

Strategy Research Project

Strategic Rebalance of the Three Component Air Force

by

Lieutenant Colonel Robert M. Kalteis
United States Air Force Reserve



United States Army War College
Class of 2013

DISTRIBUTION STATEMENT: A

Approved for Public Release
Distribution is Unlimited

This manuscript is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden, to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. **PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.**

1. REPORT DATE (DD-MM-YYYY) xx-03-2013		2. REPORT TYPE STRATEGY RESEARCH PROJECT		3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE Strategic Rebalance of the Three Component Air Force				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Lieutenant Colonel Robert M. Kalteis United States Air Force Reserve				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Colonel Lynn I. Scheel Department of Military Strategy, Planning, and Operations				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) U.S. Army War College 122 Forbes Avenue Carlisle, PA 17013				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Distribution A: Approved for Public Release. Distribution is Unlimited.					
13. SUPPLEMENTARY NOTES Word Count: 6,629					
14. ABSTRACT In an era of restrictive budgets and mounting debt, leaders at the highest levels have called for creative solutions to ensure America can meet the future challenges to its national security interests. The U.S. military must decrease spending, particularly on ballooning manpower costs, while maintaining readiness, modernization, and adequate force structure. The Total Force concept has been a powerful and cost-effective collaboration between the Regular Air Force, the Air Force Reserve, and the Air National Guard—together forming a synergistic Three-Component Air Force. Finding the right mix remains a difficult task and requires decision makers break Cold War force structure paradigms, consider advantageous mission capabilities, devise methods to preserve experience and capacity, and target efficiencies. The Air Reserve Component can be leveraged to assist in all these endeavors, while improving agility and reversibility of the force. However, changes in policy, law, and culture will be necessary to anchor institutional change.					
15. SUBJECT TERMS Balance, Capacity, Cost Effective, Mission Capabilities, Reserve Policy, Total Force Mix					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT UU	18. NUMBER OF PAGES 40	19a. NAME OF RESPONSIBLE PERSON
a. REPORT UU	b. ABSTRACT UU	c. THIS PAGE UU			19b. TELEPHONE NUMBER (Include area code)

USAWC STRATEGY RESEARCH PROJECT

Strategic Rebalance of the Three Component Air Force

by

Lieutenant Colonel Robert M. Kalteis
United States Air Force Reserve

Colonel Lynn I. Scheel
Department of Military Strategy, Planning, and Operations
Project Adviser

This manuscript is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

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

Abstract

Title: Strategic Rebalance of the Three Component Air Force

Report Date: March 2013

Page Count: 40

Word Count: 6,629

Key Terms: Balance, Capacity, Cost Effective, Mission Capabilities, Reserve Policy, Total Force Mix

Classification: Unclassified

In an era of restrictive budgets and mounting debt, leaders at the highest levels have called for creative solutions to ensure America can meet the future challenges to its national security interests. The U.S. military must decrease spending, particularly on ballooning manpower costs, while maintaining readiness, modernization, and adequate force structure. The Total Force concept has been a powerful and cost-effective collaboration between the Regular Air Force, the Air Force Reserve, and the Air National Guard—together forming a synergistic Three-Component Air Force. Finding the right mix remains a difficult task and requires decision makers break Cold War force structure paradigms, consider advantageous mission capabilities, devise methods to preserve experience and capacity, and target efficiencies. The Air Reserve Component can be leveraged to assist in all these endeavors, while improving agility and reversibility of the force. However, changes in policy, law, and culture will be necessary to anchor institutional change.

Strategic Rebalance of the Three Component Air Force

Gentlemen, we have run out of money. Now we will have to think.

—Winston Churchill¹

After a decade of major combat operations in Southwest Asia, the nation's leaders face a familiar post-war task. The U.S. military must decrease spending, particularly on ballooning manpower costs, while maintaining readiness, modernization, and adequate force structure. In an era of restrictive budgets and mounting debt, leaders at the highest levels have called for creative solutions to ensure America can meet the challenges to its national security interests. The Total Force Enterprise (TFE) provides a strategic framework between the Active Component (AC) and Reserve Component (RC) by which the Department of Defense (DoD) can improve utilization of military resources.² For the United States Air Force (USAF), the Total Force concept has been a powerful collaboration between the Regular Air Force (RegAF), the Air Force Reserve (AFR) and the Air National Guard (ANG), together forming a synergistic "Three Component Air Force."³

Despite sincere efforts of policy makers and planners, finding the correct mix of AC and RC forces that maintains superior capabilities at the most affordable cost has been elusive. The strategic environment, now dominated by financial scarcity and a constantly evolving set of national security threats, makes achieving this balance a strategic imperative. Since its inception, Total Force manpower adjustments of the AC and RC have always been a challenging conciliation between military requirements, budgetary constraints and political suitability. This tension certainly holds true for the USAF today as it seeks efficient methods to project dominant airpower. At this point in the turbulent evolution of the Total Force, this paper posits that the USAF has not yet

located the force mix that capitalizes on advantageous mission capabilities, preserves experience and capacity, and best targets efficiencies in support of national security.

To properly frame any problem in a volatile, uncertain, complex and ambiguous world, it is essential to first step back—or gain altitude—and conduct a scan of the strategic landscape. To examine the Total Force rebalance issue and get a better vector on how the USAF should proceed, this paper looks at both enduring and recently released national strategic guidance documents. It then makes connections with recent analytical reports and three levers of the RC – capabilities, capacity and cost savings. Finally, it offers considerations for additional changes required for the next evolutionary step of the Three Component Air Force. The confluence of this analysis points towards phased implementation of a modified USAF Total Force mix to attain the agility and reversibility called for by civilian leadership.⁴

Environmental Scanning from 50,000 Feet

Environmental scanning provides context and reference points to accurately frame the problem of finding the right Total Force mix, much of which can be derived from history. Understanding the path and evolution of RC utilization promotes awareness for significant parameter changes that have necessitated new approaches in achieving national security objectives. In addition to a brief history, this environmental scan will also include elements of the current USAF organizational construct, its environment, and strategy.

Historically, the US has relied heavily on the RC, but its role continues to evolve. Although World War II is largely regarded as a successful, large-scale mobilization of both AC and RC forces, it initially struggled for two reasons. First, civil and military leaders had planned for “...a war effort [undertaken] primarily in defense of the United

States” and not an expeditionary fight in foreign lands.⁵ Leadership had not aligned the capabilities with the future fight. Second, civil and military leaders falsely expected to have months to train and equip the reserve forces, which were ultimately not prepared for the modern warfare of the day.⁶ Readiness was insufficient. These two lessons are well worth revisiting when deciding the best force mix for the 21st Century.

The RC paradigm during the Cold War was one of a Strategic Reserve, postured for mass mobilization, that would presumably occur only once in a generation. The illustrative scenario was an aggressive Soviet advance into the European continent requiring massive RC mobilization.⁷ As the US entered the Vietnam conflict, civilian leadership and the DoD disagreed on the evolving role of the reserve forces, especially regarding deployment.⁸ Secretary of Defense (SECDEF) Robert McNamara favored mobilizing reserve units for direct combat action, but was unable to garner adequate support to meet that goal. His solution was to create a new category called the “Select Reserve Force,” consisting of 150,000 Guard and Reserve forces.⁹ The newly created category “had priority access to equipment, could recruit to full wartime strength, and was allowed to conduct additional training each year.”¹⁰ The Select Reserve Force trained for Vietnam, but never received the call for combat and was soon abolished.¹¹

Despite the lack of operational employment, the Select Reserve Force represented an early conceptual version of what would later become the Total Force model. Furthermore, the 1965 nomenclature for that reserve category is very similar to today’s “Selected Reserve” category in the RC – those “...designated by the Service Chiefs and Chairman of the Joint Chiefs of Staff as essential to initial wartime missions.”¹² In 1970, SECDEF Melvin Laird instituted the “Total Force” concept, which

proposed greater integration of the AC with the RC. Congressional cuts in defense spending and the pending abolition of the draft motivated the new approach to force structure management.¹³ At the end of the draft in 1973, newly appointed SECDEF James Schlesinger formalized a broad “Total Force Policy (TFP).”¹⁴

Early TFP development was at least partially influenced by initial successes the USAF enjoyed with the RegAF and Air Reserve Component (ARC). Traditionally, RegAF and ARC units were individually equipped with separate aircraft, facilities and support resources. In 1968, however, one active and one reserve C-141 airlift wing were collocated at Norton Air Force Base, California. They shared aircraft, maintenance, and support, but maintained two separate chains of command.¹⁵ Later that year, the Air Force Reserve started a second Reserve Associate unit at Scott Air Force Base, with the new C-9 medevac mission. In February and March 1973, C-141 and C-9 reserve associate aircrews, aeromedical, casualty assistance, legal, chaplain, and intelligence personnel all supported Operation HOMECOMING, repatriating American POWs from North Vietnam and providing hearty evidence that Total Force was a successful model.¹⁶

With the adoption of TFP, the ARC became a multi-mission force, operating modern equipment and integrating capabilities with the RegAF. Several associate units formed, with the first air refueling units associating in the 1980s. In that same decade, the strength of the RegAF and ARC integration became apparent with Total Force operations in Grenada, Lebanon, and Panama. These operations set the stage for the first major war of the Total Force era, Desert Storm. In the first seventy-two hours after Iraqi forces invaded Kuwait on August 2, 1990, 15,000 Guardsmen and Reservists had

stepped forward voluntarily to serve. Within three weeks, all of the requested 6,000 personnel were on active duty and on the move, with others standing by if needed.¹⁷ In August 1990 alone, ARC volunteers flew 42 percent of the strategic airlift missions and 33 percent of the aerial refueling missions.¹⁸ Beyond air mobility, the ARC personnel performed admirably in the vast majority of combat and support roles. For instance, the first Airman in history to score an air-to-air kill flying an A-10 was a reservist.¹⁹ By March 1991, 34,634 ARC personnel had been ordered to active duty, answering to the first involuntary activations of the All-Volunteer Force (AVF) since adoption of TFP in 1973.²⁰ The ARC was no longer solely a strategic shock absorber, but a full partner in the daily operations of the Three Component Air Force.

In today's Air Force, the ARC is an "Operational Reserve," executing a full range of missions by deploying in a cyclic manner that provides predictability for the combatant commands, the USAF, Airmen, their families, and employers.²¹ The ARC continues to provide depth as a Strategic Reserve, maintaining ready units available to transition to operational roles as needed. The ARC does this through management of multiple duty statuses: Air Reserve Technician (ART), Active Guard and Reserve (AGR), Traditional Reservist (TR), Individual Mobilization Augmentee (IMA), Participating Individual Ready Reservist (PIRR), and Civilian Service.²² To keep pace with the demands on the Operational Reserve, the USAF has pursued associate relationships between the RegAF and ARC as a force multiplier. The Association construct has expanded far beyond the initial Air Mobility mission to all core functions of the USAF.²³ This construct allows RC units to maintain the same readiness, evaluation standards, and mobilization planning as their AC counterparts.²⁴ In the 2012 DoD

strategy document, *USAF Force Structure Changes: Sustaining Readiness*, Total Force associations are described as "...an integral part of balancing the Total Force to meet the current and future air, space and cyberspace requirements of the joint warfighter."²⁵ As end strength authorizations in the *FY2013 National Defense Authorization Act* continue their decline without a proportional decrease in requirements levied, positive-sum gain solutions such as reserve associations are vital to readiness and mission accomplishment.

In a process known as "Total Force Initiative" (TFI), 121 associations are currently complete or being developed through Business Case Analysis.²⁶ There are three types of associations, categorized as "Classic," "Active," and "Reserve." The categories signify a "host/tenant" relationship, whereby the host is assigned the physical resources that are shared with the associate: "Classic" is a RegAF host/ARC tenant; "Active" is an ARC host/RegAF tenant; and "Reserve" is an ARC host/ARC tenant.²⁷ The USAF has found that this cooperative relationship can "improve operational synergies" and "add capacity during surge operations at reduced cost."²⁸ However, simple templates for creating these associations do not exist. USAF planners and programmers must rigorously analyze each TFI proposal to ensure mission sets match organizational advantages to realize savings while conserving mission effectiveness.

For Total Force analysis to be relevant, Air Force planners must take strategic environmental factors into the RegAF/ARC mix calculus. Determining which mission competencies to develop hinges on correctly interpreting significant trends and their effects on national security. The unprecedented rate of technological advancement, globalization and international commercial exchange has empowered individuals for

good and ill. Technology driven domains of air and space are now joined by cyberspace, presenting both opportunity and vulnerability. Inexpensive technologies are available to all social classes and have enabled non-state actors to communicate globally, influence normative behavior and challenge dominant governments.²⁹ Despite a new era of commercial trade spawned by technology and globalization, however, the world economy continues to struggle to gain momentum.

The U.S. national debt exceeds \$16.4 trillion and is estimated to exceed \$20 trillion by the end of FY13.³⁰ Admiral Mike Mullen, former Chairman of the Joint Chiefs of Staff, professed “The national debt is the largest threat to national security the United States faces.”³¹ To add to this financial burden, post-9/11 America is only now extricating itself from protracted conflict in Iraq and Afghanistan. The U.S. has wrestled with fluctuating domestic support for these operations despite the successful neutralization of much of Al Qaeda’s senior leadership, a six year decline in worldwide terrorist attacks, and redeployment from Southwest Asia for much of the U.S. military.³² Much of the domestic weariness is due to mounting military costs. From this uncertain position, the U.S. is carefully evaluating its future strategic relationship with a rising China and other emerging national powers. Economically balancing the AC/RC mix is further complicated in an intensely bipartisan political landscape, where constituency approval is as much a factor as strategically sound Total Force decision making.

The current USAF strategy seeks to align with the greater objectives of the U.S. defense strategy: prevail in today’s wars, prevent and deter conflict, prepare to defeat adversaries and succeed in a wide range of contingencies, and preserve and enhance the AVF.³³ To achieve those objectives, the USAF prescribes a force that is adaptable

and capable of deterring concurrent aggression globally, ready to rapidly deploy as an expeditionary power, capable of conducting homeland defense, able to provide support to civil authorities when needed, and able to reconstitute quickly or grow capabilities as needed.³⁴ These priorities were laid out with the USAF Budget Proposal for FY13, yet sought to meet cuts required by the Budget Control Act of 2011 – recommending a decrease of 3,900 RegAF, 900 AFR, and 5,100 ANG Airmen.³⁵ Congressional response, terse and immediate, was that such cuts to the ARC were unacceptable.³⁶ Soon after the USAF announced it would stand by its recommendations, the Office of Management and Budget identified the standoff as potential reason for Presidential veto of the defense bill in its entirety. Secretary of the Air Force Michael Donley eventually brokered a compromise of a decrease of 3,340 RegAF, 520 AFR, and 1,000 ANG — much less than the cuts originally proposed for the ARC. Congress had sent a clear message during the controversy that significantly reducing ARC end strength was politically untenable and not the best strategic vehicle for controlling costs.³⁷

Strategic Guidance Documentation Guiding Total Force Management

National strategic guidance documents provide direction, limits, and mandates for the TFE. From the nation’s infancy, the Constitution discouraged large, permanent standing forces. Constitutional provisions for state militias and citizen soldiers, predecessors to the Air National Guard and Air Force Reserve, serve as a viable option to a large standing federal force.³⁸ Certainly, driving factors for American independence were rooted in the deep aversion of oppressive taxation and physical abuses of persons and property associated with maintaining large professional armies.³⁹ “Physical abuses” were again addressed in the U.S. with the Insurrection Act of 1807 and Posse Comitatus Act of 1878, which further reinforced limits on Federal military forces

enforcing state law.⁴⁰ Separation of these duties remains important today in maintaining civil liberties and public confidence in the U.S. military, and is carefully specified in the titles 10 and 32 of the U.S. Code of law. Total Force mission analysis must continue to appreciate that relationship in the reemphasized post-9/11 roles of the Three Component Air Force in Homeland Security and Defense Support to Civil Authorities.

The capstone *National Security Strategy* (NSS), released in May 2010, outlines President Obama's approach to "...the world as it is, a strategy for the world we seek."⁴¹ To be relevant and to ensure unity of effort throughout the full spectrum of national power, the ARC must ensure that all force shaping options match the approaches identified in the NSS. Particularly germane to the Three Component Air Force, the U.S. security interests in the NSS are to strengthen security and resiliency at home, disrupt terrorism and violent extremism around the world, reverse the spread of weapons of mass destruction (WMD), invest in the capacity of strong and capable partners, and secure cyberspace.⁴² Ensuring strong alliances, building cooperation on key global challenges, and strengthening institutions are also in the best interest of the nation.⁴³

President Obama and SECDEF Robert Gates supplemented the NSS in January 2012 with new strategic guidance for the DoD, entitled *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*. The document lays out ten primary missions for the U.S. Armed Forces, all of which serve to safeguard national interests and achieve the objectives in the NSS. As the nation moves toward the Joint Force 2020, success relies primarily on three principles. First, an unpredictable strategic environment will "...require a broad portfolio of military capabilities..."⁴⁴ Second, the DoD must distinguish scalable mission areas and "...will manage the force in ways that

protect its ability to regenerate capabilities that might be needed to meet future, unforeseen demands, maintaining intellectual capital and rank structure that could be called upon to expand key elements of the force.”⁴⁵ Third, and complementary to the second principle, is the concept of “reversibility,” or the ability to make a course change in an uncertain world. RegAF/ARC balance “...is a key part of the decision calculus” on tough choices of where to invest scarce resources to enhance reversibility.⁴⁶

Even as the U.S. downsizes the overall force and reduces military expenditures, the DoD strategy cites the necessity to maintain a ready and capable force. Failure to do so undermines the health and quality of the AVF.⁴⁷ To avoid the risks of a hollow force, the DoD strategic guidance specifically states:

The Department will need to examine the mix of Active Component (AC) and Reserve Component (RC) elements best suited to the strategy. Over the past decade, the National Guard and Reserves have consistently demonstrated their readiness and ability to make sustained contributions to national security. The challenges facing the United States today and in the future will require that we continue to employ National Guard and Reserve forces. The expected pace of operations over the next decade will be a significant driver in determining an appropriate AC/RC mix and level of RC readiness.⁴⁸

The Defense Budget Priorities and Choices was also released in January 2012 as a companion to the DoD strategic guidance document. It states that “A smaller active force requires a capable and ready Reserve Component. Among other applications, a strong Reserve Component is a vital element of the concept of reversibility embedded in the strategic guidance.”⁴⁹ The document calls for leveraging operational experience and instituting progressive readiness models in the RC to sustain increased readiness prior to mobilization. It also recognizes that the USAF is structuring for reversibility by balancing RegAF and ARC, aligning missions to sustain the operational ARC for the long term, and increasing the number of RegAF and ARC associations.⁵⁰ This direction

requires prioritized programmatic and resourcing to prevent regressing to the Cold War construct of a purely Strategic Reserve.

These documents are consistent with the *2010 Quadrennial Defense Review* (QDR), which “...represents an important step toward fully institutionalizing the ongoing reform and reshaping of America’s military—shifts that rebalance to the urgent demands of today and the most likely and lethal threats of the future.”⁵¹ Adversaries will likely employ a wide array of novel challenges in opposition to the U.S. and its partners, and “...U.S. forces must be sized and shaped to provide the maximum possible versatility for the broadest plausible range of conflicts.”⁵² To achieve the desired effects set forth in the 2010 QDR, the DoD must ensure the long-term viability of the AVF. The QDR acknowledges that to prevail in today’s wars and prepare for the future, the U.S. “...requires a vibrant National Guard and Reserve that are seamlessly integrated into the broader AVF.”⁵³ The QDR addresses the RC role in maintaining strategic advantage:

Effective use of the Reserve Component also helps preserve and enhance the AVF by increasing its capacity and expanding the range of capabilities it provides. Using the National Guard and Reserve in this way will lower overall personnel and operating costs, better ensure the right mix and availability of equipment, provide more efficient and effective use of defense assets, and contribute to the sustainability of both the Active and Reserve Components.⁵⁴

The QDR directed a formal comprehensive review of the future role of the Reserve Component, designating the Vice Chairman of the Joint Chiefs of Staff and Assistant Secretary of Defense for Reserve Affairs to co-chair the study. The review objectives were set forth: costs, uses, roles, standards, rebalancing recommendations, and changes required in law, policy and doctrine.⁵⁵

The 2010 Comprehensive Review of Future Roles of Guard and Reserve was published in April 2011 by direction of the 2010 QDR, signed by the Vice Chairman of the Joint Chiefs of Staff and the Assistant Secretary of Defense for Reserve Affairs. This review determined rotational theater deployments, Building Partner Capacity and Theater Security Cooperation, Homeland Defense, Defense Support of Civil Authorities, and institutional support are missions that capitalize on reserve experience, civilian relationships and consistency. Proficiency remains a very real challenge for part-time personnel in military specialties. However, valuable professional, technical, managerial and cultural skills from the private sector have been found to be extremely useful in military responsibilities. Many crossover skill sets are poised to benefit USAF growth industries in Cyber, Intelligence, Surveillance and Reconnaissance (ISR), and certain Special Operation Forces (SOF).⁵⁶ The study finds the ARC should be the “force of first choice” for those tasks to which it is particularly well suited, due to the cost effective nature and the skill sets the ARC possesses.⁵⁷ This provides RegAF manpower trade space to relieve over-tasked units or discover personnel efficiencies where applicable.

Advantageous Mission Capabilities

The ARC is deeply invested in daily USAF core missions. It has a proven track record of sustained full-time support, and both the Chief of the Air Force Reserve and the Air National Guard Director invite a greater role in the rebalance.⁵⁸ Of the 22 mission sets identified in the October 2012 U.S. Air Force Reserve “Snapshot,” the Reserve actually conducts 100 percent of two: Aerial Spray and Weather Reconnaissance missions. Additionally, the ARC provides the majority of the personnel assigned in three other categories: Aeromedical Evacuation, Aeromedical Patient Staging, and Air Force Mortuary Affairs Operations (see Table 1).⁵⁹ Cyber, Intelligence,

Personnel Recovery, Remotely Piloted Aircraft, and Space missions, however, represent only 10 percent or less of the Total Force. Many of these missions are designated low density/high demand, and Reserve growth in these areas is promising. Conversely, some divestiture of missions solely conducted by ARC, possibly through Active Associations, may be a more consistent rebalance and workload distribution.

Table 1: U.S. Air Force Reserve Total Force Missions

Air Force Reservists in Total Force Missions			
Aerial Fire Fighting	25%	*Flight Inspection	50%
Aerial Port	47%	Intel	10%
Aerial Spray	100%	Personnel Recovery	20%
Aeromedical Evacuation	60%	RPA	7%
Aeromedical Patient Staging	61%	SOF	10%
AF Mortuary Affairs Ops Cntr	63%	Space	12%
AOC	15%	Strategic Airlift	40%
AWACS	15%	Tanker	18%
Bomber	21%	Theater Airlift	21%
Cyberspace Operations	8%	**Training	19%
Fighter	5%	Weather Recon	100%

*Flight Inspection Program percentages refer to the 1st Aviation Standards Flight at Will Rogers Airport, Oklahoma City. FAA owns the mission and the Reserve provides 50% of the Air Force contribution to the mission.
 ** Training reflects T-1, T-6, AT-38, T-38 aircraft.

Source: AFRC Functional Managers

As equal partners within the Air Reserve Component, the Air National Guard (ANG) performs both federal and state missions as dictated by U.S. Code Titles 10 and 32, respectively. Increasingly well-equipped units are combat-ready and available for prompt mobilization during conflict and to provide assistance during national emergencies. The ANG performs duties in nearly every mission set accomplished by the Air Force Reserve, as well as fulfilling the predominant role in Homeland Defense of protecting sovereign airspace. The ANG maintains 94 percent of the U.S. alert sites for air defense in Operation NOBLE EAGLE.⁶⁰ In combat overseas, the ANG accounted for

more than 30 percent of the fighter aircraft deployed for Operations ENDURING FREEDOM and IRAQI FREEDOM.⁶¹ ANG similarly has the mission capacity to grow in Intelligence, ISR, and Special Operations missions (see Table 2).⁶² Many of these skills sets have become increasingly more important within U.S. borders, and security provided in both the federal and state roles is enhanced with redistribution of these missions to the ARC.

Table 2: Air National Guard Total Force Missions

CONTRIBUTIONS		
Fighter/Attack (34%)	Total: 631	A-10, F-15, F-16, F-22
Strategic/Tactical Airlift (30%)	Total: 196	C-5,C-130E/H, LC-130H,C-130J, C-17
Tanker (46%)	Total: 180	KC-135 R/T
Command & Control (100%)	Total: 17	E-8C
OSA/VIP/Other (47%)	Total: 28	C-21A,C-32B, C-38A,C-40C
ISR (18%)	Total: 56	MQ-1,MQ-9, RC-26B,MC-12
Rescue (22%)	Total: 30	HC-130N/P,MC-130P,HH-60G
Special Operation Forces (5%)	Total: 7	EC-130J

Joint military leadership has an appetite for RC mission capabilities. In a presentation to the United States Army War College in December 2012, Brigadier General George Franz, Director of Operations at U.S. Cyber Command, briefed that “The ‘Coin of the Realm’ is trained and ready forces.”⁶³ He later responded that the RC offered “...huge potential in organizations like Cyber Defense units” crediting the in-depth experience many reservists possess from the civilian sector. General Franz pointed out the recent success of the debut of exercise CYBER GUARD, focusing on national defensive cyberspace operations and command and control. The weeklong

exercise included 500 participants, of which approximately 100 came from National Guard Units.⁶⁴ The primary objective for this exercise was to establish enduring National Security Agency relationships with the National Guard in order to increase cyberspace capability. Lieutenant General Jon Davis, Deputy Commander for U.S Cyber Command, said it was “A superb, world-class event, [involving] a complete cadre of cyber warriors so energized about fighting an extremely complex, realistic cyber threat scenario...”⁶⁵

In the past, many advances in technology were derivatives of military research and development. The internet, for example, began as the Pentagon’s Advanced Research Projects Agency Network (Arpanet) program in 1969.⁶⁶ Today, technical advancements of the World Wide Web are generated by those in the private sector and international community. Employees of private sector giants like Apple, IBM, Microsoft, Google, and Oracle, as well as small, pioneering companies possess unmatched experience and innovative momentum. Lieutenant General Christopher Miller, Air Force Deputy Chief of Staff for Strategic Plans and Programs, asserted at Armed Forces Communications and Electronics Association (AFCEA) Air Force Information Technology (IT) Day that “We must leverage the strength of both our Active and Reserve Components.”⁶⁷ He stressed augmentation of the reserve component is critical to Air Force operations in strategic planning. Miller espoused great benefit is derived from the unique position of reservists, who often work full-time in the private sector. Their support of the mission provides a “...cross-pollination of ideas, strategies and perspectives.”⁶⁸

Preservation of Experience and Capacity

The ARC provides the repository for preserving capability – otherwise known as capacity. Within the Cold War paradigm, the Strategic Reserve put such capability in deep storage. A transformed operational reserve provides an opportunity to exercise its capability regularly, promoting greater proficiency and readiness through the association construct. To do so, the proper ARC structure must exist to capture RegAF loss when drawing down. One structuring model would be an inverse relationship – as the RegAF draws down, the ARC would grow, or at least maintain depth, to sufficiently capture and preserve the capability that would otherwise be lost. Rebalancing to capture departing expertise from the RegAF can provide additional capacity, which is especially necessary to respond to surge requirements during downward pressure on military end strength.

The U.S. does not need to look too hard for lessons learned in post-war structuring and force management. Referencing subsequent reductions after World War II, Korea, Vietnam and the Cold War on his departure in October 2011, Deputy Defense Secretary William J. Lynn III said the United States is “0 for 4” in proper management of defense draw downs. “Each time we reduced the defense budget, we created holes in our military capabilities that we had to buy back later at a greater cost.”⁶⁹ He said that only five years after WWII, “Teenagers fresh from basic training were serving under commanders with no combat experience, unprepared to meet the challenge of a numerically superior North Korea.”⁷⁰ Secretary Lynn said DoD “...must reduce troop levels while retaining the ability to configure forces for emerging threats.”⁷¹

To avoid larger expenditures in the future, the DoD must take action to preserve capacity by protecting its investment in training and retaining the operational experience of the last decade. The review directed by the QDR identified the RC as an

“...irreplaceable and cost-effective element of overall DoD capacity.”⁷² In the USAF, the ratio of capacity residing in the RegAF or ARC is unlikely to be a fixed proportion, and will depend on multiple factors stemming from strategy, mission, and budget. Current environmental conditions of drastic cost cutting and low intensity threat profiles, however, suggest trading capacity balance to the ARC where possible. When conditions once again shift to a larger standing force, there will be less buildup required. General Schwartz, former Air Force Chief of Staff, believes “...our associations provide us with the ability to utilize highly experienced Reserve component Airmen in helping to accelerate the maturity of the active component counterparts quicker.”⁷³ This facilitates a reversible force structure, both agile and adaptable, with a greater capacity to surge.

The Combatant Commander’s desire for surge capacity will always exist, and that capability is a necessary element of deterrence and operational planning. A Total Force structure that favors a prominent RegAF conceivably mitigates concerns of access and, to some degree, readiness of forces. However, the mix that forgoes reserve force structure may detrimentally decrease USAF capability to surge for operational and institutional support. In this case, the potential exists to structure a force that is smaller, yet ultimately much more costly. If parochialism is put aside and political leaders focus on national strategic guidance, the USAF may avoid a “0 for 5” on Secretary Lynn’s scorecard.

To preserve the continued viability of ARC capacity, the USAF must implement utilization rules established to govern frequency and duration of activations. Such rules “...enhance predictability and judicious use of the RCs.”⁷⁴ Sustainable requirements must be reasonably matched to target utilization rates. Today, all services use some

form of a rotational model to provide support to the Combatant Commander, targeting the SECDEF goal of mobility-to-dwell periods of 1:2 for active and deploy-to-dwell of 1:5 for reserve forces. If deploy-to-dwell is held to these ratios, and does not cross “red lines,” the Reserve Component forecasts it can maintain an operational force indefinitely with the AVF.⁷⁵ The rotational Air Expeditionary Force (AEF) construct was developed and implemented shortly after Desert Storm in the early 1990s, which plans to abide by dwell ratios and provides much improved predictability for ARC members. USAF planners are finalizing details on “AEF Next,” which returns to a more unit-based deployment plan that will add additional stability and cohesion.⁷⁶

With the renewed strategic focus on the Asia-Pacific region, there are new opportunities to leverage ARC capacity building. Pacific Command (PACOM) desires to expand the Special Operations function in PACOM Augmentation Teams (PATs), enhancing small unit-level engagement throughout South and Southeast Asia. ARC involvement would increase the talent pool from which PATs can draw personnel.⁷⁷ PACOM considers this activity critical to shaping the region in an approach aligned with the new military strategic guidance. However, demand will likely exceed available Special Operations Command assets.⁷⁸ The ARC Battlefield Air Operations, including combat control, pararescue, combat weather, and tactical air control for manned and unmanned platforms could support a greater RC role in PATs.⁷⁹

Cost-Effective Solutions and Efficiencies

Few would disagree that the fiscal environment is the greatest challenge facing the DoD. The current state of the world financial markets, as well as the sheer magnitude of the national debt, makes the U.S. economy a major strategic influence well into the future. After huge expenditures on military activities during the last two

decades, the defense budget is a prime target for spending cuts. Secretary of Defense Leon Panetta has insisted the DoD must "...look at the growth in personnel costs, which are a major driver of budget growth..." and states costs "...are on an unsustainable course."⁸⁰ Total personnel costs have doubled since 2001, a rate about 40% above inflation. During the same period, the number of full-time personnel, including mobilized reserves, increased by only 8%.⁸¹

Decision makers cannot plan for personnel savings if they do not know what the costs are up front and in total. "Fully burdened" and "life cycle" costs are common metrics in industry, but are not defined or tracked by the DoD.⁸² Major decisions on force mix and structure are frequently based on immediate costs and neglect criteria of a more strategic, long-term perspective. The reality of working within annual budget cycles is unavoidable, but force structure planning with a fiscal year time horizon falls short of a strategic solution. On September 5, 2012, Secretary of Defense Leon Panetta charged the Reserve Forces Policy Board (RFPB) to provide advice and recommendations regarding the future use of the Reserve Component.⁸³ The report attempts to "...provide an independent, objective method to develop and present repeatable data for 'fully burdened' and 'life cycle' costs of military personnel, to track these trends over time, and to permit objective comparative analysis."⁸⁴

It is beyond the scope of this paper to analyze the processes by which the RFPB derived fully burdened and life cycle costs. However, many individual cost studies have been conducted in the past, and the RFPB attempts to rectify unconsidered costs and inconsistent comparisons. The RFPB comprehensively combines costing elements and models expenditures with consideration of variances.⁸⁵ Although subject to debate, the

methodology is a significant step in establishing DoD policy and guidance for computing consistent, fully burdened personnel costs of the Total Force.

The RFPB found the FY2013 fully burdened per capita cost to the U.S. Government was \$384,622 for an active member and \$123,351 for a reserve component member.⁸⁶ The report finds the annual cost of a RC member is 22 to 32 percent that of their active component counterpart when not activated. RC personnel also retire later in life than AC, generally equating to an extra 20 years of retirement benefits. Analysis shows RC retirement payouts for equivalent careers were approximately 29 percent of the AC.⁸⁷ RC members do not move as often, do not typically send their children to DoD-funded schools, are generally ineligible for military housing, and account for only 3 percent of Commissary customers.⁸⁸ The ARC represents only a small fraction of Permanent Change of Station (PCS) expenses and base infrastructure costs relative to the RegAF.

It is important to point out that the ARC may not always be the least expensive alternative. Deployment rates and a sustained high operational tempo increase costs for pay and benefits.⁸⁹ When established as part of the Operational Reserve, the relative cost of a reserve unit can increase from 28 to 40 percent.⁹⁰ Cost can continue to rise with the additional use of ARC personnel until they are essentially equivalent to AC costs. Mismanagement scenarios can climb as high as 120 percent in the short term.⁹¹ However, at intermediate levels of employment, savings begin to increase. This is the range where a reversible force structure will systematically compound cost savings during periods of moderate demand. To facilitate timely, flexible management actions, SECAF has directed design and implementation of “Integration of AF Component

Personnel Management Systems,” commonly referred to as the “3-to-1” personnel system, “...to more efficiently integrate personnel policies, organizations, systems, and processes across the Total Force.”⁹² The bottom line is that a well-managed ARC is a cost-effective force in its newest evolutionary role in providing national security.

Recommendations

The Three Component Air Force requires more fluid administrative processes for transitioning within the organization. Continuum of Service is a personnel management approach that attempts to provide seamless transitions between full and part-time service, and between the RegAF and the multiple ARC duty statuses. Reversibility will be greatly enhanced when fluid transitions can be made during manning adjustments. The Integration of Air Force Component Personnel Management Systems, or the “3-to-1” personnel project, needs to be reinvigorated. This improvement of existing systems not only facilitates reversibility, but will address issues and inequitable policies across components, save money and time on processes, and support personnel service delivery efforts.⁹³ Part of this must include better accounting of the PIRR database. Overall, this will improve access and agility, and if properly administered, will encourage a lifetime of service to the nation.

Further, legislation must be revised to facilitate responsive access and improve sustainability of the Operational Reserve within the Total Force. Since 2002, more than 168 pieces of TFE legislation were passed into law that do little more than “mend problems at the margins” and create inconsistencies.⁹⁴ A more holistic legislative package is necessary to enable the Total Force Enterprise to generate efficient, durable solutions to the DoD’s personnel cost problem. The 2008 Commission for National Guard and Reserve final report recommends legislative review to include, at a

minimum, roles and missions, funding mechanisms, personnel rules, pay categories, equipping, training, mobilization, organizational structures, and reserve component categories.⁹⁵ Additionally, stabilizing policies, such as the broader use of Reserve Service Commitments, may reduce personnel shortfalls while still upholding the institution of volunteerism as citizen Airmen. Incentives to employers of RC personnel may also be a well-spent investment in ameliorating business losses they may suffer. These actions should be a top priority for all TF planning teams, such as the National Commission on the Structure of the Air Force recently directed by the FY2013 NDAA.⁹⁶

Cultural change could prove to be the largest hurdle in the rebalance of the Three Component Air Force. The cultural divide between RegAF and ARC appears to have narrowed after the Total Force operations of the last two decades, but more can be done to improve the relationship. Increased Total Force representation in planning and programming cells would more quickly identify opportunities and risks. For example, following the frustrations of the FY2013 budget proposal, the USAF created Total Force Task Force (TF2) with representation from the three components and civilian authorities to develop strategic options to meet current and future requirements.⁹⁷ In the future, proactive use of cooperative teams like TF2 in the USAF corporate process will likely produce more robust solutions in less time. If difficult reorganization decisions require arbitration by a third party, cultural change must still be driven from within by effective leadership. Citizen Airmen must evaluate compatibility of family commitments and employment goals with the new participation model. On a macro scale, the U.S. population must adapt to a new level of contribution and sacrifice to leverage the transformational ARC to a greater degree. To achieve this, civilian and

DoD leadership should synchronize messaging to the U.S. public, articulating fiscal belt tightening, individual responsibility, and national resiliency to communicate the vision and establish a sense of urgency.

Applying systems thinking, the USAF should make incremental changes in its complex force structure. Inputs into complex systems do not always produce the intended result. Abrupt adjustments in RegAF/ARC mix could create unforeseen issues or seemingly unassociated problems. The ARC is a cost-efficient, multi-talented force multiplier that will likely be required to step up to an even greater role in some mission sets. Phased implementation of Total Force mix changes allow for progressive evaluation of the effects on costs, readiness, and effectiveness in a dynamic environment. In an uncertain future, frequent assessment of adjustable force management options by Total Force teams will either validate moving forward or suggest capitalizing on the reversibility feature of the Three Component Air Force.

Conclusion

The nation faces a great dilemma. It must determine how to structure and resource the future force against new, adaptive threats during an era of great financial stress. History shows that the U.S. has relied on the RC to augment the AC, although the relationship has evolved to a progressively more integral organization since WWII. With interoperability at an all time high, the RegAF and ARC now function as a Three Component Air Force, providing mutual support and forming a cohesive team – capable of more as a well-integrated force than just by the sum of its individual parts. The ARC, once the force multiplier that increased the USAF margin of advantage, now appears to be the complementing mechanism by which scarce resources can be optimized to ensure a smaller, agile, and ready Total Force.

To establish the right mix, USAF planners and programmers should continually reference the tenets of national strategic guidance and doctrine. Total Force readiness and capability are valid concerns, and must be considered in risk calculations. However, the engaged Operational Reserve and the expanding Reserve Associate construct provide the apparatus to mitigate these issues. Operational duty in rotational AEFs builds experience and proficiency while validating currency. Classic, Active, and Reserve Associations integrate RegAF and ARC training through a cost-efficient use of resources and facilities, as well as providing daily cultural exchange.

The ARC has always been known for providing capacity through strategic depth. For Joint Force 2020 and beyond, the ARC adds dimensional capacity by absorbing high-demand mission growth, creating a repository for experience and training, and offering agile reversibility features to more quickly rebuild the RegAF when necessary. Holistic revisions of legislation, policy, and processes are necessary to fully realize the potential benefits of personnel mobility within the Three Component Air Force.

Above all, the ARC is a cost-effective method of maintaining viable, dominant airpower. Of course, any cost-effective measure subject to mismanagement will fail to produce savings. Therefore, planning and employment of ARC forces must avoid red lines and incompatible mission selection to the greatest extent possible. Although not everyone concurs on how to rebalance the USAF during the current drawdown, most will agree some adjustment is necessary to address the national debt as a major threat to U.S. national security. Tough force management decisions lie ahead for the Three Component Air Force—but its problems will be even more difficult in the future if it fails to strategically adapt to the issues of the present.

Endnotes

¹ Quotation commonly attributed to Prime Minister Winston Churchill during World War II. Similarly, Ernest Rutherford, British chemist and physicist, is quoted with, “We haven’t got the money, so we’ve got to think!” <http://www.businessweek.com/articles/2012-11-08/a-smaller-cheaper-stronger-military> (accessed March 12, 2013).

² For the purposes of this paper, the terms Active Component (AC) and Reserve Component (RC) are non-service specific. For the United States Air Force (USAF), Regular Air Force (RegAF) and Air Reserve Component (ARC)—comprising of Air Force Reserve (AFR) and Air National Guard (ANG)—are used.

³ Michael B. Donley, “Rebalancing the Total Force: Leveraging Reserve Strengths for Changing Global Realities,” remarks at 2011 Air Force Reserve Command Senior Leaders Conference, Washington, DC, May 16, 2011, <http://www.af.mil/information/speeches/speech.asp?id=650> (accessed 19 December 2012); Charles E. Stenner, Jr., “Three Component Air Force” terminology found in “State of the Air Force Reserve,” remarks at the Air Force Association’s 2011 Air & Space Conference & Technology Exposition, National Harbor, Maryland, September 21, 2011, http://www.af.mil/news/story_print.asp?id=123273114 (accessed December 7, 2012).

⁴ President Barack Obama, “Sustaining U.S. Global Leadership: Priorities for 21st Century Defense,” January 2012, http://www.defense.gov/news/Defense_Strategic_Guidance.pdf (accessed January 4, 2013), 4-7.

⁵ Abbott A. Brayton, “American Reserve Policies since World War II,” *Military Affairs* 36, no. 4 (December 1972): 139.

⁶ *Ibid.*

⁷ Commission on the National Guard and Reserves, “Transforming the National Guard and Reserves into a 21st-Century Operational Force: Final Report to Congress and the Secretary of Defense,” January 31, 2008 (Arlington, VA: Commission on the National Guard and Reserves, January 2008), 5.

⁸ Alice R. Buchalter and Seth Elan, *Historical Attempts to Reorganize the Reserve Components*, (Washington DC: U.S. Library of Congress, Federal Research division), http://www.loc.gov/rr/frd/pdf-files/CNGR_Reorganization-Reserve-Components.pdf (accessed November 15, 2012), 12.

⁹ *Ibid.*

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² U.S. Air Force Reserve, *U.S. Air Force Reserve Handbook 2011*, (Washington DC: Office of the Air Force Reserve), 78.

¹³ Buchalter and Elan, *Historical Attempts to Reorganize the Reserve Components*, 15.

¹⁴ John T. Correll, "Origins of the Total Force," *Air Force Magazine* 94, no. 2, (February 2011): <http://www.airforce-magazine.com/MagazineArchive/Pages/2011/February%202011/0211force.aspx> (accessed February 10, 2013).

¹⁵ Air Force Reserve Command Online Library, "1948-1968 Milestones," <http://www.afrc.af.mil/library/history/1948-1968/48-68milestones/index.asp>, (accessed December 14, 2012)

¹⁶ U.S. Air Force Reserve, "1948-2011 Timeline," <http://www.afrc.af.mil/shared/media/document/afd-120312-004.pdf> (accessed February 25, 2013).

¹⁷ James P. Coyne, "Total Storm," *Air Force Magazine* 75, no. 6, (June 1992): <http://www.airforce-magazine.com/MagazineArchive/Pages/1992/June%201992/0692total.aspx> (accessed Feb 25, 2013).

¹⁸ Stephen M. Duncan, "Gulf War was a Test of Reserve Components and They Passed," (Reserve Officers Association Report, Reprinted with permission by the U.S. Naval War College, Operations Department, NWC 3074, 1995), <http://www.globalsecurity.org/military/library/report/1995/p162.pdf> (accessed February 25, 2013), 24.

¹⁹ *Ibid*, 23.

²⁰ *Ibid*, 29-31.

²¹ U.S. Department of Defense, *Managing the Reserve Components as an Operational Force*, U.S. Department of Defense Directive 1200.17, (Washington, DC: Office of the Secretary of Defense, October 29, 2008), 8.

²² Lawrence Kapp, *Reserve Component Personnel Issues: Questions and Answers*, (Washington, DC: U.S. Library of Congress, Congressional Research Service, January 26, 2012), 1-7.

²³ Bruce Johnson, Scott Kniep and Sean Conroy, "The Symbiotic Relationship Between the Air Force's Active and Reserve Components: Ensuring the Health of the Total Force," *Air & Space Power Journal*, January - February 2013, 119.

²⁴ Air Force Reserve Command, *AFRC History, 1969-1989*, <http://www.afrc.af.mil/library/history/1969-1989/index.asp> (accessed November 11, 2012).

²⁵ Norton A. Schwarz, "USAF Force Structure Changes: Sustaining Readiness and Modernizing the Total Force," (Washington, DC: Office of the Chief of Staff of the Air Force, February 2012), 10.

²⁶ Department of the Air Force, "BCA Status," linked from Total Force Enterprise Management website, <https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=sA4057E1F2AAC0D5D012AD2EF4187106C> (accessed February 22, 2013).

²⁷ Department of the Air Force, "Commander's Orientation Brief," linked from Total Force Enterprise Management website, <https://www.my.af.mil/gcss-af/USAF/ep/globalTab.do?channelPageId=sA4057E1F2AAC0D5D012AD2EF4187106C> (accessed February 22, 2013).

²⁸ Amy McCullough, "Seeking a Total Force Balance," *Air Force Magazine* 95, no. 4, (April 2012), <http://www.airforce-magazine.com/MagazineArchive/Pages/2012/September%202012/0912aef.aspx>, (accessed 20 January, 2013).

²⁹ Robert M. Gates, *Quadrennial Defense Review* (Washington, DC: U.S. Department of Defense, February 2010), 5.

³⁰ U.S. Department of the Treasury, *Treasury Direct*, <http://www.treasurydirect.gov/NP/BPDLogin?application=np> (accessed February 10, 2013); Christopher Chantrill, *U.S. Government Debt*, <http://www.usgovernmentdebt.us/> (accessed February 10, 2013).

³¹ Tyrone C. Marshall, Jr., "Debt is Biggest Threat to National Security, Chairman Says," September 22, 2011, *American Forces Press Service*, <http://www.defense.gov/news/newsarticle.aspx?id=65432> (accessed February 10, 2013).

³² National Counterterrorism Center: Annex of Statistical Information, July 31, 2012, <http://www.state.gov/j/ct/rls/crt/2011/195555.htm> (accessed February 15, 2013).

³³ Gates, *Quadrennial Defense Review*, v.

³⁴ Schwarz, "USAF Force Structure Changes," 2.

³⁵ Catherine A. Theohary, Lawrence Kapp, David F. Burrelli, and Don J. Jansen, *FY2013 National Defense Authorization Act: Selected Military Personnel Policy Issues* (Washington, DC: U.S. Library of Congress, Congressional Research Service, January 17, 2013), 4-5.

³⁶ *Ibid.*

³⁷ *Ibid.*

³⁸ U.S. Constitution, art. 1, sec. 8.

³⁹ William S. Fields and David T. Hardy, "The Third Amendment and the Issue of the Maintenance of Standing Armies: A Legal History," *American Journal of Legal History*, 1991, <http://www.saf.org/lawreviews/fieldsandhardy2.html>, (accessed December 23, 2012).

⁴⁰ U.S. Northern Command, "The Posse Comitatus Act", http://www.northcom.mil/About/history_education/posse.html (accessed February 15, 2013).

⁴¹ Obama, *National Security Strategy*, 1.

⁴² *Ibid.*, 17-27.

⁴³ Ibid, 34-47.

⁴⁴ President Obama, *Sustaining U.S. Global Leadership*, 6.

⁴⁵ Ibid.

⁴⁶ Ibid, 7.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ President Barack Obama, "National Budget Priorities and Choices," January 2012, http://www.defense.gov/news/Defense_Budget_Priorities.pdf (accessed January 4, 2013), 12.

⁵⁰ Ibid.

⁵¹ Gates, *Quadrennial Defense Review*, i.

⁵² Ibid, 15.

⁵³ Ibid, 53.

⁵⁴ Ibid.

⁵⁵ James E. Cartwright and Dennis M. McCarthy, *Comprehensive Review of the Future Role of the Reserve Component: Vol. I, Executive Summary and Main Report*, (Washington, DC: Office of the Vice Chairman of the Joint Chiefs of Staff and Office of the Assistant Secretary of Defense for Reserve Affairs, April 5, 2011), 3.

⁵⁶ John A. Nagl and Travis Sharp, "Operational for What? The Future of the Guard and Reserves," *Joint Forces Quarterly*, issue 59, (4th Qtr 2010): 25
<http://www.ndu.edu/press/operational-for-what.html> (accessed January 23, 2013).

⁵⁷ Cartwright and McCarthy, *Comprehensive Review of the Future Role of the Reserve Component*, 5.

⁵⁸ National Guard Bureau, *2013 National Guard Bureau Posture Statement: Security America Can Afford*, (Washington, DC: 2013), 8,
http://www.nationalguard.mil/features/ngps/2013_ngps.pdf (accessed February 10, 2013); Charles E. Stenner, "Reserve Component Hearing," *Presentation Before the House Armed Services Committee Subcommittee on Military Personnel* (July 27, 2011): 3-4.

⁵⁹ William Goben, "U.S. Air Force Reserve Snapshot," October 2012, linked from *Air Force Reserve Command Homepage*, <http://www.afrc.af.mil/shared/media/document/AFD-110413-008.pdf> (accessed January 25, 2013).

⁶⁰ National Guard Bureau Public Affairs, "Air National Guard Factsheet," linked from the official website of the U.S. Air Force (December 20, 2010),
<http://www.af.mil/information/factsheets/factsheet.asp?id=160> (accessed December 15, 2012).

⁶¹ Cartwright and McCarthy, *Comprehensive Review of the Future Role of the Reserve Component*, 19.

⁶² Air National Guard, "Snapshot," <http://www.ang.af.mil/shared/media/document/AFD-120830-019.pdf> (accessed February 3, 2013).

⁶³ Brigadier General George Franz, "Cyber Command," lecture, U.S. Army War College, Carlisle Barracks, PA, December 14, 2012, cited with written permission of BG Franz.

⁶⁴ Rivers Johnson, "Cyber Guard Exercise Focuses on Defensive Cyberspace Operations," linked from *United States Army Homepage* at "News Archives," www.army.mil/article/85786/Cyber_Guard_exercise_focuses_on_defensive_cyberspace_operations/, (accessed December 15, 2012).

⁶⁵ Ibid.

⁶⁶ *National Science Foundation Website*, "A Brief History of NSF and the Internet," http://www.nsf.gov/news/news_summ.jsp?cntn_id=103050 (accessed January 10, 2013).

⁶⁷ Amber Corin, "Reserves Will Play a Larger Role in Cyber Defense," February 23, 2012, <http://defensesystems.com/Articles/2012/02/23/Air-Force-IT-Day-reserves-cyber-technology.aspx?p=1> (accessed December 15, 2012).

⁶⁸ Ibid.

⁶⁹ Karen Parrish, "Lynn: Cut Defense, But Learn From Past Mistakes," *American Forces Press Service* (October 5, 2011): <http://www.defense.gov/News/NewsArticle.aspx?ID=65564> (Accessed January 12, 2013).

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Cartwright and McCarthy, *Comprehensive Review of the Future Role of the Reserve Component*, 4.

⁷³ Richard A. Williams, Jr., "CSAF: Balance Required to Avoid a 'Hollow Force'," remarks at the Air Force Association Breakfast (June 11, 2012); <http://www.af.mil/news/story.asp?id=123305611> (accessed January 20, 2013).

⁷⁴ U.S. Department of Defense, *Managing the Reserve Components as an Operational Force*, U.S. Department of Defense Directive 1200.17, (Washington, DC: Office of the Secretary of Defense, October 29, 2008), 2.

⁷⁵ Betty Kennedy, "As He Eases into Retirement, the Commander of Air Force Reserve Command Shares His Thoughts on the Air Force Reserve," *Citizen Airman* (June 2012): <http://www.arpc.afrc.af.mil/news/story.asp?id=123304759> (accessed February 2, 2013).

⁷⁶ Amy McCullough, "What's Next for the AEF," *Air Force Magazine* 95, no. 9, September 2012, <http://www.airforce->

magazine.com/MagazineArchive/Pages/2012/September%202012/0912aef.aspx, (accessed 20 January, 2013).

⁷⁷ David J. Berteau, Michael J. Green, Gregory Kiley, and Nicholas Szechenyi, "U.S. Force Posture Strategy in the Asia Pacific Region: An Independent Assessment," (Washington, DC, *Center for Strategic and International Studies*, August 15, 2012), 77, <http://csis.org/publication/pacom-force-posture-review> (accessed November 19, 2012).

⁷⁸ Ibid.

⁷⁹ Department of the Air Force, *Air Force Basic Doctrine, Organization, and Command*, Air Force Doctrine Document 1, (Washington, DC: Department of the Air Force, October 14, 2011), 49-50.

⁸⁰ Jimmy Stewart, "Eliminating Major Gaps in DoD Data on The Fully-Burdened and Life-Cycle Cost of Military Personnel," *Reserve Forces Policy Board*, (Washington, DC: December 12, 2012), 5, http://ra.defense.gov/rfpb/documents/RFPB_Cost_Methodology_Final_Report_Slide2_12Dec2012.pdf (accessed January 15, 2013).

⁸¹ Obama, "National Budget Priorities and Choices," 13.

⁸² "Fully Burdened" and "Life Cycle" are common business terms used in analysis by Major General Jimmy Stewart, "Eliminating Major Gaps in DoD Data on The Fully burdened and Life-Cycle Cost of Military Personnel," Reserve Forces Policy Board, Washington DC.

⁸³ Stewart, "Eliminating Major Gaps in DoD Data on Cost of Military Personnel," 10.

⁸⁴ Ibid, 9.

⁸⁵ Ibid.

⁸⁶ Ibid, 17.

⁸⁷ Ibid, 39.

⁸⁸ Ibid, 18.

⁸⁹ Jennifer C. Buck, *The New Guard and Reserve, The Cost of the Reserves*, (Falcon Books: San Ramon, CA, 2008) 182, http://www.sainc.com/reports/pdf/17_NGR_Part4_Ch10.pdf (accessed November 18, 2012).

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² U.S. Department of the Air Force, *Total Force Development*, Air Force Policy Directive 36-26 (Washington, DC: U.S. Department of the Air Force, September 27, 2011), 2.

⁹³ Air Reserve Personnel Center, "Continuum of Service," *myPers*, https://gum-crm.csd.disa.mil/app/answers/detail/a_id/19204/kw/continuum/p/16%2C17 (accessed 26 Feb 2013).

⁹⁴ Commission on the National Guard and Reserves, "Transforming the National Guard and Reserves into a 21st-Century Operational Force," 11.

⁹⁵ *Ibid.*

⁹⁶ *National Defense Authorization Act for Fiscal Year 2013: Conference Report, To Accompany H.R. 4310*, Public Law 112-239, 112th Cong., 2nd sess. (December 18, 2012), 162.

⁹⁷ David Salanitri, "Task Force Established to Close Gaps Between Active, Guard, Reserve," *Air Force Public Affairs Agency*, March 1, 2013, <http://www.af.mil/news/story.asp?id=123338421> (accessed March 4, 2013).

