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MASTER OF MILITARY STUDIES

TITLE: An Operational Total Force

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Executive Summary

Title: An Operational Air Reserve

Author: Maj Marc A. Wimmer, USAF

Thesis: The current operational construct of the Air Reserve Component cannot be sustained in the complex and fiscally constrained national security environment of the twenty-first century without significant changes in the Total Force business model.

Discussion: Employing the Guard and the Reserve in support of contingency operations both small and large has proved to be a daunting task over the past two hundred and thirty five year history of the nation. Significant differences in organization, command relationships, training, and equipping have exacerbated the issues over the years. The United States Air Force, though the youngest of the service components, has struggled to effectively utilize its Reserve Components. The Air Force has course corrected several times over the years in order build a Total Force comprised of the active duty Air Force, and the Air Reserve Components (ARC) of the Air National Guard (ANG) and the Air Force Reserve (AFR). Using the Air and Space Expeditionary Force construct the Air Force has devised a mechanism, which relies heavily on the ARC, to successfully meet contingency operations around the globe. However, the increasing reality of budget reductions across the whole of government, coupled with the Air Forces aging fleet and personnel costs place its' relationship with the ARC in jeopardy. To effectively posture the service to meet future threats to national security requires the Air Force needs to reflect upon the lessons learned since 1947 in order to plot a fiscally responsible course for the Total Force of the twenty-first century.

Conclusion: The U.S. Air Force needs to capitalize on the efficiencies offered by the ARC in order to continue to be in a position to effectively and successfully meet and defeat future threats to national security.

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Preface

In the words of 5th Century B.C. historian Thucydides “the events which happened in the past...(human nature being what it is) will at some time or other and in much the same way be repeated in the future.” So it would stand to reason that decisions made without regard for what lessons history may have taught are by default uninformed decisions. Too often leaders find themselves confronted with what appears on the surface to be an easy decision and in the race to be the “the first with the most” fail to grasp the proper context in which the issue has arisen and hence inappropriately defined the problem for which they are attempting to resolve. This paper provides a construct from which the Air Force should evaluate the continued reliance on and affordability of an “operational” Air Reserve Component.

Initially research conducted in support of this topic culminated in a rather lengthy product. This paper has been considerably scaled back to focus on the developments post 1973 Total Force Policy. However, the historical research conducted by the author revealed a considerable learning curve over two plus centuries by the U.S. military to include the United States Air Force with respect in how to effectively employ the nations National Guard and Reserve forces. In the 1950’s the Air Force learned that the Reserve Component must be properly trained to conduct operational missions. In the 1960’s, having ensured the reserves where properly trained, the Air Force learned that the reserve needs to be properly equipped. From the development in the early 1970’s of the Total Force Doctrine the Air Force has continually refined its process to create the “Operational Reserve” that serves it so well today.

Whether the Air Force can continue to rely on an operational Air Reserve Component for the twenty-first century is the focus of this paper. Pressing budget issues on the federal

government, rising operating costs, and a dire need to recapitalize the majority of its force are issues of great concern. The Air Force must continue to strive for efficiencies across the service.

I would like to take this opportunity to thank several people, without whom this project would not have been completed. First and foremost my wife Karen, who patiently read through numerous drafts and provided unwavering moral support and encouragement. Also, I'd like to thank our children, Kaylin, Davis, and William, who tolerated long hours of computer monopolization by their father. Finally, I'd like to thank my mentor Dr. Richard DiNardo for his guidance and patience.

Total Force Policy

On August 21, 1970 Secretary of Defense Melvin Laird announced a ground breaking concept, that of a "Total Force". Secretary of Defense James Schlesinger would declare this concept official DOD policy in 1973.¹ This policy was a result of declining defense budgets as the war in Vietnam drew to a close and was also based on the military's experiences in Vietnam. Secretary Laird's policy was an attempt to provide sufficient troops for the nations' security needs while not incurring the expense of a standing army.² The concept was also an attempt to strengthen public support of the U.S. military following the war, as well as increase confidence in the reserve forces, while saving money by reducing the size of the active duty component of the military. The policy sought to insure that the planning, programming, and budgetary execution activities with the Department of Defense effectively considered the active duty as well as the reserve forces concurrently in order to determine the most effective and efficient mix of forces, their costs, and contributions.³ The policy stated in no uncertain terms that Active, Guard, and Reserve forces will share world-wide missions, resource allocations, and force structure and that all will be equipped and trained to the same standards.⁴

Another common perception of this policy is known as the "Abrams Doctrine", named after then Chief of Staff of the Army, General Creighton Abrams. General Abrams had shared in the displeasure of senior Department of Defense leadership related to President Johnson's refusal to activate large numbers of the reserve component members to take part in the war in Vietnam. Now Secretary of the Army and under new Republican President Richard M. Nixon, who escalated U.S. involvement in Vietnam in 1969, Abrams found a sympathetic political climate. Abrams was determined to maintain a clear relationship between the American public at large and the military in an effort to engage public support of military operations.⁵ Abrams established

this bond between the public and the military by creating a force structure that was to integrate Guard and Reserve units with the Active Components so tightly as to make them “inextricable”.⁶

Never again would the army deploy to fight the nations wars without large contingents of the reserves. Since reservists maintained close ties with the local communities from which they would be called to active duty, the communities would support their “neighbors” and by default, any war effort. Regardless of one’s interpretation or stance in relation to the Total Force Policy, the Air Force will struggle with the concept for some time to come. Total Force policy will also have various impacts on the ARC throughout the 1970’s and 1980’s as the Cold War heightened during the Reagan Administration and would ultimately play itself out in the Persian Gulf War of 1991.

The ARC benefited from the Air Force’s force structure drawdown following the Vietnam War as the Air Force divested itself of “excess” aircraft and equipment. Though the majority of the equipment that transitioned over to the ARC was not cutting edge, it served the purpose of replacing aging aircraft fleets of both the Air National Guard and the Air Force Reserve. At the same time the Air Force was reducing force structure, the service was also beginning to take possession of newer airlift aircraft, which only exacerbated the flow of equipment to the ARC. The Air Force was still reluctant to transition the more technologically advanced aircraft to ARC, however. Congress interpreted this reluctance on the part of the Air Force as an affront or unwillingness to fully support the Total Force Policy, and decided to take legislative action on behalf of the ARC. The action taken by Congress would “institutionalize” the practice of purchasing limited amounts of newer aircraft and delivering them straight to reserves. Such was the case in the first conversion of a Guard unit in 1974 to the jet powered

KC-135 Stratotanker. In 1979 Congress would direct the additional purchase and transition of 4 new C-130H model aircraft straight from the factory to the reserves.⁷

The election of Ronald Reagan in 1980 as President of the United States signaled a revised and renewed interest in the state of the military and whether it was or was not postured and equipped to fight a war with the Soviet Union, should that situation unfold. This renewed emphasis on readiness, capabilities, and force structure of the services brought with it increased manning and new “state-of-the-art” equipment. For the ARC, the increased budgets equated to increased manning, but more importantly it began yet another trickle-down effect of airframes as the active duty Air Force procured new fighters like the F-15 Eagle air superiority fighter and the multi-role F-16 Fighting Falcon. As the Air Force began to recapitalize its aircraft fleet with “fourth generation” fighters, older aircraft like the “third generation” F-4 Phantom II and the A-7 Corsair were transferred to the ARC. This was yet again, not a concomitant Total Force procurement strategy, but rather a deliberate repeat of the trickledown of aging airframes from the active duty. This was the same Air Force anti-Total Force Policy that had forced Congress to act in the 1970s.

By 1988 the Air National Guard had increased from 93,000 personnel in 1979 to over 117,000 personnel.⁸ The ARC had also taken possession of “newer” transport and air refueling aircraft, and as such their participation in operational missions began to evolve and become more frequent. Throughout the 1980’s the ARC would add key contributors to operations around the globe like Operations *Urgent Fury*, *Eldorado Canyon*, and *Just Cause*. The ARCs most significant contribution in support of the Total Force Policy would occur in response to the Iraqi invasion of Kuwait in 1990.

On August 2, 1990 Iraqi President Saddam Hussein orchestrated and conducted a military invasion and annexation of the neighboring country of Kuwait. President George H. W. Bush authorized the first involuntary call to active duty of the Reserve under the Total Force Policy of 1973.⁹ Of the 250,000 Reservists called to active duty approximately 36,500 would be from the Air Reserve Component, including 12,500 personnel from the Air National Guard and 24,000 from the Air Force Reserve.¹⁰ Unlike previous involvement of the Reserves in the military conflicts, the Air Component Reservists activated in support of Operations *Desert Shield* and *Desert Storm* and did not require additional training or equipment before performing operational missions alongside their active duty counterparts.

The missions performed by the ARC entailed aerial refueling, airlift missions, and aerial port missions. The tanker and airlift aircraft employed by the ARC in support of combat operations in the Gulf were the same aircraft, which had been transferred by the Air Force to the ARC beginning in the 1980s. Due to the nature of the missions these aircraft and their crews perform, they had remained relatively neutral to technological developments that would have made other aircraft obsolete. The same however, could not be said for the ARC fighter force structure, which the Air Force had not recapitalized but had simply transitioned to obsolete aircraft. “When *Desert Storm* kicked off, we had some great capability within the Air National Guard and the A-7 platform. The active duty was not flying the A-7, and they were concerned with getting the top-of-the-line weapons in the fight, and we were not asked to participate. That seems to me to be a great waste of money. It makes no sense to have a platform that you’re not going to use in war” the Director of the Air National Guard, Lt. General Harry Wyatt would state.¹¹

President Bush declared a ceasefire on 28 February, 1992 however this did not effectively end Coalition air operations in Iraq. Authorized by United Nations Security Council Resolution 688, two “no fly zones” were established in Iraq, one in the North and one in the South, in which no Iraqi aircraft were allowed to operate.¹² The enforcement of these zones became known as Operations *Northern Watch* and *Southern Watch*. The rationale was to protect the ethnic Kurds in the North and the minority Shiite populations in the South from Iraqi abuse. These “no fly zones” would remain in effect and subsequently enforced until March of 2003. To meet the sustained requirement for forces to support the no fly zones, while continuing to meet other obligations around the world, the USAF was once again forced to rely on the ARC. Fortunately, the Air Force began transitioning the ARC to the F-15 and F-16 *en masse* by 1993. By 2003 Reservists had flown over 1100 sorties in support of both operations and the Air National Guard had contributed 5 percent of a month’s total Air Force aircraft deployed.¹³

The incorporation of the ARC into operational missions over two decades of Total Force, though successful, provided several lessons learned which should not have come as a surprise to the Air Force. Where the ARC was trained, and subsequently equipped with relevant aircraft they contributed significantly to the Total Force. However, when this was not the case, no significant contribution was made in support of the Total Force. As a result of the lessons learned, the USAF developed a “business model” approach to increase operational contributions of the ARC. This business model will become known as the Air Expeditionary Force (AEF).¹⁴ This concept transitioned the Air Reserve Components beyond “Total Force” and from a “Strategic” to an “Operational Reserve”.

Air Expeditionary Force

Following the Gulf War in 1992 General Colin Powell, then the Chairman of the Joint Chiefs of Staff, developed a new force construct for the U.S. military known as the Base Force Concept.¹⁵ This concept called for a reduction in the number of personnel and the number of organizations in the U.S. military as well as a reduction of U.S. overseas bases. The Base Force concept called for a reduction in the overall active force from 2.1 million to 1.6 million, and a reduction in the reserve force from 1.56 million to 898,000. Once again the military found itself facing reductions in force structure. However, the U.S. was still involved militarily in the Persian Gulf and would soon be involved in other operations around the globe. Throughout the 1990's the U.S. military conducted such operations as *Restore Hope* in Somalia in 1993, *Uphold Democracy* in Haiti from 1994 - 1996, and *Joint Guard*, *Joint Forge*, and *Joint Endeavor* in Bosnia, 1995 - 1999.¹⁶ The ARC participated in each of these operations, providing airlift, aerial refueling, command and control, combat aircraft, and support functions to varying degrees.

In an effort to stimulate a faltering U.S. economy, newly elected President William Jefferson Clinton and his Secretary of Defense Les Aspin sought even deeper cuts in defense spending than what the Base Force had established. As such, Secretary Aspin ordered an assessment of all defense concepts, plans and programs, known as a Bottom Up Review (BUR), in order to better identify actual requirements. The recommendations of the BUR coupled with the 1997 Quadrennial Defense Review (QDR), called for a reduction in Defense spending from 5.3 percent of the Gross Domestic Product (GDP) in 1990 to 3.4 percent in 1997.¹⁷ The Air Force's share of this change would be a reduction in size from 29 fighter wing equivalents in 1992 to 21 fighter wing equivalents, 13 Active and 8 Reserve, by 1995.¹⁸

Confronted with the realities of declining budgets, personnel, and force structure and saddled with the increased demand for the use of those forces in the mid to late 1990's the Air Force concluded that it needed a new way of doing business. What evolved was a new Total Force "expeditionary business model", known as the Air Expeditionary Force (AEF), later renamed the Air and Space Expeditionary Force.¹⁹ The AEF was a mechanism or process for scheduling and managing active, guard, and reserve forces for expeditionary use.²⁰ Under this concept the forces of the Air Force, Air Force Reserve, and the Air National Guard would be grouped together and then subdivided into ten "packages". Each package represented a cross-section of capabilities and weapons systems drawn from different units and locations. The concept called for approximately 150 - 175 aircraft, and accounted for 15,000 personnel.

The AEF construct seized the opportunity to capitalize on ARC assets by fully including them into the deployable packages. These packages rotated through a 15-month cycle during which time they would be on-call for a 90-day period, ready to respond to crisis within 72-hours notice, with two AEFs on-call each cycle. In 2004 the on-call period increased to 120 days. The remaining 12 months of the cycle units used to conduct routine activities. When deployed in support of contingency operations the AEF was task organized as an Air Expeditionary Task Force (AETF), not their own separate entity, which presented the appropriate balance of force, sustainment, control, and force protection.²¹ This concept allowed for the Air Force to respond to the increasing number of operational and contingency missions worldwide and provided a level of predictability for units deploying however, it also allowed for surge operations in case of major conflict.

Operation *Allied Force*, March 24 1999 - 7 June 1999, was the first test of the Air Forces expeditionary organization model.²² The operation was essentially a North Atlantic Treaty

Organization (NATO) air campaign against Bosnian-Serbs as a response to escalating instances of “ethnic cleansing” being carried out against Albanians. President Clinton authorized the mobilization of 25,000 ARC personnel on April 27, 1999. The ARC would contribute attack, airlift, and tanker aircraft as well as logisticians and communications assets. The Air Force Reserves mobilized approximately 1,291 personnel with 875 deploying overseas with the Air National Guard mobilizing almost 4,000 personnel. With only 7 days lapsing between notification and mission execution, Air National A-10s were flying combat missions over Bosnia on May 21, 1999.²³ The rapid deployment of forces and their organization proved to be a success.

The terrorist attacks on the United States on September 11, 2001 would not only test the AEF construct once again, but its ability to surge forces in support of three combat operations of *Noble Eagle*, *Enduring Freedom*, and *Iraqi Freedom*. In response to the September 11 attacks, President George W. Bush ordered a series of activations for thousands of reservists on September 14, in order to provide added security at key locations around the country and to provide for the defense of the homeland for Operation *Noble Eagle*. By December 2001 more than 11,000 ARC members were on active duty, some providing additional security at airports, some supporting combat air patrols and alert missions, while others supported the flying operations. As of mid-January 2002 more than 13,000 homeland defense flights had been flown since September 11, 2001, with the ARC flying eighty percent of those missions.²⁴

On October 7, 2001 President Bush took the war on terrorism to Afghanistan under the guise of Operation *Enduring Freedom*. Reservists flew close air support, interdiction, and bombing missions over Afghanistan. From the outset, they also provided airlift, aerial refueling, civil engineering, and security support. They moved vital supplies and equipment from bases in

the U.S. to the theater, provided tankers for the air bridge as well as for fighters over Afghanistan, and they provided much needed close air support using the A-10, F-16, and E-8 Joint Surveillance Target Attack Radar System (J-STARS) aircraft. By March of 2002 for example National Guard C-130 aircraft had flown 55% of the missions for the war in Afghanistan.²⁵

Operation *Iraqi Freedom* began on March 20, 2003 as a coalition action to locate and destroy possible weapons of mass destruction being hidden in Iraq, as well as to facilitate the removal of the regime of Saddam Hussein. President Bush continued to mobilize the Reserve in support of operations in Iraq. Mobilized Reservists contributed to the establishment of air bridges to and from the theater for equipment and refueling of aircraft. They also provided ground combat aircraft and bombers as well as flying almost 50% of all airlift and aero-medical evacuation missions, provided 80% of the close air support capability, and 70% of the tanker aircraft deployed.²⁶ On August 31, 2010 when President Obama declared an end to combat operations in Iraq the ARC was providing almost 50% of the total number of aircraft deployed.

While engaged in a global war on terrorism with ongoing operations in Iraq and Afghanistan the Department of Defense was under increasing pressure to transform the military in order to meet future threats to national security and to extend key U.S. military advantages and reduce vulnerabilities. Base Realignment and Closure is a process used by the federal government, directed at the administration and operation of the Armed Forces, to realign inventory and to reduce expenditures. BRAC 2005 was part of a wider governmental effort to transform America's national security institutions to meet 21st-century challenges and opportunities.²⁷

The military transformation proposed by BRAC 2005 was based on input from the Chairman of the Joint Chiefs of Staff on the long-term force structure requirements derived from analysis of current and future threats, and challenges to national security for a 20-year period, from 2005 to 2024.²⁸ To meet the proposed force structure, BRAC 2005 called upon the Air Force to reduce its number of bases, aircraft, and personnel. Secretary of the Air Force James G. Roche stated that BRAC 2005 was critical to the Air Force's ability to successfully meet our future mission needs by reducing budgetary demands from excess infrastructure. To this end the Air Force's plan was to remove aircraft from 30 ARC units, of which, 23 units were from the Air National Guard.

BRAC 2005 drove a huge wedge between the Air Force and the ARC. In an effort to reduce the rift the Air Force introduced a new Total Force Concept known as Future Total Force (FTF).²⁹ Future Total Force would maximize the Air Force's capabilities by reducing redundancies across the service, eliminate outdated operations, and increase combat capabilities. By transforming and rebalancing the active, guard, and reserve forces the Air Force could optimize its personnel and equipment. To this end FTF would transition units from the ARC that lost aircraft or missions under BRAC into new "emerging missions" in areas such as space or Intelligence, Surveillance, and Reconnaissance (ISR). Units would also enter into a new organizational construct of "associations". Associations took several forms but the concept combined members of the active and reserve components into organizations that shared equipment and/or aircraft in order to meet mission objectives. Where these associations were established the Air Force was able to maximize efficiencies of both personnel and equipment.

On October 29, 2008 Secretary of Defense Robert M. Gates issued Department of Defense Directive 1200.17, entitled "Managing the Reserve Components as an Operation Force".

The purpose of the Directive was to establish the “overarching set of principles and policies to promote and support the management of the Reserve Components (RCs) as an operational force”.³⁰ Reserve Components were thus to provide operational capabilities to meet U.S. defense requirements across “the full spectrum” of conflict. For the National Guard this policy also included supporting federal and state missions as well as Homeland Security and Defense Support to Civil Authorities (DSCA). The policy was clear to point out, much like the Abrams Doctrine from 1973, that the RC provides connection to and commitment of the American public. The directive also included clear direction to the Service Secretaries to manage their respective RCs as an operational force, to ensure RCs participation across the full spectrum of missions at home and abroad, to provide operational capabilities according to the national defense strategy, and to ensure rebalancing is conducted on a continuing basis to adjust force structure and skill inventories to meet full spectrum operations while moderating excessive utilization of the total force.

In 2010, the active duty Air Force was composed of 331,700 personnel, the Air National Guard 106,700, and the Air Force Reserve 69,500.³¹ Using these numbers as a baseline, the ARC combines for 53 percent of the total manpower available for the Total Force. The ARC operates 35 percent of the Air Force fighter aircraft, 50 percent of the tanker and aerial refueling aircraft, and 46 percent of the transport aircraft.³² Both the Air Force Reserve and Air National Guard are involved in the Intelligence, Surveillance, and Reconnaissance mission for Remotely Piloted Aircraft (RPA) such as the MQ-1 and MQ-9. The Air Force Reserve conducts 100 percent of the Air Force’s weather surveillance mission and the Air National Guard 90 percent of the Air Sovereignty Alert (ASA) missions. As the 2010 USAF statistics indicate, there is little doubt of the Air Forces reliance on the ARC as a full partner in today’s Total Force. Reliance on

the ARC as partners in the Total Force will need to continue as the Air Force postures to meet the challenges of an ever increasingly complex twenty-first century security environment. However, without significant changes, reliance on the ARC as an operational reserve could prove to be unsustainable.

Threatening the Operational Reserve

The United States Air Force and with it the Air Reserve Components have been on quite a roller coaster ride since their creation as a service in 1947. The twists and turns, peaks and valleys have covered numerous wars, contingency operations, humanitarian assistance and disaster relief operations, fielding new cutting edge technology, force structure fluctuations and constantly changing budgets and priorities. It has only been in the last few years however, that the Air Force has been able to create a policy that has for the most part effectively and successfully orchestrated the reserve components into an operational total force. However, the current Total Force has potentially reached a crescendo in terms of its affordability, as the nation and the military are faced with economic austerity exemplified by exponential increases in costs, both in current and future operations, requirements for equipment modernization and recapitalization, and rising national debt.

The Defense Department is no stranger to cuts in funding. As a matter of fact since 1962 the budget for the DOD has fluctuated from a high of 9.7 percent of U.S. Gross Domestic Product (GDP) to 3.0 percent.³³ The Air Forces share of the Defense Budget has averaged between 25 and 30 percent annually.³⁴ What makes the current Defense Budget squeeze different is not the historically up and down trends in defense spending in relation to perceived threats to national security, but rather a global financial crisis impacting the majority of the worlds economically influential nations. The global economic down turn coupled with

unparalleled and unprecedented spending by the U.S. Government has created what many refer to as a “perfect economic storm”. Simply put, the U.S. Government’s current spending far exceeds the amount of revenue it receives. The scale of this shortfall between spending and revenue is unprecedented since the end of World War II.³⁵ This trend is not just expected to continue but to unfortunately increase over the next twenty-five plus years unless calculated measures are taken to control spending.

U.S. federal spending can be placed into one of two broad categories. These categories are either non-discretionary spending or discretionary spending. Non-discretionary spending is spending that is “mandatory” and continues without Congress having to re-approve it each year, or expenditures on programs for which the government is required to fund. Examples of non-discretionary spending include programs like Social Security, Medicare, Medicaid, interest on the national debt, and a host of others. These expenditures combine to claim almost 65 percent of the national budget in 2010.

Demands on revenue to support these programs are forecast to continually increase annually as the population of the U.S. continues to age, thus creating more claimants, and costs continue to rise. The government will continue to borrow money to fund these and other programs due to insufficient revenue. Spending for Social Security, Medicare, Medicaid, and interest on the debt are estimated to equal 70 percent of the 2011 federal revenue.³⁶ The national debt will also continue to grow as the government borrows to fund such programs, which then create an “interest” budget problem. With the amount of U.S. debt held by foreign nations rising from \$1.4 trillion to \$3.5 trillion in recent years, almost 40 percent of the national debt, it’s little wonder why the DOD has identified the economy as a top national security interest.³⁷

Funds required to cover federal expenditures on non-discretionary spending, without borrowing, place ever increasing demands on discretionary spending. Discretionary spending is money that Congress must re-appropriate each year. This includes two broad categories, defense and non-defense, and amounts to approximately 35 percent of the federal budget. The military budget is the portion of discretionary spending allocated to the DOD. The military budget includes funds to pay for salaries, training, and health care for service members, as well as weapons, equipment, facilities, operations, and to develop and purchase new equipment. In 2010 the Defense portion of discretionary spending was just over 20 percent, or \$530 billion.³⁸ The federal government cannot afford to continue to outlay these levels of funding in discretionary spending. Many in Congress feel that the appropriate action is to significantly reduce defense spending. Congressman Barney Frank, D-Mass, has been quoted as saying that “the math is compelling: if we do not make reductions approximating twenty-five percent of the military budget, it will be impossible to continue an adequate level of domestic spending”.³⁹

The 2010 Quadrennial Defense Review (QDR) published by the DOD in support of President Obama’s 2010 National Security Strategy (NSS) identifies the need to reduce defense spending under the guise of finding efficiencies, and cutting wasteful, unneeded and unproven programs. The 2010 QDR postures the U.S. military to be prepared to support the broad national goals of promoting stability in key regions, providing assistance to nations in need, and promoting the common good. This vector is a significant change from previous QDRs where the military was postured to fight and win two major regional conflicts simultaneously. The QDR advocates two clear objectives. First, the capabilities of the military need to continue to be rebalanced in order to prevail in today’s war and conflicts, while continuing to develop the capabilities needed to successfully defeat future threats.⁴⁰ Second, DOD’s institutions and

processes need to be reformed to better support the warfighter by buying weapons that are usable, affordable, and needed, while ensuring that the “taxpayers dollars are spent wisely and responsibly”.⁴¹

In order to successfully obtain these objectives, the DOD must balance risk and resources among four supporting pillars of prevailing in today’s wars, preventing and deterring future conflict, defeating adversaries in a wide range of contingencies, and preserving as well as enhancing the all-volunteer force.⁴² Prevailing in today’s wars means not only ensuring success in Iraq and Afghanistan but also prevailing against terrorist networks world-wide. Preventing and deterring conflicts rests in land, air, and sea forces capable of fighting both limited and large-scale conflicts where “anti-access” weaponry and tactics are used, as well as forces capable and equipped to respond to a full range of challenges posed by both state and non-state actors and other potential major adversaries. Preparing to defeat adversaries and succeeding in a wide range of contingency operations is the broadest of the four pillars. It entails U.S. forces planning for and preparing to “prevail” in a very broad spectrum of contingencies, occurring in multiple theaters often in overlapping time periods.⁴³

In support of “rebalancing the force”, the first objective, the QDR recommends over 32 key initiatives and directions in support over six broad categories. Though extremely broad, the central theme in support of objective one, is ensuring the military is resourced and capable of providing a “full range of capabilities”. In support of the second objective, “guiding the evolution of the force”, the QDR identifies fourteen key areas of concern under three categories. The theme for guiding this evolution of the force is economic reality. The enhancements required for the military will be costly. The QDR describes some of the tradeoffs required to rebalance capabilities and notes that future tradeoffs will be required.

The Secretary of Defense has taken actions to direct resources away from “lower-priority” programs and activities so that more pressing needs could be addressed.⁴⁴ These “more pressing needs” reflect capabilities required to defeat current asymmetric threats of global terrorism. To start the process, Secretary of Defense Robert Gates directed the services to find \$100 billion in savings over Future Years Defense Program (FYDP). After months of scrubbing programs Secretary Gates announced on January 6, 2011 that DOD would cut \$78 billion from its budget over the next five years.⁴⁵ No service was spared cuts and for its part the Air Force had to slash \$34 billion.⁴⁶

These cuts meant the closure of the C-17 transport aircraft production line, reducing the number of F-35 Joint Strikers from the requirement of 2,400 plus to 1,700, limiting the number of F-35s procured between 2012 and 2016 to 124 aircraft, consolidating several bases, reducing the number of personnel supporting Air Force Major Commands overseas, and cutting overall manpower by 1,373 enlisted and 4,373 officers.⁴⁷ The force structure of the Air Force under the QDR calls for 30-32 airlift and air refueling wings, 10-11 theater strike wings, 5 long-range bomber wings, and 6 air superiority wings. Hidden in these QDR numbers is also a reduction in total aircraft for the Air Force. One example of such a reduction is the number of theater strike wings proposed and the number of aircraft that equates to. The Air Force plans to procure 1,734 F-35Bs to fill the strike roll, however at the current 72 aircraft per wing construct the number of tails required for 11 wings is 792. Reduced numbers exacerbate the threat posed by another issue to current Air Force Fleet, aging aircraft.

Perhaps the most pressing issue that must be confronted is an aging air fleet. The numbers above do not factor in the fact that the average age of a bomber in the Air Force inventory is 29 years, the average age for an air superiority fighter not including the F-22 is 25

years, tankers average 36 years, and theater strike aircraft average over 22 years of age. These aircraft ages increase for those aircraft currently assigned to the ARC. Aging aircraft result in several burdens to the budget. First, and the most obvious, is the cost of maintenance to keep the aircraft flight worthy, in terms of man-hours, replacement parts, and down time. Another cost driver of aging aircraft is fuel. Older aircraft are less fuel-efficient and drive higher costs. The Air Force estimates that for every \$10.00 increase in a barrel of oil the increased expenditure on fuel is \$600 million dollars.⁴⁸ Costs associated with personnel have also risen considerably over the past decade, by almost 50 percent and these costs are expected to continue to increase.

Sustaining an Operational Total Force

The cuts identified by the Air Force, though indicating an up-front cost savings, will not provide for the continued long-term viability of the Total Force in support of national interests. The \$34 billion in efficiencies that the Air Force plans to save over the FYDP will not be sufficient to cover the shortfalls in funding, cover added manpower and personnel costs, recapitalize the aging air fleet, and provide for increased procurement of ISR platforms. To be successful in countering future threats to national security the Air Force needs to step outside the box, take a very hard look at itself and the future operating environment, and come to terms with those requirements and fiscal realities. Though the problem facing the Air Force seem to be “wicked” in nature, when examined holistically the solution becomes a simple mathematical equation.

The solution is to capitalize on the efficiencies gained from properly employing and resourcing the current operational reserve Total Force construct, the very construct that the Air Force has painstakingly developed over the past 3 decades. Now more than ever the Air Force needs to fully embrace the 1973 Total Force Concept and look to the ARC as part of the solution

not part of the problem. History has proven that the Total Force benefits when the ARC can execute its responsibilities as an operational force. Successfully achieving the QDRs objectives, pillars, and force structure requires an Air Reserve Component that can serve in an operational capacity – available, trained, and equipped. Preventing and deterring conflict will necessitate the continued use of some elements of the Reserve Component....the challenges facing the United States today and in the future will require us to employ National Guard and Reserve forces as an operational reserve to fulfill requirements.⁴⁹

The Air Reserve Components provide numerous opportunities for the Air Force to gain efficiencies in terms of availability to meet operational mission taskings, but more importantly in terms of cost effectiveness and efficiency. The first area in which the Air Force should seek to capitalize on these efficiencies is in manpower. The experience level of operators, maintainers, logisticians, and intelligence personnel are higher in the ARC than they are in the Active Component. This higher experience level equates to reduced proficiency requirements, and reduced aircraft down time. According to the FY 2008 Federal Defense Appropriation and the General Accountability Office (GAO) the cost of an active duty Air Force member in 2008 was \$73,630 compared to an ARC counterpart of \$22,367.⁵⁰ When overall personnel appropriations are compared, the ARC uses approximately 14 percent of the appropriated personnel funds to perform over 50 percent of the total Air Force mission.⁵¹

The efficiencies gained from properly incorporating the ARC extend beyond manpower cost savings. Significant efficiencies can also be gained in the cost of day-to-day operations. Operations and Maintenance (O&M) costs include such items as supplies, fuel, repair parts, recruiting and training. According to figures published in 2008, the Air Force O&M appropriation was \$40.5 billion. For its part the ARC consumed approximately 21 percent or

\$8.5 billion yet provided 54 percent of the total Air Force mission.⁵² Recently the Commission on the Guard and Reserve and the GAO cited the ARC as operating at roughly 25 percent of the active Air Force cost.⁵³ The bottom line is that when comparing cost and capabilities the ARC provides for almost 50 percent of the mission while consuming only 6 percent of the budget.

The Air Force has attempted to harness these efficiencies by employing a construct termed “Associations”, but only half-heartedly. Associated unit constructs attempt to capitalize on the efficiencies provided by the ARC by combining active duty and ARC personnel into an operating squadron, unit, or wing organizational construct. There are several types of associations, termed Classic, Active, ARC, and Integrated. The terms refer to how the association is organized i.e. which component is the “lead”. In a Classic Association the active duty has the “lead” where it retains overall responsibility for the weapons system but the ARC provides additional manpower to support operations. The opposite is true for Active Associations, where the ARC has responsibility for the weapons system and the active duty provides additional manpower. The other associations are simply additional variables to the concept.

The Air Force has established several associated units and as such has successfully demonstrated the interoperability of personnel. However, instead of gaining efficiencies in manpower they have created the opposite. Manpower brought to associations, regardless of type, have been additive in nature. As such, no efficiencies have been gained in overall manpower cost. Both the Air Force and the ARC need to concede, that combined manpower for associations need only to meet the number of personnel required in support of a particular weapons system. Any overage or “additive” manpower needs to be removed from the construct

to effectively harness the cost savings, or in worst case be reallocated to emerging requirements to offset future growth.

Increasing the number of personnel in the ARC is another avenue the Air Force should pursue to reduce overall personnel cost. Additional positions in the ARC, especially full-time positions would allow the ARC to more effectively integrate into associate units. The process of transitioning traditional ARC members to active duty however, needs to be streamlined. There are far too many types of status of individuals in the Reserve such as; Individual Ready Reserve, Selected Reserve, Individual Mobilization Augmentees, Inactive National Guard, Active Guard and Reserve, and the list goes on. Reducing the types of reserve members would greatly simplify the process and integration efforts. This would also provide flexibility to move personnel in and out of units and operations as required to meet mission needs. In addition to streamlining the types of reserve member status, Congress needs to replace cold war era laws governing the types of jobs that can be performed in a reserve status. Title 32 status reserve members are legally not allowed to participate in operational missions under that status and must be converted to Title 10 US Code. This differentiation limits the ability of the reserve to fully participate in operational missions to the fullest extent possible. The Air Force and the ARC need to continue to pursue the association constructs not just for the efficiencies in operations and cost that are gained but also as the need for the recapitalization of the air fleet becomes a reality.

DOD cannot continue to spend funds on technologically advanced yet unneeded weapons systems. In the words of Secretary Gates the issue is “one between capabilities we are pursuing and those that are actually needed in the real world of tomorrow”.⁵⁴ A prime example was the cut in procurement in the number of fifth generation F-22 Raptor aircraft from 332 to just over

187.⁵⁵ The future threat assessment did not project a requirement for the F-22 nor was it affordable at the price tag of almost \$350 million per aircraft. Unfortunately, in its demand for more F-22s the Air Force sacrificed its Service Secretary and its Chief of Staff. Instead of placing all of its “proverbial eggs” in the F-22 basket the Air Force has now placed all its “eggs” in support of the F-35. Continued support for the much delayed and over budget F-35 Joint Strike Fighter, could have the same result with an estimated price tag of \$135 million per aircraft with a planned buy of 1,763 aircraft.⁵⁶

The F-35 Joint Strike Fighter is programmed to replace aircraft like the F-16, F-15, and A-10. Experts tout it as perhaps the last manned fighter aircraft to be produced for the military. However, based on the data provided by the manufacturer, though it has increased survivability through stealth and advanced avionics, it cannot completely fulfill the roles currently being conducted by the F-16 and A-10. Both aircraft carry substantially more weapons than the F-35. This increased weapons load directly relates to more targets being able to be engaged by the aircraft per sortie. The Air Force should re-evaluate the requirements for an aircraft that cannot perform all the mission sets of the current aircraft inventory it plans for it to replace, at a cost that continues to increase and follow the lead of the Navy. The Navy is encountering the same fighter shortage as the Air Force and has taken the course of purchasing more F-18 Super Hornets to mitigate the issue. The Air Force would more effectively meet future security threats and operate more effectively in the crises of future conflicts by recapitalizing its aging fighter fleet with new production, fourth generation fighters like the F-16, F-16E, and A-10.

In the words of Thucydides from the 5th Century B.C. “the events which happened in the past...(human nature being what it is) will at some time or other and in much the same way be repeated in the future”. The Air Force needs to revisit the lessons it has learned over its sixty-

four year history to make informed decisions about its future, its relationship with the Air Reserve Component, and how the service can effectively defeat future threats to national security. Upon reflection, the answer should be as clear as the solution is simple. The Air Force needs to fully embrace the ARC as an Operational Reserve and fully capitalize on the efficiencies of the Total Force.

¹ United States Air Force Reserve Command, AFRC History - Milestones, <http://www.afrc.af.mil/library/history/1969-1989/milestones/index.asp>

² James Jay Carafano, Ph.D., "The Army Reserves and the Abrams Doctrine: Unfulfilled Promise, Uncertain Future," *Heritage Lectures*, no. 869 (December 2004): 1-2.

³ Susan Rosenfeld and Charles J. Gross, *Air National Guard at 60: A History* (Department of the Air Force, 2007), 13.

⁴ Albert C. Zapanta, "Transforming Reserve Forces," *Joint Forces Quarterly*, no. 36 (December 2004): 64, <http://www.ndu.edu/press/jointforcesquarterly.html> (accessed March 1, 2011).

⁵ James Jay Carafano, Ph.D., *Heritage Lectures*, 1-2.

⁶ *Ibid.*, 1-2.

⁷ Rosenfeld and Gross, *Air National Guard at 60: A History*, 14.

⁸ Michael D. Doubler, The National Guard Association of the United States, <http://www.ngaus.org/content.asp?bid=2501>

⁹ U.S. Department of Defense, *The Reserve Components of the United States Armed Forces*, by Office of the Assistant Secretary of Defense for Reserve Affairs. Arlington, VA: Department of Defense, 1996, 13.

¹⁰ Rosenfeld and Gross, *Air National Guard at 60: A History*, 81.

¹¹ Jon Soucy, "General says Air Guard facing recapitalization issues," Air Force News, July 29, 2009, <http://www.af.mil/news/story.asp?id=123161001>

¹² United Nations, Council on Foreign Relations, <http://www.un.org/doc/scres/1991/scres91.htm>

-
- ¹³ Rosenfeld and Gross, *Air National Guard at 60: A History*, 28.
- ¹⁴ U.S. Department of the Air Force, *Air Force Basic Doctrine*, AFDD-1 (Washington, DC: U.S. Department of the Air Force, November 2003), 60.
- ¹⁵ John J. Gargan, "To Defend a Nation: An Overview of Downsizing and the U.S. Military," *Management*, Vol 2. no. 3 (1999): 226.
- ¹⁶ National Guard Association of the United States, Major National Guard Call-ups, <http://www.ngaus.org>
- ¹⁷ John J. Gargan, *Management*, Vol 2. no. 3 (1999): 228.
- ¹⁸ U.S. Department of Defense. *Annual Report to the President and the Congress*, by William J. Perry. Arlington, VA: Department of Defense, 1995.
- ¹⁹ U.S. Department of the Air Force, *Air Force Basic Doctrine*, AFDD-1, 60.
- ²⁰ Ibid., 61.
- ²¹ Ibid., 49.
- ²² Benjamin S. Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA, Project Air Force, RAND, 2001).
- ²³ Rosenfeld and Gross, *Air National Guard at 60: A History*, 26.
- ²⁴ Global Security, Military Operations, <http://www.globalsecurity.org/military/ops/noble-eagle.htm>
- ²⁵ Rosenfeld and Gross, *Air National Guard at 60: A History*, 50.
- ²⁶ Ibid., 54.
- ²⁷ U.S. Department of Defense, *Base Closure and Realignment Report 2005*, Arlington, VA: Department of Defense, 2005.
- ²⁸ Ibid.
- ²⁹ Donna Miles, U.S. Department of Defense, News, <http://www.defense.gov/news/newsarticle.aspx?id=24693>
- ³⁰ U.S. Department of Defense, *Managing the Reserve Components as an Operational Force*, Directive 1200.17, October 29, 2008, 1.

-
- ³¹ Tamar A. Mehuron, "2010 Air Force Almanac," *Air Force Magazine*, May 2010, 36-62.
- ³² *Ibid.*, 36-62.
- ³³ *Ibid.*, 36-62.
- ³⁴ *Ibid.*, 36-62.
- ³⁵ U.S. Joint Forces Command, *The Joint Operating Environment 2010*, (Norfolk, VA: U.S. Joint Forces Command), 20.
- ³⁶ Rudolph G. Pénner, Statement to the Senate, Committee on Budget, *Choosing the Nation's Fiscal Future*, Hearing, February 11, 2010, Available at: <http://budgetreform.org>
- ³⁷ U.S. Joint Forces Command, *The Joint Operating Environment 2010*, 19.
- ³⁸ U.S. Department of Defense, *DoD Releases Fiscal 2010 Budget Proposal*, by Office of the Assistant Secretary of Defense (Public Affairs), Arlington, VA: Department of Defense, May 7, 2009.
- ³⁹ Barney Frank, "Cut the Military Budget," *The Nation*, (March 2, 2009), <http://www.thenation.com/article/cut-military-budget-ii> (accessed March 1, 2011).
- ⁴⁰ U.S. Department of Defense, *The Quadrennial Defense Review 2010*, by Robert Gates, Arlington, VA: Department of Defense, February 2010, iii.
- ⁴¹ *Ibid.*, iii.
- ⁴² *Ibid.*, v.
- ⁴³ *Ibid.*, vi.
- ⁴⁴ *Ibid.*, xi.
- ⁴⁵ John T. Bennett, "Gates announces \$78B in defense spending cuts," *Air Force Times*, January 6, 2011, <http://www.airforcetimes.com/news/2011/01/military-defense-gates-announces-budget-cuts-010611w/> (accessed March 1, 2011).
- ⁴⁶ Scott Fontaine, "Gates outlines cuts in Air Force operations," *Air Force Times*, January 7, 2011, <http://www.airforcetimes.com/news/2011/01/airforce-budget-010711w/> (accessed March 1, 2011).

⁴⁷ Jeff Schogol, "Air Force wants to trim 5,750 people by 2012," *Stars and Stripes*, March 26, 2010, <http://www.stripes.com/news/air-force-wants-to-trim-5-570people-by-2012-1.10036> (accessed March 1, 2011).

⁴⁸ Stew Magnuson, "Aging Aircraft, War Costs Weigh Heavily in Future Budgets," *National Defense*, January 2007, <http://www.nationaldefensemagazine.org/archive/2007/January/Pages/AgingAircraft2755.aspx> (accessed March 2, 2011).

⁴⁹ U.S. Department of Defense, *The Quadrennial Defense Review 2010*, 53.

⁵⁰ Mackenzie Eaglen and Samuel Mahaney, "U.S. Air Force Guard and Reserves Are Force Multipliers that Deserve Support," *The Heritage Foundation*, June 2, 2008, <http://www.heritage.org/research/reports/2008/06/us-air-force-guard-and-reserves-are-force-multipliers-that-deserve-support> (accessed March 1, 2011).

⁵¹ Ibid.

⁵² Ibid.

⁵³ U.S. Government Accountability Office, *Military Personnel* (Washington, DC: U.S. Government Accountability Office, 2008), 21,41.

⁵⁴ John T. Bennett, "Gates: U.S. Must Rethink Expensive Warships, Carriers, EFV," *Defense News*, May 3, 2010, <http://www.defensenews.com/story.php?i=4609074> (accessed March 1, 2011).

⁵⁵ David Rogers and Jen Dimascio, "Senate Votes to Cut F-22 Fighter Jet Funding," *Politico*, July 7, 2009, <http://www.politico.com/news/stories/0709/25210.html> (accessed March 1, 2011).

⁵⁶ Stephen Trimble, "Lockheed Martin Sees F-35A Replacing USAF Air Superiority F-15C/Ds," *Flight International*, April 2, 2010, <http://www.flightglobal.com/articles/2010/02/04/338045/lockheed-martin-sees-f-35a-replacing-usaf-air-superiority.html> (accessed March 1, 2011).

Bibliography

- Bennett, John T. "Gates announces \$78B in defense spending cuts." *Air Force Times*, January 6, 2011. <http://www.airforcetimes.com/news/2011/01/military-defense-gates-announces-budget-cuts-010611w/> (accessed March 1, 2011).
- Bennett, John T. "Gates: U.S. Must Rethink Expensive Warships, Carriers, EFV." *Defense News*, May 3, 2010. <http://www.defensenews.com/story.php?i=4609074> (accessed March 1, 2011).
- Carafano, Ph.D., James Jay. "The Army Reserves and the Abrams Doctrine: Unfulfilled Promise, Uncertain Future." *Heritage Lectures*, no. 869 (December 2004).
- Doubler, Michael D. The National Guard Association of the United States, <http://www.ngaus.org/content.asp?bid=2501>
- Eaglen, Mackenzie and Samuel Mahaney. "U.S. Air Force Guard and Reserves Are Force Multipliers that Deserve Support." *The Heritage Foundation*, June 2, 2008. <http://www.heritage.org/research/reports/2008/06/us-air-force-guard-and-reserves-are-force-multipliers-that-deserve-support> (accessed March 1, 2011).
- Fontaine, Scott. "Gates outlines cuts in Air Force operations." *Air Force Times*, January 7, 2011. <http://www.airforcetimes.com/news/2011/01/airforce-budget-010711w/> (accessed March 1, 2011).
- Frank, Barney. "Cut the Military Budget." *The Nation*, March 2, 2009. <http://www.thenation.com/article/cut-military-budget-ii> (accessed March 1, 2011).
- Gargan, John J. "To Defend a Nation: An Overview of Downsizing and the U.S. Military." *Management*, Vol 2. no. 3 (1999).
- Global Security. Military Operations, <http://www.globalsecurity.org/military/ops/noble-eagle.htm>
- Lambeth, Benjamin S. *NATO's Air War for Kosovo: A Strategic and Operational Assessment*. Santa Monica, CA, Project Air Force, RAND, 2001.
- Magnuson, Stew. "Aging Aircraft, War Costs Weigh Heavily in Future Budgets." *National Defense*, January 2007. <http://www.nationaldefensemagazine.org/archive/2007/January/Pages/AgingAircraft2755.aspx> (accessed March 2, 2011).
- Mehuron, Tamar A. "2010 Air Force Almanac." *Air Force Magazine*, May 2010.

-
- Miles, Donna. U.S. Department of Defense, News,
<http://www.defense.gov/news/newsarticle.aspx?id=24693>
- National Guard Association of the United States. Major National Guard Call-ups,
<http://www.ngaus.org>
- Penner, Rudolph G. Statement to the Senate, Committee on Budget. *Choosing the Nation's Fiscal Future*, Hearing, February 11, 2010. Available at: <http://budgetreform.org> (accessed March 1, 2011).
- Rogers, David and Jen Dimascio. "Senate Votes to Cut F-22 Fighter Jet Funding," Politico, July 7, 2009. <http://www.politico.com/news/stories/0709/25210.html> (accessed March 1, 2011).
- Rosenfeld, Susan and Charles J. Gross. *Air National Guard at 60: A History* (Department of the Air Force, 2007).
- Schogol, Jeff. "Air Force wants to trim 5,750 people by 2012." *Stars and Stripes*, March 26, 2010. <http://www.stripes.com/news/air-force-wants-to-trim-5-570people-by-2012-1.10036> (accessed March 1, 2011).
- Soucy, Jon. "General says Air Guard facing recapitalization issues." Air Force News, July 29, 2009. <http://www.af.mil/news/story.asp?id=123161001> (accessed March 1, 2011).
- Trimble, Stephen. "Lockheed Martin Sees F-35A Replacing USAF Air Superiority F-15C/Ds." *Flight International*, April 2, 2010. <http://www.flightglobal.com/articles/2010/02/04/338045/lockheed-martin-sees-f-35a-replacing-usaf-air-superiority.html> (accessed March 1, 2011).
- United Nations. Council on Foreign Relations, <http://www.un.org/doc/scres/1991/scres91.htm> (accessed March 1, 2011).
- United States Air Force Reserve Command. AFRC History - Milestones,
<http://www.afrc.af.mil/library/history/1969-1989/milestones/index.asp> (accessed march 1, 2011).
- U.S. Department of Defense. *Annual Report to the President and the Congress*, by William J. Perry. Arlington, VA: Department of Defense, 1995.
- U.S. Department of Defense. *Base Closure and Realignment Report 2005*, Arlington, VA: Department of Defense, 2005.
- U.S. Department of Defense. *DoD Releases Fiscal 2010 Budget Proposal*, by Office of the Assistant Secretary of Defense (Public Affairs). Arlington, VA: Department of Defense, May 7, 2009.

U.S. Department of Defense. *Managing the Reserve Components as an Operational Force*, Directive 1200.17. October 29, 2008.

U.S. Department of Defense. *The Quadrennial Defense Review 2010*, by Robert Gates. Arlington, VA: Department of Defense, 2010.

U.S. Department of Defense. *The Reserve Components of the United States Armed Forces*, by Office of the Assistant Secretary of Defense for Reserve Affairs. Arlington, VA: Department of Defense, 1996.

U.S. Department of the Air Force. *Air Force Basic Doctrine*, AFDD-1. Washington, DC: U.S. Department of the Air Force, November 2003.

U.S. Government Accountability Office. *Military Personnel*, Washington, DC: U.S. Government Accountability Office, 2008.

U.S. Joint Forces Command. *The Joint Operating Environment 2010*. Norfolk, VA: U.S. Joint Forces Command.

Zapanta, Albert C. "Transforming Reserve Forces." *Joint Forces Quarterly*, no. 36 (December 2004). <http://www.ndu.edu/press/jointforcesquarterly.html> (accessed March 1, 2011).