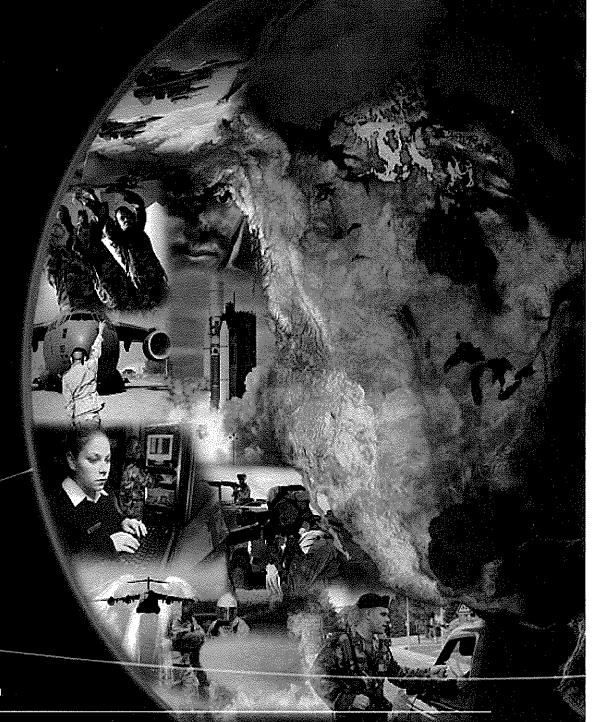
# United States Air Force

FY07 Performance Based Budget Book



SAF/FMB February 2006



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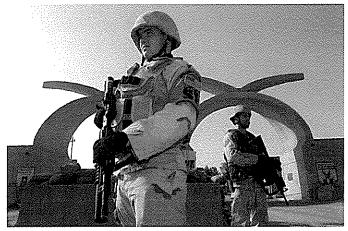
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# **INTRODUCTION**

#### **OVERVIEW**

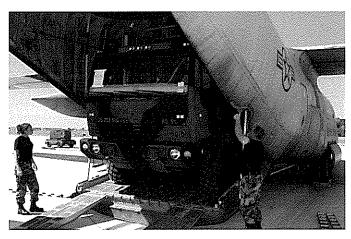
The United States Air Force exists to deliver sovereign options for the defense of the United States of America and its global interests—fly and fight in air, space and cyberspace. Our Air and Space Expeditionary Forces and culture provide the foundation for operations which align our Regular, Reserve and Guard forces closely. The FY07 \$105.9B "Blue" Air Force Budget addresses the priorities set forth in the FY06 Posture Statement—Winning the Global War on Terrorism, developing and caring for our Airmen, and modernizing and recapitalizing our aircraft and equipment—and aggressive transformation to ensure a force relevant to the

the  $21^{st}$ environment of century. Transformation goals were articulated in the 2006 Quadrennial Defense Review (QDR)--a key element in directing strategic policy and a guiding document for the FY07 Budget. The QDR was built during wartime and it clearly outlines the need for DoD to shift from threat-based planning to the agile and adaptive expeditionary forces in a capabilitiesbased planning scenario. shift/transformation is driven by the need to apply modern management principles,



stem rising personnel costs, reduce operating costs, improve military utility, take advantage of opportunities to recapitalize, and respond to the slower growth in the fiscal environment. The Air Force commitment is to transform the way we fight tomorrow to preserve our military capabilities and advantages.

No transformation effort can be embarked upon without people, our greatest asset. We have over 200,000 Airmen supporting Combatant Commanders around the globe. The biggest



demand on Air Force people and assets is the Global War on Terror. Each day 200+ aircraft sorties are flown in Iraq and Afghanistan. These sorties have varied missions---airlift, refueling, aeromedical evacuation, close air support for ground troops, and C4ISR. Over 300 aircraft are involved in the operations and the missions continue to expand as we fight the war—detainee operations, reconstruction, and base/convoy security are also supported by the Air Force. Additionally, humanitarian relief efforts

such as Katrina, Tsunami, Pakistan earthquake, and Darfur are supported by the Air Force.

The Air Force is committed to winning the fight while shaping the future across the four major risk areas outlined in the AF Balanced Scorecard: *Force Management; Operational; Institutional; and Future Challenges.* These risk areas align with the DoD Risk Areas (Figure 0-1). Each AF risk area is accompanied by "Outcome Goals" which are listed in Figure 0-1 and described in detail throughout this publication.

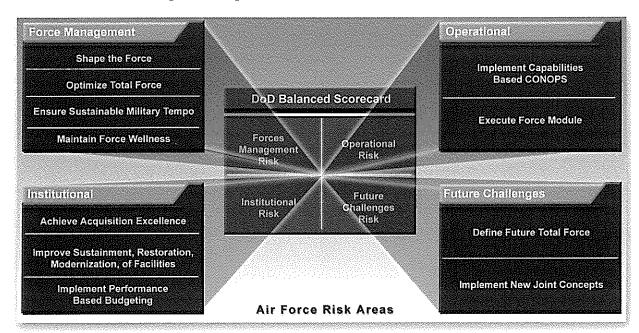


Figure 0-1: DoD Balanced Scorecard/AF Risk Areas

To be effective, transformation must revolve around core priorities and each effort should be explicitly defined and measurable. Performance measures addressing each "quadrant" of the scorecard have been developed and approved by Air Force leadership.

Our priorities discussed in the FY06 Air Force Posture Statement, (winning the global war on terrorism, developing and caring for our airman, and maintenance, modernization / recapitalization), carry over as our priorities in the FY07 President's Budget Submission. All budget numbers discussed in this report will be our Total Obligation Authority (TOA) funding unless specified as "Blue" TOA which is designed to show areas of the budget where the Air Force has some discretion.

#### Winning the Global War On Terror (GWOT)

Our first priority is to maintain focus on winning the GWOT. We will continue to operate as part of a true Joint and Coalition team, multiplying the effectiveness of our partners to win this war. We fly and we fight—whether we're flying A-10s over Afghanistan; flying F-16s over Iraq; operating and maneuvering communications satellites in geosynchronous orbit; remotely piloting Unmanned Aerial Vehicles (UAVs) patrolling over Baghdad; or maintaining vigilance over our Nation's homeland in an E-3 Airborne Warning and Control System (AWACS) aircraft. All Airmen, no matter what their specialty, contribute to this mission. The budget continues to focus on providing quality of life, training, and personal/professional development to a smaller FY07 workforce.

Maintaining a strong defense able to overcome and defeat these threats remains an imperative for our Nation. Currently, the Air Force can command the global commons of air and space and significantly influence the global commons of the sea and cyberspace; however, we cannot indefinitely maintain this advantage using the current technology of the air and space systems and equipment comprising our existing force structure. A more agile, lean and lethal Air Force can be built by applying lessons learned from the depot LEAN, Six Sigma activities to all areas (investment, O&M and people programs) for improving military utility. Modernization and recapitalization of our space and air systems/equipment is a focus of the FY07 Budget. Since 1986, procurement and RDT&E accounts have been on a downward ramp and occupying smaller shares of the AF Budget. FY07 will show slight growth from FY06 in our Modernization and Recapitalization funding—RDT&E for Space systems, Aircraft and C4ISR equipment account for the majority of the growth.

#### Developing and Caring for our Airmen

Our Regular Air Force Airmen, Air National Guardsmen, Air Force Reservists and civilians who together form our Future Total Force (FTF) are building on their inheritance of courage, excellence and innovation. They are highly educated and resourceful, and have created the most lethal Air Force that has ever existed. While our FY07 Budget supports these areas, we must continue to look for ways to maintain and improve their training, their personal and professional development and their quality of life, so that they may continue to meet the commitments of today while preparing for the challenges of tomorrow.

Airmen today are contributing to combat operations in ways never before envisioned—as convoy drivers and escorts, detainee guards and translators to give a few examples. Other Airmen routinely serve "outside the wire" as Special Tactics operators, Joint Terminal Attack Controllers and Special Operations Weather personnel. All of these Airmen must receive the proper training to survive, fight and win. We are working within the Air Force, as well as with our Joint warfighting partners, to ensure that all Airmen are fully prepared when they arrive in the combat zone.

Developing Airmen involves more than combat skills. It is a career-long process that maximizes the potential of each member of the Total Force team. We will look at every Airman as an individual and provide them with specialized training, relevant educational opportunities and appropriate assignments in order to capitalize on the talent these brave Airmen offer for this country's defense.

Every Airman is a vital national resource and must be cared for as such. In addition to providing professional opportunities for our Airmen and fostering an environment of mutual respect, the Air Force is committed to investing in health and fitness programs and facilities, world class medical access and care, and housing and morale programs for our Airmen. Our Airmen have proven themselves to be the best America has to offer—they deserve the best support available.

By ensuring that our Airmen are prepared for combat, effectively developed and properly supported, we will continue to provide our Nation with the best Air Force in the world. Our budget accommodates rising personnel costs and decreasing end strength in FY07. No compromises can be made on our people programs.

#### Maintenance, Modernization and Recapitalization

One of our most daunting challenges is maintaining the mission readiness of our aircraft. We have the oldest aircraft inventory in our history, yet the GWOT requires us to operate at a sustained and elevated operations tempo (OPSTEMPO). While our aircraft readiness rates remain fairly steady, our costs to operate and maintain our fleet have risen 87% over the last decade.

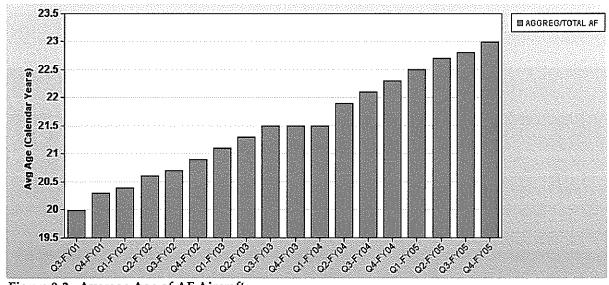


Figure 0-2: Average Age of AF Aircraft

Our aircraft are an average of 23.2 years old—older in many cases than those who fly and maintain them. In particular, our inventory of tanker aircraft averages over 41 years old, and our C-130 tactical airlifters average over 25 years old. As our equipment ages, it requires more frequent maintenance and replacement of parts; meanwhile, increased OPSTEMPO accelerates wear and tear on our equipment and operational infrastructure, exposes our equipment to extreme conditions and, in some cases, delays routine maintenance. So, it is not merely the aging alone which is an issue, it is the decreasing military utility of some aircraft.

We must recapitalize our aircraft and operational infrastructure, as well as modernize our processes for services, support and information delivery in order to maintain the grueling pace required into the foreseeable future; however, we must do so in a fiscally prudent manner. This means accepting a manageable level of risk in order to maintain older systems until newer systems are on the ramp.

These newer systems are designed to defeat the emerging threats mentioned above. The U.S. no longer enjoys a monopoly on advanced technology, and we are already witnessing the emergence of highly sophisticated systems that threaten our capability to achieve Joint Air and Space Dominance. Along with ongoing robust science and technology (S&T) programs, transformational systems such as the F/A-22 Raptor, F-35 Joint Strike Fighter (JSF), Space Radar (SR), Transformational Communications Satellite (TSAT) and E-10 will ensure that we maintain the ability to provide overwhelming air and space power for our Combatant Commanders.

Concurrently, the Air Force is also focusing on reforming, modernizing, and improving processes for acquisition of new systems and equipment. We will achieve greater efficiencies and higher productivity by reforming our business practices. By incorporating lean processes and transparent accounting, and reinforcing a culture of continuous improvement, the Air Force will maintain the high standards of our heritage. We will continue our tradition of transformation, realize both lethality and efficiency in our capabilities in this new century, and stand ready for the challenges of the future. Our FY07 Budget takes huge steps towards transforming our fleet, space systems and equipment.

Table A: Air Force TOA by Appropriation \$ in Thousands

Appropriation	Appropriation 5 in 1 nousands  Appropriation Description	Sı	um of FY05	Sum of FY06	Sum of FY07
Base Realignment And Closure	APPN 37 BRAC Round IV (FY 96)	\$	148,772	\$ 139,320	\$ 133,827
(BRAC)	BRAC Round V (FY05)	\$		\$ 231,056	\$ 906,941
BRAC Total		\$	148,772	\$ 370,376	\$ 1,040,768
Family Housing Ops	Family Housing Ops & Debt - AF	\$	896,013	\$ 806,289	\$ 755,071
<b>,.</b>	Family Housing Construction - AF	\$	825,885	\$ 1,366,307	\$ 1,183,138
Family Housing Ops Total		\$	1,721,898	\$ 2,172,596	\$ 1,938,209
Military Construction	Military Construction - AF	\$	905,306	\$ 1,329,013	\$ 1,156,148
•	Military Construction - AFR	\$	110,162	\$ 104,962	\$ 44,936
	Military Construction - ANG	\$	229,343	\$ 348,093	\$ 125,788
	Military Construction, AF (2 year)	\$	94,483	\$ -	\$ -
Military Construction Total		\$	1,339,294	\$ 1,782,068	\$ 1,326,872
Military Personnel	Medicare Retire Contribution - ACT MLPRS	\$	-	\$ 2,032,519	\$ 2,058,270
	Medicare Retire Contribution - AFR	\$	-	\$ 254,333	\$ 268,104
	Medicare Retire Contribution - ANG	\$	-	\$ 385,869	\$ 409,546
	Military personnel - AF	\$	26,568,796	\$ 23,565,120	\$ 23,154,866
	National guard personnel - AF	\$	2,599,466	\$ 2,314,308	\$ 2,399,730
	Reserve personnel - AF	\$	1,422,005	\$ 1,285,694	\$ 1,358,328
Military Personnel Total		\$	30,590,267	\$ 29,837,843	\$ 29,648,844
Operations and Maintenance	Operation and maintenance - AF	\$	34,494,921	\$ 32,617,931	\$ 31,342,307
	Operation and maintenance - AFR	\$	2,262,807	\$ 2,475,554	\$ 2,723,800
	Operation and maintenance - ANG	\$	4,551,700	\$ 4,691,532	\$ 5,336,017
Operations and Maintenance T	<b>Cotal</b>	\$	41,309,428	\$ 39,785,017	\$ 39,402,124
Other	Defense business operations	\$	-	\$ 44,564	\$ 44,054
	Environmental restoration, AF	\$		\$ 401,461	\$ 423,871
Other Total		\$		\$ 446,025	\$ 467,925
Procurement	Aircraft procurement - AF	\$	13,947,038	\$ 12,681,480	\$ 11,479,810
	Missile procurement - AF	\$	4,332,577	\$ 5,118,096	\$ 4,204,145
	Other procurement - AF	\$	16,493,120	\$ 14,026,153	\$ 15,408,086
	Procurement of ammunition	\$	1,312,816	\$ 1,003,247	\$ 1,072,749
Tanker replacement transfer fund		\$	89,800	\$ -	\$ -
Procurement Total		\$	36,175,351	\$ 32,828,976	\$ 32,164,790
RDT&E	RDT&E - AF	\$	20,477,909	\$ 21,671,763	\$ 24,396,767
RDT&E Total		\$	20,477,909	\$ 21,671,763	\$ 24,396,767
Grand Total		\$	131,762,919	\$128,894,664	\$130,386,299

# Performance Measurement

In today's constrained fiscal environment, government agencies face mounting pressures to demonstrate return on investment and improved performance. These parameters are driven by multiple external and internal influences portrayed in Figure 0-3.

Introduction

The Air Force's challenge, as set forth in the President's Management Agenda is to find a budget methodology, which responds to the "threat" in a measurable manner. Before 1989, budget decisions were focused on how well the DoD could deal with the Soviet Union as the only threat to America's security. The shaping of a budget under today's new security often requires a high

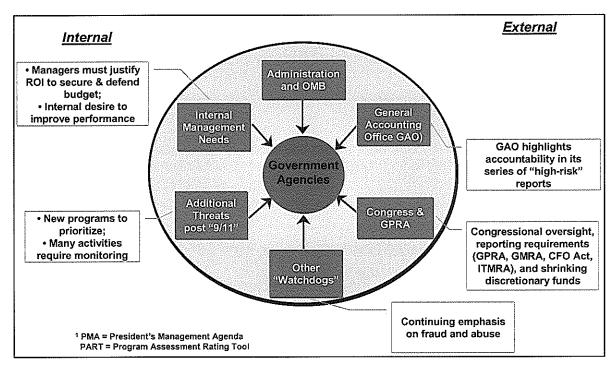


Figure 0-3: Internal and External Influences for Performance Based Budgeting

level of responsiveness and high levels of understanding as to the impact on the Air Force's capabilities. To achieve maximum effectiveness in each of it's capabilities in the future, the Air Force will need to be able to better quantify the impact of budgetary decisions within the risk areas defined in the Balanced Scorecard. Decisions about the budget are never easy and require multiple dimensions of information to come to final decisions.

The percentage of national wealth spent on defense continues to shrink and every dollar spent on our armed forces must be stretched further each year. This era of fiscal constraints makes the normally tough task balanced maintaining sufficient program—with resources devoted to Force Structure, Modernization. and Readiness Sustainability—even more daunting. At the same time,

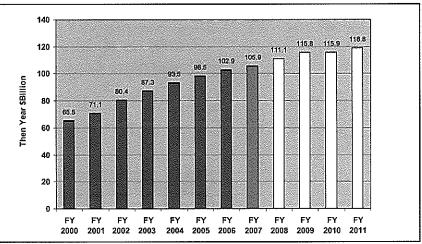


Figure 0-4: Air Force Blue TOA Budget Trends

Congress and the Executive branch, needing to allocate scarce federal dollars more effectively, are holding program managers in government agencies accountable for dollars received.

Through a number of initiatives – including the Government and Performance Results Act, 1993 (GPRA), the President's Management Agenda (PMA), and the Office of Management and Budget's Performance Assessment Rating Tool (PART), government agencies are being required to use performance data to justify budget requests. The resulting imperatives have "raised the bar" for all agencies to improve the quality of performance measures and clarify how these measures can be used to demonstrate return on investment.

GAO documentation shows numerous problems with agencies' implementation of Statutory and OMB performance management requirements:

- Lack of consensus on goals and measures
- Inadequate, poorly targeted Performance Goals (i.e., focused on inputs and outputs instead of outcomes)
- Lack of complete, credible performance data and measures
- Dissimilarities in planning, budgeting, program, cost and fund reporting structures
- Limitations of information and accounting systems
- Non-alignment of performance goals with key management activities Performance goals, budget presentation, net cost statement
- Lack of reinforcement of performance management with performance plans, budgetary, and financial data
- Poor quality program and financial data not timely, complete, accurate, useful, or consistent
- Lack of program evaluation capabilities and capacity to gather and use performance data
- Lack of reliable cost data.

The (DoD) and the Air Force have made significant progress towards complying with GPRA and the implementation guidance in OMB Circular A-11, Preparation, Submission, and Execution of the Budget. For instance, DoD has issued Management Initiative Decisions (MIDs) 901, 910, and 913 that establish a risk management framework, mandate the linking of budget and performance efforts, and modify the Planning, Programming, and Budgeting System (PPBS) to include a new emphasis on execution (PPBE). As of June 30, 2004, the Department of Defense was given a rating of "yellow" or "mixed results" in the PMB category for Budget Performance Integration with a progress rating of "green" or "implementation proceeding according to plans agreed upon with agencies." The Department of Defense has continually pressured the services to spend money the way they program/budget. Improving programs by focusing on results is an integral part of the Department of Defense's budget and performance integration initiative. The most recent Executive Scorecard grades the DoD as "YELLOW" on current status for budget and performance integration and "GREEN" for progress. The Air Force FY07 Budget associates performance measures for approximately 100% of requested resources, however we are still working to improve our performance measures to be more outcome oriented. The OMB has instituted a rating system using Program Assessment Rating Tool (PART) which is objective, consistent, credible and transparent. The goal of PART is to assist Government agencies in

<sup>&</sup>lt;sup>1</sup> President's Management Agenda Executive Branch Management Scorecard, June 30, 2004. OMB.

"getting to green". Air Force programs reviewed since 2004 are outlined in Figure 0-5. Programs were assessed and evaluated across a wide range of issues related to performance.

Under the Air Force Effects Management Program (AFEMP), the Air Force Performance Measurement Rating System (AFPMRS) is used to track current performance measure data and is the repository for all source data used to compute output measurements. Outputs (results-oriented), not input measures will be a key element for keeping our transformation budget on track. The majority of the performance measures discussed in this publication are contained in AFPMRS.

#### 1. Performance Assessment Rating Tool

	AF Aircraft Operations	AF Depot Maintenance	Space Launch	National Security Space Weather Programs	Total Funding
Program Purpose & Design	100%	100%	80%	80%	
Strategic Planning	100%	100%	89%	78%	
Program Management	71%	86%	75%	63%	
Program Results/ Accountability	92%	93%	56%	61%	
Overall Rating	Effective	Effective	Adequate	Adequate	
FY05	6,494	3,576	622	340	11,032
FY06	6,455	3,533	1,175	394	11,557
FY07	7,755	3,772	1,255	437	13,219
Programs Included	F-16C B-52H	F-15E	EELV	NPOESS DMSP	

#### 2. Strategic Management of Human Capital

- > Implement first phase of National Security Personnel System (NSPS) (DoD-wide)
- > Transform Air Force Military Personnel Force
- > Military to Civilian Conversions
- > Human Capital Strategy

#### 3. Competitive Sourcing

> Commitment to study 51,501 positions under A-76 or OMB approved alternatives

#### 4. Improved Financial Performance

- > Business Transformation Initiatives (DoD-wide)
- > Enterprise Resource Planning
- > Financial Improvement Program

#### 5. Expanded Electronic Government

- ➤ Utilizing E-Marketplace
- ➤ E-Commerce Initiatives
- > Enterprise Software

Figure 0-5: Balanced Scorecard

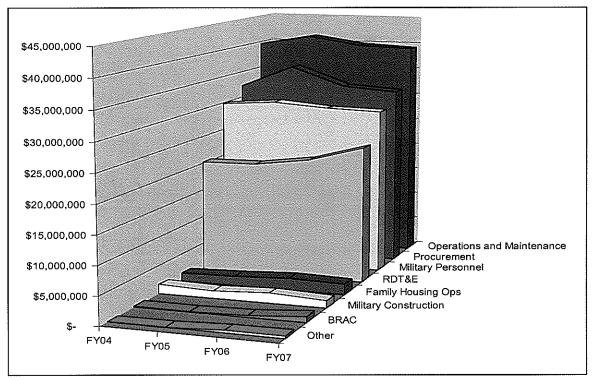


Figure 0-6: Air Force Budget Distributions

#### Resource Analysis/Trends

The Air Force is challenged each year to fit more programs into the budget—OPSTEMPO demands during the execution year often throw modernization plans into a tailspin. The war has demanded significant mid-year adjustments (supplementals/reprogrammings) to keep operations sustainable through the end of each fiscal year.

The FY07 Budget focuses on transforming for the future while keeping our forces ready—a balance described throughout our budget exhibit documentation. The following sections of this document will reflect the portion of the FY07 Budget supporting each quadrant of the balanced score card (Operational Risk, Force Management Risk, Institutional Risk, and Future Challenge Risk). Figure 0-7 delineates the funding in each of the four quadrants for FY04-FY07.

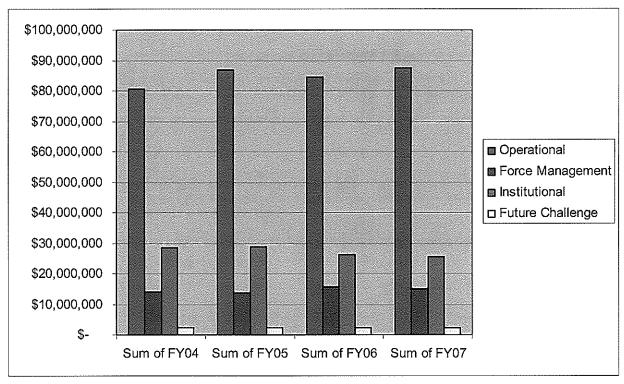


Figure 0-7: Balanced Scorecard Quadrants - Total Dollars

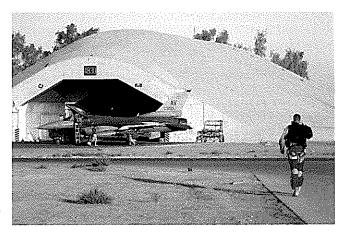
# SECTION I – BALANCING OPERATIONAL RISK:

# Defining Air Force Requirements for Air Expeditionary Forces

#### **OVERVIEW**

This section describes how Air Force operations contribute to the defense of the United States and to furthering our global interests. The Air Force Chief of Staff has made it clear: "Our mission in the United States Air Force is to fly and fight." And though the aim in warfare of

bending an enemy to US national will has remained constant, the means of doing so has changed dramatically over the years. Nowhere is this change more striking than in the air and space arena. Today, "flying and fighting" runs the gamut from the F-16 pilot on a close air support mission, to the satellite operator flying a spacecraft in geosynchronous orbit, to the Airman flying a UAV on the other side of the globe—to the security forces professional securing the perimeter of an expeditionary air base in a combat theater.



The strength and diversity of capabilities that today's Air Force can bring to bear in combat have made it a workhorse in many operations that don't involve hostilities. When one of the largest natural disasters in modern times, an earthquake in northeastern Pakistan, devastated huge populations in the region, Air Force people and equipment provided vital assistance. Much closer to home, Hurricanes Katrina and Rita wreaked havoc on the US Gulf Coast, and again, Air Force airlift and humanitarian relief operations for the civilian population were an essential element of the disaster response—even as the Air Force dealt with crippling damage to its own facilities in the area.

The importance of Air Force assets to the Joint fight is growing. And the demand for Air Force capabilities, developed with combat in mind but often ideal for dealing with non-combat situations, is growing as well. Air Force investment in balancing operational risk--\$87.6B in FY07—is appropriate. At 67% of Air Force Total Obligation Authority, the Air Force is striking a reasonable balance with other major risk areas.

Specifically addressed in the Operational Risk area are initiatives like manning and operating our operational and operational support squadrons; upgrading and procuring weapons systems; intelligence and command, control and communications support to the warfighter; weapons procurement; missile and space launch upgrades and procurement; and space systems. This area does not include more general research and development; support areas not directly tied to warfighting (e.g., depot maintenance and base-level communications), and human relations initiatives (e.g., initial training, education, and accessions). The following paragraphs will

<sup>&</sup>lt;sup>2</sup> General T. Michael Moseley; Remarks to the American Enterprise Institute; October 11, 2005

review Air Force involvement in contingency operations, GWOT, homeland security, and humanitarian relief operations. We will highlight implementation of capabilities based concepts of operations (CONOPS) and the execution of force modules—two areas of interest in the AFEMP. We will look at major initiatives in the three principal Air Force Operations portfolios: Global Strike; Global Mobility; and Global Intelligence, Surveillance, and Reconnaissance (ISR).

#### Delivering Sovereign Options—Worldwide Engagement

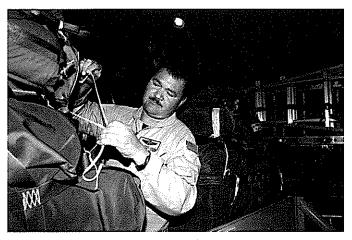
The Air Force has been engaged in continuous combat operations since the commencement of Operation DESERT STORM in January of 1991. Numerous Air Force contingency operations since, such as VIGILANT WARRIOR, DESERT STRIKE, DESERT THUNDER, and DESERT FOX have driven a tempo that requires a more responsive Air Force. The events of September 11, 2001 sent a strong message to the Air Force that tempo would not slow—and that the need for Air Force



capabilities would grow. Now we are committed to the GWOT, in places like Iraq and Afghanistan with Operations IRAQI and ENDURING FREEDOM—and even here at home, with Operation NOBLE EAGLE. Winning what promises to be a protracted struggle is first priority. The GWOT is not a traditional threat. It is a continuously evolving asymmetric threat of unorthodox attacks, with the potential involvement of weapons of mass destruction. "The GWOT strategy demands an ability to simultaneously conduct long-range strikes and humanitarian relief on opposite sides of the world. In order to execute effectively, the strategy requires unparalleled command, control, communications, computers, intelligence, surveillance and reconnaissance." Capabilities inherent in the Air Force CONOPS will meet these demands.

Many of the same capabilities that make the Air Force so potent in conflict also make it invaluable for humanitarian relief operations. The ability to quickly move large amounts of equipment and people, the ability to communicate with elements of and direct large operations, the ability to assess and treat mass casualties—all these macro capabilities have been of tremendous service to our nation and the world.

Operation UNIFIED ASSISTANCE—tsunami relief operations for Southeast Asia—involved the deployment of 1,000 Airmen and execution of over 1,100 sorties. In the first 47 days after the disaster, Air Force missions evacuated over 8,000 people and delivered over 24 million pounds of relief supplies. When Hurricanes Katrina and Rita struck the Gulf Coast, leading to



one the worst natural disasters in US history, the Air Force effort surpassed even that of UNIFIED ASSISTANCE, moving 30,000 passengers and over 32 million pounds of cargo. The Air Force response to these hurricanes proved to be critical support to US Northern Command and the Department of Homeland Security. Whether it was U-2 reconnaissance platforms military and satellite communications systems like Global Broadcast Service providing imagery for critical decision making, or the support of

the Air Force's civilian auxiliary, the Civil Air Patrol, flying nearly 2,000 hours of air/ground search and rescue operations, the Air Force was instrumental in a time of national crisis. The success of these humanitarian relief operations means the Air Force will continue to be called upon when similar situations arise.

#### Implementing Capabilities-Based CONOPS and Executing Force Modules

The nature of conflict has changed. The greatest danger to our national security today comes not from state actors waging traditional warfare, but from transnational groups that conduct protracted, irregular campaigns, often employing terror and insurgency and threatening our friends, allies, and interests. Who we must fight—and where—are highly unpredictable. Because of this changed landscape of conflict, the DoD has transitioned from a threat-based strategy to one based on essential capabilities that military forces will need to meet the challenges of the whole spectrum of opponents, anywhere in the world. The Air Force is

seven CONOPS, developing designed to meet desired capabilities Joint Operating, required by Functional, and Integrating concepts (Figure 1-1). A focus on capabilities has enabled the Air Force to shape a reduced force structure into responsive Air Space and Expeditionary Force (AEF). The Air Force is realigning resources to enable the transformation of Air Force capabilities to a more lethal, agile, and streamlined force with increased emphasis **AEF** on operations.

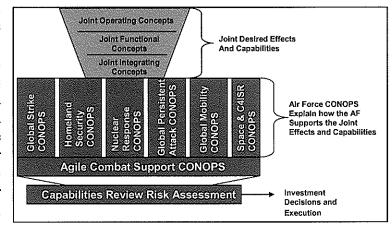


Figure 1-1: The CONOPS Construct

The AEF is the Air Force vision to organize and deploy specifically tailored packages of Air Force capabilities (people and equipment) to support contingency operations anywhere in the world, with minimum notice. "The AEF construct presents air and space forces in a continuous rotation cycle—currently a 20-month cycle with nominal 4-month deployments—and provides the Combatant Commands with greater capability and stability of forces in theater, while providing more predictability for our Airmen." AEF tasks encompass not only flying operations, but operational support functions, as well as duties that traditionally have been the purview of other Services, like convoy support, detainee operations, protective service details and provincial reconstitution teams.



Implementing capabilities-based CONOPS in the FY07 Air Force Budget focuses on initiatives aimed at improving Air Force delivery of capabilities in the relatively near-term, through maturation of the CONOPS and development/delivery of the produce systems that the related capabilities. Included here, for instance, are such programs as the F/A-22 and JSF—the near term future of Global Strike and Global Persistent Attack. The C-130J and KC-135 Follow-on will advance Global Mobility, as well as Strike and

Persistent Attack. Transformational Satellite, Space Radar, and Evolved Expendable Launch Vehicle will be key to executing the Space and C4ISR CONOPS.

Executing force modules in the FY07 Budget is grounded in current operations. The concept of force modules involves opening, establishing, and operating forward bases; generating missions at them; and exercising command and control over forces at the bases. This area of the budget includes resources required to operate combat and operational support squadrons (e.g., F-16, F-15, B-52, KC-10, KC-135, Minuteman, and Civil Engineering Heavy Repair), continued procurement and operation of established weapons systems (e.g., C-17, Global Hawk, and Predator), and activities like Combat Search and Rescue, Combat Support to Tactical and Mobility Air Forces, replenishment of current munitions inventories, and support to Combatant Commanders. Consistent with the fact that the United States is currently involved in the GWOT, as well as other operations, the Air Force is budgeting over one and a half times as much for executing force modules (current operations) as it is for implementing capabilities-based CONOPS (near-term investment). Figure 1-2 illustrates the relationship between these two major areas of Operational Risk.

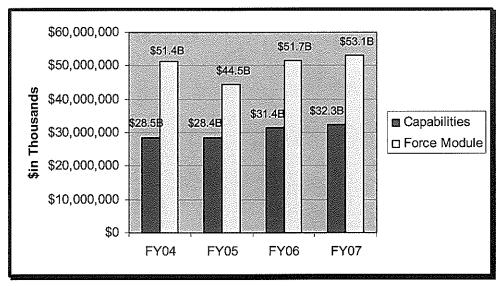


Figure 1-2: Budget Distribution by Subquadrant

While creation of capability-based CONOPS may be a headquarters staff function, development and implementation of them is being tested in the heat of battle. Bringing together the capabilities inherent in Global Persistent Attack, Global Mobility, Space and C4ISR, and Agile Combat Support is the work of Airmen deployed around the globe, as well as those permanently stationed in forward theaters. Over 100,000 Air Force personnel support Combatant Commanders overseas; some 26,000 of them, along with 300 aircraft, are deployed as part of the AEF concept. Their work will refine Air Force CONOPS and directly contribute to enhanced

Joint warfighting effectiveness. shows Total Force Figure 1-3 commitment to AEF deployments, as of December of 2005. 3 Current tour length for most **AEF** 120 deployments is days. However, key personnel are serving AEF tours of one year or more. Consistent with increasing commitment the GWOT, to deployment tour lengths have gotten longer, though the majority remain at or below the 120-day goal. Figure 1-4 shows the overall tour length as of December of 2005, with a one-year look-back.4

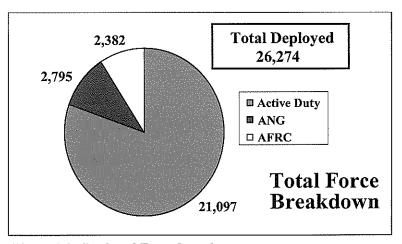


Figure 1-3: Deployed Force Snapshot

<sup>&</sup>lt;sup>3</sup> AF/XO Deployed Force Snapshot, as of 14 December 2005

<sup>&</sup>lt;sup>4</sup> AF/XO Overall Tour Length Trends, as of 14 December 2005

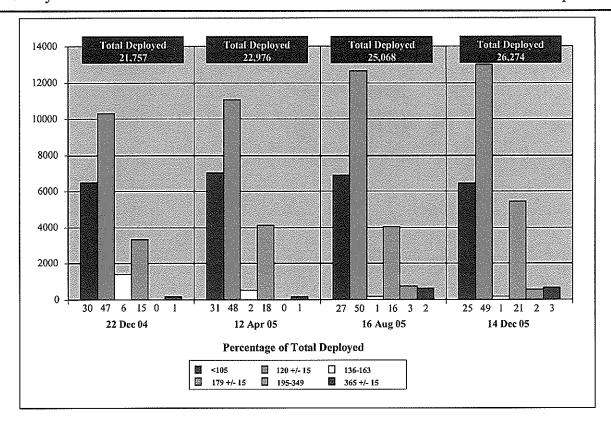


Figure 1-4: Overall Tour Length Trends

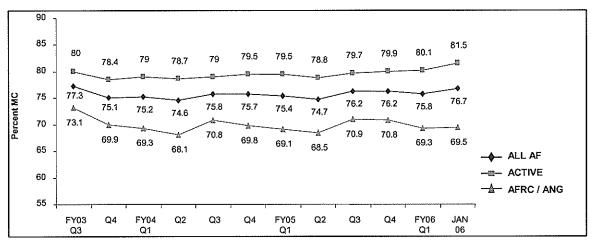


Figure 1-5: Aggregate Mission Capable Rate

Successful conduct of day-to-day operations—the "Generate the Mission" portion of executing force modules—is dependent upon many factors. One of the most important is the availability of aircraft to fly missions. The Air Force logistics community maintains an exhaustive set of data to keep key decision makers aware of aircraft status. One of these critical metrics is Aircraft Mission Capable (MC) Rate, or the fractional measure of time that possessed aircraft are fully and partially mission capable. These statistics are collected monthly on major weapon systems and are monitored at appropriate levels. Figure 1-5 shows the aggregate MC rate for a two-plus

**Operations** February 2006

year period. This period indicates that the Air Force has sustained MC rates, despite increased tempo, meeting the demands of the GWOT, homeland defense, and support of humanitarian relief operations.

#### What We Do—The Air Force Operational Portfolios

The Chief of Staff views the core competencies of an air and space force as residing in three portfolios: global strike, global mobility, and global ISR. These portfolios closely align with the three pillars of the Air Force Vision: Global Power, Global Reach, and Global Vigilance. Figure 1-6 depicts how the Air Force CONOPS, put into action by Air and Space Expeditionary Forces, support these pillars. The Air Force is making prudent investments in all three areas, guided by direction outlined in the QDR for 2006. Declaring the need to operationalize the National Defense Strategy, QDR identified four priority focus areas: defeating terrorist networks; defending the homeland in depth; shaping the choice of countries at strategic crossroads; and preventing hostile states and non-state actors from acquiring or using WMD.

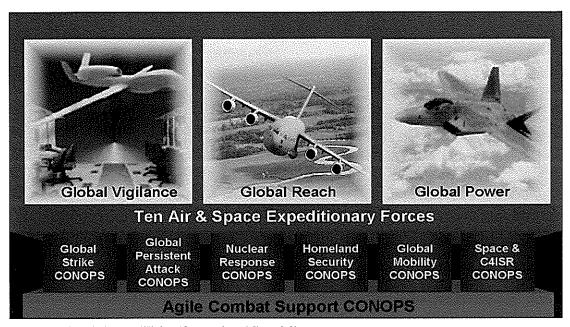


Figure 1-6: Air Force Vision/Operational Portfolios

Figure 1-7 shows slight growth in the total active inventory of the Global ISR portfolio. The growth, almost exclusively due to increases in the UAV inventory, reflects the importance of persistent surveillance to all the QDR focus areas. The Global Mobility inventory reflects a net drop, as gains in strategic lift capability are offset by reductions in aging tactical lift and tanker systems. The Global Strike portfolio is indicative of a loss in legacy bomber and fighter systems (B-52, older model F-15s, and F-117s) as the portfolio adjusts for continued arrival of the F/A-22.

<sup>&</sup>lt;sup>5</sup> Aggregate Quarterly Mission Capable Rates, 31 Jan 06

<sup>&</sup>lt;sup>6</sup> General T. Michael Moseley; Remarks to the American Enterprise Institute; October 11, 2005

Ouadrennial Defense Review Report; February 6, 2006

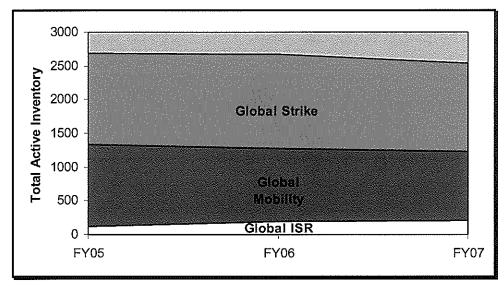


Figure 1-7: Total Active Inventory by Portfolio (FY05 Actuals)

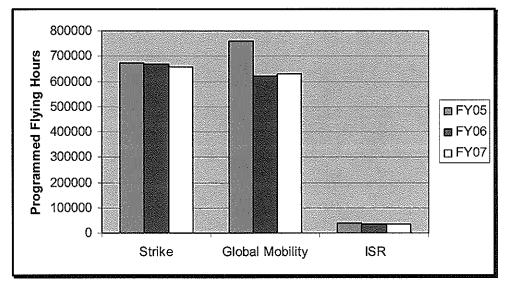
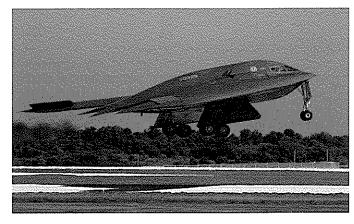


Figure 1-8: Flying Hours by Portfolio (FY05 Actuals)

Figure 1-8 shows significant plus-up in actual Global Mobility hours flown in FY05, with relatively stable programmed flying hours in FY06 and FY07, reflecting continued need for movement of forces and equipment. An increase in strategic airlift (C-17) is partially offset by reduction in legacy theater airlift and tanker assets. The 5% decrease in Global Strike programmed flying hours is attributed principally to reduction in legacy fighter aircraft. While the Global ISR numbers in FY05 reflect some actual UAV hours flown, these hours are not yet programmed. Reduction in Global ISR programmed flying hours in FY06 and FY07 reflects increased reliance on UAVs—again, flying hours that are not yet programmed.

#### Global Strike (Global Power)

The Global Strike Task Force concept envisions using stealthy F/A-22 fighters and B-2 bombers as a rapid-response force to strike anywhere in the world within 48 hours. Global Strike employs joint power projection capabilities to engage antiaccess and high-value targets, gain access to denied battlespace, and maintain access operational for required joint/coalition operations. follow-on Prompt global strike is highlighted by the ODR as an essential capability needed for



defeating terrorist networks, defending the homeland, and shaping choices of other nations. The QDR vision for Joint air capabilities includes systems with greater range and persistence, larger and more flexible payloads, the ability to penetrate and operate in denied areas, and the ability to destroy moving targets in all weather conditions. Consistent with this guidance, the Air Force is making changes in the strategic bomber fleet. The longtime workhorse B-52 will be reduced by

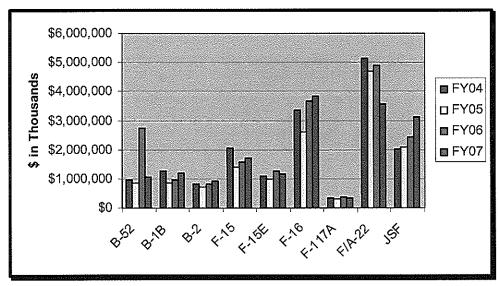


Figure 1-9: Global Strike Operations and Investment

20 aircraft, beginning in FY08. Resources made available by this reduction will go toward modernizing the remaining B-52 fleet, along with B-1s and B-2s. As F-15s, F-16s, and F-117s age, the F/A-22 and JSF programs gain increasing importance. The F-117 will leave the inventory in FY08, a three-year acceleration of the Nighthawk's departure. This action frees resources for other Air Force programs, as more capable stealth platforms assume Global Strike missions. The F/A-22 program is being restructured, with procurement extended through 2010. This will assure timely delivery of a fifth generation fighter capable of countering anti-access threats from the outset of conflict. And FY07 funding for JSF systems development and demonstration, low rate initial production, and advanced procurement of eight aircraft keeps progress toward a new strike aircraft for the Air Force, Navy, and Marine Corps on track. Figure

1-9 depicts operation of Global Strike forces at current tempo, indicates continuing importance and restructuring of the F/A-22 program beyond FY07, and shows robust investment in the JSF.

#### Global Mobility (Global Reach)

QDR envisions rapid global mobility as a key set of capabilities in Joint warfighting. "The joint force will balance speed of deployment with desired warfighter effects to deliver the right capabilities at the right time and at the right place." A common measure of effectiveness in use today for Global Mobility is the quantity of material moved in a given time, often expressed in

millions of ton-miles per day. QDR states that this measure will be supplemented by an even more telling one, where effects in the battlespace are what matters: the operational effects that mobility forces help to achieve. As forces transition from a forward-garrisoned posture to one that requires rapid projection around the globe Global Mobility from US bases. capabilities become more critical. The key role in humanitarian relief operations, both at home and abroad, also relies heavily on mobility forces.



The backbone of today's Global Mobility capability is the C-17. The FY07 budget completes the buy of 180 planned aircraft, with the final delivery in FY08. The C-5 is the other key element in inter-theater lift, and critical enhancements for C-5 reliability continue in the FY07 budget. Modernization of the aging intra-theater airlift fleet proceeds with procurement of nine C-130J aircraft and QDR direction to stand up a Joint program office for a new intra-theater light cargo aircraft. The need to move forces over great distances and to sustain strike aircraft engaged in combat operations mandates exploration of a follow-on to the KC-135 tanker aircraft. The Global Mobility CONOPS says that "air refueling has redefined the application of the principles of war,"9 and the Chief of Staff has called the tanker the "key enabler of everything we do."10 In keeping with this emphasis, the FY07 budget devotes resources to recapitalization of the tanker fleet. Finally, the vulnerability of these large aircraft to a broad range of threats has led to development of defensive countermeasures, and the Large Aircraft Infrared Countermeasures program is in the top 20% of Air Force program priorities. Figure 1-10 illustrates a portion of current mobility operations, as well as highlights continuing investment in intra- and inter-theater airlift and air refueling, a follow-on tanker, and defensive countermeasures for mobility weapons systems. Note that substantial portions of mobility operations are funded within the Transportation Working Capital Fund and are not part of the Air Force O&M budget.

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<sup>&</sup>lt;sup>8</sup> Quadrennial Defense Review Report; February 6, 2006

<sup>&</sup>lt;sup>9</sup> Global Mobility CONOPS (Working Draft); September 12, 2005

<sup>&</sup>lt;sup>10</sup> General T. Michael Moseley; Remarks to the American Enterprise Institute; October 11, 2005

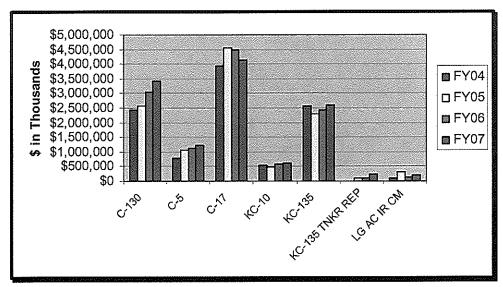


Figure 1-10: Global Mobility Operations and Investment

#### Global Intelligence, Surveillance, and Reconnaissance (Global Vigilance)

Timely and complete awareness of the battle-space has become an essential element in successful military operations. Capabilities that provide that awareness are contained in the third operational portfolio, Global ISR. "The ability of the future force to establish an 'unblinking eye' over the battle-space through persistent surveillance will be key to conducting effective joint operations." Each of the four priority focus areas in the QDR Report for operationalizing National Defense Strategy calls out persistent surveillance or domain awareness as needed capabilities. Human limitations are an important factor in considering the future mix of ISR



platforms. **UAVs** don't require consideration of human physiology factors and potentially offer significantly greater persistence capability. Consequently, the Air Force will accelerate stand-down of the U-2 manned ISR platform, while moving up acquisition of Predator and Global Hawk systems. UAV acquisition will nearly double current ISR coverage. Further, the Predator system provides cueing for its own Strike capability, and includes a Predator FY07 funding squadron for Special Operations forces.

Future capability to identify and track moving ground targets in denied areas will be enhanced by continued investment in space systems, like the Space Radar. Modernization of the Joint Surveillance Target Attack System (JSTARS) and continued funding of the E-10 technology demonstrator as means for exploring avenues for a follow-on to JSTARS and AWACS aircraft, will ensure that manned ISR programs continue to provide required capabilities. Figure 1-11

<sup>11</sup> Quadrennial Defense Review Report; February 6, 2006

depicts operation of Global ISR assets at current tempo and shows robust investment in UAV and Space systems for ISR.

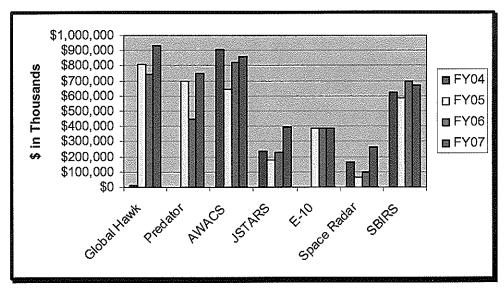


Figure 1-11: Global ISR Operations and Investment

#### Operational Risk Summary

The FY07 Air Force Budget reflects a careful balance in acceptance of operational risk. Expenditure on current operations—executing force modules—is a priority, as we continue to prosecute the GWOT. Yet, preparing for future conflict by investing in the key capabilities envisioned in Joint Concepts and Air Force CONOPS is absolutely essential to assuring US preeminence in the coming years. The roughly "60-40" split between these two priorities, shown in Figure 1-2, demonstrates appropriate emphasis on winning the war today and preparing for the war tomorrow. Airmen—and their weapons systems—continue to experience a relatively high tempo, and this is likely to continue, as we settle into what will likely be a protracted war on terrorism. The three key Air Force portfolios are taking their cue from the 2006 Air Force Posture Statement and ODR. Global Strike is maintaining and divesting—or modernizing where appropriate—legacy systems, even as it maintains momentum in key programs for its future: the In Global Mobility, completion of the C-17 procurement and modernization F/A-22 and JSF. of the C-5 will ensure the Air Force continues to satisfy strategic lift requirements. Continued procurement of the C-130J, along with development of a light cargo aircraft, will provide intratheater capabilities that are in increasing demand. And the next generation air refueling platform will be a key enabler for systems in all three portfolios. UAVs are critical programs in the Global ISR portfolio, providing the persistent coverage that the GWOT and homeland defense increasingly demand. Space programs being funded now will assume an increasing role in this area, beyond the FYDP. And manned ISR weapons system programs, like JSTARS, U-2, and E-10 are being adjusted to meet capability needs of the portfolio. Figure 1-12 delineates the Operations funding for FY04-FY07.

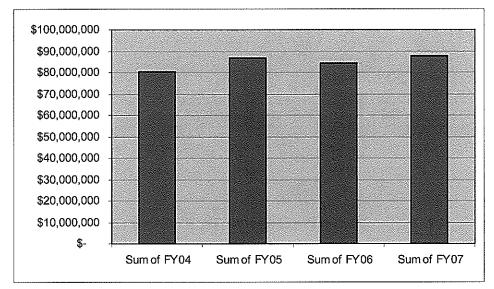


Figure 1-12: Operations – Total Dollars

# **SECTION II – FORCE MANAGEMENT : Develop, Sustain, and Renew the Force**

#### **OVERVIEW**

This section is all about our Air Force people. The men and women of today's United States Air Force are our the best trained, most educated, most creative and adaptive total force we have ever had. The Force Management area is all about taking care of them and ensuring they have the right training, support, and medical care required to carry out their missions successfully over the span of their careers. This specifically includes areas like personnel administration, health services, education and personnel benefits, and schoolhouse training. This area does not include individual benefits pay or allowances (except for those personnel who support the mission areas stated above).

The Force Management area includes approximately 11.5% of the Air Force's FY07 Total Budget Request which is The FY07 program about \$15.0B. includes various bonus programs to ensure success in meeting budgeted strength levels which will support all Air Force assigned missions. It also continues to support our goals toward competitive sourcing laid out by OSD in Program Budget Decision 729. These programs will help us meet Congressionally authorized end strength levels while continuing excellence in our highest priority mission areas. Our Force Wellness programs and safety programs



are one of our top priorities. Combat capability begins and ends with healthy, motivated, trained and equipped Airmen. The Air Force's FY07 budget reflects our commitment to proving our entire Air Force team with world-class programs, facilities and morale enhancing activities. Our "Fit to Fight" program ensures Airmen remain ready to execute our expeditionary mission at a moment's notice, and our food service operations further complement an Air Force healthy lifestyle.

#### Shaping the Force

The Air Force budget reflects our focus on recruiting the right people, retaining the right people and skill sets, and achieving targeted attrition to ensure the proper workforce to meet today's missions while shaping for tomorrow's required capabilities. For the past 18 months, the Air Force reduced our active duty end strength to Congressionally authorized levels while shaping it to relieve some of our most stressed career fields. The 2004-2005 Force Shaping Program

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allowed officers and enlisted personnel to separate earlier than they would otherwise due to eligibility to reduce our excess end strength. In addition to the voluntary force shaping measures, the Air Force significantly reduced enlisted accessions in FY2005 to help meet our Congressional mandate.

While the Air Force met 2005 end strength requirements, we began 2006 with a force imbalance: an under strength in enlisted personnel and an over strength in officer personnel (principally in the officers commissioned in 2000 through 2004). We took several management actions to correct these issues. First, we increased our enlisted accession target for 2006 to 30,750 to address the enlisted imbalance. Second, we continued to encourage qualified officers to consider voluntary options for service in the Air National Guard, Air Force Reserve and civil service or inter-service transfer to the Army. These efforts will help us to optimize the total force in career fields with both shortfalls and overages.

While the Air Force has met accession goals still have overall. we problem within areas specific Force Air Specialty Code (AFSC) To better manage areas. these specific shortfalls, increased we have

Officer Retention		ACL Change over last 12 months				
Tr	ends	Worse No Change		Better	Total	
S.L.	< 80%	0	1	0	1	
it A	80% - 90%	1	1	0	2	
Current ACL verses Plan	> 90%	4	15	8	27	
Cu	Total	5	17	8	30	

Figure 2-1: Officer Average Career Length Jan 05 to Jan 06

accession goals in specific AFSCs to better shape the force. Figure 2-1 shows how we are meeting goal in officer retention against our Average Career Length (ACL) goal which is a factor in our accession targets to meet future mission requirements. On the enlisted side, we have experienced retention shortfalls in specific AFSCs. The CJR program helped rebalance the junior enlisted force as they entered their second enlistment. The purpose of this program is to have junior enlisted personnel obtain a CJR in one of the 146 AFSCs in order to re-enlist. In AFSCs with overages, CJRs were limited to the number required to sustain the career fields at their optimal levels. Airman not meeting the requirements were given the option to apply for a CJR in one of the AFSCs with shortages. This tool helped improve enlisted force imbalances by 17%.

A key element for success is our ability to continue to offer bonuses and incentives where we have traditionally experienced shortfalls. The Air Force reduced the number of Selective Reenlisted Bonuses (SRBs) from 114 career fields to 32 in March 2005 which saved the Air Force and the tax payers \$102.7 million. Career fields in key capability areas like cryptologic linguists, combat controllers, and our medical community are some of the specific targeted areas our bonuses will be focused on to correct under strength situations. Congressional support for these programs, along with increases in pay, benefits and quality of life initiatives, has increased our recruiting and retention in these career fields. This is evident by the improvement (i.e. right sizing) of AFSCs as shown in Figure 2-2 which highlights enlisted AFSCs with historical shortfalls in retention and the use of legislative bonuses to help us correct these shortfalls.

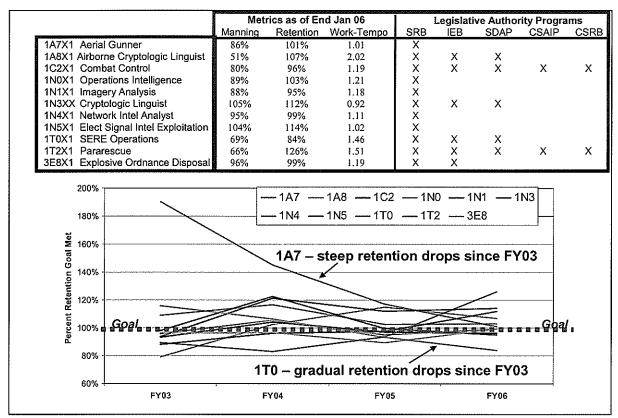
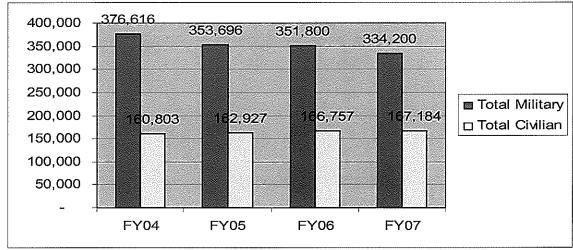


Figure 2-2: Enlisted Retention and Uses of Legislative Authorities

### Optimize Total Force

After reducing total active duty accessions in FY2005 to meet Congressional end strength targets, Air Force accession targets are back to full recruitment for enlisted Airmen and plan to access 30,750 for FY2006. We also plan to access approximately 5,000 officers, a slight reduction from 2005 to meet shaping requirements. The Air Force accession and overall force management goal is to get the right mix of officer and enlisted Airmen within the respective ranks to meet Air Force mission requirements in support of the GWOT and future capability requirements.



Active	FY04	FY05	FY06	FY07
Officer	74,109	73,252	70,578	65,776
Enlisted	298,314	276,117	277,222	264,424
Cadets	4,193	4,327	4,000	4,000
Total Military	376,616	353,696	351,800	334,200
Total Civilian	160,803	162,927	166,757	167,184
Total Active	537,419	516,623	518,557	501,384

Figure 2-3. Total Active Military and Civilian Strength \*FY2004 and FY2005 are actuals

The Air Force is making significant progress in civilian force development as we align policy, processes and systems to deliberately develop and manage our civilian workforce. We have identified and mapped over 97% of all Air Force civilian positions to career fields and have 15 Career Field Management Teams in place with three additional management teams forming in FY2006. Additionally, we manage various civilian developmental opportunities and programs with our career-broadening program providing several centrally funded positions, specifically tailored to provide career-broadening and enriching experiences.

#### Reserve and Guard Forces

In addition to maintaining and shaping the active force we are continuing to focus on the balance of forces and specialties between Active, Air National Guard and Reserve components. We are

examining and planning for the capabilities we need to provide to the warfighter and to operate and train at home. We continue to realign manpower to our most stressed areas and remain vigilant of any new areas that show signs of strain.

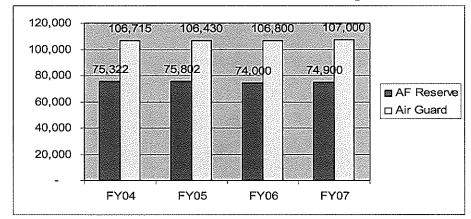


Figure 2-4: Air Force Reserve and Air National Guard Military Strength

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Part of optimizing our force is managing our progress towards the PMA for Competitive Sourcing. In December 2001, OSD levied a PMA target of 226K positions to Competitively Source between FY00-FY09 to Services. The Air Force share of the PMA target is 51,501. As of 1 November 2005, the AF has completed 29,319 positions towards the target through A-76 studies, military-to-civilian conversions, and other approved alternatives to A-76. The Air Force's ability to meet the PMA target will potentially be limited by the FY07 endstrength reductions which will impact the number of candidates to study. Further research on the full impact the reductions will have on the Competitive Sourcing program is in progress. Significant progress has been made to date and we have already submitted an additional 5,320 positions to AT&L for review with an additional 14,701 positions identified by our major commands for further study (these 14K positions may be impacted by the FY07 reductions). Figure 2-5 shows our progress towards a straight-line goal from FY00 to FY09.

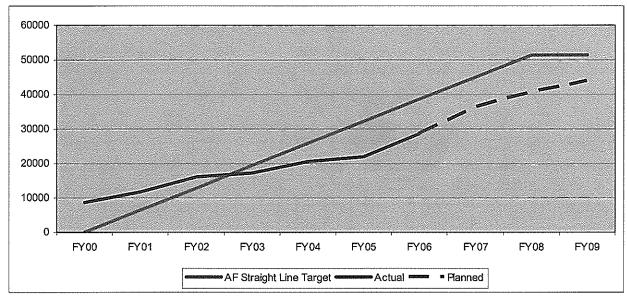


Figure 2-5: Progress Towards AF Straight Line Target

#### Ensure Sustainable Military Tempo

Approximately one-half of the Air Force is forward deployed or otherwise supporting Combatant Commanders throughout the world in support of the GWOT. Our Airman continue to deliver key Air Force capabilities of precision engagement, rapid global mobility, and information superiority to OEF and OIF missions. The Air Force measures our ability to sustain personnel tempo by AFSC so those career fields that are most stressed can be targeted for corrective actions.

Stress, as defined in this metric for the Air Force, is largely driven by three main factors: manpower, manning, and deployments. While the drivers of stress may be different for each career field, for this metric we are measuring the amount of people doing the job versus the number of people it takes to do the job (assuming 40 hour work weeks as normal). The "stress-levels" provide Air Force leadership with an objective, single measure to determine relative stress between AFSCs. The results serve as an indicator of shortfall problems but are an absolute statement of problems. A stress level greater than 1.0 means that there is a shortfall. The shortfall

is expressed as a percentage of assigned personnel (for example, a stress-level rating of 1.2 means that each person at home station is doing the work of 1.2 people). The Air Force has a goal of achieving a stress level of 1.2 or less for each AFSC. The Air Force uses these stress career field data to help as one of factor to specific shaping areas in bonuses and advertising focus.

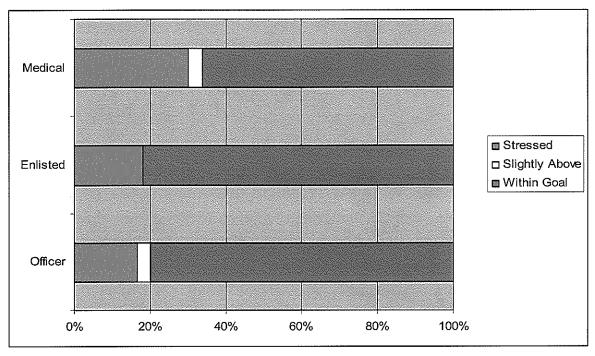


Figure 2-6: FY05 Stress Levels

#### Maintain Force Wellness

Combat capability begins and ends with healthy, motivated and well trained Airmen. The Air Force is committed to providing our entire Air Force team with world-class programs, facilities and morale-enhancing activities. Our "Fit to Fight" program ensures Airmen remain ready to execute our expeditionary mission at a moment's notice, and our food service operations further complement an Air Force healthy lifestyle. While all of these areas impact our force wellness, this area of the balanced scorecard specifically includes our medical and safety programs. Other areas that have an indirect impact on force wellness, such as housing, are included in the Infrastructure portion of our balanced scorecard.

Individual Medical Readiness (IMR) is the extent to which an individual service member is free from health-related conditions that could limit their ability to fully participate in military operations. The Air Force measures this ability in six areas established by DoD in May 2003: The six elements are periodic health assessment, deployment limiting conditions, dental readiness, immunization status, readiness laboratory studies and individual medical equipment. To be fully medically ready, also known as 'green,' an individual must meet all six of the criteria described in DoD's guidance on medical readiness. Otherwise military members will be classified as medically ready with minimal intervention, 'yellow,' or not medically ready, 'red,' or unknown, 'gray.'

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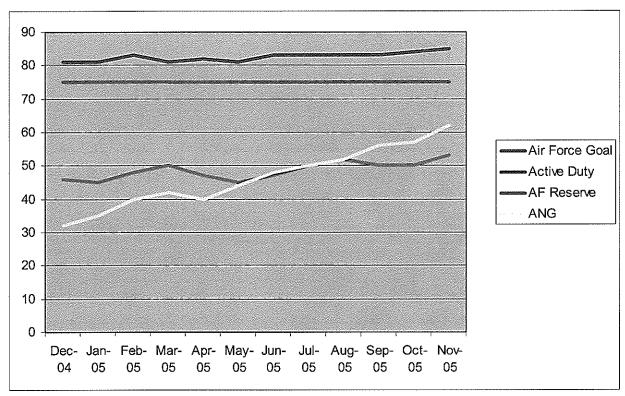


Figure 2-7: Individual Medical Readiness Versus Goal

The Air Force today has a steady-state need for 20,000 airmen to deploy overseas and carry out vital rotational assignments. That is 250 percent more than was the case before the attacks of Sept. 11, 2001. The majority of these rotational jobs—some 17,500—are in the CENTCOM area of responsibility in Southwest and Central Asia. Another 3,000 airmen are deployed outside of the AEF system, largely on overseas training assignments. The figures do not include the many thousands of airmen permanently stationed in Europe and the Pacific. 13

The safety of our Airman is an essential element of maintaining force wellness. To ensure Airman remain safe, the Air Force Safety Center strives to prevent mishaps through hazard identification and risk mitigation recommendations. The two primary measurements used by the Air Force are number of fatalities and fatal rate. These fatality metrics are grouped into two primary categories: aviation and ground. The number of fatalities is the total number of deaths within a fiscal year, whereas the fatal rate is the number of deaths divided by one-thousand flight hours for aviation and thousand airman for ground.

While there is no acceptable number of fatalities, except for zero, beginning in 2002 the Secretary of Defense provided goals to each of the armed services (shown in a dashed green line). The Air Force, despite a heightened intensity in sorties since 9-11, has made great progress toward achieved the Sec Def goals as shown in the graph below.

To further ensure the safety of our Airman, the Air Force is implementing two efforts. This first effort is the Military Flight Operations Quality Assurance (MFOQA) program. MFOQA is a comprehensive program designed to improve flight safety, operational efficiency, and readiness

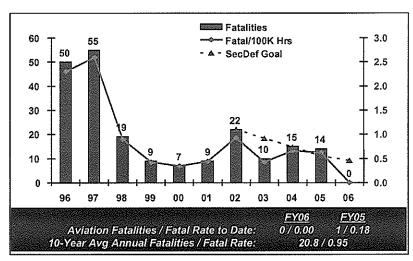
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<sup>&</sup>lt;sup>12</sup> Air Force Magazine Online July 2005, Vol. 88, No. 7 The Expeditionary Force Under Stress

 $<sup>^{13}</sup>$  IBID

through the routine collection and analysis of digital flight data. It significantly contributes to flight safety by detecting precursors to aviation mishaps and identifying potential mitigation measures. OSD issued an MFOQA Policy Memo on 11 Oct 05, which will be incorporated into an AF Policy Directive and Instruction currently in the initial stages of the coordination process.

While there have already been some successes with the MFOQA's program, contribution in reducing the Class A aviation mishap rate will become more evident as it comes online in more weapons systems. Active MFOQA projects include C-17 fleet wide analysis, which recently drove the modification of an Air Traffic Control (ATC) directed departure procedure requiring a risky low-altitude, high-bank



maneuver. The T-6 program is Figure 2-8: Aviation Fatality Rate

currently evaluating the risk inherent in Emergency Landing Procedure training, which often drives pilots to stretch the boundaries of standard flight operations in an effort to save an approach.

Several platforms are under consideration for program launch in the near future, including the F-16, KC-135, C-32, C-37 and C-40 (VIP SAM). The Air Force MFOQA Task Force allocated PBD 705 directed funding for these aircraft in FY06 and FY07. Provisional allocation of FY08-FY11 funding is directed at program initiation on ten additional aircraft; requirements for these programs will be validated through a Cost-Benefit Analysis process.

In an effort to foster the joint aspect of MFOQA and to share several years' worth of data collection and analysis experience, the Air Force planned and hosted a Joint Service MFOQA Conference in June 2005. This highly successful event brought together over two hundred representatives from the DoD, NASA, Army, Navy, Marine Corps, Coast Guard, and Air Force, as well as military and civilian representatives from nine different countries. DoD MFOQA analysts presented their analysis techniques and successes for peer review and to develop cross-service cooperation. Industry leaders discussed issues and demonstrated their products, conveying technical lessons learned from their past experiences and allowing DoD the opportunity to evaluate industry capabilities.

The second project is the Safety Analysis Team (SAT). The SAT has taken concepts from the process used by the Joint Safety Analysis Team chartered by the Aviation Safety Improvements Task Force to support their mishap reduction efforts. The SAT process is an iterative data driven process used to identify and quantify risk and develop effective and quantifiable risk mitigation strategies by reviewing past mishaps for trends. Recent efforts included a review of the last five year's mishaps that involved Air Force Special Operations Command (AFSOC) aircraft. This review identified the leading risk contributing hazards in those mishaps and proposed quantified risk mitigation strategies recommended for implementation by the AFSOC Commander. As a

result of this review, AFSOC is working changes to aircrew training requirements and personnel accession policies.

The ground safety goal has not experienced the same success as the aviation metric. During the first two years (e.g. 2002 and 2003), the achieved our fatality rate goals but in recent years we have experienced an increase rate in ground fatalities. To help remedy this increased fatality rate, the Air Force has increased the overall budget for maintaining Force Management by 27%. Figure 2-10 below delineates the Force Management funding for FY04-FY07.

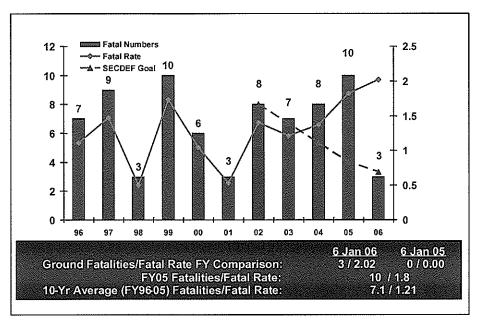


Figure 2-9: Ground Fatality Rate

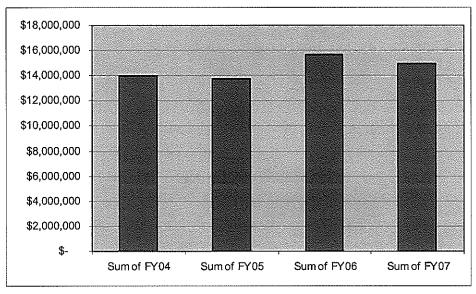


Figure 2-10: Force Management - Total Dollars

# **SECTION III – INSTITUTIONAL:** Assess Infrastructure, Acquisition, and Budget

### **OVERVIEW**

This section encompasses the business of sustaining, improving and modernizing our infrastructure, the management of our acquisition processes and the Headquarter's functions involved with prioritizing our requirements into a balanced budget to ensure mission sustainability today while investing in future capabilities to meet tomorrow's challenges. Depot Maintenance, real property and installation support activities are a couple examples of larger programs funded in this section. This quadrant encompasses approximately \$25.5B or 19.5% of the FY07 budget submission. While this section includes the funding of acquisition management and processes it does not include the acquisitions of programs themselves nor the RDT&E involved in shaping those acquisitions.

# Achieve Acquisition Excellence

"The Department's leadership recognizes that continuing "business as usual" within the Department is not a viable option given the new strategic era and the internal and external challenges facing the U.S. military. Without change, the current defense program will only become more expensive to maintain over time, and it will forfeit many of the opportunities available to the United States today. Without transformation, the U.S. military will not be prepared to meet emerging challenges."

- Secretary of Defense Donald H. Rumsfeld

The Air Force will meet the challenges of the 21<sup>st</sup> century, including asymmetric threats, through continued exploitation of our technological leadership and with our ability to respond quickly to the demands of a rapidly changing world. Effective leadership in research and development, procurement and sustainment of current and future weapon systems depends upon the integrated actions of professionals in the acquisition, as well as the requirements generation, resource and oversight processes. Everything we do in Air Force acquisition drives toward the goal of getting an operationally safe, suitable and effective product of best value to the warfighter in the least amount of time.

The Air Force is focusing on reforming, modernizing, and improving processes for acquisition of new systems and equipment. We will achieve greater efficiencies and higher productivity by reforming our business practices. By incorporating lean processes and transparent accounting, and reinforcing a culture of continuous improvement, the Air Force will maintain the high standards of our heritage. We will continue our tradition of transformation, realize both lethality and efficiency in our capabilities in this new century, and stand ready for the challenges of the future. Program cost and schedule growth have drawn widespread criticism and undermined confidence in the defense acquisition process. A recent GAO study of 26 DoD weapon systems

reports average unit costs have grown by 50% and schedules have stretched an average of 20%, to nearly 15 years, despite numerous attempts at reform.

In an effort to address these concerns, the Air Force formed the Acquisition Transformation Action Council in December 2004. This group is comprised of general officer and senior executive service representatives from the Air Force product centers, labs, air logistics centers and headquarters. The group continues to lead the transformation of Air Force acquisition from its present state into that of an Agile Acquisition Enterprise. The goals of Agile Acquisition include shortened acquisition process time and improved credibility with both internal and external stakeholders. Achieving these goals will be critical to making the delivery of warwinning capabilities faster, more efficient and more responsive. The Acquisition Transformation Action Council's short-term focus is on incremental improvements and eliminating non-value-added processes in areas such as conducting Acquisition Strategy Panels, meeting immediate warfighter needs and effectively incentivizing contractors. A more comprehensive strategic plan for acquisition transformation, due later this year, will detail not only where the near-term changes fit into the big picture of acquisition reform, but also the longer-term actions needed to achieve the goals of Agile Acquisition.

The Air Force has taken a revolutionary approach to acquiring commercial information technology. We have established an Information Technology Commodity Council (ITCC) that has improved our approach to acquiring commercial Information Technology (IT). It shifts the AF's emphasis from tactical buying at the base or unit level, to enterprise strategic sourcing.

The ITCC has demonstrated the value of its commodity council approach through its recent acquisition strategy for buying desktop/laptop



computers. In the last 18 months, the AF has purchased over 84,780 computers and avoided over \$17 million in costs. The savings don't stop there. They will accrue as planned life-cycle strategy initiatives are implemented. An example of one such life-cycle initiative is the recently awarded single AF enterprise license agreement for Microsoft software. This initiative is expected to save roughly \$100 million over the next six years.

## Capabilities Based Acquisition (CBA)

The Air Force substantially revised its guidance this past year on Capabilities Based Acquisition (CBA) by doing a major rewrite of Air Force Instruction (AFI) 63-101, *Operations of Capabilities Based Acquisition System*. The acquisition framework still provides milestones and phases, but with fundamental mandatory guidance to tailor the model to fit each acquisition program, consistent with technical risk, design maturity, and sound business practices. The goal is to provide capabilities to operators for valid mission needs in the shortest time possible.

The new AFI instills the need for a more robust and effective integrated acquisition approach with increased efficiency, innovation and creativity to assure warfighters' needs are met every

time. It has also been intentionally written with "less prescriptive" guidance than past instructions.

The future of the Air Force's warfighting capabilities depends on our ability to quickly respond to an ever-changing number of worldwide scenarios. This is a reflection of the new threats to our forces. The new Air Force guidance is designed to foster the development of the tools needed by warfighters to successfully confront these new challenges. CBA defines an integrated structural framework to be responsive to these threats, improve communications with senior leadership and assist Air Force leadership in better allocating investment dollars to meet top Joint warfighting priorities. The revised AFI serves as the basic foundation of CBA and our overarching goals of reducing acquisition cycle time and improving program credibility.

Providing the operator the capabilities needed when they are required, at the most affordable cost is the cornerstone to building credibility. The Expectations Management Agreement (EMA) is a jointly developed and formally documented agreement between the Program Manager (PM) and



the primary operator to proactively resolve or de-conflict potential issues to include cost, schedule and performance expectations over the life of the program. The EMA is designed to facilitate effective two-way communication and provide real-time updates and support for building credibility between the acquirer and the operator. Air Force acquisitions must be such that providing capability to the warfighter quickly is more important than establishing an acquisition program which tries to eliminate the risk of possible failure. In devising acquisition approaches and implementing them, the concept of time or schedule as an independent variable is one that must override prior concepts of delivering the ultimate capability at whatever cost and schedule is necessary to do so.

# Capabilities Review and Risk Assessment (CRRA)

The Air Force's goal is to make warfighting effects, and the capabilities we need to achieve them, the drivers for everything we do. The transformation from a platform-centric to an effects-based expeditionary air and space force is vital to the success of future operations. The centerpiece of this effort is the development of a series of concepts of operation (CONOPS) detailing how the Air Force will address potential threats. These capabilities will provide the warfighting commanders the tools they need to accomplish their mission.

The Air Force utilizing a Capabilities Review and Risk Assessment (CRRA) to evaluate effectiveness and risk associated with each of these CONOPS. This oversight provides Air Force leadership with operational an assessment tool for acquisition program decisions. The CRRA shifts everything to a review of how programs contribute to warfighting capabilities and effects and scores

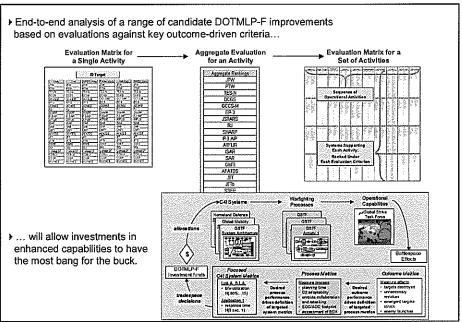


Figure 3-1: Application of Analytic Evaluation to Investment Decisions

each one in terms of how well it supports the desired capabilities that can be measured. The bottom-line goal for the CRRA is to give senior Air Force leadership an operational, capabilities-based focus for acquisition program decision-making.

The "changed" CONOPS will also drive planning, programming, budgeting, and acquisition processes by focusing on achieving a desired effect, followed by the identification of potential capabilities, without regard to any specific system platform or the medium from which they will operate. The key here is the inclusion of the air and space operator in the process from beginning to end.

## Lean Continuous Process Improvement

To meet the challenges of the road ahead we must adopt a culture of Continuous Process Improvement (CPI). Achieving excellence in all that we do will require us to institutionalize the precepts of CPI into our daily lives as Airmen. The Air Force is stepping up to the challenge and making the commitment required to achieve true process excellence. CPI focuses on identification and elimination of activity and actions that do not contribute value to the operation of the Air Force. "Value" for us is defined as contribution to improved warfighting effectiveness. If a process or activity ultimately doesn't contribute to creating mission capability, then we simply shouldn't do it. Continuous identification and systematic elimination of so-called "non-value added" activity is the key to improving service, reducing costs and enriching the lives of our Airmen.

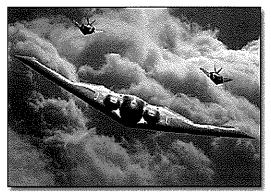


We are seeking three outcomes from this approach. First, we want Airmen who are fully aware of the importance of their work and how it contributes to the mission; Airmen must look to

improve what they do every day. We want Airmen to see their role in a fundamentally different way: by focusing on increasing value and eliminating waste. Second, we want to make the most of our existing budgets and free resources for future modernization by systematically identifying and eliminating the waste in our day-to-day processes. Finally, we want to enhance our ability to accomplish our mission and provide greater agility in response to rapidly changing demands.

Institutionalizing this new way of thinking and operating will allow the Air Force to meet the enormous challenges of the next decade and ultimately to sustain and modernize the world's best air and space force.

MID 917 directs a pilot program to test revised contracting, programming, budgeting and financing processes for Performance-Based Logistics (PBL) agreements. The Air Force B-2 program will participate in this pilot. Adjusting these processes for the pilot programs' PBL agreements facilitates the achievement of the performance goals in these performance-based agreements.



MID 917 fosters the development of criteria and milestones for evaluating the pilot programs' plans for process revision. This strategy will improve weapon system readiness by capitalizing on integrated logistics chains. Its cornerstone is the purchase of weapon system sustainment as an integrated package based on output measures rather than input measures. The focus of this PBL strategy is to translate warfighter-specified levels of operational performance into a sustainment program that optimizes system readiness requirements

and total ownership costs. As scenarios change and the operational environment evolves, performance requirements and acceptable levels of risk also change. The dynamic threat environment compels warfighters to reevaluate their requirements and risk management assessments based upon emerging and evolving threats. PBL agreements with providers must be flexible to allow the warfighter to redistribute resources as priorities change.

# Contracting

The Air Force Contracting Enterprise is comprised of professionally trained and educated contracting experts using processes focused on providing world class contracting support to a myriad of customers. In FY 2005, our workforce

awarded over 175,000 contracting actions, valued at almost \$55 billion.

We are currently implementing several strategic initiatives, such as, the development and implementation of the Enterprise Architecture for Procurement, standardization of the strategic sourcing process, the assessment of current contracting organizational alignments, the establishment of commodity councils, a pricing community of practice, and the Purchasing and Supply Chain Management, and a major re-write of our



Major Command (MAJCOM) Federal Acquisition Regulation Supplements. These types of initiatives better support warfighters and customers; meet warfighter/taxpayer financial expectations; improve our contracting processes, and cultivate development of our diverse workforce.

### Improving Sustainment, Restoration and Modernization of Facilities

The Air Force is committed to the modernization and recapitalization necessary to maintain the health of the force and bridge our current capabilities to the systems and capabilities required in the future. We are in the process of modernizing our operational infrastructure and the tools we use to manage operational support to our Airmen and Joint warfighters. The Air Force's ongoing Operational Support Modernization (OSM) program will improve operational support processes, consolidate personnel and financial service centers, and eliminate inefficiencies in the delivery of services, support and information to our Airmen and the Combatant Commanders. Realizing these economies, OSM will improve Air Force-wide enterprise efficiency and provide a resources shift from business and combat support systems, thereby returning resources to Air Force operations, modernization and long-term investments.

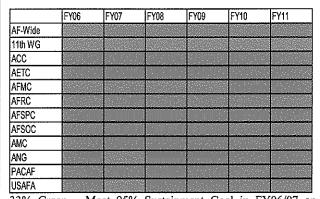
Air Force efforts also continue in the development of an effective, holistic asset management strategy for the restoration and modernization of operational infrastructure—facilities, utilities and natural resource assets—throughout their useful life cycles. Operational infrastructure is critical to the development and testing of new weapon systems, the training and development of our Airmen, and the conduct of Joint military exercises. Additionally, we are equally committed to ensuring that all Airmen in every mission area operate with infrastructure that is modern, safe and efficient, no matter what the mission entails—from Depot Recapitalization to the bed down of new weapon systems. Moreover, we must ensure Airmen worldwide have the world class training, tools and developmental opportunities that best posture them to perform with excellence. We also continually strive to provide opportunities and support services that further enable them to serve their Nation in a way that leaves them personally fulfilled, contributes to family health, and provides America with a more stable, retained and capable fighting force.

## Facilities Recapitalization/Sustainment Rates

A key measure of how well we are achieving our vision is our rate of recapitalizing our installations. The Recapitalization Rate (RR) is # of years required to regenerate a physical plant either through replacement or major renovation at a specified investment level. The DoD goal is for the Services to fund facilities to achieve a 67-year RR by FY08 and to maintain that rate. Another key measure is Facilities Sustainment (FS), which is a measure of how well the facilities are being sustained. Strategic Planning Guidance directs Services fund Sustainment to 95% of requirements generated by OSD's Facilities Sustainment Model (FSM) for FY06-07 and 100% for FY08 and beyond. Figures 3-2 and 3-3 show the Air Force's current status on meeting DoD's recapitalization and facilities sustainment goals.

	*FY06	*FY07	FY08	FY09	FY10	FY11
AF-Wide	NA	N/A				
11th WG	N/A	NA				
ACC	NA	NA				
AETC	N/A	NA				
AFMC	N/A	N/A				
AFRC	NA	WA				
AFSPC	N/A	NA				
AFSOC	N/A	NA				
AMC	N/A	NA				
ANG	N/A	NA				
PACAF	N/A	NA				
USAFA	N/A	N/A				
USAFE	N/A	NA				

41% Red - Do Not Meet 67-Year Recapitalization Rate



33% Green - Meet 95% Sustainment Goal in FY06/07 or 100% in FY08-11

67% Red - Do Not Meet 95% Sustainment Goal in FY06/07 or 100% in FY08-11

Figure 3-2: Facilities Recapitalization Rate

Figure 3-3: Facilities Sustainment Rate

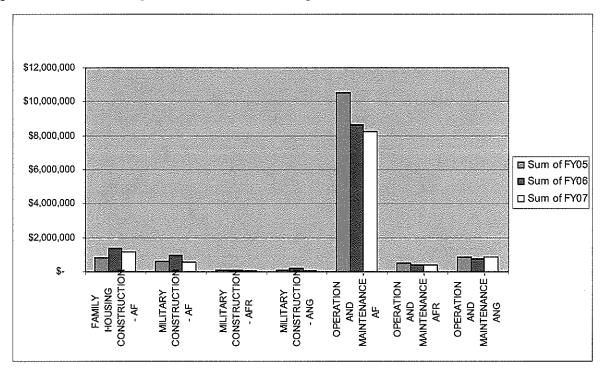
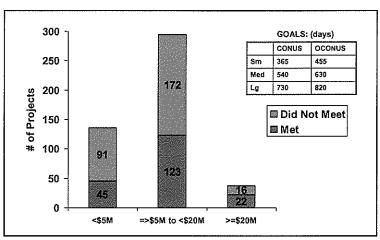


Figure 3-4: Institutional Facilities Sustainment, Restoration & Modernization (FSRM)

#### MILCON Execution

One of the highlights in our emphasis on developing Airmen is our focus on housing investment. Through military construction and housing privatization, we are providing quality homes faster than ever before. Over the next two years, the Air Force will renovate or replace more than 49,000 homes through privatization. At the same time, we will renovate or replace an additional 10,000 homes through military construction.

Investment in dormitories continues to accelerate in order to provide housing superior to our unaccompanied members evidenced by nearly 8,600 dormitory rooms programmed for funding over the next six years. Approximately 75% of these initiatives will rectify inadequate currently dormitory conditions for permanent party Our new "Dorms-4members. standard is a concept Airmen" designed to increase camaraderie,



social interaction and accountability Figure 3-5: MILCON Execution - Construction Timeline by providing four single occupancy bedroom/ bathrooms with a common kitchen and living area in each module. Finally, the remaining dormitory program initiates modernization of inadequate "pipeline" dormitories—those dormitories that house young enlisted students during their initial technical training.

The Air Force has taken risk in facility and MILCON funding in order to support modernization and transformation. However, we continue to fund our most critical requirements to include new mission projects, depot transformation, dormitories, fitness centers and child care centers. The Air Force is committed to improving its infrastructure investment by meeting the DoD's recapitalization goal through the FYDP.

**Dormitories** - The Air Force is committed to meeting the OSD directive to eliminate inadequate dormitory rooms IAW (elimination of inadequate unaccompanied permanent party dormitory rooms in US by FY07 and unaccompanied pipeline dormitory rooms in US by FY09). Our progress in meeting this goal is measured by Total divestiture of inadequate dormitory rooms by demolition, improvement, or replacement

**Housing Goals** - Another way in which the Air Force is demonstrating our commitment to

	FY06	FY07	FY08	FY09	FY10	FY11
AF-Wide						
11th WG						
ACC						
AETC						
AFMC						
AFSPC						
AFSOC						
AMC						
PACAF						
USAFA						
USAFE						
83% Gree	n – Mee	t APP	G Elin	ninate l	Inadeq	uate
Dormitor	y Requir	ement			_	
150/ D 1	·					

17% Red – Meet APPG Eliminate Inadequate Dormitory Requirement

Figure 3-6: Dormitory Goal Status

out Airmen is by trying to meet OSD directive to eliminate inadequate housing FY09. Total divestiture of inadequate housing by demolition, privatization, improvement, or replacement.

	FY06	FY07	FY08	FY09	FY10	FY11
AF-Wide						
11th WG						
ACC						
AETC						
AFMC						
AFSPC						
AFSOC						
AMC						
PACAF						
USAFA						
USAFE						

Housing Requirement

35% Red - Meet OSD Eliminate Inadequate Housing Requirement

Figure 3-7: Housing Goal Status

Although there will still be some inadequate housing in FY09, we are still in position to provide adequate housing for everyone by FY10.

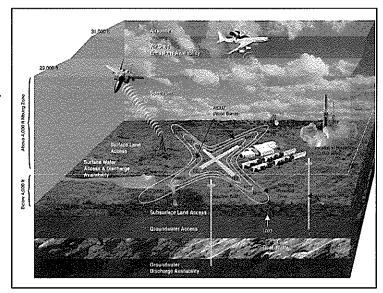
#### Natural Infrastructure

The near- and long-term readiness of combat forces within the DoD depends on several interdependent factors: the right people, the the right right weapons, and support infrastructures. Support infrastructures are

assets, grouped by function, that are managed holistically to support people and weapons

systems as they carry out military operations and training. Built infrastructure (e.g., facilities), communications infrastructure, security infrastructure, and logistics infrastructure are wellknown examples; as critical support infrastructures, DoD has sought to manage these systems to their greatest military utility.

Natural infrastructure (i.e., air, land, and water), however, has traditionally managed differently-based been successfully meeting largely on compliance environmental requirements set by entities outside of DoD, not necessarily on military or mission needs. Not surprisingly, DoD installation managers' ability provide natural infrastructure sufficient for military needs has become more challenging over time due in part to increased competition for these resources. In some cases, however, the provision of natural infrastructure for current operations has become inadequate, a situation Figure 3-8: Picture of the Natural Infrastructure defined as encroachment.



Natural Infrastructure Capability and Requirements Management (NICRM) represents a new management paradigm that encompasses, yet moves beyond, compliance-based environmental program management. NICRM principles and practices are designed to focus elements of installation and mission planning, and environmental management, on operational requirements. This will provide military commanders with decision support tools to cost-effectively acquire and manage natural infrastructure so that it is fully "capable" as defined by mission requirements.

## Performance Based Budgeting

The Air Force is working towards improving performance measures that are more outcome oriented to aid in decision making and accountability. We are not only complying with OSD using the PARTS for tracking performance, but we are also investing in better ways to measure performance. Traditionally organizations have measured inputs to performance variables versus outcome oriented performance. The Assistant Secretary for Financial Management and Comptroller (SAF/FM), conducted a pilot study in FY2005 to improve performance measures in specific areas of the budget to help better understand mission outcomes as a result of spending.

The SAF/FM pilot study team developed and employed the below methodology for demonstrating the relationships between resource decisions and performance outcomes and their subsequent impacts on critical mission capabilities (as defined in the Air Force Master Capabilities Library (MCL)).

After some examination, three pilot areas were chosen for study--Contractor Logistics Support (CLS), Facilities, and IT/Communications Infrastructure (CI). These areas were further refined through collaboration with SAF/FMB and Air Force subject matter experts. For the CLS area, an established performance measure--Aircraft Mission Capable rates and a new performance measure--Aircraft Availability Rate, were used. For Facilities, Recapitalization Rate and Installation Readiness Rate (C-rating) were used. The only area that did not have performance measures established and in use was the Combat Information Transport System (CITS). Increased Capability Hours (ICH) and Capability Hour Investment Cost (CHIC) were the metrics established, with input from Air Force subject matter experts. Cost of Avoiding User Downtime (CAUD) and User Downtime Avoided (UDA) were the metrics established.

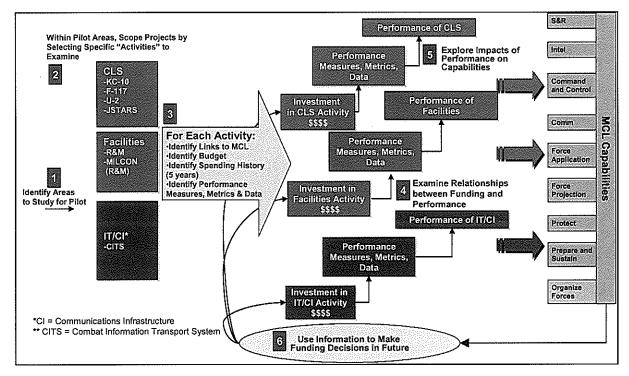


Figure 3-9: Study Methodology

### Contractor Logistics Support (CLS)

CLS is contractor (vice organic) provided logistics support for a system, equipment, or item, generally for the entire life cycle and is normally paid with O&M funding. Over the last decade, the Air Force has increased its use of CLS to provide product support. Contractors are performing an increasing portion of logistics activities that have previously been the responsibility of Air Force uniformed personnel or civilians. At the time of this report, there were 193 CLS contracts in place across the Air Force. Contract support, in all its forms, accounts for an increasing percentage of the Air Force's O&M discretionary funding. During the study, the CLS team looked at four weapon systems in detail—F-117, E-8 JSTARS, U-2, and KC-10. These aircraft were chosen because they provide a blend of fighter, information superiority, air refueling/cargo, and command and control capabilities for the pilot study.

The CLS pilot study objective was to link budget to performance and capabilities and then, if possible, develop a funding/performance function to determine how funding levels may alter weapons system performance. The primary performance measure selected for CLS was MC rate. A new performance measure, Aircraft Availability rate, was subsequently added. MC rate is important because it has been used historically by the Air Force as the principal measure for assessing unit and aircraft readiness and it is also used as the principal capability measure for aircraft in the MCL. Aircraft availability rate provides an excellent measure of the percentage of aircraft that are actually available to the warfighter.

CLS funding for the four weapon systems in the pilot study totaled \$1 billion in FY03. Funding data and performance data were analyzed against the MCL. Eight recommendations were developed in the course of the study to help the Air Force relate CLS funding to weapon system performance and capabilities.

#### **CLS Recommendations**

- Adopt Aircraft Availability as a metric accessible in the Reliability and Maintainability Information System (REMIS)/Merlin maintenance data systems
- Establish aircraft availability and MC rate thresholds for each Model/Design/Series (MDS) aircraft in the MCL rather than for categories of aircraft
- Adopt CLS Cost per Flying Hour as a metric in Air Force financial systems
- Conduct a study of 4-6 aircraft weapon systems. Work in conjunction with the program offices, to develop an analytical methodology to quantitatively assess the performance value derived from contract and organic product support sources
- Provide Program Managers with an analytical methodology to quantitatively assess the performance value derived from contract and organic product support sources
- Develop policy for Program Managers to report the contribution of CLS product support to aircraft availability and MC rates in the CLS Requirements Brochures annually
- Monitor and validate CLS CPFH and CLS performance contributions in the AFCAIG process
- Consider development of standard reporting criteria for future CLS contracts

#### **Facilities**

The purpose of the pilot was to determine relationships between budget and performance and then link that performance to the appropriate capabilities in the MCL. Within facilities, the pilot examined relationships between dollars executed and historical outcomes in the areas of R&M. This methodology, with data available, can be applied to the entire Facilities Sustainment, Restoration, Modernization, and Demolition (FSRM&D) funding which was approximately \$2.5 billion in FY03.

Two performance measures were chosen by working with subject matter experts in AF/IL. Recapitalization rate is the number of years required to regenerate a physical plant, either through replacement or renovation, at a given level of investment. Based on goals established by the Office of the Secretary of Defense, the Air Force shares the goal to achieve an overall average 67 year facility recapitalization rate by FY08 and maintain it thereafter. The second measure, Installation Readiness Rate (IRR) is a relatively new performance measure which AF/IL has been tracking since FY99. The goal is to restore the readiness of facilities and to reduce deficiencies by 2010.

The two measures chosen have advantages and disadvantages. Recapitalization rate is largely an input measure, not an output measure, but it is tied to OSD objectives, has a clear target date defined, and historical records exist back to 1998. IRR has similar advantages and is a strong performance measure of outcome.

The Air Force subject matter experts were polled to determine the relationships between R&M performance measures and the MCL. The strongest link was in Capability #8, Prepare and Sustain. Subsequently, facilities which have a low IRR (C-rating) will be of interest to the Air Force when making budget decisions.

#### **Facilities Recommendations**

- Institutionalize a methodology of linking capabilities to budget/performance measures by obtaining broader (across the Air Force) input to identify the link and importance of facilities to capabilities
- Define target goals for installation readiness in terms of the rating and time frame
- Incorporate measures to ensure historical data is available, accurate, and that future data is collected with similar processes.
- Operationalize the data by incorporating the performance measures and objectives into the budget request—helping to justify the appropriation.

## Information Technology/Communications Infrastructure

The IT/CI area was narrowed to the Combat Information Transport System (CITS). CITS provides the warfighter and supporting agencies full access to secure and non-secure, critical, real-time Command and Control (C2) information during day-to-day operations and contingencies. CITS consists of three components: Information Transport System (ITS), Network Operations/Information Assurance (NO/IA), and Voice Switching System (VSS). The CITS program is a small portion of the budget. However, the methodologies employed in this pilot may be applied to about 5% of the Air Force's program in FY05.

There are some performance measures established within the CITS program office, but there has not been consensus on their application. Therefore, through meetings with subject matter experts, four measures were developed and applied during the pilot. Those measures are Lost Capability Hours (hours the network is unavailable plus hours of inadequate performance), Increased Capability Hours (The reduction in lost capability hours resulting from a CITS investment), Capability Hour Investment Cost (CHIC, computed as CITS Expenditure divided by ICH), and IT C-Rating. CHIC is how much the Air Force will spend on average to provide a user with an additional hour of network capability. CHIC is a measure that enables direct comparison across projects. Many network performance measures do not facilitate direct comparisons between different projects because they do not account for the scale, either in terms of its cost or number of users it impacts. CHIC normalizes the results across these variables to permit direct comparisons in dollar terms. Reducing a complex phenomenon to a small set of numbers results in potential loss of understanding of subtleties and exceptions. Hence, CHIC has shortcomings, but was deemed (by Air Force subject matter experts) the best performance measure for use in the pilot.

#### **IT/CI Recommendations**

- The Air Force should implement new data collection processes and require this data to be reported on a monthly basis
- The Air Force should further investigate additional performance measures that might supplement the lost capability hours measure

In addition to the pilot study, the Air Force is improving numerous performance measures to help in making better business decisions (many of these measures are identified in this document). One short coming of the performance based budgeting process is our current financial systems. Mission performance is not currently captured in the same systems we track expenditures nor in our budgeting systems. Part of the Air Force's transformational efforts will focus on linking these systems to better track performance. This is a critical ingredient for complying with MID-913 and will help the Air Force better predict how investment decision will impact future mission capabilities. Figure 3-10 delineates the Institutional funding for FY04-FY07.

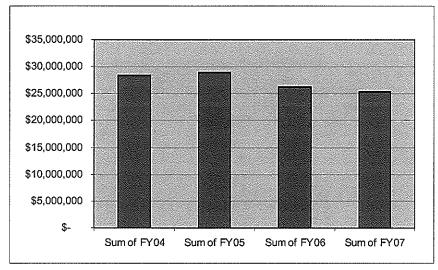


Figure 3-10: Institutional – Total Dollars

# **SECTION IV – FUTURE CHALLENGES: Increase Interoperability and Define Future Total Force**

#### **OVERVIEW**

The challenges of the 21st century call for our armed forces to be agile, lethal, readily deployable, and require a minimum of logistical support. We must be able to project power over long distances, in days or weeks rather than months. Our military must be able to destroy those targets almost instantly, with an array of weapons.

"On land, our heavy forces must be lighter. Our light forces must be more lethal. All must be easier to deploy. And these forces must be organized in smaller, more agile formations rather than cumbersome divisions".<sup>14</sup>

Well before September 11, the Department initiated wide-ranging discussions, careful review, and in-depth planning and analysis of



current programs, future capabilities, guiding strategies, and a framework for assessing and balancing risk. The process involved the Department's senior military and civilian leadership, including the Chairman and Vice Chairman of the Joint Chiefs of Staff, the Service Chiefs, the Service Secretaries, and Under Secretaries of the Department. The result was a new defense strategy, a new force-sizing construct, and a new way of balancing risk.

In response to these changes, the Air Force is shifting investment from "traditional" combat forces, with single-mission capabilities, to multi-role forces by aggressively divesting itself of older systems. The results are a force structure with expanded capability to combat conventional threats while continuing to wage the Global War on Terrorism. Simply stated, the Air Force will



become a smaller, yet more capable force through recapitalization and modernization of selected weapon system with a commitment to networked and integrated joint systems.

Joint air capabilities must be reoriented to favor, where appropriate, systems that have far greater range and persistence; larger and more flexible payloads for surveillance or strike; and the ability to penetrate and sustain operations in denied areas. The

future force will place a premium on capabilities that are responsive and survivable. It will be able to destroy moving targets in all weather conditions, exploit nontraditional intelligence and conduct next generation electronic warfare. Joint air forces will be capable of rapidly and simultaneously locating and attacking thousands of fixed and mobile targets at global ranges. The future force will exploit stealth and advanced electronic warfare capabilities when and where they are needed.

<sup>&</sup>lt;sup>14</sup> Remarks to cadets at The Citadel in Charleston, South Carolina, then-Governor George W. Bush

This section of the balanced scorecard includes research, future technologies and university research initiatives to advance our Future Total Force capabilities and our ability to support New Joint Concepts. It makes up \$2.3B of the Air Force FY07 Budget or about 2% of the total.

Consistent with these future force characteristics, the Air Expeditionary Forces (AEF) concept has matured over the last four years, increasing personnel available for deployment by 20% (51,000). The Air Force Battlefield Airman concept has improved combat training to increase joint air-ground integration for directing air strikes in support of ground forces during conventional and irregular warfare operations.

But the financial pressures of the current GWOT and humanitarian relief efforts have negatively impacted the Air Force's ability to devote TOA for these future concepts. Finding the right balance between addressing current urgent priorities and investing in the future is the challenge faced by today's senior leadership.

## Define Future Total Force (FTF)

The Chairman of the Joint Chiefs of Staff, General Pace stated, "We must transform if we are to meet future challenges." One of the Air Forces more significant commitments to long-term transformation is the creation of the directorate of Future Total Force. This new directorate is responsible for future force structure, emerging-mission bed down and development of FTF organizational constructs. Working with our partners in the Air National Guard and Air Force Reserve, the Air Force is maximizing our overall joint combat capability. Our efforts will enable the Air Force to meet the challenges of a shrinking budget, and aging aircraft fleet and new and emerging missions. The goal of Future Total Force is to increase combat capability by capitalizing on the strengths inherent within the active, guard, and reserve components.



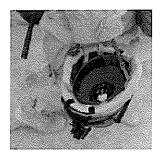
Since the announcement of the FTF initiative in December of '04, the Air Force has developed six FTF test initiatives in order to better understand the environment and to make our FTF vision a reality.

These initiatives have progressed well with the Air National Guard personnel in F/A-22 training. The Predator units slated for Arizona, Texas and New York have been put into the plan lineup and have been working with the Air National Guard and Air Combat Command to identify the appropriate manning and training requirements. The Special Operations Command and the Air Force

Reserve are working together on an additional Predator unit, an incredible partnership at Indian Springs in Nevada. Integration at the Air Warfare Center, also at Nellis Air Force Base, with both the Guard and Reserve grows daily. Pacific Air Command's two C-17 associate units in Hawaii and Alaska take steps daily to address concepts of operations, moving closer to the initial operating capability next year for one of them, and then a year and a half later for the other. The Air Force has identified well over 100 relevant mission opportunities in both unit associations as well as emerging missions to include units designed to augment our Air and Space Operations Centers, our warfighting headquarters, information operations units, intelligence units, space missions, medical missions, and numerous C4ISR mission areas to include such things that are far encompassing and very important to the future of our Air Force and Department of Defense.

In addition, we have continued to refine training missions with our Guard and Reserve as lead in some cases in the C-5 and the C-130 flying training units which trains our initial air crews into those aircraft in both Texas and Arizona.

With the Department of Defense Base Realignment and Closure Recommendations released to the Commission, the Air Force is now in a position to work with our stakeholders in the active duty, the Guard and Reserve to lay plans for many more state by state mission assignments.



We have developed a defined process and have put an aggressive schedule in place to make our future total force plans a reality.

The hard work that we are doing in coordination with the Guard and Reserve is best exemplified by our plans taking shape in North Dakota. The Air Force program called for the transformation of the mission at Grand Forks AFB and create what we call a family of UAVs. An active associate Predator unit will be established at Grand Forks AFB, which means the Guard will retain primary responsibility for the UAVs and an active duty unit will work with them to get the most out of this incredible ISR asset and the experience of the North Dakota National Guard.

Our current thought is to base the Predators and eventually Global Hawks themselves at Grand Forks. Using a well tested concept of operations, the Air National Guard will operate the ground control station from Hecter Field while a launch recovery element is at Grand Forks. This will provide the support to the actual aircraft platforms themselves. The intent there is to minimize our footprint of our personnel overseas in some of our areas of responsibility in combat zones. This will reduce forward deployed footprints resulting in a reduction in requirements for mobilization and in fact deployment. A perfect fit for our citizen airmen.



Another tool to be used to address future challenges is Continuous **Process** Improvement (CPI) as mentioned in our acquisition excellence section. Achieving excellence in all that we do will require us to institutionalize the precepts of CPI into our daily lives as Airmen. The Air Force is stepping up to the challenge and making the commitment required to achieve true process excellence. CPI focuses on identification and elimination of activity and actions that do not contribute value to the

operation of the Air Force. "Value" for us is defined as contribution to improved warfighting effectiveness. The power of CPI is clearly demonstrated n the results achieved with the C-5. C-5 overhaul flowdays have dropped from 339 to 171 days, resulting in lower costs and increased capabilities.

Institutionalizing this new way of thinking and operating will allow the Air Force to meet the enormous challenges of the next decade and ultimately to sustain and modernize the world's best air and space force.

### Implement New Joint Concepts

The Air Force is transforming our command and control structure by establishing new Warfighting Headquarters (WFHQ), positioned globally and replacing our old Cold War structure to provide the Joint Force Commander (JFC) with the most effective means to command and control air and space forces in support of National Security objectives. These forces will be organized and resourced to plan and deliver air and space forces in support of Combatant Commanders, enabling a seamless transition from peacetime to wartime operations. Maximum use of C4ISR technology and reach-back will be used to optimize required manpower. The WFHQ are also designed to act as the Combined/Joint Force Air Component Commander Headquarters, or Joint Task Force Headquarters.

The Joint Warfighting Space (JWS) concept is a critical piece of Operationally Responsive Space (ORS) – the ability to rapidly deploy and employ communication, ISR and other space capabilities. JWS will emphasize agility, decisiveness and integration to provide dedicated, responsive space and near-space capabilities and effects to the JFC.

JWS and ORS demonstrations will continue to explore ways of achieving new, more effective ways of providing space capabilities to the joint warfighter. As technologies mature, JWS will bring the JFC more persistent, responsive and dedicated capabilities.

Future transformational C4ISR capabilities will provide all-weather, persistent surveillance to the Joint warfighter and the Intelligence Community, and they will be tightly integrated with space, air and land assets to deliver even more precise and responsive situational awareness in support of national security objectives.

The Air Force's biggest challenge with its world class C4ISR systems remains the proper integration of these systems. The goal of our technology improvements is to integrate intelligence and operations capabilities. An integrated enterprise solution will enhance Joint, multi-agency and multi-national C4ISR collection and dissemination capabilities and will eliminate information seams among Air, Ground and Space based assets. It will also expand information superiority and accelerate decision-making. This integration allows us to achieve decision dominance, leading to knowledge-enabled operations and supporting the development and execution of sovereign options using air, space and cyberspace capabilities.

Knowledge-based operations are critical to closing the seams between Joint Forces. We anticipate a future in which each force element, no matter how small, is constantly collecting data and "publishing" it to a Joint warfighter network. Information will flow from every corner and element of the Joint Force, from ISR collectors to the warfighters. A key aspect of future C4ISR capabilities will involve replacing time-consuming human interfaces with machine-to-machine digital integration to ensure commanders have ready access to the information they need to execute their missions.

Many future concepts are being developed and test through the Joint Expeditionary Force Experiment (JEFX), a series of large-scale CSAF-directed experiments that evaluate new operational concepts, processes, and technologies to fill operational deficiencies. A sample of programs currently under development through JEFX includes:

- Machine to Machine Weather (M2M WX) provides time- and location-specific terrestrial weather data into the C2 decision making cycle. This is necessary for the calculation and visualization of environmental impacts to planned and executing operations
- SATCOM Interference Response System (SIRS) provides rapid, unambiguous detection, characterization, & geolocation of interference on critical unprotected SATCOM links
- Multi-Asset Synchronizer (PBA-MAS) automatically constructs aircraft flight paths and sensor schedules as a function of: collection requirements, aircraft and sensor capabilities, environmental constraints, and air control measures
- Intelligent Agents for Situational Awareness & Decision Support (IASADS) will enhance the situational awareness and decision support agents supporting the Combined Air and Space Operations Center (CAOC) and Tanker Airlift Control Center (TACC) for dynamic mission planning and execution. This transition provides the WCSS environment access to more direct data sources in a timely manner to increase the effectiveness of the intelligent agents.

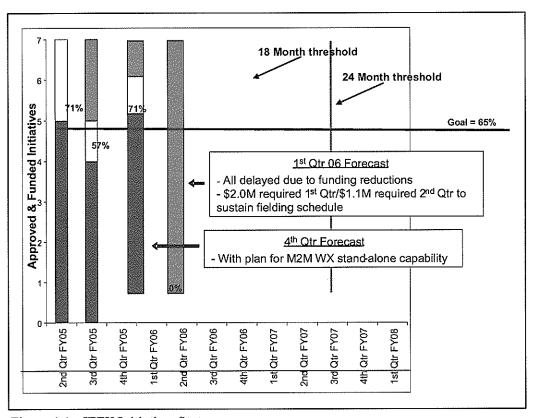


Figure 4-1: JEFX Initiatives Status

In the first half of FY05, the Air Force made significant progress in the development of these JEFX initiatives, but budget cuts in the second half of the year have significantly impacted the transitioning of initiatives to operational use.

The concepts of network-centric warfare (NCW) and the growing network-centric capabilities of U.S. forces, evident during Operation Iraqi Freedom, are transforming how we fight. Clearly, NCW is at the very heart of force transformation and the emerging way of war.

"U.S. forces must leverage information technology and innovative network-centric concepts of operations to develop increasingly capable joint forces. New information and communications technologies hold promise for networking highly distributed joint and multinational forces. . . . "

Secretary of Defense Donald H. Rumsfeld

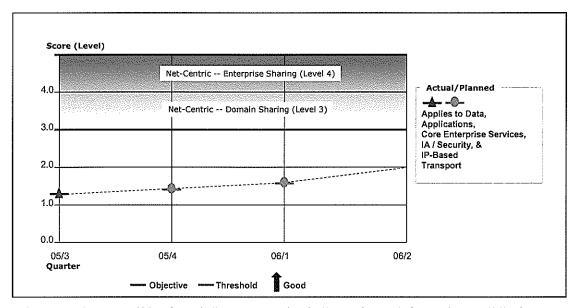


Figure 4-2: Degree of Net-Centric Implementation in Emerging and Operational AF IT Systems \*Notional Data

The development of network-centric organizations and the growing capability of U.S. forces to conduct network-centric operations are not ends in themselves. Instead, they provide an essential means to an end, the conduct of effects-based operations (EBO). Unless U.S. forces can apply their network-centric capabilities to achieve strategic, operational, and tactical objectives, these capabilities will be of little value. Achieving the full potential of net-centricity requires viewing information as an enterprise asset to be shared and as a weapon system to be protected. As an enterprise asset, the collection and dissemination of information should be managed by portfolios of capabilities that cut across legacy stove-piped systems. These capability portfolios would include network based command and control, communications on the move and information fusion. Current and evolving threats highlight the need to design, operate, and defend the network to ensure continuity of joint operations. The Air Force is continuing to make progress in meeting the DoD vision of harnessing the power of information connectivity through net-centricity. Figure 4-3 delineates the Future Challenges funding for FY04-FY07.

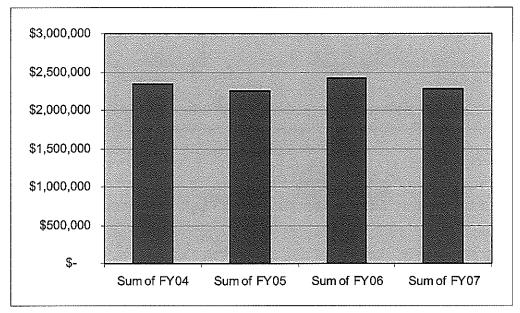


Figure 4-3: Future Challenges – Total Dollars