projecting power ashore is vital to the nation. To guarantee the effectiveness and efficiency of TacAir Integration, requirements such as Global Sourcing, manpower distribution, standardization of Training and Readiness, and legacy aircraft maintenance funding must be met. Inability to satisfy these requirements will jeopardize the success of a program that ensures support for the MAGTF. Ultimately, TacAir Integration *will* satisfy the challenge issued by the Secretary of Defense, it *will* provide the MAGTF and/or Combatant Commander a flexible, responsive, interoperable, and expeditionary force. TacAir Integration is an agreement based on compromises, but the Navy/Marine Team will not compromise the support given the MAGTF as was demonstrated during Operation Enduring Freedom and Operation Iraqi Freedom.

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Title: "Navy/Marine Corps TacAir Integration:
Providing the MAGTF Increased Capability on a Budget"

Author: Major Timothy J. Frank, United States Marine Corps

Thesis: Navy/Marine Corps TacAir Integration provides the MAGTF with a flexible, responsive, interoperable and expeditionary force. However, success of TacAir Integration rests with fulfillment of the following requirements: Global Sourcing, effective distribution of manpower, standardization of Training and Readiness, the improved funding of legacy aircraft.

Discussion: Navy/Marine Corps TacAir Integration was initiated in response to a challenge issued by the Secretary of Defense. In the Defense Planning Guidance (DPG), the SecDef ordered the military to proactively seek transformation. In particular, the DPG ordered the Navy to conduct a comprehensive review, and assess the feasibility of integrating all Naval Aviation force structure. Whitney, Bradley, & Brown, Inc. (WB&B) was hired to conduct the assessment of Naval Aviation. WB&B recommended the following:

- Decommission 3 active Navy squadrons and 2 reserve squadrons (1 Navy, and 1 USMC)
- Reduce number of aircraft in F/A-18F (from 14 to 12) and JSF squadrons (from 12 to 10)
- Reduce aircraft overhead from ~95% to ~62% of authorized active/reserve structure
- Transformation of business practices in inventory/supply management, training, and T&E
- Integrate 10 USMC squadrons into Navy carrier air wings (1 per wing)
- Integrate 3 USN squadrons into USMC overseas (UDP) rotation

Navy and Marine Corps leadership endorsed the recommendation and issued a MOU and MOA. The MOA formalized the vision, force structure, OPCON, training, funding, tempo, and manpower agreements. Navy and Marine Corps leadership initiated TacAir Integration, however, they did not specify *how.*

Conclusion/Recommendation: Navy/Marine Corps TacAir Integration is an aggressive response to the SecDef's challenge. In theory, it provides the MAGTF with increased capability more efficiently. However, the following requirements must be addressed immediately:

- Global Sourcing: This transformational concept must be fully accepted and supported by both services. Level readiness is the key to Global Sourcing.
- Manpower distribution must be organized uniformly between both services.
- Training and Readiness must be standardized and accepted by both services.
- Funding for legacy aircraft must be increased. Procurement savings must be redistributed to fund the modernization of legacy aircraft.

WB&B warned that its recommendations should be taken *in toto*. Failure to do so will risk effectiveness and efficiency of the program. To that end, these requirements must be addressed as well. TacAir Integration provides the nation with a potent power projection capability; however, this capability comes at a cost.