A PROGRAM EVALUATION OF TOTAL FORCE INTEGRATION AT
HILL AIR FORCE BASE:
CAN TWO WINGS WORK AS ONE TO COVER TWO MISSIONS?

by
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Preface

For the 419 Fighter Wing (FW) at Hill Air Force Base, Utah, the transition from a unit flying its own “iron,” executing its own Ready Aircrew Program (RAP) tasking and Designed Operational Capability (DOC) statement to one sharing a weapons system and inevitably supporting the RAP tasking and DOC statement of a Regular Air Force (RegAF) unit posed a number of questions and concerns. Understanding the need for the Air Force to embrace transformation and gain efficiencies during force reduction, the unit was ready to take on the task of joining forces with the Regular Air Force (RegAF) 388 FW and develop techniques and procedures that would focus on establishing those efficiencies without losing the combat capability of having two separate DOC statements. Beyond just the cultural differences between RegAF and Air Reserve Component (ARC) units there would be many other obstacles to overcome in order to make the combined Total Force wings cohesive.

From personnel with years of experience in line operations, to personnel who maintain civilian primary occupations that truly broaden a warrior’s perspective, this research aims to establish what the reserve unit brings to the fight and how they truly should improve the performance of the Total Force unit as a whole.

The impetus for doing this research came from the disconnect between the stated intent of Total Force Integration (TFI) and in its actual implementation. In November 2004, the Secretary of the Air Force (SECAF) and the Chief of Staff of the Air Force (CSAF) issued a joint memorandum identifying six TFI test initiatives. The combination of the 388 FW and 419 FW, following the Classic Associate model, was one of these initiatives. Having perused numerous point papers, articles, and memorandums, I found most of the information supportive of TFI as a valid method for transforming the Air Force but little information to document best practices to
overcome obstacles and maintain the level of readiness required to support multiple missions. The aim of this research paper is not to propose the way forward for all examples of TFI, but rather to discover how differences in DOC statements and corporate culture between RegAF and ARC wings can make integration difficult and how more detailed guidance is required.

For answering the hard questions in a forthright manner, always in an effort to improve the process, I would like to thank Brig Gen Gary Batinich, Col Buck Sams, Lt Col Bill Lyons, Lt Col Tyler Otten and Lt Col Terry George of the 419 FW. These officers have been dedicated to the process and are a testament to the great individuals in the ARC who sacrifice their own free time to commit to serving their country and the United States Air Force. The dedication of citizen airmen cannot be overstated. At a time when personnel are pulled in many directions, answering many obligations from their families, civilian employers and the service, the citizen airmen have willingly given up the conditions they grew accustomed to in order to do their part to make the Air Force more effective and efficient. These officers are but a few of the many who answer that call to serve every day.
Abstract

The initial intent of Total Force Integration (TFI) was to increase efficiencies and improve the Air Force’s ability to handle current operational and administrative commitments. The process has been created to augment a shrinking Regular Air Force (RegAF) with Air Reserve Component (ARC) forces. From a broad and general view, there are apparent benefits in this methodology of structuring the Air Force, namely as a force multiplier. At the operational level, though, the absence of clear and well-defined guidance in how to implement the TFI process has left units at their own vices to determine how to overcome not only cultural differences but also a myriad of other operational and administrative questions. Using a program evaluation of two F-16 fighter wings, the RegAF 388 Fighter Wing (FW) and the ARC 419 FW, this research aims to illuminate the current state of integration through a Program Evaluation of the Classic Associate model at the operational level and suggest how both wings, and in turn, the Air Force as a whole, can best build a symbiotic relationship that ultimately improves the capability of the Air Force and the utilization of RegAF and ARC forces.

The purpose of this research is to suggest that better guidance and cooperation between components can improve the TFI process to deliver greater combat capability, capitalize on efficiencies and enhance career opportunities. In order to do this, a Program Evaluation methodology was used to reveal hindrances to success in these four areas.

An evaluation of the Classic Associate test initiative between the 388 FW (RegAF) and 419 FW (ARC) uncovered numerous inefficiencies and roadblocks to success, namely the result of a lack of clear and concise guidance. The preponderance of the shortfalls have come from a push to incorporate the ARC unit into the RegAF unit’s mission, thereby reducing the combat
capability by not supporting the 419 FW’s mission, decreasing efficiency by duplicating efforts in order to display mutual support, and all but shutting off opportunities for career progression. In order to fix the process, the ARC unit must be given all the support necessary to execute its assigned Designed Operational Capability (DOC) statement and provide an ARC led portion of the Air and Space Expeditionary Force (AEF) cycle that gives the 419 FW an opportunity to lead and operate in a combat environment.
Introduction

As operational tempo of the military increased post 9/11, the Department of Defense was caught in the middle of a period that required a reduction in force structure, namely through the Base Realignment and Closure (BRAC) program and the Quadrennial Defense Review (QDR). The Air Force was faced with developing alternatives that would allow satisfaction of all its mission requirements. One of the proposed solutions was to bring Regular and Reserve units together to enable reduction in the total force strength while increasing the ability to react to multiple taskings. This construct was termed the Future Total Force (FTF). The urgency required by a need to transform the Air Force now, caused Air Force leadership to declare “the future is now,”¹ and the FTF would become Total Force Integration (TFI). To accommodate different concerns in bringing the forces together, TFI would take multiple forms: Classic Associate, where a RegAF component would “retain principle responsibility for weapon systems which it shares with one or more ARC units”²; Active Associate, where an ARC unit has the principle responsibility of the weapons system³; Air Reserve Component (ARC) Associate, where two ARC units integrate with one retaining principle control of weapons systems⁴; and Integrated Associate, similar to an Active Associate model, but where the two units share one mission⁵. While each of these structures have their own merit, the lack of absolute direction on how to implement these varying Operational Control (OPCON) and Administrative Control (ADCON) chains of command has left the Air Force with a quandary of how to make TFI work best.

While the TFI concept requires citizen airmen to take a greater role in augmenting the Air Force’s ability to respond to multiple crises, the concept of including citizen airmen in an increased capacity lends itself to taking advantage of the varied backgrounds of our Guard and
Reserve forces to augment the Air Force’s ability to man and operate in multiple facets. There are four areas which must be addressed to determine the best way forward:

a. **GUIDANCE**: Do the policies, directives and instructions governing TFI implementation clearly define and provide a path for following the Commander’s intent? Do they allow for the change necessary to improve the process?

b. **COMBAT CAPABILITY**: Does the TFI process increase mission accomplishment and bolster the Air Force’s ability to handle new and greater threats?

c. **EFFICIENCY**: Given economic concerns, Combat Air Force (CAF) reductions, and budgetary constraints, do current TFI models provide a path towards greater efficiency?

d. **PERSONNEL**: Does the TFI process improve the Air Force’s ability to recruit and retain strong people and does it meet their career expectations, opportunities and progression?

From before the American Revolutionary War, reserve units and state militias have been available to military commanders to increase force strength in dire times of national emergency. In recent military history, the Department of Defense (DOD) has held a Reserve Component to augment the military’s presence and has done so by both activating Reserve units to fight as regular units and activating portions of Reserve units to augment the active duty force structure. TFI, on the surface, appears to follow these historical examples, but with a major difference. Following activation or augmentation, prior to TFI, a Reserve Component unit would return to its previous duties and training cycles and take care of its personnel who were asked to sacrifice established civilian lives. The TFI construct, though it attempts to make allowance for the Reserve Component’s needs and stay within the guidelines of law established in Title 5, Title 10 and Title 32 of the U. S. Code, has played out in a way that benefits the Air Force or the RegAF,
not the ARC. TFI’s guidelines are laid out such that an ARC unit is in a constant heightened level of readiness, often supporting the RegAF unit it is aligned with, despite there being two separate Designed Operational Capability (DOC) statements in place. In addition to neglecting the needs and desires of our citizen airmen, TFI has bureaucratic inefficiencies as commanders on both sides fight for their own unique needs and neglect the differences in operating an active duty force and a reserve force.

To assess the progress of TFI, this paper will follow the Program Evaluation method of research. The Program Evaluation method carefully collects information in order to make necessary decisions about the progress of a program, focusing on utility, relevance and practicality. Consideration must be given not to the validity of the TFI program, as it has already been chosen as the method for gaining efficiencies and moving toward the future transformation of the Air Force. Instead, the goal of this Program Evaluation is to define a successful program as one that remains open to continuing feedback and adjustments where necessary. Commanders should be willing to commit to understanding what is really going on, and the aim of this Program Evaluation is to highlight how TFI guidance is or is not being followed at the lowest levels. A Program Evaluation of TFI is intended to improve delivery mechanisms to be more efficient and less costly, facilitate the commander’s knowledge of whether units are meeting the established TFI goals, and fully examine and describe an effective program for duplication. A Program Evaluation considers inputs, the process, outputs and outcomes.

An evaluation of two of the Air Force’s lead units in the implementation of TFI, the 388 Fighter Wing (FW) and the 419 FW, will first focus in on guidance, directives and Memorandums of Understanding (MOU), where they existed, to see if, one, the directives were actually followed, and, two, the direction was the most efficient application of policy. The
research will then compare the unique needs and capabilities of a RegAF and ARC unit. Next, this research will evaluate how the changing of roles and lack of direction has impacted both the RegAF and ARC unit’s ability to carry out its mission. Finally, the research aims to use a Program Evaluation of the 388 FW and 419 FW’s to make suggestions where the Air Force can improve, augment and enhance their readiness and capabilities.

**Research Question**

With the pace of the current and foreseeable operational tempo remaining high and the Department of Defense looking for ways to reduce personnel and infrastructure, is the Air Force providing adequate and accurate direction for the implementation of the TFI concept that focuses on increasing combat capability and efficiency?
Historical Background

*It has taken the U.S. armed forces two decades to approach the level of jointness envisioned by the authors of the Goldwater-Nichols Act, which did not address the reserve component. Achieving total force integration of the active and reserve components will require changes to the defense establishment of a magnitude comparable to those required by Goldwater-Nichols for the active component.*

-Commission on the National Guard & Reserves, Executive Summary, 2008

During the Vietnam War, the United States Air Force recognized a need to augment the RegAF and prepare reserve forces for the rigorous demands of combat. This led to the formation of the Reserve Associate Program in 1968. General Howell M. Estes Jr., Commander Military Airlift Command (MAC), identified short-falls in the increased utilization rate of the C-141 over the previous cargo and heavy-lift platforms and, in 1966, implemented a plan to increase the participation of the Air Force Reserves (AFR). This augmentation of RegAF capabilities with AFR forces formed the genesis of the Reserve Associate program. On 25 March 1968, the 944 Military Airlift Group (MAG), an AFR unit, became the first associate unit, supporting the RegAF’s 63 MAG. This association provided a force multiplier for the RegAF as well as providing relief for over worked RegAF pilots and maintenance crews. Additionally, the AFR unit was able to easily take in RegAF pilots and maintenance personnel who were released from active duty due to force reductions, drastically reducing the cost of training pilots and maintainers who would be ready to augment the RegAF if needed.

The success of the Reserve Associate program and the prospect of its budgetary and efficiency gains in many areas, led to Secretary of Defense (SECDEF) Melvin Laird announcing the Total Force Concept for the entire Department of Defense (DOD), 21 August 1970. While the Reserve Associate program provided the shell, the impetus for the change in force structure
that brought RegAF and ARC forces more closely aligned came in the shift from the draft to an All Volunteer Force (AVF). Public sentiment for the draft began to wane in the mid-sixties, so much so that the topic moved front and center in the 1968 campaign for President when Richard Nixon used the abolition of the draft as a central piece in his bid for the White House. The move away from the draft meant that the general public could no longer be used as the augmentees to the force strength of the military. The government could no longer determine the required force strength and adjust the levels of young men drafted to meet these goals. The general malaise of the public towards war and the military, worried military planners as they feared an AVF would not provide the end strength required to counter communism around the globe. A plan to get the most out of the least would have to take effect, and that plan was the Total Force Concept.

Following his election in 1968, President Nixon established a commission on the AVF to address these concerns. The commission, led by former SECDEF Thomas S. Gates, delivered their report on 20 February 1970 and concluded that an AVF would be economically viable and an effective method of reaching required end strength goals by using the ARC as augmentees to the active components of the military. This greater reliance on the reserve component pushed SECDEF Laird to propose the Total Force Concept in a 21 August 1970 memorandum entitled Support for Guard and Reserve Forces:

…Within the Department of Defense…economies will require reductions in overall strengths and capabilities of the active forces, and increased reliance on the combat and the combat support units of the Guard and Reserves….

Emphasis will be given to the concurrent consideration of the total forces, active and reserve, to determine the most advantageous mix to support national strategy and meet the threat. A total force concept will be applied in all aspects of planning, programming, manning, equipping, and employing Guard and Reserve Forces. …that in many instances the lower peacetime sustaining costs of reserve
force units, can resulting a larger total force for a given budget or in the same size force for a lesser budget.…

Guard and reserve units and individuals of the Selected Reserves will be prepared to be the initial and primary source for augmentation of the active forces in any future emergency requiring a rapid and substantial expansion of the forces.\textsuperscript{11}

Clearly, the initial intent of the Total Force Concept was to capture the economies of scale as the result of the role change of the ARC and the relationship of the RegAF and the ARC, as well as maintaining the ability to augment the active component with the ARC during times of national emergency and war. Budget draw downs and personnel reductions after the Vietnam War required a paradigm shift in how to man a military in times of crisis, while maintaining a sufficient level of training and preparedness. The Total Force Concept provided the ability for the DOD to do just this and in 1973 the Total Force Concept became Total Force Policy.\textsuperscript{12} In a 23 August 1973 memorandum entitled Readiness of the Selected Reserve, SECDEF James R. Schlesinger noted, “It must be clearly understood that…Guard and Reserve Forces will be used as the initial and primary augmentation of the Active Forces…Total Force is no longer a concept. It is now the Total Force Policy which integrates the Active, Guard and Reserve forces into a homogenous whole.”\textsuperscript{13}

From the initial birth of the Total Force Policy, periodic review has emphasized the need for a symbiotic relationship between the active and reserve components of the military, and a more equitable support structure to ensure not just regular forces were prepared to fight, but the entirety of military forces were prepared when called. In a 21 June 1982 memorandum entitled Equipment Shortages in the Guard and Reserve, SECDEF Caspar W. Weinberger declared, “(t)he Total Force Policy…clearly established that the National Guard and Reserve Forces will be used should this Country enter into armed hostilities…units that fight first shall be equipped
first regardless of component. Therefore, Active and Reserve Components Deploying at the same time should have equal claim on modern equipment.”

After the military build-up in the Reagan Administration, the Total Force Policy became a vehicle to enable draw downs in force structure with minimal loss in operational capability. SECDEF William J. Perry, issued a memorandum entitled *Increased Use of Reserve Forces in Total Force Missions* 07 April 1995 stating, “We need to...capitalize on Reserve Component capabilities to accomplish operational requirements while maintaining their mission readiness for overseas and domestic operations...Increased reliance on Reserve Components is prudent and necessary in future policy, planning and budget decisions.”

In his 1995 Annual Report to the President and the Congress, SECDEF Perry, referring to ARC forces, stated that “the DOD had worked hard to shape these components to meet the requirements of the new post-Cold War military strategy.” In his closing remarks he reaffirmed that, “In the future, reservists will play a larger role and America must remember the actual and potential sacrifices reservists make to serve the nation. The American people must be ready to support their reservists, their families, and their employers in the greater role they will all play in America's defense.”

While acknowledging the increased role ARC forces would have to play in military preparedness, SECDEF Perry distinctly acknowledged the sacrifice ARC members, their families and their employers would have to make in this substantially greater focus on the Total Force Policy. In 1995, former SECDEF Laird addressed the Reserve Forces Policy Board (RFPB), “All of my fellow secretaries of defense, including Secretary William Perry, have subscribed to the basic concept....All have supported the policy in their budgets.” Acknowledging the commitment of ARC forces, the former SECDEF concluded by saying, “It has been the personal commitment of
every citizen-soldier that has turned the Total Force concept into what it has become today, the foundation of America’s security posture”.\(^{18}\)

On 04 September 1997, SECDEF William S. Cohen issued a memorandum entitled Integration of the Reserve and Active Components. In the memorandum SECDEF Cohen emphasized an increased reliance on the reserve component. “Our goal as we move into the 21st century, must be a seamless Total Force that provides the National Command Authorities the flexibility and interoperability necessary for the full range of military operations….We must continue to work towards the principles of Total Force and achieve full integration of the Reserve and Active components.”\(^{19}\) This view of the Total Force Policy formed the genesis of the Future Total Force and opened the door to a more operational reserve force that would become a greater factor in contingency planning.

To readdress the concept of the Total Force, the Air Force Chief of Staff (CSAF), Director of the ANG and the AFRC Commander released, in 1998, a publication entitled, The Future Total Force: Raising the Bar for Force Integration. This document vowed stronger relationships between the components for a more cohesive Aerospace Force.\(^{20}\) This document acknowledged the historical significance of the Reserve Associate program and the transformation of the Total Force concept, driving towards more integration between RegAF and ARC forces. Future Total Force attributed two major initiatives as the momentum for greater integration. They were: 1) the Aerospace Expeditionary Force (AEF) construct and 2) the new Future Total Force (FTF) organizational structures.\(^{21}\) An FTF Study was introduced as a concept that could enable the future transformation of aerospace forces. The purpose of the study was to introduce organizational structures that would support the AEF construct, integrating ARC forces into training, pre-deployment and deployment cycles. “The Future Total Force Study provides a
methodology and approach, plus criteria and measures of merit for better Total Force integration.” The publication recognized that, “Future Total Force unit structures will optimize use of limited forces and resources…the AEF is key to greater integration.”

**Air Expeditionary Force**

Formed in 2000, the AEF construct, “formalized the requirement for ARC participation in continuing expeditionary missions.” In a 6 March 2002 statement to Congress, the Secretary of the Air Force (SECAF) Dr. James Roche, and the CSAF, General John Jumper, expressed the impact of the AEF construct, “(AEFs) represent the core of our deployable combat power and forward presence capability…(the AEF construct) enables the Air National Guard and the Air Force Reserve to participate more heavily in Air Force expeditionary operations. The increased predictability of the AEF rotation cycle allows us to schedule voluntary participation well in advance. This voluntary participation currently provides about 25% of the aviation package and 10% of the Expeditionary Combat Support. This support brings both Operations Tempo (OPSTEMPO) relief as well as highly trained and skilled talent to the operations. This interaction lays the basis for the development of our transformational initiative, Future Total Force (FTF).”

**Future Total Force Project**

In 1997, SECAF F. Whitten Peters and CSAF General Michael E. Ryan directed a study on the future structure of aerospace forces to address potential solutions to the challenges presented by a reduction in forces related to retention, manning and budgets. “The desired operational effects of future integrated organizations would be to provide increased capability to
support the AEF construct from a Total Force perspective.” By 2001, the Air Force Strategic Planning Directorate, “…proposed establishing a traditional associate Reserve maintenance squadron to be placed inside the active-duty 93rd Air Control Wing at Robins AFB, Ga. The 93rd flies the E-8 Joint Surveillance Target Attack Radar System aircraft.” This association marked the transition from a future Total Force, to one that would take shape now.
Total Force Integration Models

We are committed to enhance Total Force Integration. We are developing concepts, strategies, force management policies and practices, and legal authorities to access sufficient Air Reserve Component forces without the need for involuntary mobilization. Though the Air Force is already the model for melding its Guard, Reserve and civilians with its active duty elements, we can and will push this synergy to new levels. 28

- General T. Michael Moseley, 18th CSAF

As the total force concept began to take shape, pushed by DOD wide transformation, Air Force planners turned FTF into a plan for the present, Total Force Integration (TFI). The transformation of the Air Force was driven by three primary factors, all of which could be addressed by FTF, and eventually TFI. First was that the security environment and threats were rapidly changing. The US military was primarily designed to counter a Warsaw Pact invasion in Cold War Europe. However, since the end of the Cold War, there are many new threats and new environments requiring the US military to be able to conduct operations across the entire spectrum of conflict against a broad range of adversaries. These include, but are not limited to, the increased encounter of Irregular Warfare (IW), the political and national security impact of Security and Stability Operations, proliferations of Weapons of Mass Destruction (WMD), significantly greater use of the military in Peace Operations, greater use of the urban environment by emerging threats and new disruptive technologies available to adversaries such as Information Operations, High-Power Microwave and Directed Energy. 29 Second, new technology—especially advanced Command, Control, Communications, Computers, Intelligence, Surveillance, Reconnaissance (C4ISR), information operations, and precision weapons—has enabled revolutionary capabilities to allow US military to eventually achieve effects of mass
without massing forces, operate with smaller, more agile forces, minimize collateral damage, see all forces in battlespace in near-real time, strike adversaries before they can mount an effective defense, deny sanctuary to adversaries anywhere on the globe, neutralize mobile targets, and operate more effectively in “non-traditional” environments. Third, fiscal realities are forcing the military to become far more efficient than in past political environments and do much more with far less. The Air Force has been forced to speed up the timeline of transformation as a result of fewer resources resulting from programs like the Base Realignment and Closure (BRAC) and a Quadrennial Defense Review (QDR), defense budget spending leveling off, costs to operate and maintain forces up 87% over past decade, personnel costs up 51% over past decade, and fuel prices rapidly rising (each $10 increase for barrel of oil adds $600 million in Air Force fuel costs per year).

The old model of an Air Force built around an 86 combat wings model could not survive budgetary constraints, so Air Force leadership would have to look to get more from less (see Figure (1)).
The key point to take away from this graphic is “different capabilities means new skills and missions.” TFI would become one of the major means of recapitalization and transformation.

The case for the tighter integration and alignment of RegAF and ARC forces made sense given the interdependence of regular and reserve forces at the time of the building of the TFI model. Figure (2) shows the extent to which ARC forces have become an integral part of the force structure in the Air Force. The point of these figures is to show that the reduction in RegAF forces and the relatively static numbers of ARC forces has resulted in ARC strength making up a higher percentage of the total force structure. As a result, there has been a greater dependence on ARC forces to act as an operational reserve as opposed to their traditional role as a strategic reserve. As an example, the percentage of ARC forces in the total force strength of Operation ENDURING FREEDOM and Operation IRAQI FREEDOM has consistently hovered around 28%.

Figure (2): Combat Coded Aircraft and Total End Strength
To work the issue of implementation, in June of 2006, the Air Force released Air Force Policy Directive (AFPD) 90-10, *Total Force Integration Policy*, establishing “Air Force policy for implementing initiatives integrating the Regular Air Force (RegAF) and Air Reserve Components (ARC) of the Air Force as part of Total Force integration.”\(^35\) AFPD 90-10 was the guiding document that would take the Air Force from an FTF alignment to the present TFI alignment. In 2005, upon a review of the need for transformation of the Air Force, SECAF Wynne noted that the FTF concept was no longer a “future” plan, and that TFI would transform the Air Force today.\(^36\) According to AFPD 90-10, “(t)he desired end state is a more effective and efficient organization that leverages the unique strengths of each component. This policy directs commanders at all levels to continually seek ways to integrate in order to benefit from synergizing Air Force component capabilities to enable the joint warfighter.”\(^37\)

Aside from defining the roles of commanders from the CSAF to MAJCOMs, AFPD 90-10 laid out the framework for integration in five basic models:

**Classic Associate.** An integration model where a Regular Air Force component unit retains principal responsibility for weapon system or systems, which it shares with one or more reserve component units. Regular and reserve component units retain separate organizational structures and chains of command. Varying degrees of functional integration based on MOUs.\(^38\)

**Active Associate.** An integration model where a reserve component unit has principal responsibility for weapon system or systems, which it shares with one or more regular units. Reserve and regular component units retain separate organizational structures and chains of command. Varying degrees of functional integration based on MOUs.\(^39\)

**Community Basing.** A variation on the Active Associate model where regular component forces are garrisoned at a reserve component unit
location. Support functions traditionally provided on a regular component installation (housing, medical, commissary, BX, etc) are instead available in the local community.\textsuperscript{40}

**Air Reserve Components (ARC) Associate.** An integration model where two or more ARC units integrate with one retaining principal responsibility for weapon system or systems, which are shared by all. Each unit retains separate organizational structures and chains of commands. Varying degrees of functional integration are based on MOUs.\textsuperscript{41}

**Integrated Associate.** An integration model similar to the Classic Associate model; however, members of all components contribute to one unit mission with administrative control and support provided by the respective component via detachments.\textsuperscript{42}

**Fully Integrated.** An integration model where members from different components comprise a single organization, falling under the same chain of command. Approval of pending legislation will make this option available at a later date. AF/A8 will provide an Interim Change to this document when approval occurs.\textsuperscript{43}

In laymen’s terms (key points noted in **BOLD**):

**Classic Associate:** RegAF owns the “iron” and retains its own DOC statement, and the ARC unit borrows the “iron” to train for and execute its own DOC statement. Two separate wings, a RegAF and an ARC wing, retain their own identities.

**Active Associate:** An ARC unit owns the “iron” and retains its own DOC statement, and the RegAF unit borrows the “iron” to train for and execute its own DOC statement. Two separate wings, a RegAF and an ARC wing, retain their own identities.

**Air Reserve Components (ARC) Associate:** One ARC unit owns the “iron” and retains its own DOC statement, and another ARC unit borrows the “iron”
to train for and **execute its own DOC statement.** Two separate wings, a RegAF and an ARC wing, retain their own identities.

**Integrated Associate.** A RegAF and an ARC unit integrate to support one DOC statement. Two separate wings, a RegAF and an ARC wing, retain their own identities.

**Fully Integrated.** A RegAF unit and an ARC unit integrate to support one DOC statement and one chain of command.

The concept of the five basic models was to explore various ways to implement TFI and make an evaluation on which models provided the greatest gains in efficiencies and which models capitalized on the strengths of each unit. As can be seen from the definitions of the models, the variables are who owns the weapon systems, who has a defined mission and whether the chain of command is separate or integrated. Of note, the subsequent document to AFPD 90-10, AFI 90-1001, declares only the Classic, Active and ARC Associate models to be valid because the Integrated Associate and Fully Integrated models are illegal according to U.S. Code Titles 5, 10 and 32.44

Secretary Roche and Gen Jumper identified the need for a Total Force integration effort in a letter addressing TFI Phase 1, dated 24 November 04, saying the objective of the Total Force concept is “to produce a more capable, more affordable Air Force composed of Regular, Guard and Reserve Airmen by modernizing our force and changing our organizational constructs.”45 In a 2008 review of TFI, CSAF General Norton A. Schwartz, noted TFI as a significant path towards the transformation of the Air Force, “We continue to modernize our organizations to produce a more capable, affordable Air Force composed of Regular, Guard and Reserve Airmen. Through TFI, we aim to increase force-wide efficiencies and maximize combat capability for the
Joint warfighter and our Nation’s allies. We must leverage TFI to meet our highest priority manpower requirements. To accomplish this, we are analyzing all AF core functions for TFI applicability and are ensuring all potential initiatives meet validated requirements." Both the early phase and modern assessments of TFI acknowledge budgetary constraints and affordability as driving factors towards TFI implementation. AFI 90-1001, noticeably, lacks any reference to affordability in stating the goals, objectives and/or strategic vision of TFI. Instead, the Air Force’s governing instruction on TFI points towards the increase in combat capability as the sole objective, albeit through effective and efficient means. This imprecise characterization of the purpose of TFI has misguided subsequent documents, as will be seen in an analysis of the Classic Association at Hill Air Force Base, Utah.
Analysis of Classic Associate Model at Hill Air Force Base

Background

As with any successful organization, a mission provides the necessary guidance by which all decisions affecting the unit are focused. In the Air Force, the mission of a unit is delineated through the Designed Operational Capability (DOC) statement. This DOC statement serves three purposes. First, the primary purpose is to “serve as the baseline Status of Resources and Training System (SORTS) reporting.” It defines the total capability of the unit and documents the resources required to provide that capability. Second, the DOC statement serves as a commander’s reference. “It provides the unit commander a reference for what the unit should be able to accomplish if it is fully manned, equipped, and trained. It is a clear statement of the unit's wartime capability, based upon the authorized manpower and materiel strength of the unit.” Third, the DOC statement reflects Operational Plan (OPLAN) tasking or functional manager tasking. “The DOC statement is not a tasking document. It may reflect OPLAN tasking, other document tasking or Functional Manager tasking.” The DOC statement is the critical document that defines the unit’s mission, capabilities and resources allocation. As such, it serves as the resource document for guiding the commander’s allocation and training of his forces. The DOC statement is provided by Headquarters Air Force (HAF) A5, Plans and Requirements. As the guiding document, the mere presence of a DOC statement implies a unitary mission. In the TFI construct, the presence of a DOC statement for each of the associated units implies that each commander must follow unique guidance from HAF to fulfill its own requirements and accomplish its own mission.
The subsequent guidance for a commander to follow supports readiness to fulfill the requirements in the DOC statement. The Ready Aircrew Program (RAP) is designed to provide the minimum required mix of annual events and sorties an aircrew must accomplish to sustain combat mission readiness.\(^{50}\) In the case of the 388 FW and 419 FW, a RAP Tasking Message (RTM) is published by Headquarters Air Combat Command (HQ ACC) A3, Operations, defining the training required that supports the DOC statement of the unit. In turn, each unit uses Status of Resources and Training Systems (SORTS) to report compliance with these requirements. Together with the DOC statement, these programs form the guidelines for mission accomplishment and ensure that, when called to perform its mission, a unit is fully prepared to discharge its duties.

In performing a Program Evaluation on the implementation of the TFI construct as it relates to the 388 FW and the 419 FW, it is appropriate to evaluate the intent of a Classic Associate and, ultimately, its effectiveness in preparing for the ability to carry out each unit’s DOC statement. As a reminder, in the Classic Associate model, the RegAF unit retains principle responsibility for the weapon system, but each unit is charged with fulfilling its own mission requirements, or DOC statement. Memorandums of Understanding (MOUs) may delineate the sharing of functions in order to gain efficiencies, but they cannot alleviate each commander’s responsibility to prepare the unit to fulfill DOC statement requirements. To adequately evaluate the effectiveness of the particular case of the Classic Associate model implemented at Hill AFB, a close look at the guidance provided to enact the association is necessary to ensure that the Air Force has not lost the ability to accomplish the mission. In other words, efficiencies intended to
be gained by associating RegAF and ARC forces should not come at the cost of losing mission effectiveness or the combat capability as defined by the DOC statements of each unit.

**Guidance**

The short time in which the Air Force shifted from an FTF concept to TFI, created a maelstrom of directives and direction. At the onset of implementing the six initial test initiatives, there were only memorandums from HAF loosely defining the roles each of the units involved in the test associations would play and numerous meetings with HAF leaders and planners and MAJCOM commanders. This lack of defined direction left the unit commanders involved in the associations on their own to develop the plans for implementation. Approval for these plans would have to go through the MAJCOMs, but clear guidance on the focus of each type of association was not forthcoming. As a logical progression whereby guidance is provided, the Commander’s intent should first be published as an Air Force Policy Directive (AFPD). The AFPD would then provide the foundation for the subsequent Air Force Instruction (AFI). From the AFI, the MAJCOMs of the affected components would, side-by-side, develop a Concept of Operations (CONOPS). Once published, the CONOPS provides enough detail to guide unit commanders in developing an MOU between the associated units to develop local practices and set forth the areas of functional integration and operational direction (OPDIR). In the case of the association at Hill Air Force Base (AFB), an AFPD and subsequent AFIs had not been created at the time the CONOPS was produced and signed, and therefore hard and concrete definitions of roles and responsibilities stemming from the Commander’s intent could not be followed. In fact, the CONOPS and MOU were both published a full year before the AFPD and AFI on TFI were released, and two years before the TFI Directorate released its Commander’s Integration Guide.
The following is a closer look at these guiding documents and the direction, or lack of direction, they provided.

**Concept of Operations for Hill Air Force Base**

Absent a guiding Air Force Policy Directive (AFPD), Air Force Reserve Command (AFRC) and Air Combat Command (ACC) Plans divisions (XP) developed the Concept of Operations for F-16 Associate Operations at Hill Air Force Base, which was signed and submitted 18 May 2005 by the AFRC and ACC commanders. The Concept of Operations (CONOPS) would form the foundation for the association and set the prescribed timelines and milestones. The CONOPS for Hill AFB “reflects the Commander’s intent and vision for the association and integration of Active Duty (AD) and Air Reserve Component (ARC) organizations.” It was created to explain the “who, how, why, when, and where” as well as the “challenges, assumptions, risks and timelines addressing the association of differing integration components.” The Hill AFB CONOPS further states that the “purpose of this association is to allow joint training and execution of assigned USAF missions using AD-owned F-16 aircraft.”

As mentioned before, the Commander’s intent for TFI is to develop a more “effective and efficient organization that leverages the unique strengths of each component.” In order for the CONOPS to, as it states, “reflect the Commander’s intent,” it must provide a path towards functional integration that not only looks for ways to gain efficiencies in the execution of similar missions, it must also identify a path that allows for each of the separate missions to be accomplished effectively.

The CONOPS outlines three distinct phases of TFI at Hill AFB. Phase 1 prepares both wings for association by realigning AD and AFRC personnel back into their respective
commands and standing up a “Hill Integration Office” in order to evaluate and implement the phased approach to “functionally integrate AFRC personnel into various aspects of the organization, missions, and operations of the 388 FW.” Phase 2 and 2A are defined by AEF, DOC statement and Higher Headquarters (HHQ) Inspection changes and the removal of 419 FW aircraft from Hill AFB. These phases also start the process of studying Crew Ratio and Utilization Rate (UTE) to develop Fiscal Year (FY) Flying Hour Programs (FHP). During Phase 2A, AFRC and ACC would validate manning adjustment proposals for changes to the Unit Manning Document (UMD). Phase 3 completed the 419 FW reserve association and functional integration with the 388 FW. The end state of Phase 3 would be marked by the consolidation of flying and tasking into three squadrons of jets and four squadrons of pilots.

With the ability to review the CONOPS five years removed from its initial creation, the glaring tone of the document is the focus on the 388 FW mission and the omission of the support for the 419 FW mission. The CONOPS states, “the mission of the 419 FW would be to recruit and train for the common 388 FW-419 FW mission,” which is counter to the existence of separate DOC statements and is not in keeping with the definition of the Classic Associate model. Furthermore, the CONOPS notes, “any additional 419 FW task beyond recruiting and training of reservists would be to provide a surge capability in support of increased steady state OPSTEMPO and/or combat mission requirements,” implying the 419 FW’s mission is to support the 388 FW’s mission. The tone of the document is that the RegAF force not only owns the weapon system, but the mission as well. This is no more evident than when the CONOPS states that it “uses a construct in which personnel assigned to the 419 FW would be “associated” with and functionally integrated into the operations and maintenance in the 388 FW.” The
CONOPS goes so far as to state that “419 MS Flight Surgeons would provide operational medical support to 388 FW personnel,” which, again, ties the role of the 419 FW to supporting the 388 FW mission.

One of the purposes of considering the TFI construct was to be able to man AEF cycles. Prior to the actual association at Hill AFB, the 419 FW would take one AEF rotation, relieving other RegAF units, thereby supporting the Commander’s intent for greater integration in AEF support. The CONOPS accounts for AEF support but does so by stating, “the operations and maintenance portions of 388 FW and 419 FW are treated as a single entity that receives tasking through the 388 FW.” This, also, does not keep in line with the intent of the Classic Associate framework as the 419 FW was being directed to support the 388 FW AEF mission and tasking. Moreover, the CONOPS directs that “419 FW personnel should be expected to participate in 388 FW operational deployments, exercises, and inspections,” making no mention whatsoever of the requirement of the 419 FW to fulfill its own DOC statement requirements.

The ultimate purpose of the CONOPS should be to define a process that gains efficiencies while maintaining mission support. In the Classic Associate model, the missions of the associating units remain intact, by virtue of the separate DOC statements. In the case of the Hill AFB CONOPS, combat capability gains are tied to an “increase in available API-1 Crew Ratio when Reservists are mobilized to support HHQ tasking… (or) may also be realized when Reservists volunteer to support HHQ tasking.” This Higher Headquarters (HHQ) tasking is not necessarily associated with the 388 FW, though it may be. Nevertheless it does not account for the fact that a separate DOC statement requires a separate RAP tasking, which requires separate consideration for the utilization of Reserve personnel. The CONOPS does not acknowledge its
own delineation of greater tasking, in fact, it even states, “this CONOPS assumes no changes to the current Ready Aircrew Program (RAP) requirements.” By stating this, the CONOPS is calling for greater utilization of Reserve personnel, but assuming it can be done with no impact to training requirements. This has been shown to be unfeasible and an inefficient utilization of personnel. If the AD personnel are to gain from the greater experience level of the Reserve personnel, there must either be an increase in availability to accomplish both the additional training of AD personnel and personal RAP requirements for Reserve pilots, or RAP requirements would have to change. Either way, the CONOPS assumes the 388 FW and 419 FW can do more with less, supporting multiple DOC statements and increasing utilization rates with no change in RAP requirements. In a roundabout way, the CONOPS acknowledges this as a risk associated with TFI operations saying that the current level of aircraft (66 jets), “creates a challenge to meet all AD and AFRC flying training requirements while staying within CAF Standard UTE rates.” Simply put, the 419 FW pilots are being asked by the CONOPS to continue maintaining their own personal training requirements, add additional sorties to help train the 388 FW pilots and do it all with fewer available jets and sorties. To mitigate this “risk,” the CONOPS proposes an increase in numbers of aircraft from 66 to 72, jets that were transferred as a result of the BRAC closure of Cannon AFB. As it stands today, the 388 FW is in the process of decommissioning one of its three squadrons, creating an even higher ratio of 98 pilots flying 48 jets (a ratio of 2.04:1), over the previous ratio of 135 pilots flying 72 jets (a ratio of 1.88:1).
Hill AFB I-Plan

Formal Air Force directives outlining the integration process were not published, as mentioned before, until after the test initiatives were begun and the CONOPS was distributed. The main governing document was AFI 90-1001, *Responsibilities for Total Force Integration*, released 29 May 2007. A review of this guidance is provided in the next section, but AFI 90-1001 contrasted the tone of the Hill AFB CONOPS, particularly in the process of TFI implementation and roles and responsibilities for associate units. According to AFI 90-1001, the first required step in the TFI initiative process is the development of the Initiative Review Worksheet (IRW) prior to development of the TFI Integration Plan. The Integration Plan (I-Plan) document "sets the strategic direction for the integration initiative, serves as the basis for the development of the supporting implementing documents, and helps frame and define the measures for success." The I-Plan, effectively, serves as the CONOPS and guides any subsequent Memorandums of Understanding (MOU). Development of the I-Plan is the necessary second step in the process of executing integration initiatives and sets the conditions for successful implementation.

A formal Hill AFB I-Plan was drafted 10 October 2008, but never agreed upon or signed by either MAJCOM. In this regard, the association of the 388 FW and 419 FW at Hill AFB stands in violation of AFI 90-1001. As a result, an update to the original MOU, dated 02 March 2007, was created in June 2009 and never signed. Effectively, the 388 FW and 419 FW are carrying on the TFI process at Hill AFB without an I-Plan, an updated MOU or an “Integration Office.” The Hill AFB I-Plan was to provide the guidance for Phase 3.5 through Phase 5 (FY08-
FY13), where the original CONOPS covered Phase 1 through Phase 3 (FY05-FY07). (See Figure (3) for the proposed Phase 3.5 through Phase 5 timeline)

Figure (3): Hill AFB Classic Associate Phased Timeline

Three quarters of the way through the TFI implementation timeline and the only governing documents specific to Association Operations at Hill AFB are the CONOPS and the original MOU. This demonstrates the lack of a willingness to follow the Commander’s intent by not following the published directives, AFPD 90-10 and AFI 90-1001. The draft version of the I-Plan was distributed to both the 388 FW and 419 FW for review and numerous issues with the I-Plan killed the signatory process, namely crew ratios associated with a reduction in aircraft as a result of the decommissioning of one of the 388 FW squadrons and levels of support required to sustain the “388-419 common mission.”

Within the TFI process, Air Force leadership has solicited inputs to improve the process. The starting point for improving that process is in the development of effective I-Plans and MOUs which not only give HHQ leadership a picture of TFI, they also establishes metrics.
by which the units and MAJCOMs can measure success and failure. The absence of an effective I-Plan and MOU creates a surfeit of confusion and a lack of direction.

**Memorandum of Understanding between 388 FW and 419 FW**

In the case of the TFI implementation and association at Hill AFB, the CONOPS was the document created by MAJCOMs, ACC and AFRC, to provide guidance to subordinate associating units, 388 FW and 419 FW, for the implementation of the TFI Classic Associate model. Because AFPD 90-10 and AFI 90-1001 had not yet been released, directing the creation of an I-Plan, the Hill AFB MOU was the document created to follow the Commander’s intent, and guided the actual implementation at the wing level. The initial MOU was released 02 March 2007, during Phase 3 of the CONOPS plan. This MOU coincided with the departure of 419 FW aircraft, and the subsequent inclusion of 419 FW pilots and maintenance personnel in Block 40 F-16 operations. Like the tone of the CONOPS, the original MOU contained numerous references to the “388-419 common mission,” and 419 FW’s support for the AD mission.

Colonel Robert Beletic, 388 FW Commander, echoed this misunderstanding of a common mission, "TFI has truly made us one team, one fight, one Air Force…With the great Americans of the 419 FW, we now train, deploy and execute the mission as a more experienced and combat-capable force." This MOU, used in conjunction with the CONOPS dated 18 May 2005, stated that in order to prepare for its operational mission, the 419 FW Commander would grant the 388 FW Commander Operational Direction (OPDIR) for the purpose of the “assignment of tasks, setting of objectives, and direction necessary to accomplish the mission.” This declaration is not legal as the only TFI models authorized by law are the models that provide for the support of
separate missions, such as the Classic, Active and ARC Associate models. Additionally, OPDIR can only be assigned to perform supervision over similar functions where functional integration is agreed upon in a signed MOU and where it provides for greater efficiency, not as an overall OPDIR that controls all operational mission support of the entire unit.

The original 02 March 2007 MOU declares that, due to RegAF manning offsets, functional integration of the 419 FW personnel is “necessary for (the) 388 FW to accomplish day-to-day training.” This statement, in keeping with the original CONOPS, focuses on the 419 FW supporting the 388 FW mission, not in line with the Classic Associate model and increasing the availability of the 419 FW personnel, in order to perform their own training and that of the 388 FW. This statement directly reduces combat capability by detracting from the 419 FW’s ability to support its own DOC statement, and decreases efficiency by increasing the need for 419 FW personnel to perform dual taskings.

As a reference point, the updated and unsigned MOU, dated 12 June 2009, removes the substantive references to one mission or AFRC support of the AD mission, and partially identifies that separate DOC statements exist. The reserve associate unit, the 419 FW, only “share(s) aircraft, equipment and facilities.” Rather than leaving the operator to infer the tone of the MOU (as in the previous MOU and CONOPS), the updated MOU directs personnel to “use the following overarching concepts in interpretation of this MOU: This is a partnership between wings and similar organizational levels with a mirrored organizational structure. Command authority remains with the respective component.” The MOU further delineates the 419 FW responsibilities, including, “Accomplish non-flying or non-maintenance related training for 419 FW personnel IAW Air Force, ACC and AFRC requirements and in line with current
DOC tasking and AEF requirements.” Additionally, the responsibilities of the 388 FW include, “ensur(ing) 419 FW personnel possess the capability and resources to train to the operational status that meets the DOC statement. This includes coordinating with ACC to ensure 419 FW training requirements are identified and training is accomplished to maintain the same level of readiness as 388 FW.” This direction is in line with the intent of TFI implementation and preserving the separation of missions.

Though the document remains unsigned due to the absence of a formal, approved I-Plan, this MOU makes a step in the right direction towards preserving combat capability.

**AFPD 90-10, Total Force integration Policy**

Air Force Policy Directive (AFPD) 90-10 was published a year after the six test initiatives were created, but summarized the Commander’s intent for the implementation of the TFI process. The stated desired end state was, “a more effective and efficient organization that leverages the unique strengths of each component.” Like most policy directives, it defined roles and responsibilities, and determined authority.

Pertinent to the Hill AFB association, AFPD 90-10 directs MAJCOMs to, “administer Total Force integration policy within their respective chains of command, to include the development of operational level concepts of operation (CONOPS) and memoranda of agreement (MOAs) or memoranda of understanding (MOUs).” This puts the responsibility on ACC and AFRC to produce a functioning CONOPS. Additionally, AFPD 90-10 directs the MAJCOMs to “coordinate all integration initiatives with the Air and Space Expeditionary Force (AEF) Center to ensure the units’ status is correctly portrayed in AEF UTC Reporting Tool (ART) and the Air Force’s continued ability to support the joint warfighter using the AEF
In the case of the 419 FW, this coordination was either not done or it did not include the 419 FW in the AEF plan.

The definition of the five basic models for integration was first laid out fully in AFPD 90-10. This document does not provide a clear definition of the Classic Associate model, as it does not clearly state that the two associate units would retain their unique missions. This can be inferred from the definition of the Integrated Associate model, which states, “An integration model similar to the Classic Associate model; however, members of all components contribute to one unit mission with administrative control and support provided by the respective component via detachments.” This definition implies that a Classic Associate model includes two distinct missions.

**AFI 90-1001, Responsibilities for Total Force Integration**

The purpose of AFI 90-1001 is to, “realign resources and missions with a focus on providing the maximum capability to the warfighter.” AFI 90-1001 further outlines the TFI process and in greater detail than AFPD 90-10.

The most significant instruction provided by AFI 90-1001 introduces the term Integration Plan, or I-Plan, as a replacement for the CONOPS, and directs all TFI units, via the MAJCOMs, to create standardized I-Plans that answer numerous common questions about the implementation of TFI. Furthermore, AFI 90-1001 limits the five AFPD 90-10 defined integration constructs to three, Classic, Active and ARC Associate, as they are “the only
integration types allowed by law.” Of note, this eliminates the Integrated and Fully Integrated models which are the only ones that provide for the support of one combined mission.

Chapter two of the AFI defines the role of Operational Direction (OPDIR) and clearly states that OPDIR can only be assigned at the wing commander level and must be agreed upon by both wing commanders. Adding confusion to the delineation of roles, responsibilities and mission support, AFI 90-1001 states, “authority for operational direction of one component member over members of another component is obtained by agreements between component unit commanders…whereby these component commanders, in an associate organizational structure, issue orders to their subordinates to follow the operational direction of specified/designated senior members of the other component for the purpose of accomplishing their associated mission.” Nowhere in this or other TFI guidance documents does it define an "associated mission" or remove the obligation of either of the associate units to perform their own mission as defined by a DOC statement, despite pointing out that OPDIR applies only in support of the "associate mission."

In the area of roles and responsibilities, the most significant instruction from AFI 90-1001 directs MAJCOMs to ensure “appropriate metrics (existing or developed) are available to evaluate whether integration initiatives are creating the desired effects.” Along these lines, MAJCOMs are directed to ensure all ARC units are aligned with Unified Combatant Command (UCC) OPLANs in accordance with the associated units’ respective DOC statements. If the unit is not performing to a standard required by its DOC statement within the TFI construct, the MAJCOM would never know it if the requisite metrics were not in place to measure it. Such is the case in the Hill AFB Classic Associate implementation.
Implementation

The next step in the evaluation of TFI at Hill AFB is to follow how guidance was or was not translated into execution. In order to evaluate implementation, this research looks at the other three areas of consideration mentioned in the introduction: combat capability, efficiency, and personnel. These areas can best be demonstrated by looking at how implementation took place in relation to operations, readiness and the impact on personnel.

Operations

The basis for evaluating any operations is having in place processes that measure production rates and process metrics. Many of these measures are included in the guidance provided by HHQ, including an I-Plan and an Integration Office, measuring the impact on utilization rates of crew and equipment, and outside teams dedicated to inspect the process and recommend Action Items to improve the process. As mentioned before, much of this guidance, in the form of AFPD 90-10, AFI 90-1001, the CONOPS and I-Plan, and MOUs, is either unclear or does not exist. Essentially, the 388 FW and 419 FW have had to “make it up as they go along.”

In order to work through conflicts, the CONOPS directed the 388 FW and 419 FW to stand up a co-located “Hill Integration Office.” An Integration office was established to provide the wing commanders with measures of how the process was progressing and suggestions for areas where functional integration could exist. This office provided little support to the wing commanders as there were no effectual guidelines in place. As a result, personnel assigned to the office were eventually moved on to other position in the wing and the Integration Office was not assigned new personnel. As of today, no TFI Integration Office exists.
Aircraft Utilization (UTE) rates translate into how often a single aircraft is being flown in one month, as a fleet average. F-16 wing commanders are taught through their command preparation courses that a desirable UTE rate is between 16.5 and 18. That means wing commanders should push their daily operations to fly each aircraft 16 to 18 times per month. To do this, maintenance would have to be able to support it and pilots would have to fly it. Prior to TFI and the current CAF reduction, the 388 FW maintained 72 F-16’s. That translates into maintenance supporting and pilots flying an average of 1,188 sorties per month, at the low end UTE rate of 16.5. At maximum levels, the 388 FW supports 108 pilots. To reach 1,188 sorties, pilots would have to fly an average of 11 sorties per month. RAP tasking, the program that determines pilot training requirements, has set RegAF requirements for Combat Mission Ready (CMR) inexperienced pilots at ten sorties per month, CMR experienced pilots at nine sorties per month, Basic Mission Capable (BMC) inexperienced pilots at six sorties per month, BMC experienced pilots at five sorties per month. These RAP requirements mean that in order for 108 pilots to fly 1,188 sorties per month, pilots would have to fly well in excess of their RAP tasking requirements, making the pilot support for a UTE rate of 16.5 unsustainable. A UTE rate of 16.5 also assumes equal utilization across the fleet. At any one time, the 388 FW may have 80% of its fleet available, thereby increasing the actual utilization of “up” aircraft. 388 FW maintenance has been unable to support an average fleet UTE rate of 16.5, let alone the increased rate of only being able to provide 80% of the fleet. Presently, 388 FW and 419 FW combined TFI maintenance have only been able to support a 13.64 UTE rate.

Now add in the 419 FW pilot requirements as a result of TFI. The pilots add to the pool of availability to fly the aircraft but the increased Crew Ratio, the number of pilots per Primary
Aircraft Authorized (PAA), puts untenable demands on maintenance. Given the actual UTE rate of 14 (rounded up from the 13.64 UTE rate), and assuming a RAP tasking requirement of 8.5 sorties per month for the average RegAF pilot and seven for the ARC pilot, the TFI process puts a strain on the ability of both wings to reach the established RAP tasking goals. After the CAF reduction and loss of 24 aircraft, meeting training goals will be all but impossible, unless there is a substantial increase in effectiveness and efficiency. 48 aircraft used at the current UTE rate of 14 means that maintenance can produce 672 sorties per month. With 102 pilots (36 in each of the two 388 FW squadrons and 30 in the 419 FW), that is an average of 6.6 sorties per pilot per month. Training requirements call for an average of 822 sorties per month (612 RegAF sorties figuring 72 pilots at 8.5 RAP sorties, 210 ARC sorties figuring 30 pilots at 7 RAP sorties). To accomplish the minimum required training, both wings would have to reach a UTE rate of 17.1. This still leaves both units with little to no ability to add sorties for additional requirements like qualification, upgrade or proficiency training. The CONOPS for Hill AFB states that “the primary combat capability gained through functional integration is an increase in available API-1 Crew Ratio when Reservists are mobilized to support HHQ tasking.” On the surface, this appears to increase combat capability, but the inability to support this increase in Crew Ratio severely hampers combat capability.

As a part of Program Budget Decision (PBD) 720, the 388 FW had 383 personnel immediately removed from their Unit Manning Document (UMD) and transferred to McEntire Joint National Guard Base (JNGB), and lost a complete fighter squadron. This loss in personnel was assumed to be offset by efficiencies gained in TFI, at the cost of being able to support separate missions. The greater question comes from the impact of only having two
operational squadrons at Hill AFB. Current taskings require that one squadron is deployed or is within six to nine months of deploying in support of AEF taskings, while the other squadron fulfills Expeditionary Combat Support (ECS) taskings and numerous Temporary Duties (TDYs). The first time this quandary will be realized will occur December 2010 when one squadron will be supporting a 120-day AEF rotation and the other will be supporting a three week TDY, leaving, under the current TFI process in place, no operational control of aircraft at home station. 419 FW pilots and maintenance personnel, as well as 388 FW personnel not a part of either deployment, will not have the ability to continue performing required training. The end result of a reduction this size is an absolute stop in operations for two to three weeks every three to four months. This cannot be the desired outcome of TFI, directly impacts combat capability, is a glaring mark of inefficiency, and hurts Air Force personnel.

A Site Activation Task Force (SATAF), as it applies to TFI, consists of multifunctional working groups that identify the necessary actions needed to execute the TFI program. The SATAF is a dynamic process in which the SATAF team and the associate units, in this case the 388 FW and 419 FW, work together to identify timelines, shortfalls, actions, and fixes to ensure timely completion of mission changes. The CONOPS for Hill AFB directs that a SATAF process be established to “identify MOUs, milestones, and Action Items required to complete the associate construct.” The first time the SATAF process was ever involved in the TFI process at Hill AFB, was March 2010, and that was more directed at addressing PBD 720 issues, namely the CAF reduction and decommissioning of one of the three squadrons of the 388 FW. In that meeting, the most notable mentions of the TFI process were the SATAF team’s assumption that the 388 FW and 419 FW shared one Flying Hour Program (FHP) and the consideration of 419
FW personnel as offsets that could be considered in calculating the end force strength of the 388 FW. Because AFRC still pays, as a part of its own budget, for the flying hours of 419 FW personnel, the SATAF team was incorrect in assuming that there was one combined FHP. As for TFI offsets, the SATAF team argued counter to the construct of the Classic Associate model that the functional integration of the two wings could capitalize on reducing manning levels. As mentioned time and again throughout this research, both the 388 FW Commander and the 419 FW Commander are responsible for executing the taskings assigned their respective DOC statements. Reducing manning directly impacts the ability of both commanders to execute their missions. Other than this single appearance of a SATAF team created to address the PBD 720 issues and not the TFI process, there have been no other SATAF processes put in place.

**Readiness**

The Total Force policy initiatives have transformed the ARC from forces in waiting, generally in standby mode waiting for the call to respond to national emergency, to an operational reserve. The cost of increasing the utilization of ARC forces can be a reduction in recruitment and retention, as the impact on civilian employers of the Guard and Reserve and family do not have an endless supply of patience, waiting for ARC personnel to return to their primary responsibilities and occupations.

Several questions arise when an ARC unit is tasked with increasing their operational readiness. What level of manning, equipping and training is required to regain currency and proficiency during each phase of the preparation for mobilization? If one assumes that a unit will be ready to be deployed, with only the training required to meet the taskings of the DOC statement at the beginning of their deployment year, what additional requirements are generated
throughout the other phases of the rotation cycle? A training plan that sustains a short “administrative” period in which ARC units are recovering from a high OPSTEMPO period followed by a long training period that ramps-up to being ready to deploy at mobilization will generate different costs than a rotation phase that has a long period of relative unreadiness, punctuated by a year of frantic catch-up before a unit can be deployed.

Figure (4): ARC Resourcing Options

Figure (4) shows two different views for resourcing the readiness of ARC units. The first timeline shows an early identification of a specific wartime mission, and a three to four year work-up training cycle, with increasing readiness, so that upon mobilization, the unit is ready to deploy. This is an example of the train-mobilize-deploy model Air Force Reserve Affairs has been promoting.

The second timeline is a depiction of how units are currently operating. An ARC unit is identified for a mission and works diligently to achieve the readiness necessary to deploy. The unit is mobilized and must spend three to five months in additional training. The net result is a
mobilization period of 15-18 months. This approach holds units in a low level of readiness for a substantial part of their cycle, with an intensive ramp-up in training the year before they are expected to deploy. This is assumed to be more affordable. Can this really work? If held at low readiness, can a part-time force surge to needed readiness without having to be mobilized? If units must spend three to six months mobilized but not deployed, is it really cheaper? What is the impact on retention, employer support, and families?

At Hill AFB, the 419 FW has not been tasked with preparing the entire wing for mobilization, as they had before TFI, so the readiness questions have not been asked, let alone answered, but that does not mean they do not exist. If tasked with supporting the AEF cycle or contingency operations, the 419 FW is not fully training to their own DOC statement and, therefore, would require a more extensive work up period to “disassociate” from their functional integration positions and dedicate an extensive amount of training time to regaining currency and proficiency in the areas where they are deficient in performing the tasks assigned on their DOC statement. The bottom line is, as a taskable unit with an assigned DOC statement, the inefficient implementation of the Classic Associate model at Hill AFB decreases readiness, thereby reducing combat capability.

Additionally, the 388 FW operates on a 16 month training cycle whereas the 419 FW maintains a 20 month training cycle. This creates a 388 FW and 419 FW priority mismatch for scheduling, sorties, and training requirements. Even if the 419 FW were to support the 388 FW mission, readiness levels are not married up as the 388 FW is always closer to achieving its training goals than the 419 FW. The vast difference in availability requires that ARC forces extend the periods in which they can give the appropriate training to their personnel, as
compared to RegAF availability. This difference, that will always exist, at least until an ARC unit is actually mobilized, requires that planners must take into account additional time in the preparation for an ARC deployment, going back to the previous discussion of how the Air Force prepares its reserve forces for mobilization and deployment.

**Personnel**

Personnel from the 419 FW knew the comfortable home they had built in the 419 FW would change as a result of TFI, but rather than “buck the system,” they chose to embrace TFI and attempt to shape it into something that could benefit them and the 388 FW. Maintenance personnel took their new positions side by side with 388 FW maintainers, relishing the chance to train and bring them up to the high standards expected of the 419 FW. Pilots of the 419 FW went into TFI much the same. After Phase 3, marked by the loss of the 419 FW aircraft, morale began to fall off and retention rates dropped. This could predominately be attributed to a lack of identity. 419 FW personnel still wore the patch, but the loss of spaces dedicated to the 419 FW that were on par with 388 FW spaces, not seeing the comrades they had grown professionally with, and the absence of a mission identifying the 419 FW as a standalone combat unit, crushed morale. Unit identity, defined by a common purpose and metrics that measure teamwork and team success, gives people focus and meaning. Unit identity has been lacking as a result of TFI as it has been implemented at Hill AFB.

The CONOPS for Hill AFB states, “by functionally integrating highly experienced AFRC personnel with AD personnel, organizations can be structured to maximize the capabilities of each component.” In reality, the integration at Hill AFB has tended to maximize the
capabilities of the 388 FW, but underutilized the effectiveness of the 419 FW. A great number of sorties flown by the 419 FW pilots are in support of the 388 FW pilots’ training requirements, whereas 419 FW pilots are left to accomplish their training on Unit Training Assembly (UTA) periods and reserve fly days, segregated from the RegAF pilots.  

On the maintenance side, similar levels of utilization have been encountered. Maintenance personnel from the 419 FW accomplish the bulk of their training requirements on UTA and reserve only days. Prior to TFI, 419 FW maintenance personnel could turn a “Code 3” jet around in less time than the 388-419 FW functional integration currently does and maintained substantially higher levels of Fully Mission Capable (FMC) aircraft, and did it with older Block 30 aircraft. The substantial benefactor of the integration has been the RegAF 388 FW, whereas the 419 FW has had to accomplish training, education and RAP tasking requirements on dedicated reserve only days, and as a result morale has suffered.
Conclusions

The purpose of the Total Force Integration process has been threefold: (1) to transform the Air Force in order to increase combat capability, covering new and a broader range of threats post-Cold War; (2) to recapitalize on the force structure and its capabilities to take advantage of technological advances and enhancements; and (3) to provide a pathway to become more efficient, or “do more with less,” in response to economic pressure and budgetary constraints confronting the Department of Defense. As such, all TFI initiatives should support these aims. Additionally, TFI should present equal or greater opportunities for all personnel in the ability to serve and for career progression. Essentially, like all successful military programs, TFI should enhance mission accomplishment and consider the needs of the personnel associated with the process. To do anything less, disrupts the Air Force’s ability to answer the call to fight and diminishes the ability to recruit and retain the personnel that form the backbone of what the military represents.

In the case of the Classic Association of F-16 operations at Hill Air Force Base, Utah, an honest evaluation should focus on these aspects and cultural and positional biases should be removed. Conclusions focus on four key questions:

1) GUIDANCE: Do HHQ, MAJCOM and unit directives support TFI objectives and do they provide clear and correct direction to foster TFI success?

2) COMBAT CAPABILITY: Do the TFI process and the integration model focus on and provide for delivering greater combat capability, and do they promote mission accomplishment?
3) **EFFICIENCY**: Does TFI implementation seek to improve efficiency and, ultimately, produce a cost savings to the Department of the Air Force?

4) **PERSONNEL**: Does the TFI process provide equal or greater opportunities for career progression, and enhance the units’ ability to recruit and retain quality personnel?

In December 2007, Air Combat Command and Air Force Reserve Command A9L partnered for a TFI collection effort in order to capture lessons learned from the first three Phases of TFI implementation at Hill AFB. The Program Evaluation (PE) performed in this research paper will reference some of the findings from this ACC/AFRC panel, but the focus of this PE includes ACC and AFRC’s roles in guiding the implementation at Hill, and, therefore, includes a broader scope. This PE also accounts for the time period after the A9L After Action Report, a significant period due to the distribution of AFPD 90-10 and AFI 90-1001.

**Guidance**

The baseline for all guidance is that it should provide the end user with the direction necessary to be able follow the Commander’s intent. Starting with the definition of the Classic Associate model, AFPD 90-10 and AFI 90-1001 do not provide a clear designation of each of the associate units’ missions. As mentioned before, the definition of the Integrated Association clearly states its only difference from the Classic Associate model is that the associate units operate under a shared mission, implying the Classic Associate model calls for each unit to operate under its own mission and subsequent DOC statement. With this clarity, the RegAF and ARC units operating under a Classic Associate model would more easily define roles and responsibilities, and wing commanders would be able to focus their training and operational execution to support individual DOC statement requirements.
The 388 FW and 419 FW are currently operating without guidance to carry them through phases 3.5 through 5. With no defined end state, organizational structures are difficult to establish. The same guidance should be provided to each of the wings by respective MAJCOMs and Numbered Air Forces (NAFs). Operating without an I-Plan or an MOU is unacceptable and a violation of not only AFI 90-1001, but also of basic leadership principles. If the commander expects his subordinates to execute a plan, he must provide them with enough guidance to develop a course of action that supports that plan. In addition, the lack of standards across both wings decreases efficiency and produces a duplication of efforts. This can be directly attributed to the lack of an I-Plan and MOU.

The initial Concept of Operations set the tone for the integration, and the theme running throughout the document was that the 419 FW existed to support either a “common mission” or the mission of the 388 FW. MAJCOMs must consider how all HHQ’s policies and directives will impact TFI implementation.

Clearly stated in AFI 90-1001, one of the purposes of the I-Plan is to establish metrics whereby the MAJCOMs can measure success and transform the TFI process to increase effectiveness. Absent an I-Plan, TFI at Hill AFB has no means by which to judge the success of the process, and subsequent inspections (ORIs, UCIs, SAVs, etc.) cannot effectively measure the units’ performance.
**Combat Capability**

The entire purpose of TFI rests in the ability of the Air Force to enact transformation, thereby increasing combat capability, tackling greater numbers of types of threats in greater climes, all in a construct that produces greater efficiency. This is a tall order, so the Air Force, and its subordinate units, must “get its ducks in a row,” so to speak. There has got to be strong guidance that defines roles, and those roles must be prepared for appropriately. The vehicle the Air Force uses to define roles is the Designed Operational Capability (DOC) statement, and the method by which units measure their ability and level of preparedness to fulfill its assigned DOC statement is through Ready Aircrew Program (RAP) tasking. To assess the Combat Air Forces’ (CAF) ability to go to war, units report their level of readiness through Status of Resources and Training Systems (SORTS).

In the case of TFI at Hill AFB, both wings are operating with DOC statements based on old organizational constructs and neither wing has the resources to meet these outdated DOC statements.\(^{111}\) As a result, SORTS reporting is based on an old construct, not taking into account shared resources. Units are unsure of what information to accurately report and which MAJCOM this information should be reported to.\(^{112}\) The Unit Type Codes (UTC) do not accurately depict Operation Plan (OPLAN) tasking. Currently, the 388 FW does not have enough pilots to fill all UTCs, effectively reducing combat capability. Of note, ACC and AFRC are currently evaluating manpower studies, but these studies are predominately focused on CAF reduction mandates.\(^{113}\)

With an assigned DOC statement, the 419 FW owns a separate mission and is thereby required to train and equip its personnel to perform that mission. The mixing of missions into one “combined 388-419 mission” creates confusion and detracts from the ability of both wings to
prepare for separate missions, reducing combat capability and effectiveness. The DOC statement is a classified document, so specific information cannot be reported here. Suffice it to say that, while predominately similar by virtue of utilizing similar Block F-16s, the 388 FW and 419 FW DOC statements contain different taskings. The 419 FW pilots and maintenance personnel are not training to all of the items on their DOC statement and their RAP tasking does not match their DOC statement, reducing their combat capability and effectiveness.

One of the methods the Air Force is enacting transformation is through the Air and Space Expeditionary Force (AEF) construct. The TFI timeline was pushed up to enhance AEF capabilities. The current AEF reserve tasking process does not allow for maximum reserve participation. AEF requirements are greater than DOC statement requirements, and, as a result, 388 FW pilot and maintenance personnel manning authorizations require greater reserve support.\textsuperscript{114} Prior to TFI, the 419 FW would fill a full AEF cycle as a unit. After TFI, reserve volunteerism on an individual basis is the opportunity for the 419 FW to fill AEF taskings. Reserve volunteer rate has been around 80\%, but may prove to be unsustainable for the long term.\textsuperscript{115} Reserve pilots fill shorter AEF deployment rotations increasing overall training requirements. As an example, three reserve pilots fill separate 40-day rotations instead of one pilot filling a 120-day rotation, tripling the training requirements and maintenance support. Even with high volunteer rates, the Deployment Requirement Manning Document (DRMD) does not allow for RegAF and ARC personnel to share Unit Line Numbers (ULN) and differing unit Personnel Accounting Symbol (PAS) codes do not allow reserve volunteers to fill positions on short notice. The 388 FW is unable to meet, increase or surge AEF requirements and the 419 FW is unable to efficiently support AEF taskings.
The current high level of OPSTEMPO (AEF, CPO/ECS taskings, and exercises) is not sustainable. While OPSTEMPO has increased, RegAF manpower has decreased due to PBD 720 and TFI offset cuts. Pilot TFI offsets were not commensurate with maintenance reductions from TFI offsets and PBD 720 cuts. ECS taskings have doubled since FY05 and there has been plus-up in aircraft required for AEF deployments. The current OPSTEMPO exceeds the capability assumptions for this TFI association. The current process for tasking the wings does not allow maximum participation of reserve forces. ARC forces require greater lead time and greater predictability to prepare for taskings due to employer requirements. Continued short notice taskings may reduce employer support, having the effect of reducing retention and volunteerism. In turn, having two sets of deployment standards (mandatory versus voluntary) may create retention problems for the 388 FW, reducing combat capability and preparedness.

**Efficiency**

The cost gain to the Air Force of having multiple units sharing resources, all the while retaining combat capability has the potential to be enormous, hence the allure of TFI. To capture these efficiencies, a plan that accounts for the differing availabilities as well as the levels of experience between RegAF and ARC forces must be in place. This is not the case at Hill AFB.

The first and greatest inefficiency is that the 419 FW is manned with positions commensurate with a unit that is taskable and supports a DOC statement. That is, an entire operations group, a fighter squadron and its command structure, and the operations support flight serve no function in the current TFI construct. Though not stated anywhere in any guidance, on two separate occasions from two separate MAJCOMs, leadership of the 419 FW was told that they were not a taskable unit and would not receive any orders to perform any function.
supporting either their own operations (like ECS Taskings or Temporary Duty) or operations in support of the AEF or contingency operations.\textsuperscript{118} If this is the case then there is no reason to support a command structure that exists to perform missions that will never come, to do so would become a duplication of efforts with those of the 388 FW. To remove the operational command structure of the 419 FW would mean the Classic Associate model at Hill AFB would become an Integrated Associate model, which is illegal according to AFI 90-1001.

Intangible as a measure of efficiency, but nonetheless real, the legal differences between RegAF and ARC forces, as defined by US Code Title 5, 10 and 32, and the cultural differences between forces constrained by a legal commitment (RegAF) and ones voluntarily committed to service (ARC) provide for a need to improve communication and understanding. Hindrances to this communication abound in the TFI implementation at Hill AFB, from the lack of an Integration Office to a misuse of functional integration and Operational Direction. Efforts have been made to stress the importance of the “One Team” concept, but sloganeering is no substitute for leadership. From wing commanders to shop leaders, RegAF and ARC forces must be able to speak as equals, something the CONOPS and MOU expressly prohibit by focusing all efforts on supporting the 388 FW mission, neglecting the importance of the role the 419 FW plays not just at Hill AFB, but operationally as well.

**Personnel**

Recruitment and retention are the significant factors in getting and keeping the best personnel. They are directly connected to job satisfaction, which, in turn is related to morale,
identity, workload, career expectations, and career progression. The Air Force’s people form the backbone of mission accomplishment and should be protected and provided for at all costs.

Whether or not it is in keeping with the Commander’s intent for TFI, the limiting of the 419 FW to support for the 388 FW mission and subsequent removal from the AEF cycle, significantly restricts the career potential for 419 FW personnel. AFRC leadership is pushing career progression by measuring the exposure individuals have had throughout the Air Force. Gone are the days when an individual joined the reserves to increase stability in his or her personal and professional life, while still following the desire to serve. It has become more difficult to attain higher and higher levels of leadership while staying within the same unit. As a result of this requirement to be more a part of the larger Air Force structure, individuals will be measured by their experiences. To not allow 419 FW personnel the opportunity to support AEF and contingency operations in leadership and command positions, severely limits career progression. As an example, the best the squadron commander of the 466 FS (the fighter squadron within the 419 FW) can hope for in supporting AEF is as a volunteer pilot within one of the 388 FW squadrons that are supporting AEF. Other AFRC F-16 squadron commanders will have had the opportunity to take their squadrons, as an operational unit, into combat, on ECS taskers and operational TDYs. When the 466 FS Commander comes up for higher positions, his limited leadership opportunities will be measured against those of other squadron commanders who have had greater opportunities. The same can be said for any individual in the 419 FW who is looking to advance his or her career. Limit the opportunities and you limit the potential. Limit potential and you limit career progression.
Reserve maintenance personnel were divided up between the three RegAF Aircraft Maintenance Units (AMUs) when, prior to TFI, reserve maintenance personnel operated out of one AMU. Along with the reassignment of reserve aircraft, this division of reserve maintenance personnel created a loss of unit identity and made association and functional integration more challenging. 466 FS pilots were also divided amongst the three squadrons of the 388 FW. The loss of 466 FS spaces, patchwork of assignments and equipment locker locations, and the loss of an operational 466 FS daily schedule created a loss of identity. People need to feel a part of something, creating “buy-in,” loyalty, and dedication to a purpose. Absent this identity, morale has suffered and the 419 FW has had to overcome a flood loss in quality personnel, some who had been in the unit for over fifteen years. This loss in corporate knowledge and unit identity has also had a negative impact on recruitment. The lack of a dedicated mission to support, minimal career opportunities, and general malaise about unit identity have exceedingly reduced volunteer rates.

Recruitment, retention and volunteerism are the most salient measures of the health of a reserve unit and distinguish units with high morale and mission success against those who are marked by low morale and, subsequently, an inability to accomplish the mission.
Recommendation: The “18-18-12” Plan

Success in TFI implementation is defined by an end-state where the two associate units function more effectively and efficiently. Based on the conclusions derived from this Program Evaluation research, the following recommendation presents the scenario that can best reach that end-state.

During the TFI implementation period at Hill AFB, the Air Force, through Program Budget Decision (PBD) 720 and the resultant Combat Air Force (CAF) reductions, and TFI offsets, made the decision to reduce the number of RegAF squadrons assigned to the 388 FW from three to two. This reduction is currently in place and ongoing and will expose the large shortfalls in combat capability, efficiency and personal availability, and levy an even greater need to count on the support of the 419 FW. There is no better time than now to implement the following recommendations.

Because the 419 FW must maintain its own DOC statement and is responsible for recruiting and retention in support of that DOC statement, it should execute its own flight schedule and maintain an Aircraft Maintenance Unit (AMU) to accomplish that schedule. As per the guidelines of the Classic Associate model, the 419 FW would be required to utilize 388 FW aircraft and support equipment. The structure of this arrangement would be defined by a plan entitled the “18-18-12 Plan,” proposed by the 419 Operations Group Commander, Lieutenant Colonel Bill Lyons. The plan proposes that each of the three operational squadrons, the 4 Fighter Squadron (FS), the 421 FS, and the 466 FS, supported by three AMUs, the 4 AMU, the 421 AMU, and the 466 AMU, would be responsible for operating separate flight schedules that operate 18 aircraft for each of the RegAF units (4 FS and AMU, and the 421 FS and AMU) and...
12 aircraft for the ARC unit (the 466 FS and AMU). All aircraft and support aircraft would remain under the control of the RegAF 388 FW, only the flight schedules and operational control of the aircraft would be executed by each of the squadrons and their associated AMUs. The foundation of this plan is that the 466 FS would form the home station support for normal operations, providing continuity for daily training in the times that the RegAF squadrons are either tasked with AEF support, Combat Planning Support (CPS) and Expeditionary Combat Support (ECS) taskings and Temporary Duty (TDY) training.

Under this proposed construct, the 466 FS and AMU would be able to be tasked with supporting the training requirements for both the pilots and maintenance personnel as a part of their own separate flight schedule and maintenance cycles. The 466 AMU would be able to take the aircraft that require the most maintenance, much like an internal “Depot-level” maintenance, leaving the jets in the best condition for the RegAF units, who would be operating under a more stringent OPSTEMPO. The 466 FS can segregate the 388 FW pilots requiring upgrade and specific qualification training, allowing the RegAF squadrons to dedicate sorties in support of their operational taskings and focus their training on operational needs. The essential benefit of this construct is the 466 FS would remain in place and establish the standards for Total Force operations in the event that both remaining RegAF squadrons are fulfilling taskings that take them away from home station. The first instance of this shortfall is when in December 2010, the 4 FS will be deployed in support of its AEF assignment, and the 421 FS will be deployed for three weeks in support of ECS tasking. At that time, a construct would have to be in place that supports ongoing training at Hill AFB. Given the current OPSTEMPO for F-16 units at Hill AFB, this shortfall will continue to present itself unless some construct is put in place to address
it. This plan supports all aspects of TFI implementation and, ultimately, Air Force Transformation.

**Increased Combat Capability**

This plan increases combat capability for the 388 FW, 419 FW and Total Force combined efforts of the 388 FW and 419 FW. First, it allows the 388 FW to focus greater effort on assigned missions by freeing up training requirements handled under the 466 FS schedule. The result is RegAF squadron commanders can focus on preparing for combat, knowing that when their members return to the squadron they will be contributing members of a combat unit, having undergone training under the auspices of the 419 FW. This benefit was in place before TFI implementation and produced incredible results. Secondly, this plan removes the burden of the RegAF squadron commanders from be required to dedicate a portion of their flying and maintenance schedules to the training of 419 FW personnel. This training would be accomplished under the 466 FS and AMU schedules, focusing all the effort on a RegAF schedule for RegAF requirements.

This construct allows the 419 FW to pay greater attention to its DOC statement and RAP tasking. A greater portion of the operational 466 FS and AMU daily schedules can be focused on accomplishing tasks that directly support the 419 FW needs, still leaving great opportunities to support the 388 FW training. With the increased levels of preparation for the 419 FW DOC statement, the ARC unit can position itself to support the AEF cycle as a taskable organization. As it stands right now, the 419 FW can only support AEF taskings by sending individuals. In this construct, the 419 FW could fulfill one of the primary objectives of TFI and the Air Force
Transformation by becoming an active participant in the AEF cycle. This instantly improves the combat capability of the Air Force, reduces the OPSTEMPO impact to the RegAF units by reducing the deployed time for 388 FW squadrons, improves morale by maintaining unit identity in support of combat operations, and increases career progression by giving all 419 FW personnel leadership opportunities and operational experience associated with combat.

In addition to being able to directly support and manage the training for its own DOC statement, the 419 FW can better manage its Utilization (UTE) Rates to increase pilot and maintenance personnel proficiency. Having its own dedicated flight schedule allows squadron planners to project training out into a more stable, predictable timeline, as opposed to having to manage its own training over 388 FW “down days” and UTA periods.

TFI success is incumbent upon both units embracing the Total Force team, but there are substantial benefits to maintaining unit identity within the TFI construct. With its own flight schedule and separate operations, the 419 FW can support the needs of the 388 FW and the TFI team all the while retaining its own identity. This directly impacts combat capability by improving the ability to recruit and retain quality individuals, and by increasing volunteerism rates. The common thread found in this research’s interviews, formal and informal, is the desire of ARC personnel to be a part of the team and volunteer for operations, but to do so with the unity of personnel having similar perspectives and background.

Newcomers assigned to squadrons that are deployed can “hit the deck running,” not having to wait to start training until the deployed unit returns, by being absorbed into the 466 FS and AMU. These individuals will have the opportunity to become effective members of their assigned units in a shorter amount of time, also improving efficiency.
**Increased Efficiency**

One of TFI’s stated benefits is capitalizing on the experience and perspective ARC personnel bring to the table. This plan presents the best way to take advantage of this characteristic of the 419 FW personnel. The 388 FW can benefit from the 419 FW’s experience in two very specific and instant ways, quality and quantity of results and dedication to specific needs. The focusing of experience into 419 FW dedicated units operating under a dedicated 419 FW flight schedule more efficiently concentrates experience where experience is needed. 388 FW pilots requiring training can do so under a more structured schedule, where standards and a dedicated portion of the local mission can isolate training requirements. The product of a focused training plan under high levels of experience is better than one that is spread thin amongst other operational requirements. On the maintenance side, utilizing the high level of 419 FW maintenance experience produces greater results both in quality and quantity. Aircraft under the 419 FW maintenance program were, prior to TFI, turned around quicker and in better shape than they are under the current TFI arrangement. The 388 FW could assign its jets in the worst shape to the 466 AMU and be assured that they would be returned to the fleet of common aircraft in better shape than they were before going into maintenance. The 388 FW can also utilize the 466 AMU to serve as training unit to train new and struggling 388 FW maintenance personnel.

As stated before, the inclusion of upgrade training as one of the 419 FW’s dedicated local missions would free up the 388 FW’s subordinate units to concentrate on their other missions, directly increasing efficiency.

Ultimately, the greatest inefficiency with the structure, or rather the lack of structure, in the present TFI process at Hill AFB is that, in effect, the 419 FW cannot be tasked with support
of its DOC statement or AEF taskings. In an interview with the 419 FW Commander, both ACC and AFRC acknowledged to him that the 419 FW would not be tasked for any mission outside Hill AFB. In the case of ACC, the view was that the 419 FW did not own aircraft and therefore could not be tasked to take jets from the 388 FW in support of dedicated 419 FW tasking because it would take away from the 388 FW’s ability to perform its own mission. On the part of AFRC, the view was that the 419 FW existed to support ACC tasking. This puts the 419 FW right back on the ACC side of whether they could be tasked. So, the 419 FW currently trains towards a mission they will never fight and is supported by a command structure that will never be used. This is one of the greatest wastes of taxpayer dollars, waste of valuable careers, and loss of combat power and capability, all for naught. If given its own flight schedule, control of daily operations, and integrated in the AEF cycle as a taskable organization, the 419 FW would increase efficiency if not for any other reason than it would become a useful organization.

**Improved personal opportunities and conditions**

A condition of the TFI process was that the process itself would not hamper an individual airman’s ability to fulfill career expectations and progress through his or her career. A lack of job or positional satisfaction results in poor recruitment and retention rates. Job satisfaction is not only related to maintaining the ability to continue to grow professionally and expand horizons. It is also directly related to a satisfying work environment. The “18-18-12” proposal to provide the operational direction over a daily flight schedule and its associated training and operations fosters a greater understanding between the separate component cultures. The 419 FW can better deal with the unique needs of Traditional Reservist (TR) and Air Reserve Technician (ART)
personnel. Many of the issues associated with a TFI process that combines RegAF and ARC units can be traced to the differences not only in culture but in U.S. Title 5, Title 10 and Title 32 issues. The “18-18-12” plan removes a number of those issues and creates a more flexible work place, which, in turn, improves morale for ARC personnel.

Additionally, airmen who have visible and tangible objectives, like those associated with being called as a unit to perform together, will inevitably have greater morale. If an individual feels as though he only exists to support someone else’s success, and without proper acknowledgement of their own contribution to that success, morale suffers. In the “18-18-12” plan, pilots and maintenance personnel have built in metrics by which to see the results of their own hard work. There is pride and self-worth involved with being asked to take the worst jets and the most inexperienced pilots and turn them into the best jets and best trained individuals. Morale would improve, retention rates would increase, and the organization would become a unit all would aspire to be like.

The 419 FW’s peer units, the 482 FW at Homestead ARB and the 301 FW at Carswell JRB, are involved in Active Associate TFI integrations. As such, they are tasked with AEF commitments giving all their personnel greater opportunities at career progression. As, effectively, a non-taskable unit, the 419 FW personnel do not have the same opportunities as their peers and suffer, comparatively, in career expectations and potential. Enacting the “18-18-12” plan would give the 419 FW an opportunity to be a part of not only the AEF cycle, but also TDYs and CPO/ECS taskings that expand the opportunities to lead and succeed.

Giving the 419 FW operational control of its own mission, in effect the purpose of the Classic Associate model, would allow the 419 FW to speak with an equal voice, maintain its own
identity while supporting the needs of the team, increase volunteerism, and increase combat capability.

**Applicability to all Total Force Integration models**

The aim of this Program Evaluation research paper was to evaluate a Classic Associate model and make recommendations that are applicable to all forms of TFI integration. Gleaning salient points of information from the particular case of TFI at Hill AFB, one can see that the greatest obstacles to a smooth integration are 1) not having clear, correct, and concise guidance from HAF and the relevant MAJCOMs; and 2) not establishing and supporting roles that fulfill appointed DOC statements, and, ultimately, missions. In this regard, lessons learned from the ongoing Classic Association of F-16 operations between the 388 FW and 419 FW at Hill AFB are applicable to any model of TFI integration.
Appendix A: Abbreviations and Acronyms

ACC—Air Combat Command

AD—Active Duty

ADCON—Administrative Control

AEF—Air and Space Expeditionary Force

AETC—Air Education and Training Command

AF/A1—Deputy Chief of Staff, Manpower and Personnel

AF/A2—Deputy Chief of Staff, Intelligence, Surveillance, and Reconnaissance

AF/A3/5—Deputy Chief of Staff, Air, Space, and Information Operations, Plans and Requirements

AF/A4/7—Deputy Chief of Staff, Logistics, Installations, and Mission Support

AF/A8—Director of Strategic Plans and Programs

AF/A9L—Studies & Analyses, Assessments and Lessons Learned Directorate

AF/JA—The Judge Advocate General of the Air Force

AFI—Air Force Instruction

AFPD—Air Force Policy Directive

AFR—Air Force Reserve
AFMC—Air Force Material Command

AFRC—Air Force Reserve Command

AFSC—Air Force Specialty Code

AGR—Active Guard and Reserve

ANG—Air National Guard

API—Aircrew Position Indicator

ARC—Air Reserve Component

ART—Air Reserve Technician

AVF—All Volunteer Force

BRAC—Base Realignment and Closure

CAF—Combat Air Forces

CCDR—Combatant Commander

COCOM—Combatant Command (Command Authority)

CONOPS—concepts of operation

CSAF—Chief of Staff of the Air Force

DOC—Designed Operational Capability

DOD—Department of Defense
DRRS—Defense Readiness Reporting System

EAD—Extended Active Duty

ECS—Expeditionary Combat Support

FTS—Full-Time Support

FW—Fighter Wing

FY—Fiscal Year

HAF—Headquarters Air Force

HHQ—Higher Headquarters

HQ USAF—Headquarters United States Air Force

I-Plan—Integration Plan

IAW—In accordance with

IDT—Inactive Duty Training

IG—Inspector General

IMA—Individual Mobilization Augmentee

IRW—Initiative Review Worksheet

JP—Joint Publication

MAJCOM—Major Command
MOA—Memorandum of Agreement

MoM—Measures of Merit

MOU—Memorandum of Understanding

MPA—Military Personnel Appropriation

NGB—National Guard Bureau

O&M—Operations and Maintenance

OPDIR—Operational Direction

OPSTEMPO—Operations Tempo

ORI—Operational Readiness Inspection

PAA—Primary Aircraft Authorized

PERSTEMPO—Personnel Tempo

POC—Point of Contact

PPlan—Program Plan

RAP—Ready Aircrew Program

RCs—Reserve Components

RegAF—Regular Air Force

RPA—Reserve Personnel Appropriation
SA—Support Agreement

SATAF—Site Activation Task Force

SECAF—Secretary of the Air Force

SORTS—Status of Resources and Training Systems

TACON—Tactical Control

TCCR—Total Combat Crew Ratio

TFI—Total Force Integration

TFITT—Total Force Integration Tracking Tool

UCI—Unit Compliance Inspection

UMD—Unit Manning Document

USAF—United States Air Force

UTA—Unit Training Assembly

UTC—Unit Type Code

UTE—Utilization Rate
Appendix B: Authorities

The Secretary of the Air Force. 10 U.S.C. §8013 et seq. enumerates the various authorities of the Secretary of the Air Force, among other things, to conduct all affairs of the Department of the Air Force, formulate policies and programs, and prescribe regulations.

Adjutants General. 32 U.S.C. §314(d) stipulates that “The adjutant general of each State…shall make such returns and reports as the…Secretary of the Air Force may prescribe….”

National Guard Bureau. 10 U.S.C. §10501(b) states that, “The National Guard Bureau is the channel of communications on all matters pertaining to the National Guard…between the…Department of the Air Force, and the several States.” The Chief of the National Guard Bureau is the principal adviser to the Secretary and Chief of Staff of the Air Force on matters relating to the National Guard, and for Air Force matters is subject to their authority.

Air Force Reserve Command. 10 USC Chapter 1006 Sec. 10174 states that, “The Secretary of the Air Force, with the advice and assistance of the Chief of Staff of the Air Force, shall establish an Air Force Reserve Command. The Air Force Reserve Command shall be operated as a separate command of the Air Force. (b) Commander. - The Chief of Air Force Reserve is the Commander of the Air Force Reserve Command. The commander of the Air Force Reserve Command reports directly to the Chief of Staff of the Air Force. (c) Assignment of Forces. - The Secretary of the Air Force - (1) shall assign to the Air Force Reserve Command all forces of the Air Force Reserve stationed in the continental United States other than forces assigned to the unified combatant command for special operations forces established pursuant to section 167 of this title (see note); and (2) except as otherwise directed by the Secretary of Defense in the case of forces assigned to carry out functions of the Secretary of the Air Force specified in section
8013 of this title, shall assign to the combatant commands all such forces assigned to the Air Force Reserve Command under paragraph (1) in the manner specified by the Secretary of Defense.”

Note: Reserve forces in support of US Special Operations Command (USSOCOM), a Unified Combatant Command (UCC), will be managed by Air Force Special Operations Command (AFSOC).
Appendix C: Terms

**Activation**—Order to active duty (other than for training) in the Federal service. *(DODD 1235.10)*

**Active Associate**—An integration model where a reserve component unit has principal responsibility for weapon system or systems, which it shares with one or more regular units. Reserve and Regular component units retain separate organizational structures and chains of command. Varying degrees of functional integration based MOUs. *(AFPD 90-10)*

**Community Basing**—A variation on the Active Associate model where Regular component forces are garrisoned at a reserve component unit location. Support functions traditionally provided on a Regular component installation (housing, medical, commissary, BX, etc) are instead available in the local community. *(AFPD 90-10)*

**Active Component** *(AC)*—That portion of the armed forces as identified in annual authorization acts as “active forces,” and in 10 USC 115 as those active-duty personnel paid from funds appropriated for active-duty personnel. *(DODI 1215.06)*

**Active Duty**—Full-time duty in the active Military Service of the United States. It includes full-time training duty, annual training duty, and attendance, while in active Military Service, at a school designated as a Service school by law and the Secretary of the Military Department concerned. It does not include full-time National Guard duty. At any time, an authority designated by the Secretary concerned may order a member of the RC under his or her jurisdiction to AD or retain the member on AD with the consent of the member under the authority of Sections 12301(d), 12301(h) and 12322 of reference (g). However, a member of the
Army National Guard of the United States (ARNGUS) or Air National Guard of the United States (ANGUS) may not be ordered to AD under that authority without the consent of the Governor or other appropriate authority of the State or territory, the Commonwealth of Puerto Rico, or the District of Columbia. For the RC, AD is comprised of the categories ADT and ADOT. (DODI 1215.06)

Active Guard and Reserve (AGR)—National Guard and Reserve members who are on voluntary active duty providing full-time support to National Guard, Reserve, and Active Component organizations for the purpose of organizing, administering, recruiting, instructing, or training the Reserve Components. (JP 1-02)

Administrative Control (ADCON)—Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of Service forces, control of resources and equipment, personnel management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. (JP 1-02)

Air Force—As stated in 10 USC, Section 8062(d), “The Air Force consists of — (1) the Regular Air Force, the Air National Guard of the United States, the Air National Guard while in the service of the United States, and the Air Force Reserve; (2) all persons appointed or enlisted in, or conscripted into, the Air Force without component; and (3) all Air Force units and other Air Force organizations, with their installations and supporting and auxiliary combat, training, administrative, and logistic elements; and all members of the Air Force, including those not assigned to units; necessary to form the basis for a complete and immediate mobilization for the national defense in the event of a national emergency.”
Air Force Reserve (AFR)—“The Air Force Reserve is a reserve component of the Air Force to provide a reserve for active duty. It consists of the members of the officers’ section of the Air Force Reserve and of the enlisted section of the Air Force Reserve. It includes all Reserves of the Air Force who are not members of the Air National Guard of the United States.” (10 USC 1003 sec 10110)

Air Force Reserve Command (AFRC)—“(a) Establishment of Command. - The Secretary of the Air Force, with the advice and assistance of the Chief of Staff of the Air Force, shall establish an Air Force Reserve Command. The Air Force Reserve Command shall be operated as a separate command of the Air Force. (b) Commander. - The Chief of Air Force Reserve is the Commander of the Air Force Reserve Command. The commander of the Air Force Reserve Command reports directly to the Chief of Staff of the Air Force. (c) Assignment of Forces. - The Secretary of the Air Force - (1) shall assign to the Air Force Reserve Command all forces of the Air Force Reserve stationed in the continental United States other than forces assigned to the unified combatant command for special operations forces established pursuant to section 167 of this title; and (2) except as otherwise directed by the Secretary of Defense in the case of forces assigned to carry out functions of the Secretary of the Air Force specified in section 8013 of this title, shall assign to the combatant commands all such forces assigned to the Air Force Reserve Command under paragraph (1) in the manner specified by the Secretary of Defense. (10 USC Chapter 1006 Sec. 10174)”

Air National Guard (ANG)—"Air National Guard" means that part of the organized militia of the several States and Territories, Puerto Rico, and the District of Columbia, active and inactive, that - (A) is an air force; (B) is trained, and has its officers appointed, under the sixteenth clause
of section 8, article I of the Constitution; (C) is organized, armed, and equipped wholly or partly at Federal expense; and (D) is federally recognized. (US Code, Title 32, Section 101 (6) – also, US Code Title 10, section 101 (4)).

**Air Reserve Component (ARC)**—The forces of Air National Guard and the Air Force Reserve Command. Also called ARC. (HQ AFRC, HQ ANG) (AFDD 1-2)

**Air Reserve Components (ARC) Associate**—An integration model where the ARC components integrate two or more ARC units with one component’s unit retaining principal responsibility for weapon system or systems, which are shared by all. Each unit retains separate organizational structures and chains of commands. Varying degrees of functional integration are based on MOUs. (AFI 90-1001, paragraph 1.6.3.)

**Air Reserve Technician (ART) Also see Military Technician (Dual Status)**—Air Reserve Technicians (ARTs) are federal civil service employees who are hired to ensure stable, continuous management of the part-time Ready Reserve. As a condition of employment, they must be Ready Reservists, training with the units that employ them. ARTs are a nucleus of managers, planners and trainers who have knowledge and expertise to smooth an Air Force Reserve Command unit's transition from a peacetime to a wartime environment. They provide management continuity, equipment maintenance and training support to help keep their units combat ready. Aside from being tasked to perform these duties to include their wartime skills, ARTs in various career fields also perform the unit's full-time mission (e.g., base operations support functions). ARTs who lose their Reserve assignment may be subject to separation from their civil service position. Numerous factors affect such a determination, including the reasons
for the loss, the type of position occupied, physical limitations, etc. Different factors apply to
different situations and the potential combinations are too numerous to mention here. (AF/REP)

**Assign**—(DOD, NATO) 1. To place units or personnel in an organization where such placement
is relatively permanent, and/or where such organization controls and administers the units or
personnel for the primary function, or greater portion of the functions, of the unit or personnel. 2.
To detail individuals to specific duties or functions where such duties or functions are primary
and/or relatively permanent. See also attached forces. (JP 1-02)

**Attach**—(DOD) 1. The placement of units or personnel in an organization where such placement
is relatively temporary. 2. The detailing of individuals to specific functions where such functions
are secondary or relatively temporary, e.g., attached for quarters and rations; attached for flying
duty. (JP 1-02)

**Availability**—(DOD) Availability shown in the apportionment tables is based on a unit’s
capability to start and sustain movement from its normal geographic location (installation or
mobilization station). Forward-deployed (in-place) forces are assumed to be available
immediately for employment or repositioning. Forces are listed with availability as it pertains to
notification day for Active forces, and PSRC and partial mobilization for Reserve forces.
(CJCSM 3110.01A/JSCP)

**Classic Associate**—An integration model where a Regular Air Force component unit retains
principal responsibility for weapon system or systems, which it shares with one or more Reserve
Component units. Regular and Reserve component units retain separate organizational structures
and chains of command. Varying degrees of functional integration based on MOUs. *(AFPD 90-10)*

**Command**—1. The authority that a commander in the Armed Forces lawfully exercises over subordinates by virtue of rank or assignment. Command includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of assigned missions. It also includes responsibility for health, welfare, morale, and discipline of assigned personnel. 2. An order given by a commander; that is, the will of the commander expressed for the purpose of bringing about a particular action. 3. A unit or units, an organization, or an area under the command of one individual. See also combatant command; combatant command (command authority). Also called CMD. *(JP 1-02)*

**Command Authority**—A commander or individual assigned responsibility for coordinating specific functions or activities involving forces of two or more Military Departments, two or more joint force components, or two or more forces of the same Service. The commander or individual has the authority to require consultation between the agencies involved, but does not have the authority to compel agreement. In the event that essential agreement cannot be obtained, the matter shall be referred to the appointing authority. Coordinating authority is a consultation relationship, not an authority through which command may be exercised. Coordinating authority is more applicable to planning and similar activities than to operations.

**Command Relationships**—The interrelated responsibilities between commanders, as well as the operational authority exercised by commanders in the chain of command; defined further as
combatant command (command authority), operational control, tactical control, or support. *(JP 1-02)*

**Control**—Authority that may be less than full command exercised by a commander over part of the activities of subordinate or other organizations. *(JP 1-02)*

**Designed Operational Capability (DOC)**—A summary of a unit’s mission and resources for which it has been organized, designed, and equipped.

**Direct Liaison Authorized**—That authority granted by a commander (any level) to a subordinate to directly consult or coordinate an action with a command or agency within or outside of the granting command. Direct liaison authorized is more applicable to planning than operations and always carries with it the requirement of keeping the commander granting direct liaison authorized informed. Direct liaison authorized is a coordination relationship, not an authority through which command may be exercised. Also called DIRLAUTH. *(JP 1-02)*

**Functional Component Command**—*(DOD)* A command normally, but not necessarily, composed of forces of two or more Military Departments which may be established across the range of military operations to perform particular operational missions that may be of short duration or may extend over a period of time. See also component; Service component command. *(JP 1-02)*

**Integration**—The process of harmonizing the organization of two or more Air Force component units (including Regular Air Force, Guard, and Reserve Components, civilians and contractors) in order to unify training, equipping, supply, recruiting, servicing, mobilizing, demobilizing, administering, maintaining, etc. *(AFPD 90-10)*
Lead Agency—(DOD) Designated among U.S. Government agencies to coordinate the interagency oversight of the day-to-day conduct of an ongoing operation. The lead agency is to chair the interagency working group established to coordinate policy related to a particular operation. The lead agency determines the agenda, ensures cohesion among the agencies and is responsible for implementing decisions. (JP 1-02)

MACRO Integration Plan—A MAJCOM to MAJCOM/NGB level plan, crafted and coordinated solely at the MAJCOM level, that identifies a class of Total Force Integration initiatives and sets a strategic direction for this class of initiative, serves both as a basis for the development of an association specific I-Plan addendum and supporting implementation documents, and does not contain unit specific implementation concepts or details.

Mission Capability (MISCAP)—The MISCAP defines the mission the UTC is capable of accomplishing. It contains the following: (1) type and amount of workload the UTC is capable of performing, (2) the type of base where the UTC may be employed - bare base, main operating base, forward operating base, or advanced operating base in accordance with JP 1-02, DoD Dictionary of Military and Associated Terms, (3) other UTCs which are required to support the defined capability, and (4) any other information pertinent to that UTC. The MISCAP is the only part of the UTC that could be classified.

Mobilization—The act of assembling and organizing national resources to support national objectives in time of war or other emergencies; the process by which the Armed Forces or part of them are brought to a state of readiness for war or other national emergency. This includes activating all or part of the RC and assembling and organizing personnel, supplies, and materiel. Mobilization of the Armed Forces includes, but is not limited to the following categories:
Selective Mobilization—Expansion of the active Armed Forces resulting from action by the Congress and/or the President to mobilize RC units, the IRR, and the resources needed to meet the requirements of a military operational mission or specific domestic emergency as prescribed by statute.

Partial Mobilization—Expansion of the active Armed Forces resulting from action by the Congress (up to full mobilization) or by the President (not more than 1,000,000 for not more than 24 consecutive months) to mobilize Ready RC units, individual Reservists, and the resources needed for their support to meet the requirements of a war or other national emergency involving an external threat to the national security.

Presidential Reserve Call-up (PRC) [10 USC 12304]—If the President determines that it is necessary to augment the active forces for any operational mission, the Service secretary or his designate may order not more than 200,000 of the Select Reserve to active duty (other than for training) for the not more than 365 consecutive days. Up to 30,000 members of the Individual Ready Reserve may be part of the 200,000 Select Reserve total. The President does not have to declare a national emergency but does have to inform Congress. The PRC may be used to cover incidents involving Weapons of Mass Destruction.

Full Mobilization—Expansion of the active Armed Forces resulting from action by the Congress and the President to mobilize all RC units in the existing approved force structure, all individual Reservists, retired military personnel, and the resources needed for their support to meet the requirements of a war or other national emergency involving
an external threat to the national security. Reserve personnel can be placed on active duty for the duration of the emergency plus 6 months.

Total Mobilization—Expansion of the active Armed Forces resulting from action by the Congress and the President to organize and/or generate additional units or personnel beyond the existing force structure, and the resources needed for their support, to meet the total requirements of a war or other national emergency involving an external threat to the national security. (DODD 1235.10 – consistent with JP 1-02)

Operations Tempo—The rate at which units of the armed forces are involved in all military activities, including contingency operations, exercises, and training deployments. (US Code Title 10, Chap 23, section 487)

Operational Control—Command authority that may be exercised by commanders at any echelon at or below the level of combatant command. Operational control is inherent in combatant command (command authority) and may be delegated within the command. When forces are transferred between combatant commands, the command relationship the gaining commander will exercise (and the losing commander will relinquish) over these forces must be specified by the Secretary of Defense. Operational control is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. Operational control includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. Operational control should be exercised through the commanders of subordinate organizations. Normally this authority is exercised through subordinate joint force commanders
and Service and/or functional component commanders. Operational control normally provides full authority to organize commands and forces and to employ those forces as the commander in operational control considers necessary to accomplish assigned missions; it does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training. Also called OPCON. (JP 1-02)

**Operational Direction**—The authority to designate objectives, assign tasks, and provide the direction necessary to accomplish the mission or operation and ensure unity of effort. Authority for operational direction of one component member over members of another component is obtained by agreements between unit commanders (most often between Title 10 and Title 32 commanders) whereby these component commanders, in an associate organizational structure, issue orders to their subordinates to follow the operational direction of specified/designated senior members of the other component for the purpose of accomplishing their associated mission. **NOTE:** “Operational Direction” *is not a formally recognized command authority along the lines of OPCON or TACON.*

**Personnel Tempo (PERSTEMPO)**—Personnel Tempo is a quality of life measurement that measures the amount of time an individual spends away from his or her home station for operational and training purposes which includes TDY and designated dependent-restricted PCS assignments. Individuals serving on designated unaccompanied tours are counted as “deployed” for PERSTEMPO purposes whether they have dependents or not. The desired maximum number of days TDY per person in a 12-month period is 120. **(AFPD 36-21)**

**PUSH-PULL**—The system used by the Air Force to mobilize IRR, Standby, and Retired members. The Air Force determines in advance the number of individuals, by skill, and tells the
Air Force Personnel Center to mobilize those individuals to a technical training location for the purpose of uniform reissue, medical qualification testing, and skills training needs. Once completed, the individuals are reported as available for assignment, and assigned where needed. *(AFI 36-2633)*

**Regular Air Force (RegAF)**—The Regular Air Force is the component of the Air Force that consists of persons whose continuous service on active duty in both peace and war is contemplated by law, and of retired members of the Regular Air Force. (b) The Regular Air Force includes -- (1) the officers and enlisted members of the Regular Air Force; (2) the professors, registrar, and cadets at the United States Air Force Academy; and (3) the retired officers and enlisted members of the Regular Air Force. *(10 USC, Section 8075)*

**SORTS (Status of Resources and Training Systems)**—A JCS controlled automated data system which provides NCA and JCS with authoritative identification, location, and resource information. Used throughout the chain of command to measure the daily resource status of operating forces.

**Total Combat Crew Ratio (TCCR)**—The ratio of all Regular and Reserve, API-1 and API-6 aircrew relative to the number of Primary Aircraft Authorized. A TCCR of 2.0 is required for

**Total Force**—The US Air Force organizations, units, and individuals that provide the capabilities to support the Department of Defense in implementing the national security strategy. Total Force includes Regular Air Force, Air National Guard of the United States, and Air Force Reserve military personnel, US Air Force military retired members, US Air Force civilian
personnel (including foreign national direct and indirect-hire, as well as non-appropriated fund employees), contractor staff, and host-nation support personnel. (AFDD 1-2)

**Traditional Reservist (TR)**—A drilling unit member of the Selected Reserve who must participate in at least 48 scheduled drills or training periods during each year and serve on active duty for training of not less than 14 days during each year; or serve on active duty for training not more than 30 days during each year (10 U.S.C. 10143, 10147). TRs can be mobilized (voluntarily or involuntarily) to active duty.

**Unit Manning Document (UMD)**—A detailed manpower listing reflecting the distribution of manpower allocation into a finite structure of authorizations (by work center).

**Unit Training Assembly (UTA)**—An authorized and scheduled period of unit inactive duty training of a prescribed length of time. (JP 1-02)

**Unit Type Code**—A Joint Chiefs of Staff developed and assigned code, consisting of five characters that uniquely identify a "type unit." A potential unit of capability focused upon accomplishment of a specific mission that the military Service component provides. It can consist of manpower force element (MFE) only, equipment (LOGDET) only, or both manpower and equipment. (JP 1-02)

**Utilization (UTE) Rate**—The Air Force flying hour program consists of the flying hours necessary to train and develop experienced aircrews to safely operate their aircraft and execute their missions. MAJCOM flying hour programs will be based on peacetime training requirements. The CSAF directed that the USAF establish an aircraft utilization standard. To meet this directive, aircraft standard utilization (UTE) rates will be established for each combat
coded aircraft. The standard UTE rate is a goal and average for the entire fiscal year. Standard UTE rates are based on peacetime training requirements. Standard UTE rates are not capacity based. The UTE rate is based on the number of Primary Authorized Aircraft (PAA) in the President’s Budget. *(AFI 11-103)*

**Volunteerism**—The process by which the SECAF places on active duty those ARC members who have volunteered for activation. The ARC structure retains ADCON except for forces attached to the COMAFFOR; the COMAFFOR has specified ADCON over assigned and attached forces. OPCON transfers in accordance with SecDef orders. Volunteerism is usually used as a bridge to expand regular component force capabilities while awaiting legal authority for Presidential Reserve Callup authority. Volunteerism is used to partially offset high regular component operational tempos in the overseas theaters and in CONUS. *(AFDD2)*

**War and Mobilization Plan (WMP)**—The Air Force supporting plan to the Joint Strategic Capabilities Plan. The six volumes of the WMP extend through the Six Year Defense Program to provide continuity in short and mid-range war and mobilization planning. It provides current planning cycle policies and planning factors for the conduct and support of wartime operations. It establishes requirements for development of mobilization and production-planning programs to support sustained contingency operations of the programmed forces. The WMP encompasses all functions necessary to match facilities, manpower, and material with planned wartime activity. WMP-5 provides approved USAF planning factors to compute expenditures of all war consumables (except munitions, fuel tanks, launchers, racks, adapters, and pylons) supporting wartime flying activities. WMP-5 factors (i.e., D-Days, sortie rates, and average sortie duration) are classified.
Notes

1 Fagan, Vince, “Total Force Integration,” TFI Brief for Headquarters Air Force, 01 February 2009, slide 4
2 AFPD 90-10, para 11.1.
3 Ibid, para 11.2.
4 Ibid, para 11.3.
5 Ibid, para 11.4.
7 Ibid, 11.
8 Currier, Ralph H., Total Force Integration So Far, 34.
10 Currier, 34.
11 Duncan, Stephen M., A War Of A Different Kind: Military Force And America's Search For Homeland, 311.
12 Currier, 35.
15 Ibid, slide 16.
16 Ibid, slide 16.
17 Ibid, slide 16.
18 Currier, 37.
21 Ibid, 21.
22 Ibid, 23.
23 Ibid, 8.
24 Currier, 4.
26 Currier, 5.
29 Ibid, slide 11.
30 Ibid, slide 11.
31 Ibid, slide 11.
32 Ibid, slide 14.
34 Fagan, slide 19.
35 AFPD 90-10, 1.
36 Fagan, slide 4.
37 Ibid, 1.
38 Ibid, para 11.1.
39 Ibid, para 11.2.
40 Ibid, para 11.2.1.
41 Ibid, para 11.3.
42 Ibid, para 11.4.
43 Ibid, para 11.5.
44 AFI 90-1001, para 1.6.
46 Ibid, slide 5.
47 Harrison, Doug, Contingency Wartime Planning Course Number IP-2800, para 2b(1).
48 Ibid, para 2b(2).
49 Ibid, para 2b(3).
50 ACC and ANG F-16 Block 25/30/32/40/42 and AFRC Block 40/42 Ready Aircrew Program (RAP) Tasking Memo, AS-10, Change 2 (15 February 2010), para 2b.
51 Concept for Operations for Associate F-16 Operations at Hill AFB, 3.
52 Ibid, 3.
53 Ibid, 3.
54 Ibid, para 1.1.1.
55 AFPD 90-10, 1.
56 Note: AFPD and AFI documents refer to the components as Regular Air Force (RegAF) and Air Reserve Component (ARC). The Concept for Operations for Associate Operations at Hill Air Force Base (CONOPS) refers to components as Active Duty (AD) and Reserve. Additionally, the CONOPS refers to Reserve personnel as “AFRC personnel.” ARC personnel can be called up to active duty, so the AD label may be confusing. To stay consistent with references to the CONOPS, the “AD,” “Reserve,” or “AFRC” labels for personnel are used as they are used in the CONOPS.
57 Concept for Operations for Associate F-16 Operations at Hill AFB, para 3.1.1.
58 Ibid, para 3.1.1.4.
59 Ibid, para 3.1.2.
60 Utilization (UTE) Rate: The Air Force flying hour program consists of the flying hours necessary to train and develop experienced aircrews to safely operate their aircraft and execute their missions. MAJCOM flying hour programs will be based on peacetime training requirements. The CSAF directed that the USAF establish an aircraft utilization standard. To meet this directive, aircraft standard utilization (UTE) rates will be established for each combat coded aircraft. The standard UTE rate is a goal and average for the entire fiscal year. Standard UTE rates are based on peacetime training requirements. Standard UTE rates are not capacity based. The UTE rate is based on the number of Primary Authorized Aircraft (PAA) in the President’s Budget.
61 The Unit Manning Document (UMD) is a detailed manpower listing reflecting the distribution of manpower allocation into a finite structure of authorizations (by work center).
62 Concept for Operations for Associate F-16 Operations at Hill AFB, para 3.1.3.
63 Ibid, para 2.1.3.
64 Ibid, para 2.1.3.
65 Ibid, para 2.1.3.
66 Ibid, para 3.1.3.3.
67 Ibid, para 3.2.1.
68 Ibid, para 4.2.1.
69 Ibid, para 3.2.5.
70 Ibid, para 3.3.2.
71 AFI 90-1001, para 4.2.
72 Ibid, para 4.2.
73 Memorandum of Understanding Between 388th Fighter Wing and 419th Fighter Wing Pertaining to Associate F-16 Operations at Hill Air Force Base, Utah, 12 June 2009, para 3.3.1.
74 AFPD 90-10, para 6.

Memorandum of Understanding Between 388th Fighter Wing and 419th Fighter Wing Pertaining to Associate F-16 Operations at Hill Air Force Base, Utah, 02 March 2007, para 3.3.2.

AFI 90-1001, para 1.6.

Ibid, para 2.2.

Memorandum of Understanding Between 388th Fighter Wing and 419th Fighter Wing Pertaining to Associate F-16 Operations at Hill Air Force Base, Utah, 02 March 2007, para 3.3.3.

Memorandum of Understanding Between 388th Fighter Wing and 419th Fighter Wing Pertaining to Associate F-16 Operations at Hill Air Force Base, Utah, 12 June 2009, para 3.2.1.

Ibid, para 3.2.11.

Ibid, para 4.1.13.

Ibid, para 4.2.5.

AFPD 90-10, 1.

Ibid, para 6.

Note: AFPD 90-10 does not refer to an “Integration Plan (I-Plan).” AFI 90-1001 introduces the I-Plan as the replacement for a CONOPS.

AFPD 90-10, para 6.

Ibid, para 11.4.

AFI 90-1001, 1.

Ibid, para 1.6.

Ibid, para 2.2.

Ibid, para 3.2.1.4.

Ibid, para 3.2.1.2.3.

Concept for Operations for Associate F-16 Operations at Hill AFB, para 3.1.1.4.

Interview with Col Sams, 419 FW/CC, 08 June 2010.

Interviews with Col Sams, 419 FW/CC, 08 June 2010 and Lt Col George, 419 OSF/DO, 07 June 2010.

Interview with Lt Col George, 419 OSF/DO, 07 June 2010.

Interview with Lt Col George, 419 OSF/DO, 07 June 2010.

Interview with Col Sams, 419 FW/CC, 08 June 2010.

Concept for Operations for Associate F-16 Operations at Hill AFB, para 7.3.1.7.

A Total Force Policy for the Operational Reserves, slide 10.

Ibid, slide 10.

Interviews with Col Sams, 419 FW/CC, 08 June 2010 and Lt Col Lyons, 419 OG/CC, 05 June 2010.

Interview with Lt Col George, 419 OSF/DO, 07 June 2010.

Code 3 is a term used to refer to aircraft that cannot be returned to a flying status until a Code 3, or “downing,” discrepancy is corrected.

Interview with Lt Col Lyons, 419 OG/CC, 05 June 2010.

ACC/AFRC A9L Summary After Action Report, 5.

Ibid, 5.

AFI 90-1001, para 4.2.

ACC/AFRC A9L Summary After Action Report, 8.

Ibid, 8.

Interview with Lt Col Lyons, 419 OG/CC, 05 June 2010.


Ibid, 9.

Ibid, 7.

Ibid, 7.

Interviews with Col Sams, 419 FW/CC, 08 June 2010 and Lt Col Lyons, 419 OG/CC, 05 June 2010.

Interview with Col Sams, 419 FW/CC, 08 June 2010.
Program Budget Decision (PBD) 720 is a measure which accelerated the retirement of a portion of the Air Force’s aging, and expensive to maintain, aircraft inventory (F-117s, some B-52s, C-21s and U-2s), as well as cutting 40,000 active duty and Total Force members.

In the February 2008 Air Force Report to Congress, House Report 110-434, TFI offsets were measured as a significant means to capture cost savings. These TFI offsets were an arbitrary (i.e. no manning study completed) measure of where ARC personnel could replace RegAF personnel. As a result, RegAF units would lose positions that would be filled or covered by the associate ARC unit, reducing the RegAF unit’s end strength. DOC statements were not changed and as a result UTCs were not adjusted for this reduction in the ability to fulfill combat requirements.

Interview with Lt Col Lyons, 419 OG/CC, 05 June 2010.
Interview with Lt Col Lyons, 419 OG/CC, 05 June 2010.
Interview with Col Sams, 419 FW/CC, 08 June 2010.
Interview with Lt Col Lyons, 419 OG/CC, 05 June 2010.
Interview with Col Sams, 419 FW/CC, 08 June 2010.
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College, March 2006.


Col Walter Sams (419 Fighter Wing Commander, 419 Fighter Wing, Hill AFB, UT), interview by the author, 08 June 2010.


Lt Col Terry George (Director of Operations, 419 Operations Support Flight, 419 Fighter Wing, Hill AFB, UT), interview by the author, 07 June 2010.

Lt Col William Lyons (Operations Group Commander, 419 Fighter Wing, Hill AFB, UT), interview by the author, 05 June 2010.


