# United States Air Force

FY2008/2009 Performance Based Budget Overview































SAF/FMB

February 2007

#### **FOREWORD**

This FY2008/2009 Performance Based Budget (PBB) Overview Book portrays how Air Force resources are being applied and how those resources are contributing to Air Force performance goals. The Air Force Strategic Plan 2006 - 2008 and the Air Force Posture Statement describe the mission of the Air Force very succinctly: "The mission in the United States Air Force is to deliver sovereign options for the defense of the United States of America and its global interests; to fly and fight in Air, Space, and Cyberspace." The Air Force will accomplish this mission in a very challenging and dynamic environment. We have tied our FY2008/2009 President's Budget to the Department of Defense's four risk areas: Operational, Force Management, Institutional, and Future Challenges. By addressing these four risk areas, we ensure that today's operational priorities, such as supporting the Global War on Terrorism, are balanced with the needs of our Airmen and support infrastructure, while also assuring our future ability to support Combatant Commanders world-wide and operate effectively in the joint warfighting environment.

This book also continues our progress toward providing a greater correlation between the dollars we spend and the performance we achieve. We want to ensure that we continue to provide an accurate assessment of our stewardship of Air Force's valuable resources. The FY2008/2009 PBB Overview Book is intended as a guide to aid us in making better programming and budgeting decisions, not only today, but also in the future.

FRANK R. FAYKES, Maj Gen, USAF Deputy Assistant Secretary Budget)

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Risk Categories	Strategic/Outcome Goals	Performance Measures	Page(s)
<b>Operations</b>		Operations Funding	9, 10
	Implement Capabilities-Based Planning	Deliver Sovereign Options – Worldwide Engagement per Specific Operation	12, 13
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Risk Categories	Strategic/Outcome Goals	Performance Measures	Page(s)	
Institutional	30025	Institutional Funding	41, 42	
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#### INTRODUCTION

#### **OVERVIEW - TODAY'S AIR FORCE**

Over 213,000 Airmen (active and air reserve component) are globally engaged every day for Combatant Commanders (CCDRs) – Unified Commanders at United States Northern Command (USNORTHCOM), Central Command (USCENTCOM), Southern Command (USSOUTHCOM), European Command (USEUCOM), and Pacific Command (USPACOM). Over 25,000 Airmen are deployed to the USCENTCOM Area of Responsibility (AOR); over 130,000 Airman are providing Global Support conducting operations for Strategic Mobility, Space/Missiles, Homeland Defense, and Persistent Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR); and over 61,000 Airmen are forward based in Pacific Air Forces (PACAF) and United States Air Forces Europe (USAFE).



The Global War on Terror (GWOT) began with September 11, 2001. The majority of Operation IRAQI FREEDOM (OIF) and Operation ENDURING FREEDOM (OEF) sorties are flown by the Air Force—82% in support of OIF and 78% supporting OEF. Each day the Air Force generates an average of 200 sorties which are comprised of Close Air Support (86,000 sorties with 1,300 strikes since 9/11), Strike (800 sorties in the past 6 months), Inter- and Intra-Theater Airlift, Refueling, Aeromedical Evacuation (18,000 missions for 31,000 patients), and C4ISR. We have expended 38,000 guided and non-guided munitions and fired approximately 650,000 rounds.

Airmen (7,700) are performing non-traditional taskings in support of GWOT such as detainee operations, interpreters, convoy operations, explosive ordinance disposal, and police training. This heavy operational load is stressing already aged aircraft and stretching Airmen as never before.

The Air Force is engaged 24/7/365 days a year in National and Worldwide response operations. Those operations combined with the demands of GWOT require a tenacious balancing of resources. Some of those operations at home and abroad are:



- Defending the Homeland (Operation NOBLE EAGLE) includes fighter, refueling, and early warning sorties
- Homeland response provides disaster warning and the Air Force Reserve conducts 100% of all DoD Hurricane Hunting flying operations

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- Disaster relief in the Philippines took equipment and supplies to mudslide victims via C-130s and C-17s
- Air Force Reserve provided C-130s to deliver fire retardant air drops to Washington and Oregon
- Evacuation operations airlifted American citizens from Beirut, Lebanon via MH-53
- om
- Airborne Warning and Control System (AWACS) aircraft and KC-135 air refueling aircraft conducted operations in support of counter-narcotics terrorism in Ecuador.
- First F-22 was deployed to Northern Edge 2006, a joint training Total Force exercise

The Air Force has lost 127 aircraft in the GWOT or in preparing for GWOT. Table A below details those losses by type of aircraft and "category" of loss.

Aircraft Type	Contingency Losses	Non-Contingency Losses
Fighters	4	44
Bombers	1	0
Helicopters	2	3
Transport/Mobility	10	6
Unmanned ISR	30	6
Manned ISR	1 1	1
Trainers	0	19
Total	48	79

**Table A: Aircraft Losses** 

We are meeting our commitments today, but along with the stresses of the continued GWOT, we are concerned about emerging threats. The challenges to Air and Space dominance include proliferation of integrated air defenses, growth of fourth generation combat aircraft worldwide, proliferation of low observable and cruise missiles, and threats to our current ability to leverage Space and Cyberspace. Recapitalization is an urgent national security need. Our Nation must invest today to ensure tomorrow's Air, Space, and Cyberspace dominance.

#### PERFORMANCE BASED BUDGETING

Supporting Air Force operations today, and shaping the future while ensuring stewardship of resources, necessitates a structured process to measure performance/results against plans/budgets. There are multiple influences (internal and external) driving the need for demonstrating return on investment or outcomes as a result of investments. Those influences are displayed in Figure 0-1.

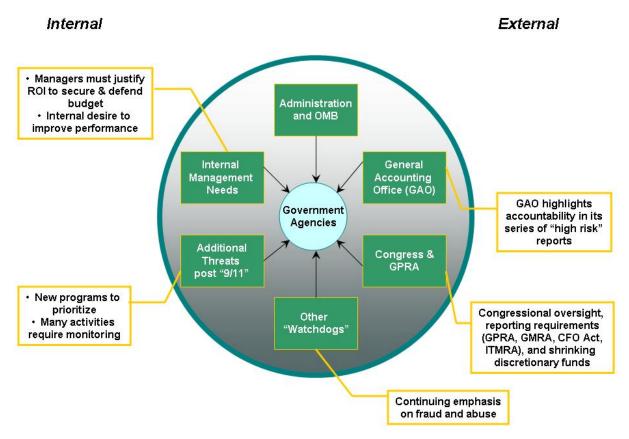


Figure 0-1: Internal and External Influences for Performance Based Budgeting

The Balanced Scorecard structure was chosen by the DoD as a performance management tool to monitor progress towards goals. The long-term success of DoD is a function of the extent to which the needs and requirements of all can be integrated and balanced, without permanently or completely sacrificing any one to the other. To ensure this success, DoD has defined four major areas which describe outcomes in terms of risk. The Air Force has further refined the DoD-defined risk areas as outlined in the Air Force Effects Management Program (AFEMP). Each Air Force risk area is accompanied by "Outcome Goals" which are listed in Figure 0-2 and described in detail throughout this publication.

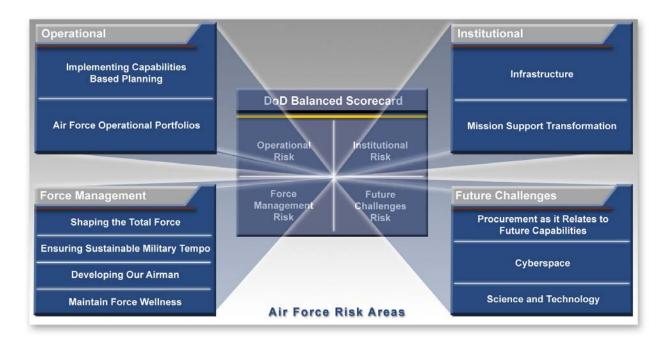


Figure 0-2: DoD Balanced Scorecard/Air Force Risk Areas

Embedded within each "Outcome Goal" are performance measures which describe measurable characteristics of products, services, processes, and operations the Air Force uses to track and improve performance. The measures discussed in this book are deemed to best represent the factors that lead to improved performance/reduced risk. The measures represented here were provided by functional experts across the Headquarters Air Force (HAF).

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 the end of the Cold War (1989), budget decisions were focused on how well the DoD could counter security threats created by a single adversary – the Soviet Union. The shaping of a budget today requires a high level of responsiveness/understanding of the impact of financial decisions on the Air Force's ability to respond to multiple threats in multiple geographies with a wide range of capabilities. The Air Force Strategic Plan for 2006-2008 states that "persistent, lethal, overwhelming Air, Space, and Cyberspace power massed and brought to bear anywhere, anytime" are the common foundation for the Air Force today and in the future. To ensure that foundation is sustained as effectively and efficiently as possible, it is necessary for the Air Force to be able to better quantify the impact of budgetary decisions. The Balanced Scorecard provides the structure to measure outcomes and risk against budget investments.

The Air Force will continue to refine methodologies for understanding how performance impacts priorities. The 2006-2008 Air Force Strategic Plan addresses new responsibilities for aligning performance measures with Air Force Priorities, Goals, and Objectives. There will be "Priority Champions" and "Objective Champions" aligned to each Priority, Goal, and Objective. Among other responsibilities, Priority Champions will be responsible for aligning performance measures to Goals and Objectives across the Air Force and garnering Air Force corporate process approval for those measures. This new process for looking at performance measures will demand additional accountability for meeting strategic goals at the Secretary of the Air Force and Chief

of Staff of the Air Force level and in an "enterprise-wide" manner. Continuing to refine measures/metrics will be a major effort towards ensuring strategic priorities are achieved.

Measures/metrics are applied across the Balanced Scorecard quadrants. Those measures are tied to goals within quadrants. Finally, Air Force Total Obligation Authority (TOA) has been allocated across the four quadrants of the Balanced Scorecard in Figure 0-3. The amount and types of funding applied to each quadrant is continually being refined by DoD and the Air Force to ensure we have balanced the risk across Operational, Future Challenges, Institutional, and Force Management areas.

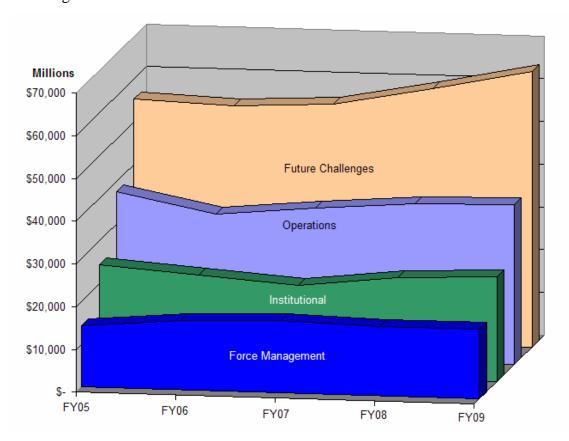


Figure 0-3: Air Force TOA in Balanced Scorecard Quadrants

#### FY08/09 Outlook

The FY08/09 President's Budget reaffirms the Air Force's commitment to defense of the United States and its interests globally. Flying and fighting in Air, Space, and Cyberspace is the mission of the Air Force – that mission is matched with the Air Force leadership's priorities set forth in the FY07 Posture Statement which are addressed within the budget:

- Fighting and Winning the Global War on Terror
- Developing and Caring for Airmen and Their Families
- Recapitalizing and Modernizing Aging Aircraft and Spacecraft

The Air Force is committed to providing the highest quality stewardship of resources entrusted to them by the people of the Nation for protection of our future against a very antagonistic enemy opposed to everything the United States stands for – freedom, toleration, and moderation.

There are four funding "pillars" – people, infrastructure, readiness, and modernization. Those four "pillars" provide the funding to our three overarching capabilities—Global Vigilance, Global Reach, and Global Power. Balancing the current war demands with future needs creates budget realities that challenge the viability of our fiscal plans:

- We have been at war for 16 years continuously
- Loss of buying power
- Pressures on modernization
- Average age of aircraft growing to 26 years
- Emerging threats/changes in the security environment
- Aircraft Recapitalization Rate is approaching 50 years
- Gross Domestic Product spending for Defense is at an all time low

Economic realities such as rising personnel costs (up 57% over the last ten years while endstrength decreased 8%) and rising cost of fleet operations (Depot Programmed Equipment Maintenance, Contractor Logistics Support, and Flying Hour Program) stresses our ability to recapitalize. Operating costs are up 179% over the last ten years and investment funding for modernization of the Air Force as a percent of TOA has declined 19% over the past 22 years. All this combined with a high Operations Temp (OPSTEMPO) and operating a smaller, older fleet are the underlying causes of a 17% drop in readiness since 2001.

As we discuss each quadrant of the Balanced Scorecard throughout this publication, we will address the challenges listed above in terms of impact on outcomes—both quantitatively and qualitatively.

The budget numbers discussed in this book are TOA which includes "Blue Air Force TOA" and "Non-Blue Air Force TOA". Blue Air Force TOA is the TOA which the Air Force has the most discretion; however, "Non-Blue TOA" impacts a variety of players and is considered a very inflexible portion of the Air Force Budget.

TYPE OF	APPROPRIATION	FY05	FY06	FY07	FY08	FY09
APPROPRIATION						
Base Realignment and	BRAC Round IV (FY 96)	149	136	134	143	141
Closure (BRAC)	BRAC Round V (FY05)	-	231	907	1,184	1,169
BRAC Total		149	368	1,041	1,327	1,309
Military Family	Military Family Housing	896	767	755	688	593
Housing (MFH) Operations	Operations and Maintenance (O&M) – AF					
Family Housing Operati	ons Total	896	767	755	688	593
Military Construction	Military Family Housing	826	1,097	1,183	363	431
(MILCON)	Construction – AF	005	1 224	1 150	012	700
	MILCON – AF	905	1,324	1,156	912	788
	MILCON – AF Reserve (AFR)	110	105	45	27	28
	MILCON – Air National Guard (ANG)	229	348	126	86	51
	MILCON – AF (2 year)	94	_	_	_	_
MILCON Total	Mileon / M (2 year)	2,165	2,873	2,510	1,387	1,298
Military Personnel	Medicare Contribution – Active AF	-,150	2,033	2,082	1,957	2,022
(MILPERS)	Medicare Contribution – AFR	_	254	268	252	254
	Medicare Contribution – ANG	_	386	410	404	429
	MILPERS – AF	26,569	23,425	23,220	24,097	24,438
	National Guard Personnel – AF	2,599	2,453	2,345	2,642	2,745
	Reserve Personnel – AF	1,422	1,236	1,336	1,370	1,406
Military Personnel Total		30,590	29,787	29,661	30,723	31,294
Operations and	O&M – AF	34,495	30,022	30,255	33,656	34,372
Maintenance (O&M)	O&M – AFR	2,263	2,533	2,613	2,692	2,772
	O&M – ANG	4,552	4,660	5,067	5,042	5,209
O&M Total		41,309	37,216	37,935	41,390	42,353
Procurement	Aircraft Procurement – AF	13,870	12,343	11,636	12,393	13,885
	Missile Procurement – AF	4,333	4,940	3,953	5,131	5,614
	Other Procurement – AF	16,493	15,205	15,436	15,421	15,947
	Procurement of Ammunition	1,313	1,032	1,050	869	913
Procurement Total		36,008	33,520	32,076	33,814	36,358
Research Development Test and Evaluation (RDT&E)	RDT&E – AF	20,478	21,784	24,384	26,712	28,978
RDT&E Total		20,478	21,784	24,384	26,712	28,978
Other	Defense Business Operations	-	306	44	60	61
	Environmental Restoration – AF	_	_	424	458	500
	Tanker Transfer Fund	90	_	_		_
Other Total		90	306	468	519	562
Grand Total		\$131,686	\$126,621	\$128,830	\$136,561	\$142,745

**Table B: Air Force TOA by Appropriation \$ in Millions** 

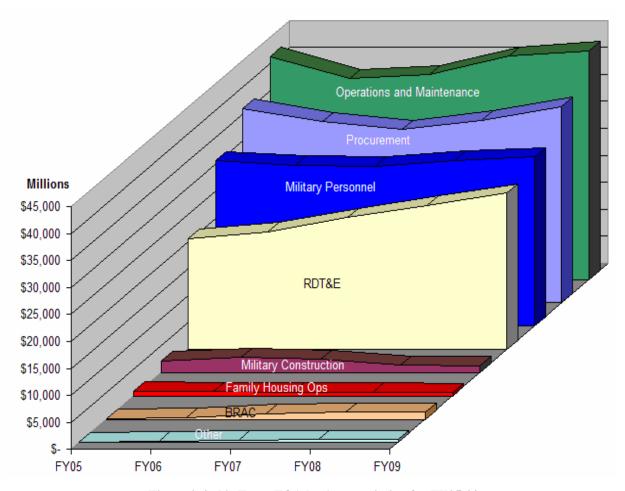


Figure 0-4: Air Force TOA by Appropriation for FY05-09

### **SECTION I – OPERATIONS**

#### **OVERVIEW**



Air Force operations contribute to the defense of the United States and to furthering our global interests. This section describes the operational measures and results based upon current and future TOA. The Air Force Strategic Plan 2006 – 2008 and the Air Force Posture Statement articulate the mission of the Air Force very succinctly: "The mission in the United States Air Force is to deliver sovereign options for the defense of the United States of America and its global interests; to fly and fight in Air, Space, and Cyberspace." The Air Force will accomplish this mission in a very challenging and dynamic environment. We must deliver world-class combat power across the

joint spectrum of operations, support CCDRs in missions from Homeland Defense to the deserts of Iraq, and across the entire spectrum of war from humanitarian operations to nuclear strike. 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 an Unmanned Aerial System (UAS) on the other side of the globe, to the C-17 pilot flying a humanitarian airlift mission and the Minuteman III combat crew on alert in North Dakota – to the security forces professional securing the perimeter of an expeditionary air base in a combat theater. Figure 1-1 depicts Operations funding for FY05-FY09. FY08 is \$37B which equals about 27% of Air Force TOA.

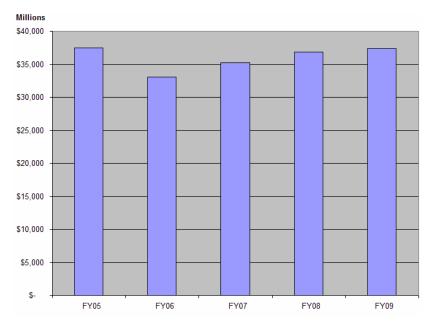


Figure 1-1: Operations TOA

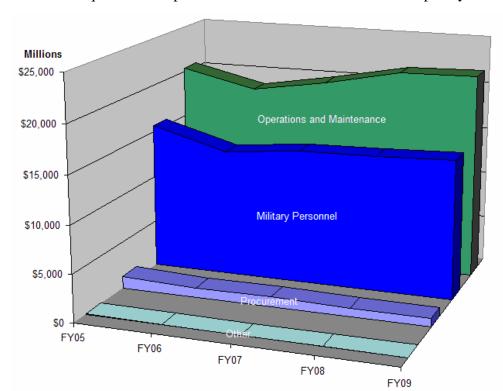


Figure 1-2 is a breakout of the Operations TOA by appropriation. As reflected in the chart, the largest portion of this quadrant is Operations and Maintenance for our weapon systems.

Figure 1-2: Operations TOA by Appropriation

The Air Force is at a critical juncture. The Service, the DoD, and the Nation are in a transition period that will shape the Nation's security for a generation and beyond. Tomorrow's expeditionary Air Force will be more agile, more compact, and more effective than ever – ensuring global Air, Space, and Cyberspace dominance for the United States in the 21st Century.

Our Air Force is committed to developing adaptive capabilities that will secure America's future from enemies that are increasingly uncertain, growing, and constantly changing. Airmen wield the capabilities to dissuade or deter potential adversaries and rapidly overcome our enemies by exploiting Air, Space, and Cyberspace. Through innovation and modification of tactics, techniques, and procedures, the Air Force can respond to both conventional and unconventional threats with a common platform.



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. Building on experience gained from natural disasters across the globe, to include Hurricanes Katrina and Rita here at home, Air Force airlift, and humanitarian relief operations were an essential element of the disaster response.

Additionally, the importance of Air Force assets to the joint fight is growing. The demand for Air Force capabilities, developed with combat in mind but often ideal for dealing with noncombat situations, is growing as well.

Our enemies and potential adversaries do not stand idle. They work relentlessly to devise new ways to confront American Air, Space, and Cyberspace power. It is, therefore, absolutely imperative we recapitalize and replace our aging aircraft and spacecraft to ensure our dominance across the warfighting domains. We must acquire and modernize systems that will secure America's freedom to maneuver, operate, and command and control expeditionary Joint Forces in the face of emerging, highly sophisticated threats. Our efforts to aggressively recapitalize and modernize our inventories of aircraft, satellites, and equipment, as well as our operational infrastructure, will be covered in more detail in the Future Challenges section of this document.

The following paragraphs will 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 look at major initiatives in the three principal Air Force Operations portfolios: Global Strike; Global Mobility; and Global Intelligence, Surveillance, and Reconnaissance (Space & C4ISR).



#### **Delivering Sovereign Options**

We continue transforming our force to guarantee we will dominate Air, Space, and Cyberspace now and into the future. Fiscal constraints, in addition to other challenges, translate into risks we continue to manage and mitigate in order to provide the Air, Space, and Cyberspace capabilities America needs. The GWOT constitutes a U.S.-led response to a globally based enemy and the Air Force contributions to winning this war include ongoing actions in Operation NOBLE EAGLE (ONE), OEF, and OIF. These efforts, along with other contingency operations, have driven a tempo that requires a more responsive Air Force. The GWOT strategy includes an ability to simultaneously conduct long-range strikes and humanitarian relief operations. To effectively execute this strategy, C4ISR assets, among others, must be coordinated and able to act in parallel to ensure mission success. Capabilities inherent in the Air Force CONOPS will meet these demands.



Many of the same capabilities that make the Air Force a powerful combat force also make it uniquely qualified for humanitarian relief operations. Moving large amounts of equipment and people, providing communications, directing large operations, and assessing and treating mass casualties have been of tremendous service to our Nation and the world. Airmen came to the aid of thousands around the world in calendar year (CY) 2006 during humanitarian operations.

In July, thousands fled Lebanon following shelling between the Hezbollah paramilitary forces and the Israeli military. Airmen safely transported American citizens from the volatile region. In August, Air Force C-17s evacuated all 188 island residents of Wake Island just days ahead of the arrival of Super Typhoon Ioke, where 155-mph winds damaged many of the buildings. December saw Airmen assigned to the Combined Joint Task Force – Horn of Africa come to the

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aid of Kenya following weeks of rain that destroyed crops and made many roads in the Dadaab region impassable. C-130 aircraft, participating in Operation Unity Knight, delivered 240,000 pounds of supplies over five days. In all these operations, space-based communications, position and navigation services, and environmental monitoring again proved essential for saving lives and property as well as ensuring ground, sea, and air forces were able to operate jointly and dominantly. The success of these humanitarian relief operations means the Air Force will continue to be called upon when similar situations arise.

#### IMPLEMENTING CAPABILITIES-BASED PLANNING

Change in the nature of conflict, as well as whom we must fight – and where – make for a very challenging and highly unpredictable warfighting environment. Because of this changed landscape of conflict, the DoD has transitioned from a threat-based strategy to one based on essential capabilities military forces will need to meet the challenges of the whole spectrum of opponents, anywhere in the world. The Air Force developed seven CONOPS designed to achieve effects through the application of desired capabilities required by Joint Operating, Functional, and Integrating Concepts (Figure 1-3), as employed by the CCDRs.

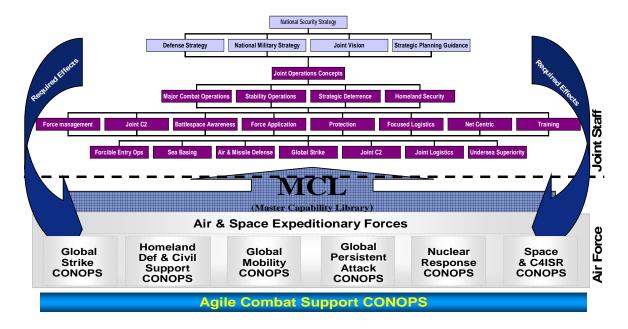


Figure 1-3: The Capabilities Planning Construct

A focus on capabilities allows the Air Force to shape future force structures into more responsive



Air and Space Expeditionary Forces (AEF). Transforming Air Force capabilities, through the reallocation of resources, will help create a more lethal, agile, and streamlined force with increased emphasis on AEF operations.

Air Force capabilities-based planning begins with strategic direction from the Strategic Planning Guidance, Joint Planning Guidance,

Defense Planning Scenarios, Joint Vision, Joint Operations Concepts, Air Force Mission, Air Force Vision, Air Force Strategic Plan, and Air Force Strategic Planning Guidance. Based on this direction, the Air Force conducts the Capabilities Review and Risk Assessment (CRRA) process. In this process, effects and desired capabilities are prioritized and linked in the Air Force CONOPS. The Air Force CONOPS are then analyzed along with Operations Plans (OPLANs), Integrated Priority Lists (IPLs), studies, and lessons learned. Capability gaps or shortfalls are identified, reviewed, and prioritized. Major Commands (MAJCOMs) focus on capability objectives to develop solutions to identify shortfalls and evaluate whether those solutions are worth pursuing. If so, the potential solution(s) may enter Air Force Capabilities-Based Development to develop an Initial Capabilities Document (ICD). The CRRA process helps guide the delivery of the Air Force budget submission, which involves integrating MAJCOM Roadmaps into an Air Force Roadmap, which then in turn drives development of the Annual Planning and Programming Guidance (APPG) and ultimately the Air Force Program Objective Memorandum (POM).

Implementing capabilities-based CONOPS in the FY08 Air Force Budget focuses on initiatives aimed at improving the delivery of Air Force capabilities through systems that produce the effects required by the CCDRs and function in the joint warfighting environment. Included here, for instance, are such programs as the F-22 and Minuteman III Intercontinental Ballistic Missile Program—the near term future of Global Strike, Nuclear Response, and Global Persistent Attack. The C-17 and C-5 in Global Mobility, and Predator, Military Strategic Tactical Relay (MILSTAR) system and Evolved Expendable Launch Vehicle (EELV) in Space and C4ISR.

Air Force CONOPS development and implementation is being tested in the heat of battle. Bringing together the capabilities inherent in Global Persistent Attack, Homeland Security, Global Mobility, Space & C4ISR, Agile Combat Support, Cyberspace, and Nuclear Response is the work of Airmen stationed at home, deployed around the globe, as well as those permanently stationed in forward theaters. Over 213,000 Air Force active duty and reserve component personnel support CCDRs overseas each day. Over 130,000 people support strategic mobility forces, space and missile forces, homeland defense and the persistent C4ISR mission. Figure 1-4 shows a snapshot of deployed personnel as of December 2006.



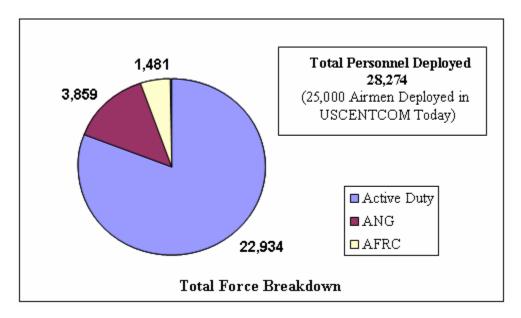


Figure 1-4: Deployed Force Snapshot

Some 61,000 are forward based in the Pacific and in Europe and over 28,000 of them, along with 290 aircraft, are deployed as part of the AEF. Airmen increasingly engage in non-traditional roles requiring ingenuity and the use of joint warfighting technology. Our missions and taskings range from typical ones like close air support and armed reconnaissance to non-traditional taskings like "outside the wire" convoy escort presence, infrastructure protection, and host nation election support. Over 7,700 Airmen now augment other Services' missions by gap-filling open warfighter taskings in some of their most stressed skill areas. They fulfill taskings such as detainee operations, interpreters, Explosive Ordnance Disposal, Police Training Teams, Military

Transition Teams, security, communications, medical, intelligence, and base operating support. Current tour length for most AEF deployments is 120 days; however, the continuing demands of the GWOT have increased tour lengths for several high-demand career fields like Security Forces, Explosive Ordinance Disposal, Transportation and Intel specialists. Overall, 36% of deployed personnel are serving longer AEF tours ranging from six months to one year. This number also includes key leaders and Airmen where continuity of operations and establishing long-term personal relationships with host country nationals is critical to success.<sup>1</sup>



We're also continuing to develop and refine the concept of the Battlefield Airman. Battlefield Airmen are Air Force special tactics and operations forces who offer CCDRs aerospace expeditionary forces trained to operate in hostile, uncertain, and non-permissive environments under severe environmental conditions. Through this development effort, we're providing

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<sup>&</sup>lt;sup>1</sup> Air Force/A300 Overall Tour Length Trends, as of 18 December 2006

common training for all Airmen and ensuring CCDRs receive professional and competent warfighters for the modern battlespace.

Finally, as Figure 1-5 shows, a significant amount of Airmen are "deployed" in place, performing missions such as nuclear deterrence and GWOT support while stationed at Continental United States (CONUS) locations. While these Airmen are not engaged overseas, the missions they perform are a vital part of the Air Force's fulfillment of National Security Strategy, Quadrennial Defense Review (QDR), and Air Force warfighting missions.

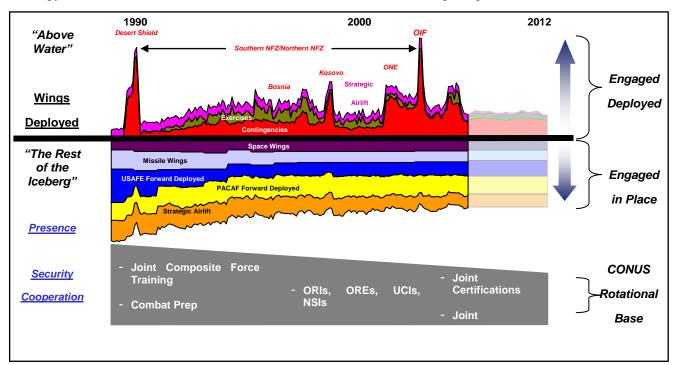


Figure 1-5: Deployed and In-Place Personnel

The work these Airmen do will refine Air Force CONOPS and directly contribute to enhanced joint warfighting effectiveness.

Successful conduct of day-to-day operations is dependent upon many factors. One of the most important is the availability of aircraft to fly missions and to sustain and maintain operations systems. The Air Force logistics community maintains an exhaustive set of data to keep key decision makers aware of this 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 1-6 shows the aggregate MC rate for a two-plus 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.

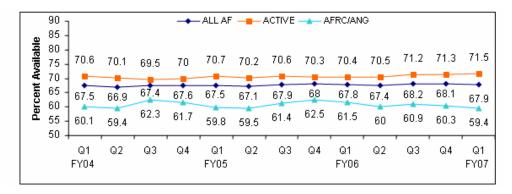


Figure 1-6: Aggregate Mission Capable Rate<sup>2</sup>

Additionally, today's operational environment is extremely demanding. The total Air Force flying hours remains the same as it was in 1993, about 2.1 million flying hours. At the same time, the total aircraft inventory is down 16% from 7,188 to 6,018 aircraft and the average age of our aircraft has increased to 24 years. Figure 1-7 shows how we are basically operating at the same OPSTEMPO, with 16% fewer aircraft than 13 years ago and, at best, 'holding the line' on aircraft readiness.

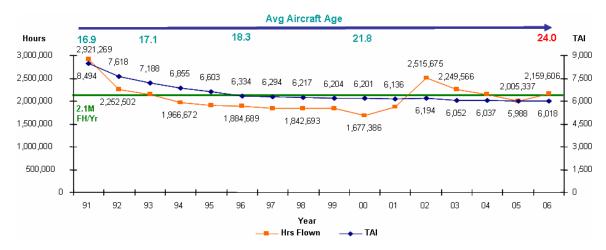


Figure 1-7: Total Flying Hours

## WHAT WE DO – THE AIR FORCE OPERATIONAL PORTFOLIOS

Air Force core competencies reside in three portfolios: Global Strike, Global Mobility, and Global Space & C4ISR. These portfolios closely align with the three pillars of the Air Force Vision: Global Power, Global Reach, and Global Vigilance. Figure 1-8 depicts how the Air Force CONOPS, put into action by the AEF, support these pillars. The Air Force is making prudent investments in all three areas, guided by direction outlined in the QDR for 2006.

<sup>&</sup>lt;sup>2</sup> Aggregate Quarterly Mission Capable Rates, 31 Jan 06

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 Weapons of Mass Destruction (WMD).<sup>3</sup>



Figure 1-8: Air Force Vision/Operational Portfolios

As a function of total forces dedicated to these areas, Figure 1-9 shows the relative changes in inventory over time. It shows there is slight growth in the Total Active Inventory (TAI) of the Global Space & C4ISR portfolio. This growth, almost exclusively due to increases in the UAS inventory, reflects the importance of persistent surveillance to all the QDR focus areas and it will continue to grow with the acquisition of new space systems. 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 systems (B-52, one squadron of Minuteman III Inter-Continental Ballistic Missiles (ICBMs), older model F-15s, and F-117s) as directed by Congress, the QDR and/or Air Force corporate decisions.

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<sup>&</sup>lt;sup>3</sup> Quadrennial Defense Review Report; February 6, 2006

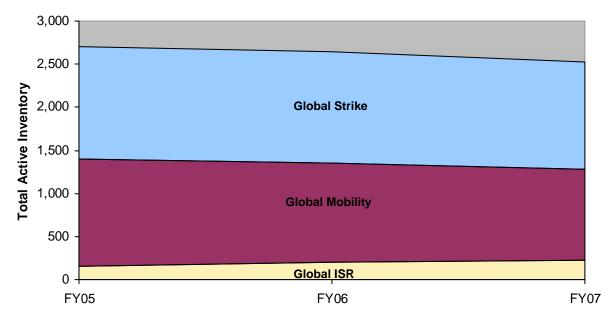


Figure 1-9: Total Active Inventory by Portfolio (FY06 Actuals)

#### Global Strike (Global Power)



The Global Strike CONOPS envisions using Air Force capability to neutralize or destroy high value/high payoff targets anywhere in the world, in and through any domain, at the time of our choosing to support Joint Force Commander objectives. Global Strike delivers two desired effects, Rapid Strike and Gain Access, to the battlespace. Rapid Strike is defined as the ability to quickly neutralize an adversary's key High Value Targets (HVTs) through and in Air,

Space, and Cyber domains at the time of our choosing to achieve national objectives. The Gain Access effect will project forces in anti-access environments and create conditions to gain and maintain battlespace access for persistent Joint Forces to operate with acceptable risk. Prompt Global Strike is highlighted by the QDR 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 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-22 and F-35 Joint Strike Fighter programs gain increasing importance. Figure 1-10 depicts operation of Global Strike forces at current tempo, indicating the continuing importance of these vital programs.

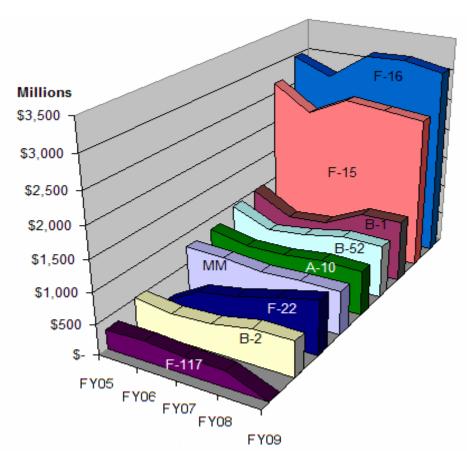


Figure 1-10: Global Strike Operations TOA by Aircraft Type



The F-22A Raptor remains the Air Force's primary air superiority fighter and provides vital operational capability across a wide spectrum, including homeland defense, cruise missile defense, and force protection. The 1st Fighter Wing at Langley Air Force Base continued to receive F-22As during CY06 and will have the final aircraft delivered in January 2007. This will bring the total to 40 F-22s. The past year also saw other milestones for the program when F-22As flew operational missions in support of ONE and when twelve F-22As deployed for the first time and participated in Northern Edge 2006, a joint

training exercise. Finally, preparations continue for aircraft, personnel, and support equipment to participate in upcoming AEF deployments.

America's ICBM force remains the foundation of our Nation's nuclear deterrent capability. Five hundred Minuteman III missiles are deployed at three bases in the north-central United States: Minot Air Force Base (AFB), North Dakota; Malmstrom AFB, Montana; and F. E. Warren AFB, Wyoming. The missiles are dispersed in hardened silos to protect against attack and connected to an underground launch control center through a system of hardened cables. Launch



crews, consisting of two officers, perform around-the-clock alert in the launch control center. A variety of communication systems provide the National Command Authorities with highly reliable, virtually instantaneous direct contact with each launch crew. This year, Congress directed the Air Force to support and sustain the system through 2030 and numerous modernization efforts are underway. These efforts are critical in sustaining the ICBM force and are, therefore, vital to maintaining America's nuclear deterrent posture into the foreseeable future.



With demonstrated operational launch successes, the EELV program continues to provide assured access to space in support of operational requirements. We will continue our DoD launch success in FY08, and efforts to upgrade to the launch ranges at Cape Canaveral Air Force Station, Florida, and Vandenberg Air Force Base, California, to ensure launch safety and mission success.

Finally, in 2005 the Air Force mission statement was revised to include Cyberspace. This explicit mention of Cyberspace reflects the recognition of cross-domain interdependence and emphasizes our non-negotiable

commitment to deliver sovereign options for the United States through dominance of Air, Space, and Cyberspace. Cyberspace dominance goes beyond communications and information technology. It requires superiority across the entire electromagnetic spectrum – radio waves, microwaves, infrared, x-rays, directed energy, and applications we have yet to discover and exploit. We have a well-established capability to operate in Cyberspace. We understand the physics, technology, and synergies required to operate in and through it. A new Cyberspace Command will stand alongside Air Force Space Command and Air Combat Command as the providers of forces that the President, CCDRs and the American people can rely on for preserving the freedom of access and commerce in Air, Space, and now Cyberspace.

#### Global Mobility (Global Reach)

The 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. The QDR states this measure will be supplemented by an even more telling one, where effects in the battlespace are what matters: the operational effects mobility forces help to achieve. As forces transition from a forward-garrisoned posture to one that requires rapid projection around the globe from U.S. bases, Global Mobility 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 fleet will include 180 aircraft, with 10 more added through Congressional action. The C-5 is the other key element in inter-theater lift, and critical enhancements for C-5 reliability continue. The Global Mobility

<sup>&</sup>lt;sup>4</sup> Quadrennial Defense Review Report; February 6, 2006

CONOPS says "air refueling has redefined the application of the principles of war." In keeping with this emphasis, the FY08 budget devotes resources to recapitalization of the tanker fleet. Figure 1-11 illustrates a portion of current mobility operations, as well as highlights continuing investment in intra- and inter-theater airlift and air refueling. Note substantial portions of mobility operations are funded within the Transportation Working Capital Fund (TWCF) and are not part of the Air Force O&M budget.

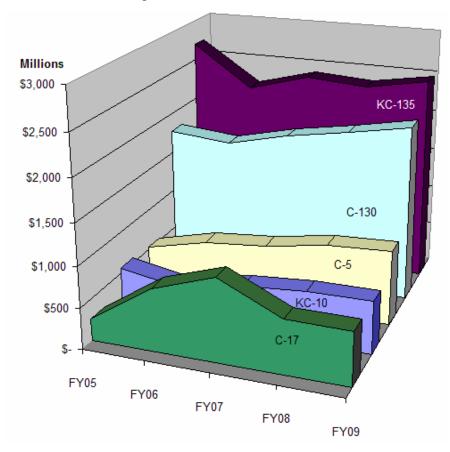


Figure 1-11: Global Mobility Operations TOA by Aircraft Type

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<sup>&</sup>lt;sup>5</sup> Global Mobility CONOPS (Working Draft); September 12, 2005

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

Timely and complete awareness of the battlespace has become an essential element in successful military operations. Capabilities contained in the third operational portfolio, Global Space & C4ISR, provide that awareness. The QDR states, "The ability of the future force to establish an 'unblinking eye' over the battlespace 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. Consequently, the Air Force will stand down the U-2 manned Intelligence, Surveillance, and Reconnaissance (ISR) platform while accelerating the acquisition of MQ-1 (Predator) and RQ-4 (Global Hawk) systems. UAS acquisition will nearly double current Space & C4ISR coverage. Further, the Predator system provides cueing for its own Strike capability, and is a key enabler for Special Operations forces.

The Global Hawk system is a high altitude, long endurance UAS that provides the joint warfighter with persistent observation of targets in day, night and adverse weather. We plan to spirally develop and field the aircraft in blocks of increasing capability, allowing accelerated delivery of useful capability to the warfighter while the system evolves to its full potential. Block 10, the first of four production variants, is being employed now in operations around the world. It provides an effective, persistent imagery capability using basic



Synthetic Aperture Radar (SAR) and Electro-Optical/Infrared (EO/IR) sensors. The larger Block 20 aircraft, which will begin development tests in early 2007, will provide 50 percent more payload capacity and carry enhanced SAR and EO/IR sensors for clearer images at greater ranges. Global Hawk has demonstrated its combat value in the GWOT and the Air Force will continue to mature and enhance its capabilities in the coming years.

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 Space & C4ISR programs continue to provide required capabilities. Figure 1-12 depicts operation of Global Space & C4ISR assets at current tempo and shows current investment in UAS and Space Systems for Space & C4ISR.

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

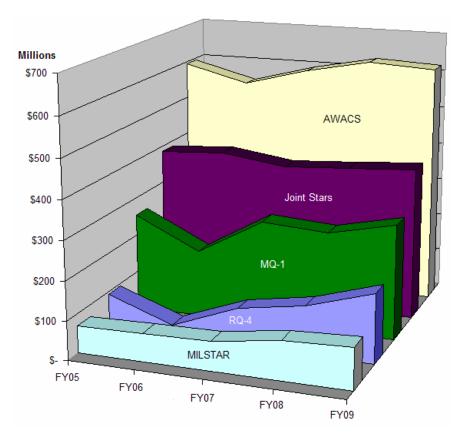


Figure 1-12: Global Space & C4ISR TOA by Weapon System

Operations across the globe and at home continue to highlight the importance of space C4ISR capabilities to U.S. and Coalition forces. These capabilities have become integral to effective warfighting operations.



MILSTAR is a joint service satellite communications system that provides secure, jam resistant, worldwide communications to meet essential wartime requirements for high priority military users. The multi-satellite constellation links command authorities with a wide variety of resources, including ships, submarines, aircraft, and ground stations and continues to be the backbone of the communications network for the DoD. In CY07, the Air Force began to implement the modernization of its satellite communications architecture with launch of the first Wideband Gapfiller

Satellite (WGS) vehicle. Each WGS satellite has more wideband communications capacity than the entire Defense Satellite Communications System (DSCS) it replaces, enabling direct broadcast of digital multimedia high-bandwidth imagery and digital video information directly from global and theater injection sites to deployed warfighters.

Additionally, providing a robust missile warning capability to the Nation through enhanced space-based ISR continues. The final Defense Support Program launch (DSP-23) is planned for Spring 2007, continuing 36 years of that program's support to the Nation. Software integration from the Space Based Infrared System (SBIRS) continues and the SBIRS Geosynchronous Earth

Orbit (GEO)-1 satellite is planned for launch in late 2008. Once fielded, SBIRS will provide a transformational leap in capability over our aging DSP system.



The Air & Space Operations Center (AOC) Weapon System is the Combined/Joint Force Air Component Commander's (C/JFACC's) tool in employing Air and Space power. The AOC weapon system, with its Theater Battle Management Core System engine, has evolved significantly since being declared a weapon system in 2001. Increment 10.1 standardizes configuration among the five deployed FALCONER systems, providing operators with greater and faster access to air battle

management information. The program team efforts continue to generate even greater system performance for the warfighters, with major improvements planned for delivery over the next two years. Additionally, the Joint Space Operations Center (JSpOC) at Vandenberg AFB California, serves as the core of U.S. Strategic Command's (USSTRATCOM) space control capability. The JSpOC is the primary command and control node for military space operations and integrates joint space operations into theater contingencies. The JSpOC consists of personnel, facilities, and resources and provides long-term strategy development, short-term crisis and contingency planning, and real-time execution, reallocation, and assessment of space forces in order to provide tailored space effects to Joint Forces worldwide. One of the main focus areas in the JSpOC is to maintain space situational awareness through the fusion of intelligence, space-based and ground-based sensor readings, and operational indications in order to allow U.S. and allied forces unfettered access to space capabilities. It also provides predictive analysis of adversary space activity and protection of national security space assets. The JSpOC continually reaches forward to CCDRs to ensure theater and global space requirements are met and provide a continually updated and accessible space Common Operating Picture for integration into current wartime and peacetime missions.

#### **SUMMARY**

The FY08 Air Force Budget reflects a careful balance in acceptance of operational risk. Expenditure on current operations is a priority as we strive to meet the goals of the QDR. Yet, preparing for future conflict by investing in the key capabilities envisioned in Joint Concepts and Air Force CONOPS is absolutely essential to assuring U.S. preeminence in the coming years. 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 2007 Air Force Posture Statement, the Air Force Strategic Plan 2006 – 2008, and the QDR. Global Strike is maintaining and divesting – or modernizing where appropriate – legacy systems. In Global Mobility, delivery of the final C-17 procurement and modernization of the C-5 will ensure the Air Force continues to satisfy strategic lift requirements. Manned reconnaissance systems, UASs and space systems are essential programs in the Global Space & C4ISR portfolio, providing the persistent coverage that the commanders in the field increasingly demand.

#### **SECTION II – FORCE MANAGEMENT**

#### **OVERVIEW**

This section is all about our Air Force people. The men and women of today's United States Air Force are the most cherished and important piece of Air, Space, and Cyberspace power. Our Air Force has been at war for over 16 consecutive years and our Airmen remain on the front lines of the Long War – GWOT. Additionally, our Airmen continue to directly contribute to worldwide disaster relief and humanitarian efforts. They safeguard the high ground of space and execute joint, interagency, and multinational missions across the full range of military operations. The

focus on our people's quality of life ensures our "primary weapon" remains ready when called upon. Force Management is about ensuring Airmen 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 \$16.2B or 12% of the Air Force's FY08 TOA Request. Funding supports sustainment and expansion of critical programs, like recruiting, joint training exercises, balance of Guard and Reserve forces, and professional and personal development of our Airmen. The FY08 program includes various bonus programs to ensure success in meeting budgeted strength levels, which will support all Air Force assigned missions. These programs will help us meet Congressionally authorized endstrength levels, while continuing excellence in our highest priority mission areas. Our Force Wellness 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 FY08 budget reflects our commitment 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 a healthy Air Force lifestyle.

Figures 2-1 and 2-2 delineate the portion of the Air Force's budget attributed to the overall Force Management mission area for FY05 – FY09.

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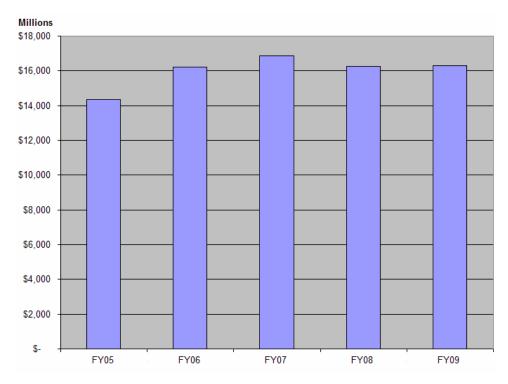


Figure 2-1: Force Management TOA

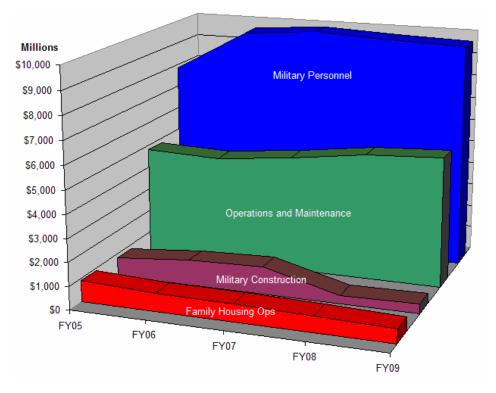


Figure 2-2: Force Management TOA by Appropriation

## SHAPING THE TOTAL FORCE

Shaping the total force, as discussed in this document, relates to the Air Force Strategic Plan goal to "provide joint and battle ready trained airmen." This goal corresponds closely with 2006 QDR's "Reshaping the Defense Enterprise." Both documents stress the importance of reshaping force management to more effectively meet the requirements of current, changing, and emerging Air, Space, and Cyberspace mission areas. Also a priority in these documents is to recruit and organize our talent pool, and use these talents toward advancements in joint training and education for complex, multinational, and interagency operations of the future.

## Balancing and Optimizing 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

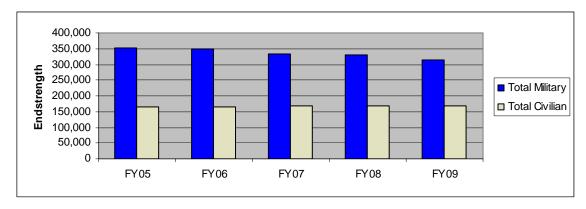
missions while shaping for tomorrow's required capabilities. In addition, more emphasis will be placed on organizing and training the force to be interdependent with our joint and Coalition partners.

The development and maintenance of our national defense structure requires a steady flow of highly qualified and motivated young men and women to perform the multitude of jobs that are available in the United States Air Force. Recruiting and retention is the bedrock for this process and is critical in shaping an Air Force that is prepared for the challenges of the future. Air Force recruiters ensure we attract the quality and quantity of young men and women needed to enlist in those available positions for which they qualify. In FY06, the Air Force exceeded its recruiting goals and also met its goal to put new Airmen into critical enlisted jobs such as pararescue, combat control, linguists, and certain health professions.

While recruiting talent remains an important role in shaping

the force, meeting endstrength levels remains a challenge. For the past few years, the Air Force has been working to balance and reduce its endstrength to authorized levels. Air Force endstrength decreases by 65,000 from FY04 through FY09. In order to reduce officer overages in FY06, the Air Force implemented Force Shaping Boards (FSBs). The purpose of the FY06 FSB was to reduce officer overages by identifying eligible officers for separation while balancing career fields and officer commissioned year groups. Prior to the board, eligible officers were offered voluntary options to transition to other forms of service in and out of the Air Force. The Air Force also waived most Active Duty Service Commitments (ADSC) to allow some officers to separate early. In addition, the Air Force is offering Voluntary Separation Pay (VSP) to officers in overage career fields and a Selective Early Retirement Board (SERB) is scheduled to convene to identify retirement eligible officers for early retirement if necessary.

To achieve the required enlisted reductions, the Air Force instituted a date of separation rollback for personnel with limitations on their assignment or enlistment eligibility and a limited active duty service commitment waiver for some retirement eligible members in overage career fields. These initiatives join the tools already in place to shape the enlisted force – Career Job Reservations (CJR), reduction in accessions, and the Non-Commissioned Officer Retraining Program. Overall, the Air Force projects a reduction of over 4,700 officers and 9,400 enlisted members by the end of FY07. Achieving these reductions will be difficult, but they are necessary to ensure the Air Force maintains the right size and mix of forces to meet the global challenges of today and tomorrow.



Active	FY05	FY06	FY07	FY08	FY09
Officer	73,252	70,539	65,776	64,948	61,128
Enlisted	276,117	273,990	264,424	259,652	248,172
Cadets	4,327	4,424	4,000	4,000	4,000
Total Military	353,696	348,953	334,200	328,600	313,300
Total Civilian	164,033	166,538	167,233	168,894	169,288
Total Active	517,729	515,491	501,433	497,494	482,588

Figure 2-3: Active Personnel Endstrengths

Another key element for success in balancing the force and retaining the most qualified individuals is our ability to target bonuses and incentives where we have traditionally experienced shortfalls. There is approximately \$649M in the FY08 budget in the recruiting area for retention bonuses for training and retaining critical skills. Career fields in key capability areas like cryptologic linguists, combat controllers, and pararescue 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 kept our recruiting team on target to meet total recruiting goals and allowed us to retain the right people in these career fields. This is evident by the improvement (i.e., right sizing) of Air Force Specialty Codes (AFSCs) as shown in Figure 2-4 which highlights enlisted AFSCs with historical shortfalls in retention and the use of legislative bonuses to help us correct these shortfalls.

	Metrics as of End Jan 06				Legislative Authority Programs			
AFSC Title	Manning	Retention	Work-tempo	SRB	IEB	SDAP	CSAIP	CSRB
1A7X1 AERIAL GUNNER	92%	98%	1.01	Χ				
1A8X1 AIRBORNE CRYPTO LINGUIST	69%	140%	2.02	Χ	Χ	Χ		
1C2X1 COMBAT CONTROL	77%	108%	1.19	Χ	Χ	Χ	Χ	Χ
1N0X1 OPERATIONS INTEL	91%	104%	1.21	Χ				
1N1X1 IMAGERY ANALYSIS	88%	98%	1.18	Χ				
1N3XX CRYPTOLOGIC LINGUIST	101%	127%	0.92	Χ	Χ			
1N4X1 NETWORK INTEL ANALYSIS	101%	118%	1.11	Χ				
1N5X1 ELECT SIGNALS INTEL EXPLOIT	124%	117%	1.02	Χ				
1T0X1 SURV, EVAS, RES, ESCAPE	71%	89%	1.46	Χ	Χ	Χ		
1T2X1 PARARESCUE	96%	110%	1.51	Χ	Χ	Χ	Χ	Χ
3E8X1 EXPLOSIVE ORD DISPOSAL	95%	98%	1.19	Χ	Χ			

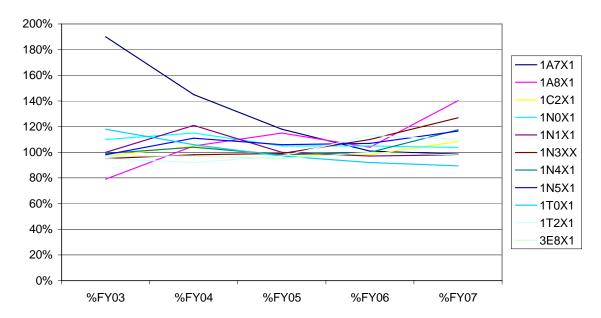


Figure 2-4: Enlisted Retention and Uses of Legislative Authorities

## Force Interdependence

The Air Force is committed to our Nation's Joint Force construct and works daily with our sister services to provide Air, Space, and Cyberspace power to CCDRs around the world. Joint Force and CCDR reliance on Air, Space, and Cyberspace capabilities around the globe will remain high for the foreseeable future.

Due to the demands of the GWOT, Airmen have increasingly augmented ground forces to provide security and stability in Iraq and Afghanistan. In addition to flying an average of 220 strike, ISR, and airlift sorties per day over Afghanistan and Iraq, our Airmen are working hand-in-hand with ground and naval forces to train and augment both Iraqi and Afghan security forces, rebuild critical infrastructure, and provide medical services to these war-torn countries. In Iraq and Afghanistan, Airmen continue to contribute to the joint war fight through electronic warfare support and nontraditional ISR support to ground patrols, and by using air mobility aircraft to reduce ground convoy requirements. These unique Air Force contributions provide economy of force and reduce risks for ground forces. For example, airlift aircraft operating in Iraq have relieved some of the resupply burden from ground convoys, removing hundreds of convoy

vehicles and personnel from potential exposure to Improvised Explosive Devices (IEDs) every day. Air Force HH-60G Pavehawk helicopters remain on alert in Iraq and Afghanistan, providing commanders with the capability to rescue isolated military and civilian personnel. Air Force Combat Search And Rescue (CSAR) underwrites the American moral obligation to ensure that we safely secure and return every member of our joint and combined team. The acquisition of the HH-47 helicopter will improve this capability and capacity.

Army transformation provides another example of service interdependence. The fielding and deployment of Stryker Brigade Combat Teams and the Future Combat System (FCS) rely heavily on Air Force capabilities to be effective. This reliance, when combined with embedded technological advancements, provides a common operational picture and allows better integration of the Services' capabilities. The Air Force believes interdependence is critical to the future of joint warfighting. Therefore, we are currently adding 700 Tactical Air Control Party (TAC-P) Airmen to work with the Army to ensure success in integrating close air fire support on current and future battlefields.

The Air Force also continues to partner with the Navy in exercises, training, and real-world operations. The Air Force provides for the common defense of the U.S. in the air and maritime environments, defending the homeland with ONE patrols and intercepts. Tactical training at the Joint National Training Center (JNTC) provides Soldiers and Airmen the opportunity to see how they will employ with their joint partners on the battlefield in the future and provides valuable "lessons learned" for their professional careers.

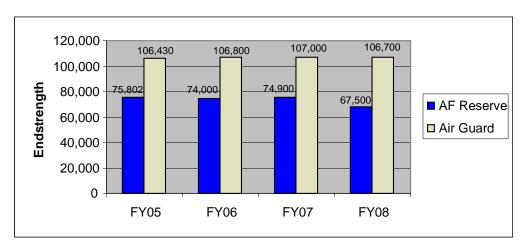
Finally, rapid Global Air Mobility is a critical national resource that our Air Force provides to the joint force. Viability of this capability requires continued investment. As President George W. Bush said, "Power is increasingly defined, not by mass or size, but by mobility and swiftness." This statement rings true now more than ever in the GWOT and the immense role Global Mobility has played in supporting all facets of the National Security Strategy. Combat operations in Afghanistan and Iraq; humanitarian relief following the Tsunami in Indonesia and the earthquake in Pakistan; disaster recovery here at home following Hurricane Katrina; and American citizen evacuation from Lebanon, are just a few examples of our Nation's reliance on rapid air mobility. On a daily basis, Air Force mobility forces support all DoD branches, as well as other government agency operations all over the world. Increased demand and decreased availability map a future that demands further recapitalization and investment to ensure the viability of this national capability. Without it, our national defense, global presence, and global power are put at increased risk.

## **Total Force Integration**

Total Force Integration (TFI) combines the Air Force Strategy goal of, "Improve the Total Force Quality of Life" and the QDR's recommendation of, "Developing a 21<sup>st</sup> Century Total Force." A common thread of today's senior leaders is the belief in, "the Total Force is one force" – Regular Component, Air Force Reserve, Air National Guard, Air Force Civilians, and contractors. In a reconfigured Total Force, we must expand opportunities to integrate personnel of all five Total Force components. Then, a new balance of skills must be coupled with greater accessibility to people so that the right forces are available at the right time.

Continuum of Service (COS) seeks to integrate Total Force personnel management policies in order to facilitate the management for both military and civilian regular and reserve component members especially in sustaining, developing, and delivering the force. COS aims to maximize the operational readiness and effectiveness of the Total Force by removing impediments to training, activation, and benefits so that members have the options to maintain a career of service to the Nation, if they so desire. COS fits neatly with on-going personnel service delivery transformation.

One of the Air Force's more significant commitments to long-term transformation is TFI. The Total Force partners in the regular Air Force, Air National Guard, and Air Force Reserve continue



to work together to maximize the Air

Figure 2-5: Air Force Reserve and Air National Guard Military Strength

Force's overall joint combat capability. These efforts enable the Air Force to meet the challenges of a shrinking budget, an aging aircraft inventory, and emerging missions. Our Total Force organizational initiatives capitalize on inherent strengths of the Air Force's three components, ensuring partnership in virtually every facet of Air Force operations, while preserving each component's unique history. Increased integration allows regular Air Force personnel to capitalize on experience levels inherent in the Guard and Reserve, while building vital relationships necessary to sustain successful combat operations. The successful June 2006 strike against Al-Qaeda leader Abu Musab al Zarqawi illustrated the seamless operation of Active, Guard and Reserve Airmen as a complete Total Force, working in close coordination with the rest of the joint team.

Part of optimizing our force is managing our progress towards the Program Management Assessment (PMA) for Competitive Sourcing. In December 2001, the Office of the Secretary of Defense (OSD) levied upon the Services a PMA target of 226K positions to Competitively Source between FY00-FY09. The Air Force share of the PMA target is 51,501. As of November 2006, the Air Force completed 29,319 positions toward 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. We made significant progress to date and have already submitted an additional 5,320 positions to OSD for review, with an additional 14,701 positions identified by our MAJCOMs for further study (these

14K positions may be impacted by the FY07 reductions). Figure 2-6 shows our progress towards a straight-line goal from FY00 to FY09.

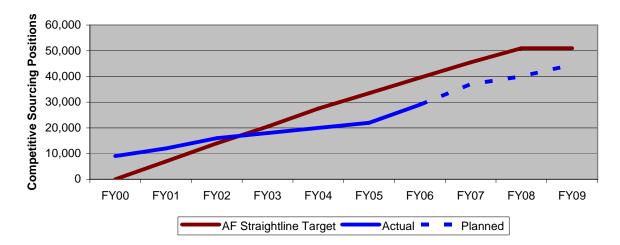


Figure 2-6: Competitive Sourcing Program

Additionally, the Air Force continues to make significant progress on our Total Force initiatives. We have identified 136 opportunities of which we are executing 19 and have secured funding for 98 additional initiatives. As examples, we established associate units at multiple locations for a variety of aircraft. These include F-22As in Virginia and Alaska, C-17s in Hawaii, F-16s in Utah, and C-130s in Wyoming. Also, Guardsmen are analyzing GWOT intelligence in Kansas and Reservists are flying operational GWOT UAS missions from Nevada. With over 100 initiatives in the planning phase and many more in the development phase, TFI is paving the way to a smaller, more capable, more affordable Air Force. More efficient use of our Regular Air Force, Air National Guard, and Air Force Reserve assets increases our flexibility and capacity to be a more agile and lethal combat force and a more vigilant homeland defender.

The dynamic security, technological, and economic challenges of this century have placed a high demand on both the federal civilian and private sector for effective and highly competent personnel. As DoD's need for highly competent people increases, competition with both the domestic private sector and the global marketplace for their services will become increasingly intense. To compete effectively, DoD must ensure that its human resource processes are agile, dynamic, and forward-looking. Personnel planning and recruiting goes beyond only looking at the military portion of the Total Force. We must also be proactive and focused to acquire the right mix of federal and contractor personnel with the right skills, at the right time. With increased emphasis on competitive sourcing, the Air Force will review over 51.5K positions by the end of FY09. The positions being studied perform commercial activities by nature, are not military essential, nor have any wartime taskings. The follow-on cost comparison studies of these candidate positions will then determine if the identified commercial-type work is best performed by the federal civilian workforce or by private contractor.

## ENSURE SUSTAINABLE MILITARY TEMPO

Ensuring a sustainable military tempo refers to the process of balancing stress levels across Air Force specialties to maintain an equitable distribution of readiness. Although the QDR does not specifically address Air Force career fields, it does stress the importance of carefully distributing skills among personnel to optimize their contributions across the range of military operations, from peace to war. The QDR refers to this as our "Human Capital Strategy," by which the Department focuses on the right mix of people and skills across the Total Force. The Air Force Strategy specifically addresses this process under its goal, "Improve the Total Force Quality of Life." By ensuring a stable and equitable career progression path within every career field in the Air Force, and being more attentive to the needs of each field, we will ensure that each has the opportunity to contribute more to our Air Force.

### Career Field Stress

Approximately one-half of the Air Force is forward deployed or otherwise supporting CCDRs throughout the world in support of the GWOT. Our Airmen continue to deliver key Air Force capabilities of Global Power, Global Reach, and Global Vigilance to ONE 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 as depicted in Figure 2-7.

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 and help us target AFSCs to better manage our force shaping activities. 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 the stress career field data as one factor to help identify specific shaping areas in bonuses and advertising focus.

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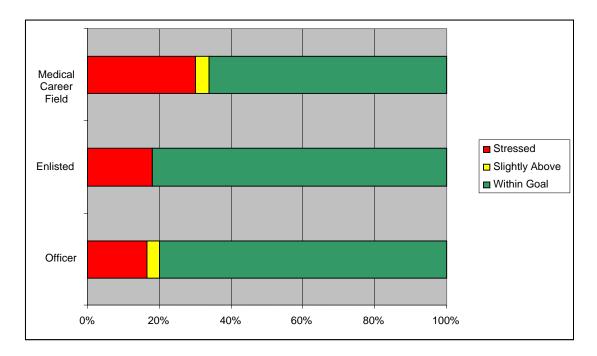


Figure 2-7: Career Field Stress

### **DEVELOP OUR AIRMEN**

Developing our Airmen refers to the personal and professional growth that the Air Force contributes to our Airmen, to include improvements in formal education and professional military training. The QDR discusses these areas in its "Developing a 21<sup>st</sup> Century Total Force" section, as does the Air Force Strategy under its goal, "Improve the Total Force Quality of Life." Both documents agree that we need a new strategy for shaping the Air Force's Total Force, one that will adjust policies and authorities while introducing education and training initiatives to equip civilian and military warfighters to overmatch any future opponent.

### Formal Education

Today's culture is moving beyond traditional Air Force and joint warfighting skills development. One main area of focus for both the QDR and the Air Force Strategy is developing a broader linguistic capability and cultural understanding. We are beginning to increase the diversity, effectiveness, and utility of education and training opportunities and mechanisms available to every Airman. Our educational programs provide increased opportunities for Airmen to receive focused cultural and language training, facilitating greater professional interaction and deeper understanding that leads to more effective operations. Instruction provides an appreciation and understanding for diverse cultures, education in regional affairs, and foreign language proficiency. One hundred percent of Air Force Academy cadets and all Reserve Officer Training Corps (ROTC) non-technical scholarship cadets will accomplish language courses. Additionally, both Academy and ROTC cadets will have increased opportunities for Foreign Language and Area of Studies degrees and will have expanded opportunities for Cultural Immersion and Foreign Exchange Programs.

## Professional Military Training

Air Force training initiatives continue to evolve and build upon our rich heritage, improving our ability to develop and retain the world's best Air, Space, and Cyberspace warriors – expeditionary, knowledge-enabled, ethical, and prepared for the interdependent warfight.

We have changed Air Force Basic Military Training (BMT) curriculum to stress expeditionary aspects in all phases of training – pre-deployment, deployment, and reconstitution – providing all of our Airmen with more expeditionary capability from day one. Beginning the 1<sup>st</sup> quarter of FY09, BMT will incorporate two additional weeks of instruction – 8.5 weeks total – to provide even more opportunities for practical application and field exercises. Finally, we've added "Airman's Time" mentoring sessions in which our veteran instructors share their real world experiences, relate daily training events to warrior and Airmanship qualities, and further reinforce Core Values expected of all Airmen.

Our enlisted BMT will also provide instruction on cultural sensitivity. Each level of Officer and Enlisted Professional Military Education (PME) will provide additional cultural, regional, and foreign language instruction, developing leaders who can articulate U.S. policy and operate effectively in Coalition settings. Furthermore, developmental educational opportunities leveraging or developing global skills, such as foreign PME schools and the Olmstead Scholars Program, will be increased and return-on-investment assured as Developmental Teams are highly encouraged to vector these Airmen to Political-Military Affairs Strategist (PAS) or Regional Affairs Strategist (RAS) career tracks.

## MAINTAIN FORCE WELLNESS

The GWOT and support to other military operations continue to tax our resources. These challenging times make it all the more important to properly maintain the capabilities of the primary weapons in our Nation's arsenal – our Airmen. The Air Force must create proactive force health protection options to ensure Airmen are healthy, fit, and safe – from accession through separation. The QDR recommends transforming the medical health system so that we have a lifetime relationship with the entire DoD family which maximizes prevention, wellness, and personal choices and responsibility. Our focus on their quality of life ensures our primary weapon remains ready when called upon.

### Health and Fitness

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 with an indirect impact on force wellness, such as housing, are included in the Institutional 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 (Figures 2-8). The Air Force measures this ability in six areas established by DoD Instruction (DoDI) in January 2006. 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'.

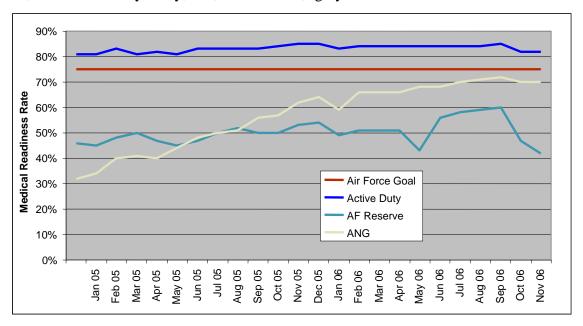


Figure 2-8: Individual Medical Readiness

## Safety

The safety of our Airmen is an essential element of maintaining force wellness. To ensure Airmen 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 Airmen for ground.

While there is no acceptable number of fatalities except zero, beginning in 2002 the Secretary of Defense provided goals to each of the armed services (shown in a dashed green line in (Figures 2-9, 2-10, and 2-11 below). The Air Force, despite a heightened intensity in sorties since September 11, made great progress toward achieving the Secretary of Defense goals as shown in the graph below.

To further ensure the safety of our Airmen, the Air Force is implementing several aviation safety efforts. The first is Military Flight Operations Quality Assurance (MFOQA). This process improves flight safety, operational efficiency, and readiness through the routine collection and analysis of digital flight data. MFOQA significantly contributes to flight safety by detecting

precursors to aviation mishaps and identifying potential mitigation measures. OSD issued an MFOQA Policy Memo on October 11, 2005 that was incorporated into an Air Force Policy Directive and Instruction, currently in the final stages of the coordination process.

MFOQA provides commanders with tools to quantify flight risks faced by the unit, and to manage the risks at a level appropriate to mission needs. C-17 fleet wide analysis indicated an Air Traffic Control (ATC) directed departure procedure required a risky lowaltitude, high-bank maneuver. Air Mobility Command (AMC) changes requested to clearance procedures and revised aircrew guidance, which reduced the risk exposure to zero. Education & Training Command (AETC) saw a reduction in low pressure incidents when oil **MFOQA** analysis validated

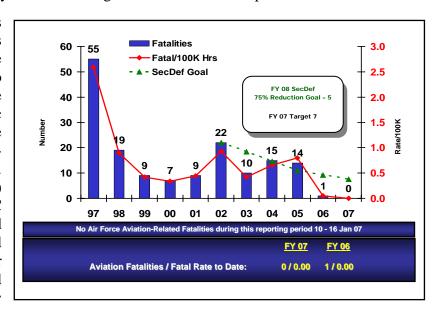


Figure 2-9: Aviation Fatality Rate

modifications to several initial pilot training maneuvers. Additional analyses drove changes to spin training for a combined low oil pressure risk reduction of over 80%.

The C-32 and C-40 fleets will initiate the MFOQA analysis process in FY07; the KC-135 fleet will be onboard by December 07. Additional platforms identified for analysis implementation include the F-16, F-22, F-35, B-1, B-2, C-5, C-37, C-130 AMP, C-130J, KC-10, UH-1N, and Unmanned Aerial Vehicles (UAVs). Data collection upgrades to several platforms have been funded. The Air Force MFOQA Task Force also allocated funding for the development of a web-based analysis system, so that analysis results will be available to aircrews and commanders through their desktop computers.

Another initiative, the Small Mobile Radar (SMR), is a highly mobile, fully automated, self-contained system capable of discerning real-time conflicts between wildlife and aircraft in the airfield environment or low level flight paths. Wildlife strikes continue to cause damages in the range of \$24M annually. With partial support funding from the Defense Safety Oversight Committee (DSOC), HQ Air Force Safety Center (AFSC), in conjunction with units operating test radar platforms, developed CONOPS and implemented five SMRs for testing across the Air Force. Multiple SMRs generate concurrent exposure to and sampling of bird migrations, their associated patterns, deployability issues, and inter-service compatibility, all in a real-time timeframe. Following the 26 July 2005 bird strike during the launch of Space Shuttle Mission STS-114, National Aeronautics and Space Administration (NASA) procured and has been using SMR technology for every launch since with zero reported strikes, and the Air Force testing is showing similar promise. For example, Dare County Bombing Range began using a SMR in September of 2003 and since it began integrating the SMR with its flight operations, has not suffered a class A or B mishap with a bird.

The Avian Hazard Advisory System (AHAS) combines 30+ year historical data and the habitat, migration, breeding, and environmental characteristics from the Bird Avoidance Model (BAM) with weather forecasts and radar data to provide near real-time bird hazard advisories. AHAS/BAM has been implemented Air Force-wide and is currently accessed by all DoD service branches, Air National Guard, and Air Force Reserve aircrews. The system promises to reduce annual losses by as much as 60%. When coupled with SMR technology in the near future, it is anticipated losses will be reduced by an even greater percentage.

The Safety Analysis Team (SAT) took 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 years' mishaps involving 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 Organizational Safety Assessment (OSA) is a powerful mishap prevention tool to assist Active Duty, Reserve, and Air National Guard wing commanders in identifying risks and hazards. Objective data and subjective feedback from safety and psychological surveys, as well as personnel interviews is provided to the requesting commander, along with safety findings, recommendations, and resources. Normally, the AFSC conducts one OSA per month and maintains aggregated data for each assessed wing. Our records indicate that a one-year post OSA history on Class A/B/C/E mishaps showed a reduction of 79% for 11 wings assessed in that timeframe. Additionally, wing commanders provide feedback to the AFSC six months after their OSA completion with each one of them providing remarkable inputs and willingness to recommend this effective tool to fellow wing commanders. OSAs at the MAJCOM level, along with the SAT process, were crucial to AFSOC mishap reductions by 144 flight and ground mishaps.

The ground safety goal has not experienced the same success as the aviation metric. Although off-duty fatalities have decreased steadily (Figure 2-10), on-duty ground fatality rates and numbers are on the rise (Figure 2-11). Consequently, in an effort to reduce on-duty fatalities and injuries, the Secretary of the Air Force has mandated implementation of the Occupational Safety and Health Administration's (OSHA) Voluntary Protection Program (VPP). VPP was designed to promote effective worksite-based safety and health through establishing a collaborative relationship with management, labor, and OSHA. VPP sets performance-based criteria for a safety and health management system and then assesses the site against these criteria. Nine installations were assessed as part of an Air Force VPP pilot project in FY06, and nine more installations are planned for FY07. These sites will benefit from the lessons learned in the 2006 pilot. For businesses with outstanding safety and health programs, successful completion of the VPP application process results in acceptance as a "STAR" site, which translates to reduced oversight by OSHA and, more importantly, to significant reductions in illnesses and injuries. The first Air Force application for VPP STAR is anticipated in 18-20 months. A variety of initiatives aimed at supporting the implementation of VPP have been funded in FY06 and FY07

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to include development and fielding of web-based safety training courses, Air Force occupational safety and health standards, safety automation tools, and other targeted intervention initiatives/demonstrations.

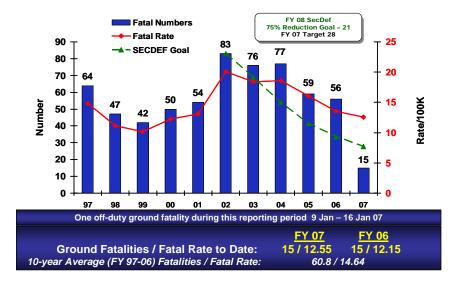


Figure 2-10: Off-Duty Ground Fatality Rate

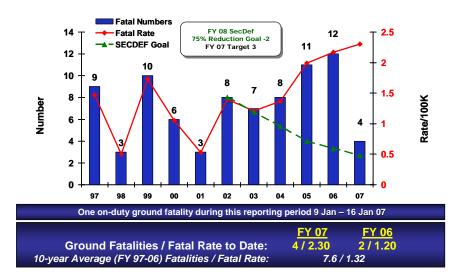


Figure 2-11: On-Duty Ground Fatality Rate

Off-duty ground mishap prevention efforts, while multi-faceted, are largely oriented toward reducing traffic related fatalities – which historically account for over 80% of all fatal mishaps. During FY06 the Air Force funded the fielding of four new traffic safety courses and is working another for FY07 that targets 18-25 year old Airmen—the highest risk age group. These courses, coupled with ongoing awareness and other efforts, have been recognized as benchmarks for the other Services.

## **SUMMARY**

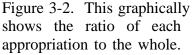
The FY08 Air Force Budget continues to focus on our people's quality of life which ensures our "primary weapon" remains ready when called upon. It balances such areas as recruiting, retention, total force integration, and wellness with the endstate of maintaining a force that has the right training, skill sets, support, and medical care required to carry out our mission. We continue to strive towards balancing our personnel needs in a reduced endstrength environment to meet today's missions requirements while shaping for tomorrow's required capabilities.

# **SECTION III – INSTITUTIONAL**

## **OVERVIEW**

The Institutional area is very broad and diverse to include our facilities. The complexity facing facility managers is enormous because of the varying states of disrepair our facilities are in across the Air Force. Some facilities are new and require minor maintenance, but the majority are older and require considerable attention. The Air Force has made a significant effort to gain control of this enormous challenge with noticeable successes, but the struggle continues in earnest. The Institutional area also focuses on activities that allow the Air Force to control resources efficiently and promote effective operations leading to mission accomplishment. These activities include energy conservation, improvements in finance and accounting procedures, streamlining the contracting and acquisition processes, and including risk in decision making. Maintaining an infrastructure that is modern, safe, and efficient requires the Air Force to adopt a culture of continuous process improvement. Facility recapitalization must meet operational requirements to include utilities, annual service contracts, and emergency services. Military Construction (MILCON) projects will be designed to support the modernization, upgrade, and transformation of depots, dormitories, housing, fitness centers, child care centers, and the myriad of other base facilities.

The total Institutional dollars in FY08 are \$23.7B or about 17% of total TOA (Figure 3-1). This increase is mostly in the areas of BRAC requirements, O&M, and Environmental Restoration. The figure further illustrates the Air Force leadership recognition of the need to invest in institutional areas as this increase in funding trend continues in FY09. A more vivid depiction of this trend in TOA is shown by appropriation in



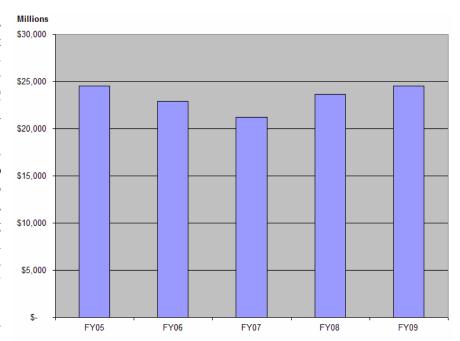


Figure 3-1: Institutional TOA

The figure illustrates the huge investment the Air Force is making in maintaining current facilities through the O&M account and the large body of personnel required to support this effort. One means to achieve Air Force budget goals in the future is to work to dramatically improve our current investment in Institutional efficiency across all functional areas.

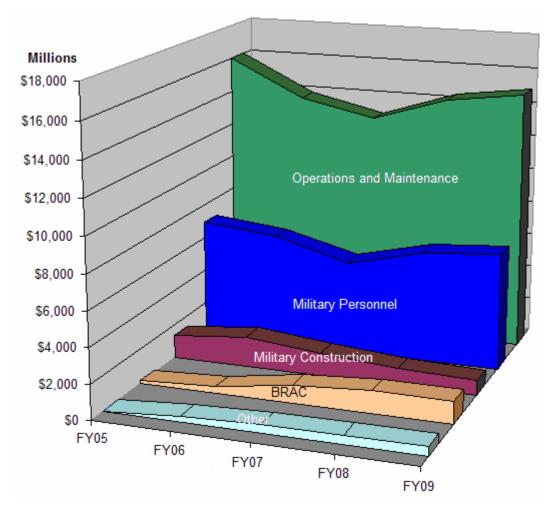


Figure 3-2: Institutional TOA by Appropriation

## **INFRASTRUCTURE**

### **Facilities**

### Improving Sustainment, Restoration, and Modernization of Operational Infrastructure

Air Force is committed The to modernization and recapitalization necessary to maintain the health of the force and to 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 CCDRs. Realizing these economies, OSM will improve Air Force-wide enterprise efficiency and provide a resources shift from business and combat support systems; thus 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 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 and infrastructure are key enablers of the Air Force mission. Mission capability at every Air Force installation is directly underpinned by its facilities and infrastructure systems. The facilities sustainment, restoration, and modernization programs are key budget programs that support the Air Force mission by maintaining the physical plant. Sustainment is the bedrock program, funding both in-house and contract maintenance, to include repairs on facilities and infrastructure systems. Sustainment preserves our existing investment by maximizing the service life of the physical plant. Restoration and modernization is also a critical program which funds contract repairs of facilities and infrastructure. This program is essential in supporting restoration following storms and other disasters, as well as facility modernization to meet new mission requirements and current standards. Restoration and modernization is required to support transformation and future total force initiatives, which will seek new efficiencies through consolidation and streamlining. Most transformational initiatives cannot be realized without an investment in the enabling facilities and infrastructure.

The Air Force continues to refine their comprehensive asset management strategy for facilities, utilities, and other infrastructure. Through the development of comprehensive models, based on industry standards, the Air Force accurately projects funding requirements for support of the physical plant. The Facilities Sustainment Model (FSM) and the Facilities Recapitalization Metric (FRM) are used to project sustainment, restoration, and modernization requirements, respectively. Additionally, the Department has fielded a new model, the Facilities Operation Model, which projects the requirement associated with the operation of facilities and infrastructure. Together, this trio of models provides a solid foundation for both projecting requirements and assessing our budget performance against an objective goal. How well we fund our facility programs compared to the model goals will be our measure of merit. Facilities and infrastructure systems are critical to the operational effectiveness of Air Force units. We are committed to ensuring Airmen in every mission area are supported by safe and efficient facilities and infrastructure.

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### **Facilities Recapitalization and Sustainment Rates**

A key measure of how well we are achieving our vision is the rate of recapitalizing at our installations. The FRM is the number of years required to regenerate a physical plant either through replacement or major renovation at a specified investment level. Another key measure is the percent funding for FSM generated sustainment requirements, which is a measure of how well the facilities are being sustained. The Department's goal for recapitalization is 67 years and the sustainment goal is 95% of the requirement generated by the FSM. Figures 3-3 and 3-4 show the Air Force's current status to meet facilities recapitalization and sustainment goals.

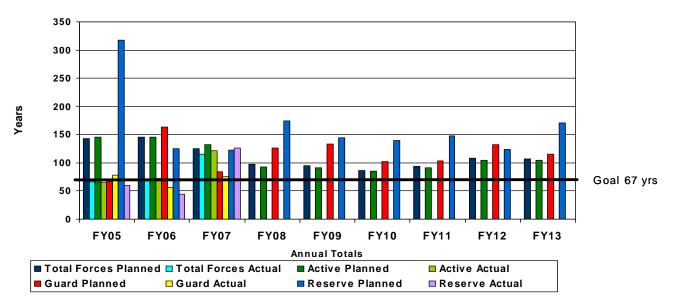


Figure 3-3: Facilities Recapitalization Rate

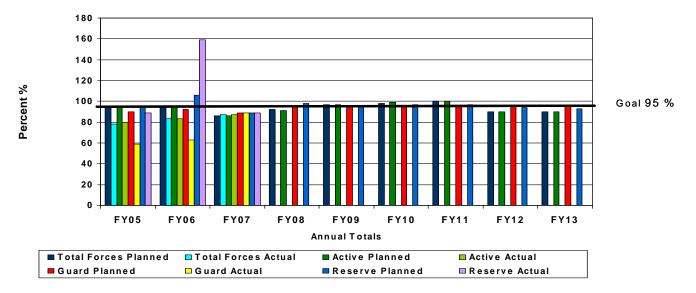


Figure 3-4: Facilities Sustainment Rate

### **Improving Facilities Operations**

Another important measure highlighting how well we are achieving our vision is our ability to meet essential Facilities Operation (FO) requirements. FO provides fundamental municipal-type activities such as utility plant operations, purchased utilities, annual services contracts, and emergency services (fire protection/crash rescue, Explosive Ordnance Disposal, and disaster services). The FO Model is an OSD-sponsored initiative to underpin this important account with a credible, industry-based model. Our goal is to succeed in meeting the DoD "Vision" which is to ensure that installation assets and services are available when and where needed, with the joint capabilities and capacities necessary to effectively and efficiently support DoD missions.

### **Military Construction (MILCON)**

The Air Force has taken risk in facility and MILCON funding 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 for recapitalization through the Fiscal Year Defense Plan (FYDP).

#### **Dormitories**

Investments in dormitories continue to yield superior housing to our unaccompanied members. We have over 3,000 dormitory rooms programmed for funding over the next six years. Approximately 75% of these initiatives will rectify currently inadequate dormitory conditions for permanent party members. In particular, our "Dorms-4-Airmen" standard is a concept designed to increase camaraderie, social interaction, and accountability. The remaining dormitory program modernizes inadequate "pipeline" dormitories that house young enlisted students during their initial technical training.

### Housing

Air Force housing investment underscores our emphasis on developing and caring for Airmen. 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 4,200 homes through military construction. We are on track to meet our FY09 goal of eliminating inadequate housing at overseas locations.



### **Environmental**

#### **Natural Infrastructure**

The near- and long-term readiness of combat forces within the DoD depends on several interdependent factors: the right people, the right weapons, and the right 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 well-known examples of 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 been managed differently; based largely on successfully meeting environmental compliance requirements set by entities outside of DoD. not necessarily based on military or mission needs (Figure 3-5). Not surprisingly, DoD installation managers' ability to provide natural infrastructure sufficient for military needs has become more challenging

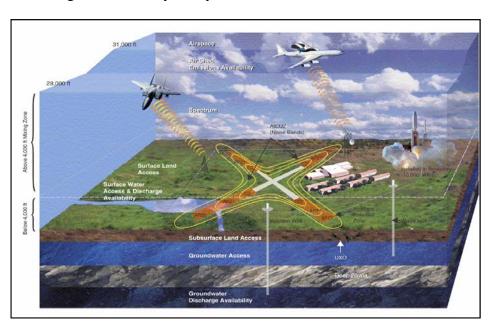


Figure 3-5: Picture of the Natural Infrastructure

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 defined as encroachment.

Natural Infrastructure Management (NIM) represents a new management paradigm that encompasses, yet moves beyond, compliance-based environmental program management. NIM 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 sustain the natural infrastructure so that it is fully "capable" as defined by mission requirements.

### **Energy Conservation and Energy Alternatives**



We are pursuing an aggressive energy strategy and are committed to meeting and surpassing the energy goals mandated by the Energy Policy Act of 2005 (EPAct 05) and other national policies. We successfully reduced our energy consumption in accordance with past legislation and continue to use a variety of programs aimed at reducing our use of fossil fuels and controlling energy cost growth. Our vision is to create a culture where all Airmen make energy a consideration in all their actions. We aim to implement our vision with solutions that include alternate sources of domestic supplies of energy, as well as an aggressive use of innovative opportunities in our facilities and vehicle fleets.

### "Green" Air Force Bases

The Air Force remains the largest renewable energy purchaser in the U.S. Our commitment to install 18 megawatts of solar photo-voltaic energy at Nellis AFB is one example of our aggressive pursuit of on-base renewable power generation. Currently, 37 bases meet some portion of their base-wide electrical requirements by using alterative sources such as wind, solar, geothermal, or biomass. We have several projects planned, in design, or under construction to expand this capability. With our combined purchase and production strategy, the Air Force is poised to surpass renewable goals set by EPAct 05.

The Air Force applies sustainable development concepts in the planning, design, construction, and operation of facilities using the Leadership in Energy and Environmental Design (LEED) certification. Our long-term goal is to ensure 100 percent of eligible new facilities are LEED certifiable by FY09. This complements our use of facilities construction and infrastructure improvement programs designed to create cost effective energy efficiencies in new and existing facilities.

## MISSION SUPPORT TRANSFORMATION

# Information Technologies and Communications

The Air Force leads the charge in Information Technology development for our National Defense. The Information Age presents new threats and new theories towards warfare. Network

Centric Warfare, which involves human and organizational behavior, as well as the connectivity of capabilities to achieve effects, provides a new way of thinking – a new mental model. The Air Force is investing in technologies to ensure individuals and systems are linked, or networked, so the right information is delivered to the right person at the right time in the right format.

In order to deliver the right information, the Air Force needs to continue to modernize and recapitalize our information technology infrastructure. To leverage our information superiority, the Air Force is pursuing a modernization strategy with information technology investments, which target a common network infrastructure and employ enterprise services and shared capabilities.

### **Technology and Transformation Enablement**

The Air Force has also made progress in a number of areas that combine technology enablement, information transparency, and process improvement. These include:

### National Defense Authorization Act (NDAA) Certification and Portfolio Management

The Air Force has leveraged DoD enterprise transition planning and mandated certification reviews by ensuring all business systems development supports the Agile Combat Support (ACS) CONOPS and integrates into the Air Force architecture. This results in the planned shutdown of 486 legacy systems by 2012 and returning those resources to other requirements (Figures 3-6 and 3-7). The Operations Support Modernization Program (OSMP) envisions an integrated enterprise that transforms present day systems into future services sharing trusted, authoritative data across the enterprise. Reaching beyond mandated reviews, OSMP actively manages costs in its cross-functional portfolio for investment into the Global Combat Support System-Air Force (GCSS-AF) to enable the future vision.

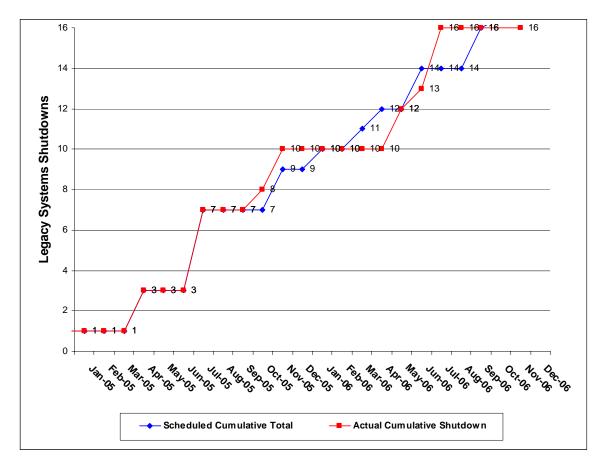


Figure 3-6: Planned vs Actual Legacy Systems Shutdown (Jan 05-Dec 06)

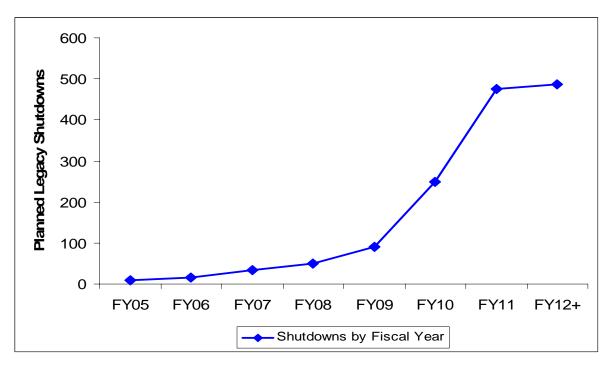


Figure 3-7: Planned Legacy Systems Shutdown (FY 05 – FY12)

Air Force Materiel Command/Electronic Systems Center (AFMC/ESC) will continue to advance major technology initiatives, and further the coordination of those initiatives through ongoing Portfolio Management efforts. These bring together program managers to coordinate delivery of system milestones, to minimize operational risks and disruptions, and maximize the realization of expected benefits from major investments. We have recently begun publishing a coordinated high-level schedule that encompasses our GCSS, Expeditionary Combat Support System (ECSS), Defense Enterprise Accounting and Management System-Air Force (DEAMS-AF), and Defense Integrated Military Human Resources System (DIMHRS) programs; this schedule will be updated with the program managers on a monthly basis.

#### **Transparency**

The Air Force will achieve transparency by ensuring that the process of transforming data into information for use at all echelons of Operations and Operational Support for decision making is authoritative, trustable, traceable, auditable, and of proven value. Transparency uncovers and makes available the functional and mission area data currently stored and utilized in a stovepipe, proprietary manner. To support cross-domain or cross-mission endeavors, transparency defines an architecture, identifies standard data naming conventions (taxonomy), and builds the data foundation needed for easy discovery, use and reuse of data, and implementation of a Service-Oriented Environment.

## Service-Oriented Environment (SOE) and Service-Oriented Architecture (SOA)

Under an SOE, the Air Force will provide services based upon trusted, authoritative data, shared across the enterprise. This enables a lower cost for development and a higher level of performance for net-centric information capabilities needed by combat and support missions. We will make available functional and mission area data currently stored and utilized in a stovepipe, proprietary manner by defining and building a framework for easy discovery, use, and reuse of data. This enables our legacy systems to migrate towards a SOA. We expect that successful implementation of an SOA framework will provide better service and will enable the Air Force to drive down the life-cycle costs of sustaining and modernizing data systems Air Force wide by \$8B over the next ten years.

### Operational Support Modernization Initiative (OSMI)

Air Force OSMI funding provides initial resources for process based studies and process reengineering efforts identifying key areas of Air Force payoff. For example, OSMI identified system redundancies in flight scheduling, training management, and enterprise business systems. With \$65.2M already invested, and another \$64.3M identified for FY07, the Air Force works through the corporate structure to monitor all operational support modernization investments and ensure savings are identified and captured. These savings are then recapitalized for future operational support modernization initiatives, which Air Force senior leadership feel have high potential for enhanced operational impact and further savings.

## Global Combat Support System Air Force

Through increasing use of GCSS-AF, the Air Force has improved the quality of information, reduced duplicative data entry by sharing authoritative data, consolidated security access, and reduced the number of redundant websites by hosting content on the Air Force Portal with a common set of tools. Also they have refined processes and training, laid the foundation for

significant reductions in point-to-point interfaces between systems for information sharing, and reduced duplicative infrastructure to save a minimum of \$75M a year.

## Financial Management Transformation

The Air Force has begun to review and revitalize acquisition and related processes to improve cost and schedule control and performance assurance. We will measurably ensure greater control over the performance of Air Force acquisition processes. We will produce and field systems as they mature and then expand their capability through evolutionary acquisition.

The Air Force's move toward financial transparency is a key component of the DoD Financial Improvement and Audit Readiness (FIAR) Plan. The FIAR Plan is a financial management improvement plan that aims to improve DoD financial health and prepare the Components for financial statement audits and is fully integrated with the Department's Business Transformation efforts. The Air Force has been a leader in the FIAR efforts since its implementation. Under this plan, four Air Force audit readiness assertion packages have already been submitted and three more financial statement lines are planned for assertion in the next two years. These assertions identify specific areas within the Air Force that are ready for an external audit by either the DoD Inspector General or an Independent Public Accountant.

Another step the Air Force has taken is the establishment of a Financial Management Community of Expertise (COE) and the Air Force Financial Services Center (FSC). The COE provides MAJCOMs and bases with standardized tools and consulting services to help them improve their financial management practices. As shown in Figure 3-8, the COE is showing significant impact. The FSC will take advantage of emerging technologies and consolidate travel and military pay functions in one location for the Air Force. The Center will provide a processing center for vouchers and a call center for questions and problems. Along with more efficient pay operations, this Center will allow for significant manpower reductions at base Accounting and Finance offices.

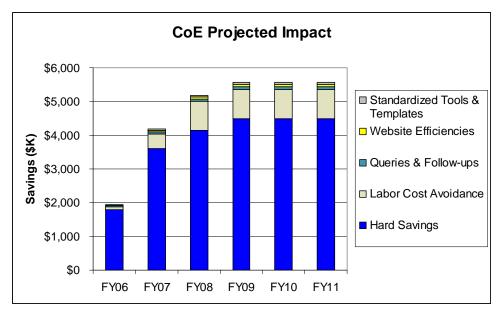


Figure 3-8: Center of Expertise Value (\$K)

## Clean Audit Quick Look

Warfighters increasingly perform their missions within an environment of limited resources and reduced manpower. The availability of necessary resources can be best assured when decision-makers at every level have the best information possible upon which to base the many decisions that consume those scarce resources.

In order to achieve greater levels of information fidelity, the Air Force is committed to improving transparency in its business processes, to include Financial Management. A clean audit opinion defines a major objective of this commitment.

Financial transparency requires the Air Force to have processes and procedures in place that ensure data is accurately collected at the source, flows effectively and efficiently through to reporting systems and analytical tools, and is error-free.

Our core values demand that we always remain good stewards of the resources entrusted to us. While maintaining our warrior focus, we must appreciate that organizations at all levels of the Air Force have responsibilities to execute efficient, business-like operations. We must develop processes that take advantage of shared information; make decisions based on timely, accurate, reliable data; and conserve resources by improving processes. Today, decisions are made in ever-tighter cycles. Transparency in our processes and practices is the linchpin to producing sound decisions. We must commit to ever-higher levels of openness and excellence in our management processes. Transformation of the "business" side of them will not only lead to operational efficiencies, a "clean audit," and improved credibility, but will also lead to more effective and timely decisions where they matter most – in combat.

# Personnel Services Delivery Transformation

Personnel Services Delivery (PSD) Transformation is an initiative that uses technology to place the capability for completing routine personnel and pay transactions into the hands of Airmen via secure, web-based applications with centralized assistance from personnel contact centers. The easy-to-use, and worldwide accessible tools, will minimize the need for face-to-face assistance with individual members' personnel transactions and put the individual more in control of managing their career information on a 24 hour, 7 day a week, basis. The current everyday use of MyPay and LeaveWeb in the office, combined with personal electronic banking, shopping, and other Internet activities are examples of how our Airmen routinely use web-based services. PSD Transformation will enable Airmen to manage their personnel business the same way – with fast, efficient, secure, and accurate online personnel services.

The goal of PSD Transformation is to move 85 percent of Military Personnel Flight (MPF) actions online; however, it doesn't mean Airmen still can't get personal customer service. The focus is on centralization of effort to simplify the personnel process – now Airmen can make transaction at their convenience in a few minutes instead of what normally might have taken a couple of hours by going to the MPF. Several processes like retraining and retirements are already self-initiated via the Web with support being centrally managed at the Air Force Contact Center in San Antonio, Texas. The PSD Transformation is a four-phase program that continues through 2011.

## Acquisition Process Improvement

## **Acquisition Reform**

The Air Force continues in its goal of streamlining the acquisition process to provide more efficient and responsive services to the warfighter. A number of completed and ongoing projects have contributed to the improvement of acquisition, and FY08 promises more progress. For example, the Air Force is working to establish and enforce standards for transparency in acquisition and other business processes that are commensurate with "best-in-class" public and private sector organizations. Financial transparency is essential to good governance, and good governance is vital to ensuring our Air Force can produce and field the systems with which we will fly and fight. We will continue to perfect the processes that promote good governance through transparency.

We are also working to produce accurate, reliable, and timely life-cycle financial data throughout the Planning, Programming, Budgeting, and Execution (PPBE) process. We will be better stewards of the resources entrusted to us by committing our workforce and other resources to producing sound data for use in our acquisition system. We will ensure the validity of this data at every stage of the acquisition decision-making life-cycle.

Assessments of potential solutions should involve the acquisition community's judgment of technological feasibility, cost-per-increment of capability improvement, and the assessment of affordability. These inputs will be provided early in the decision-making process, before significant resources are committed. Once an investment decision has been approved, changes will require collaboration among all three communities at the appropriate decision level to ensure strategy-driven, affordable, and achievable outcomes.

We have revitalized the Acquisition Strategy Panel, providing a systematic and disciplined approach to develop an effective acquisition program roadmap. The newly developed Air Force Review Board process provides a structured and repeatable system that aids decision-making on critical aspects of selected acquisition programs. We have also streamlined periodic review processes by combining several independent reviews into a single event, saving preparation and travel time.

In 2006, the Defense Acquisition Performance Assessment (DAPA) made a number of recommendations for improving the acquisition system. The Air Force is in the process of evaluating and implementing some of the key recommendations of the DAPA report. For example, the Air Force is exploring the concept of Time Certain Development (TCD) as the next step in evolutionary acquisition. TCD involves structuring a program to deliver its initial capability to the warfighter at an explicitly specified (and much shorter) interval. Such a policy helps improve the responsiveness of the acquisition system and keeps our warfighting capabilities aligned to current threat conditions.

### **Risk Analysis**

To enhance the credibility of the acquisition system, the Air Force is strengthening its efforts to more fully analyze risks prior to initiation and execution of a program. The Air Force is prototyping the Probability of Program Success model, a framework for identifying and reporting risk issues that threaten a developer's ability to deliver on time and on budget. The use

of this model has the potential to clearly highlight risk areas that require the program manager's attention.

We will also incorporate flexible risk management approaches to technology transfer, information sharing, and interoperability. We will better understand and make more explicit the risks we must manage when we work together with joint, allied, and interagency partners to create a more capable team. Sharing technology, information, and responsibility for operations requires us to be more open to new ways of doing business that may be unfamiliar, while remaining focused on operational success and security in everything we do.

## **Contracting Improvement**

The Air Force is improving the source selection process, ensuring appropriate use of incentives, assessing current contracting organizational alignments, and effectively implementing strategic sourcing strategies. We are committed to providing outstanding support to contingencies and to the warfighter, by acquiring commodities and services by the most effective and efficient means possible. The Air Force continues to maintain the majority of the deployed contracting assets in the Iraq/Afghanistan AOR, and we remain dedicated to supporting the CCDRs through Joint and Air Force taskings.

## **SUMMARY**

Progress is being made in many areas. Housing standards have been raised and quality of life is improving on many bases. Efforts to retire outdated legacy information systems with time saving modern technology is moving forward and efforts to find ways to meet the mission while respecting the environment are providing positive results. However, continuing to meet these challenges in a constrained budgetary environment will take ingenuity and perseverance.

# **SECTION IV – FUTURE CHALLENGES**

## **OVERVIEW**

The challenges of the 21st Century call for our armed forces to be agile, lethal, and readily deployable with minimal 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 disable or destroy targets almost instantly, with an array of kinetic or non-kinetic weapons. This section of the Balanced Scorecard includes the Air Force's investments in designing, developing, testing, and fielding new capabilities. This includes science and technology activities and university research initiatives to advance our TFI capabilities and our ability to support New Joint Concepts. It addresses QDR decisions to further develop capabilities to locate, tag, and track targets in all domains including Cyberspace; to champion persistent surveillance; to develop systems with greater range and larger payloads; to recapitalize and modernize mobility platforms; and to expand ISR capabilities to meet multi-intelligence and information integration requirements. This quadrant's TOA has changed from the FY07 PBB in that it now includes Procurement and RDT&E of operational systems. The FY07 PBB includes these funds in the Operational quadrant. We changed this for FY08 since investments in operational platforms are really an investment in our future capabilities and should be reflected as such. The Future Challenges area makes up \$59.8B of the Air Force FY08 Budget or about 44% of the total as reflected in Figure 4-1.

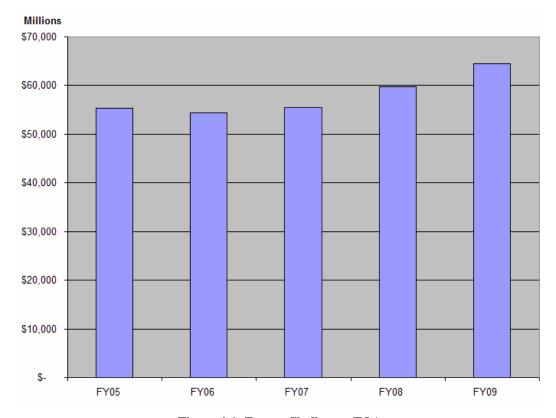


Figure 4-1: Future Challenges TOA

Figure 4-2 is a breakout of the Future Challenges TOA by appropriation. As reflected in the chart, the largest portion of this quadrant is Procurement funding and RDT&E.

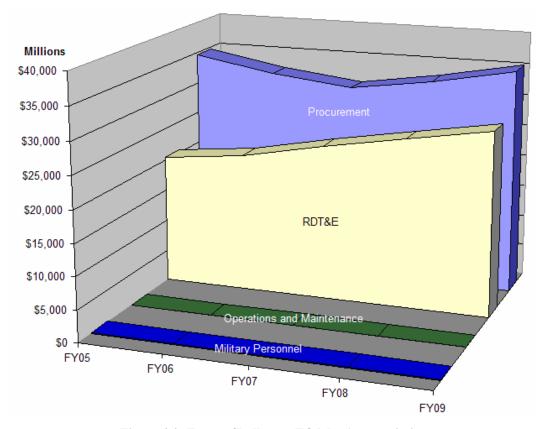


Figure 4-2: Future Challenges TOA by Appropriation

## The Challenges We Face

In support of the National Defense Strategy and the QDR, we are shifting Air Force capabilities to address irregular, catastrophic, and disruptive challenges while sustaining capabilities to address traditional challenges as shown in Figure 4-3.

The U.S.'s competitors increasingly strive to find new and creative means to challenge U.S. primacy in the Air, Space, and Cyberspace domains. While we have successfully leveraged technology in our favor and maintained our position at the leading edge in the development of both offensive and defensive capabilities, we

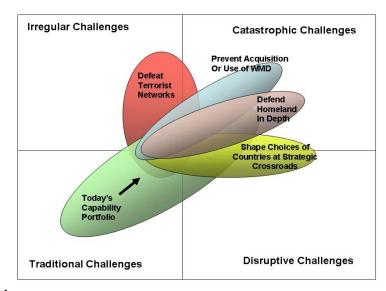


Figure 4-3: QDR Portfolio of Shifting Capabilities

can ill-afford to drop our guard now. Integrated Air Defense Systems (IADS) and Surface-to-Air Missile Systems (SAMS) continue to evolve. IADs are incorporating more sources of data and increasing the speeds at which information is passed. Proliferation of these more capable systems is increasing. The world's combat aircraft are also becoming highly sophisticated, and the potential for these complex and capable weapon systems to come into the possession of enemy states is becoming more likely. An increasing number of states are not only acquiring advanced threat aircraft, but are developing their own capabilities to produce them. The House Armed Services Committee Defense Review Report, dated December 2006, specifically discusses the threat of more advanced fighter aircraft such as the Chinese built J-10 multi-role fighter, which is domestically built, and the Russian built Su-27 Flanker with precision weapons that give them "rough parity" with U.S. and Ally fourth generation combat aircraft. The result is a greater likelihood of advanced weapon system proliferation, which the Air Force must be prepared to meet. The threat from the development, fielding, and proliferation of standoff weapons, such as long-range cruise missiles, will also supply potential adversaries with offensive capabilities of increasing accuracy and range. When combined with their relatively small size, cruise missiles will present an extremely difficult detection and tracking challenge. Many nations are further enhancing capabilities of their fighter and bomber aircraft through the use of aerial refueling to increase combat ranges, signature reduction technology to decrease their detection ranges, and Cyberspace weapons to inject confusion or mask operations. Finally, we continue to see challenges to the advantages we currently enjoy and exploit in the space domain. During OIF, Iraqi forces employed Global Positioning System (GPS) jammers in an attempt to reduce the precision of U.S. and Coalition strikes. We defeated this threat through a variety of methods including space system design, munitions design, and tactics we developed to operate in a GPS-hostile environment.

As technology proliferates and access to space becomes available to more countries, organizations, and individuals, the threats to Space and Cyberspace capabilities will become more prevalent and effective in the battlespace. This section addresses how the Air Force is looking to address these future challenges through our Acquisition and Science & Technology programs.

# PROCUREMENT AS IT RELATES TO FUTURE CAPABILITIES

America's Airmen execute a broad spectrum of missions across three warfighting domains. We are pursuing a large number of acquisition and modernization programs, designed to enhance joint capabilities across the spectrum of global Air Force missions. While diverse in function and execution, all Air Force capability efforts share common elements: 1) all are global, 2) all are transformational, and 3) all are vital to current and future joint success. This section encompasses RDT&E as well as Procurement funding to support the systems discussed. It is an overview of systems and does not discuss every system included in the Air Force FYDP or beyond. It is organized by operational portfolio: Global Power, Global Reach, and Global Vigilance. The top five acquisition priorities for the Air Force are the KC-X to replace the aging legacy tanker fleet, the HH-47 as the new CSAR platform, Space Early Warning and Communications Satellites (SBIRS and TSAT), the F-35 Lightning and the Next Generation Long Range Strike which is a program to field a new bomber by 2018. Figure 4-4 reflects the planned aircraft procurement through FY13.

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Aircraft Procurement	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Total
KC-X	0	0	0	7	13	14	14	48
C-17 Globemaster	22	0	0	0	0	0	0	22
C-130J Hercules	9	9	0	0	0	0	0	18
HC-130 Hercules	0	0	2	4	4	4	4	18
MC-130 Combat Talon	0	0	4	4	4	4	4	20
HH-47 CSAR	0	0	0	10	10	14	17	51
Joint Cargo Aircraft	0	0	0	8	12	18	18	56
V-22 Osprey	2	5	6	5	5	5	5	33
F-22 Raptor	20	20	20	0	0	0	0	60
F-35 Lightning II	2	6	8	12	24	42	48	142
MQ-9 Reaper	2	4	9	11	11	8	8	53
MQ-1 Predator	24	24	26	42	26	24	18	184
Rq-4 Global Hawk	5	5	5	5	5	5	5	35
T-6 Texan	48	39	0	0	0	0	0	87
Total	134	112	80	108	114	138	141	827

Figure 4-4: Summary of Aircraft Procurement Quantities

### Global Power

### **HH-47 CSAR**

The Air Force must recapitalize our CSAR forces to recover isolated Joint or Coalition personnel engaged across the spectrum of military operations, as well as support non-combatant evacuation and disaster relief operations. The HH-47 will relieve the high OPSTEMPO strain placed on the current "low-density/high-demand" (LD/HD) inventory of HH-60G Pave Hawk helicopters. The HH-47 dramatically improves mission reaction time, range, cabin space, survivability, battlespace awareness, adverse weather operations, and high-altitude hover operations. The HH-47 will provide personnel recovery forces with an aircraft that is quickly deployable and capable of main base and austere location operations for worldwide recovery missions. It will operate day or night, during adverse weather conditions, and in all environments including Nuclear, Biological, and Chemical conditions. On-board defensive capabilities will permit the HH-47 to operate in an increased threat environment, and in-flight refueling will provide an airborne alert capability and extend its combat mission range. The FY08 budget includes \$280M of RDT&E for this system.

#### F-35 Lightning II

The F-35 Lightning II Joint Strike Fighter (JSF) is a 5th generation multi-role strike fighter aircraft optimized for air-to-ground attack. The F-35 Conventional Take-off and Landing (CTOL) variant will recapitalize combat capabilities currently provided by the F-16 and A-10 and will complement the capabilities of the F-22A.

The F-35 will specifically provide affordable precision engagement and global attack capabilities for the Air



Force, Navy, Marines, and our international partners. In 2006, the JSF program delivered the first CTOL variant test aircraft and is making good progress toward its first flight. As shown in

Figure 4-5, the F-35 will be four times more effective than legacy fighters in air-to-air engagements, eight times more effective in prosecuting missions against fixed and mobile targets, and three times more effective in non-traditional ISR and Suppression of Enemy Air Defenses and Destruction of Enemy Air Defense (SEAD/DEAD) missions. It will support all of these capabilities at about the same procurement cost as legacy fighters but requiring significantly less infrastructure combined with a smaller basing footprint. The total Air Force projected buy is for 1,763 aircraft with an Initial Operational Capability (IOC) of FY13.

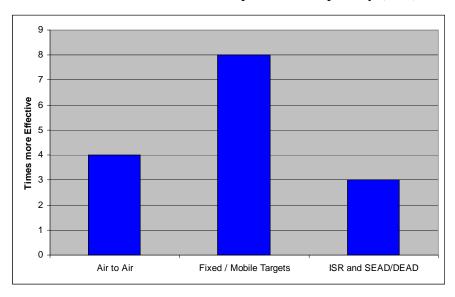


Figure 4-5: F-35 Effectiveness Compared to Legacy Fighter Aircraft<sup>7</sup>

### Long Range Strike

Long Range Strike was a primary reason the Air Force was created and that mission continues as a vital and unique Air Force contribution to National Defense. The Air Force has a three-phased strategy to help ensure the U.S. meets its enduring Long Range Strike capability requirements. Phase One includes near-term maintenance and modernization of current bombers and air-to surface weapons. Phase Two will deliver, by 2018, a new Long Range Strike capability that has state-of-the-art technologies. This Next Generation Long Range Strike system will combine speed, stealth, payload, and improved avionics/sensors suites to be effective across the full range of military operations in meeting CCDR's global needs. In Phase Three, the Air Force plans to field a revolutionary Long Range Strike capability in the 2035 time frame using an advanced system-of-systems approach. By then, technology maturation could include advancements such as hypersonic propulsion and non-kinetic weapons.

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<sup>&</sup>lt;sup>7</sup> http://www.globalsecurity.org/military/systems/aircraft/f-35.htm

### F-22A Raptor



The F-22 Raptor is the Air Force's primary air superiority fighter and key enabler, providing operational access, homeland defense, cruise missile defense, and force protection for Joint Forces. The F-22's combination of speed, stealth, maneuverability, and integrated avionics gives this remarkable aircraft the ability to penetrate denied, anti-access environments. The F-22's unparalleled ability to find, fix, track, and target enemy air- and ground-based

threats ensures air dominance and freedom of maneuver for all Joint Forces. In addition, the F-22 is the only system in the U.S. military that can conduct network-centric warfare and provide ISR capability from inside adversary battlespace in the opening moments of any contingency. Combat capable Raptors are in full rate production on the world's only 5<sup>th</sup> generation production line. As of September 2006, 82 aircraft had been delivered, 25 were in production, and 42 were combat coded. The F-22A flew its first operational mission in support of ONE in January 2006, participated in the Alaskan NORTHERN EDGE exercise in July 2006, and is being prepared for upcoming AEF deployments. Figure 4-6 shows some of the increased capabilities provided by the F-22.

Increased Capabilities	F-22
Low observable (stealth)	✓
Supersonic cruise without afterburner (greater range)	✓
Reduced support requirements and maintenance costs (higher reliability and sortie generation rates)	✓
Can out maneuver all current and projected threat aircraft at medium and high altitudes	✓
Integrated avionics and more advanced sensors	✓

Figure 4-6: Required Air Superiority Platform Capabilities

### **Intercontinental Ballistic Missiles**

America's ICBM force remains the foundation of our Nation's nuclear deterrent capability. Modernization programs have been crucial to the Minuteman ICBM, which, when initially deployed in the 1960's, was originally designed to last ten years. Service life extension programs are underway to ensure the Minuteman III remains mission capable through 2020. These programs replace obsolete, failing, and environmentally unsound materials while maintaining missile reliability, survivability, security, and sustainability. These efforts are critical in sustaining the ICBM force and are, therefore, vital to maintaining America's nuclear deterrent posture into the foreseeable future.

## **Global Positioning System**

GPS modernization continues with additional launches of GPS IIR-M satellites, which provide a new military signal more resistant to jamming and a new civil signal for improved position accuracy. The follow-on system, GPS IIF, will provide IIR-M capabilities plus an additional civil signal for aviation safety-of-flight services. Additionally, the development of the next-generation GPS-III will further enhance navigation capabilities and improve resistance to jamming, as well as add a third civil signal compatible with the European Galileo System. Figure 4-7 shows some of the increased capabilities to be provided by GPS III.

Increased Capabilities	GPS III
Greater signal power/ anti-jam	✓
Cross links for increased C2	<b>✓</b>
Superior precision/Aviation-level integrity	✓
New Civil Signal / Common w/Galileo	✓
Flexibility for future technology upgrades	✓

Figure 4-7: GPS III Increased Capabilities

Figure 4-8 shows the funding by platform in our Global Strike (Global Power) weapon system platforms from FY05 through FY09. The F-35 program will continue to grow through the FYDP with the planned purchase of 140 aircraft through FY13.

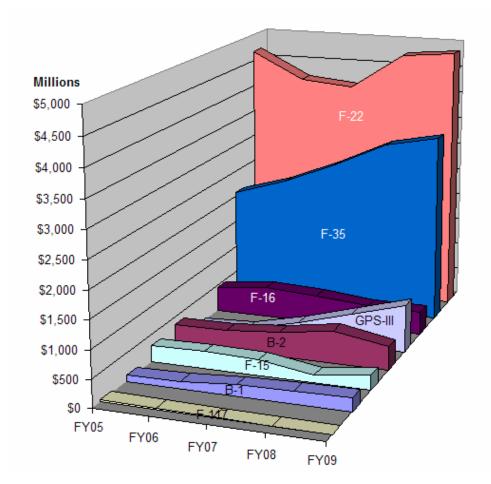


Figure 4-8: Global Power Investment TOA by System

### Global Reach

### **Tanker Recapitalization**

Aerial refueling capability is essential to the expeditionary nature of America's armed forces. Aerial refueling serves as a force multiplier and provides American and Coalition air forces with increased range, persistence, and duration. The Nation must maintain an air refueling fleet that guarantees the projection of U.S. combat power. For the past 50 years, the Air Force's primary tanker platform has been the KC-135, and it has served with distinction. However, we are operating this aircraft at well beyond its life expectancy. Some of the oldest models already operate well beyond the point of cost-effective repair. Given the increased operational tempo and requirements of the GWOT, procurement of a new tanker aircraft – the KC-X – has become both an operational necessity and the most fiscally prudent option for America's future.

The KC-X will provide increased availability, more adaptable technology, and greater capability. Enhancements in every aspect of aircraft operation will help to provide the joint warfighter with more flexible employment options. It is imperative we begin smart, steady reinvestment in a new tanker coupled with measured, timely retirement of the oldest, least capable tankers in order to ensure the viability of this vital national capability. The Air Force's current projected buy is 179 aircraft to replace the oldest of the tanker fleet. The FY08 budget includes \$314M for RDT&E to support competitive acquisition of the system.

#### **Intra-Theater Airlift**

The Air Force has a two-pronged approach to modernize America's intra-theater airlift capabilities. First, we are striving to replace our oldest aircraft with a mixture of new C-130Js and Joint Cargo Aircraft (JCA). The JCA offers the potential for additional solutions to the Air Force's intra-theater airlift recapitalization strategy while providing a modern mobility platform well suited to access an array of demanding worldwide conditions including short, unimproved, austere airfields. Second, we will standardize remaining C-130s via the C-130 Avionics Modernization Program and center-wing box replacement programs. C-130 fleet modernization extends operational lifetime, reduces operation and sustainment costs, and increases combat effectiveness to enhance our intra-theater airlift capability.

#### **CV-22 Osprey**

The Air Force will procure 50 CV-22s, with an IOC scheduled for FY09. The CV-22 is a V-22 tilt-motor variant designed to meet a U.S. Special Operations Command (USSOCOM) requirement for long-range infiltration, exfiltration, and resupply of Special Operations Forces. The CV-22's advanced systems include Terrain Following/Terrain Avoidance Radar, Integrated RF Countermeasures, Directional Infrared Countermeasures, the Multi-mission Advanced Tactical Terminal, and additional fuel tanks and tactical communications gear.



Figure 4-9 shows the total funding invested in several of our mobility platforms from FY05 through FY09. The chart shows a ramping down of the C-17 program with the growing RDT&E investment being made in the KC-X program which will replace our oldest tankers in the future.

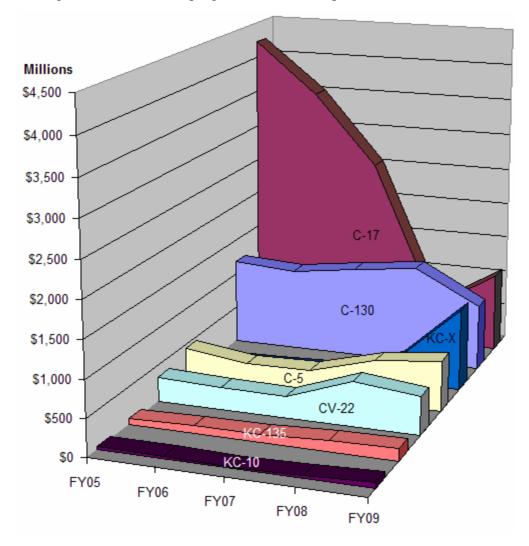


Figure 4-9: Global Reach Investment TOA by System

# Global Vigilance

#### **Global Hawk**

The RQ-4A Global Hawk is a high altitude, long endurance UAS that provides the joint warfighter with persistent observation of targets in day, night and adverse weather. Global Hawk entered development in 2001 after completing a successful Advanced Concept Technology Demonstration (ACTD). We plan to spirally develop and field the aircraft in blocks of increasing capability, allowing accelerated delivery of useful capability to the warfighter while the system evolves to its full potential.

Block 10, the first of four production variants, is being employed now in support of GWOT. It provides an effective, persistent imagery capability using basic SAR and EO/IR sensors. The larger Block 20 aircraft, which will begin development test in early 2007, will provide 50 percent more payload capacity and carry enhanced SAR and EO/IR sensors for clearer images at greater ranges. In 2012, Block 30 will field a more versatile, multi-intelligence capability by integrating the Block 20 imagery sensors with a robust signals intelligence suite. The fourth Global Hawk variant, Block 40, will be available for operations in 2011. It will carry a single payload – a Multi-Platform Radar Technology Insertion Program sensor – to provide the warfighter a highly advanced radar imagery and moving target indicator capability.

Global Hawk has demonstrated its combat value in GWOT. The Air Force will continue to mature and enhance its capabilities in the coming years.

### **MQ-1 Predator and MQ-9 Reaper**

Leading the way in armed reconnaissance, the Air Force is currently flying MQ-1 Predator missions 24 hours a day, 7 days a week. The MQ-1 Predator and the new, larger MQ-9 Reaper are medium altitude, long endurance UASs providing operational-level ISR and strike support to theater commanders. Predator and Reaper aircraft can also transmit live digital video to ground-based and airborne targeting teams equipped with the Remote Operations Video Enhanced Receiver system. Predator is already operational, and



by 2010 we will expand its capability from 10 to 21 total orbits to meet increased demand. In 2007 we expect to operationally deploy Reaper, which will provide "Hunter-Killer" capability.

Employment of MQ-1 Predator systems consistently demonstrates the Air Force penchant for innovative application of technology. Current operations allow active duty Airmen in Nevada and Air National Guardsmen in California to pilot and control Predator aircraft operating in numerous locations around the world, including Iraq and Afghanistan. By 2010 this capability will spread to Guard units in Arizona, North Dakota, and Texas for the MQ-1 and to New York for the MQ-9. Increased experience in these novel approaches to flight and mission control has led to revolutionary advances in military capability. The Reaper can carry as much as 3,000 pounds of external payload roughly on par with that of an F-16 fighter. The Reaper, however, costs about \$7 million compared to an F-16 at over \$30 million each. Predator and Reaper continue to transform the way we fight, providing persistent ISR, reliable target acquisition and lethal strike capability for our joint warfighters.

#### **Air Force Distributed Common Ground System**

The Air Force Distributed Common Ground System (AF-DCGS) is the Air Force's premier ISR Tasking, Processing, Exploitation, and Dissemination weapon system. From reach back locations, AF-DCGS operators collect raw sensor data from the Global Hawk, Predator, and other platforms around the world, turn it into decision-quality information in near-real-time, and

send it directly to those who need it at the JSF level and below. Its proven interconnectedness in sharing and correlating multi-source signals intelligence, imagery intelligence, and measurement and signature intelligence data will be enhanced with the fielding of the AF-DCGS Block 10.2, which is leading the way in DoD's net-centric ISR enterprise transformation.

### **Transformational Satellite Communications System**

The Air Force continues to pursue next-generation satellite communications technology with the Transformational Satellite Communications System (TSAT). The TSAT program will employ Internet Protocol networks, on-board routing, and high-bandwidth laser communication relays in space, dramatically increasing warfighter communications connectivity. TSAT capabilities will enable the realization and success of all DoD and Joint visions of future network-centric operations, such as the Army's Battle Command on-the-Move and the Navy's Sea Power 21 vision and Fleet FORCEnet/FORCEview concepts. In 2007, we expect the TSAT program to complete technology development and system design milestones.

#### **Space Based Missile Warning Capabilities**

Providing a robust missile warning capability to the Nation through enhanced space-based ISR systems remains a priority in the FY08/09 budget. The final Defense Support Program launch (DSP-23) is planned for Spring 2007, continuing 36 years of that program's support to the Nation. Development of the Space Based Infrared System (SBIRS) continues with hardware and software integration leading to a planned launch of the SBIRS Geosynchronous Earth Orbit (GEO)-1 satellite in late 2008. Once fielded, SBIRS will provide a transformational leap in capability over our aging Defense Support Program system.

#### **Space Radar**

Space Radar (SR), another key transformational space-based ISR program, will have the ability to look into denied areas and to cue additional sensors, such as those on Predator and Global Hawk. The SR will provide the CCDRs unprecedented surface wide-area surveillance capabilities while updating its AOR coverage report several times per hour. SR will discover and characterize objects and activities of interest for target development in conjunction with other theater assets to meet critical joint warfighter requirements. Beginning in FY08, the Space Radar program will be operated under the authorities of the Director of National Intelligence (DNI) and the Secretary of Defense.

Figure 4-10 shows our investments in some of our Global Vigilance systems from FY05 through FY09. Funding is increasing in our Transformational Satellite Communications, RQ-4 Global Hawk, MQ-1 Predator, and the MQ-9 Reaper. The Wide Band Gap Filler investment decreases with the procurement of satellite 5 in FY08 and the first launch of the system scheduled in June 2007.

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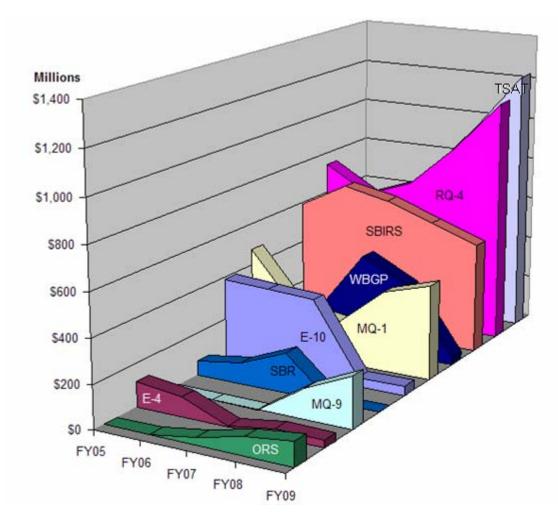


Figure 4-10: Global Vigilance Investment TOA by System

# **CYBERSPACE**

The Air Force is placing a major emphasis on the Cyberspace domain by taking steps to establish an Air Force Cyberspace Command. Cyberspace dominance goes beyond communications and information technology. It requires superiority across the entire electromagnetic spectrum radio waves, microwaves, infrared, x-rays, directed energy, and applications we have yet to discover and exploit. The primary missions of this new command will be the integration of global kinetic and non-kinetic strike capability and to organize, train and equip to ensure the full spectrum of integrated global effects. This new command will stand alongside of Air Force Space Command and Air Combat Command as the provider of forces for preserving the freedom of access and commerce in Air, Space, and Cyberspace. IOC is projected in May 2007 with Full Operational Capability (FOC) by October 2009.

## SCIENCE AND TECHNOLOGY

The Air Force Science and Technology Program develops (S&T) and demonstrates technologies to provide advanced warfighting capabilities that are effective against spectrum a conventional and asymmetric threats. Air Force S&T continues the transition from a Cold War capable technology set to one that can deal with irregular challenges such as acts of terrorism. In 2006, the Air Force embraced a new technology vision to guide our S&T activities - "Anticipate, Find, Fix, Track,



Target, Engage, Assess... Anything, Anywhere, Anytime" – and we are continuing to integrate this vision into our annual planning activities. The Air Force has a legacy of providing technologies and superior warfighting capabilities that are the direct result of decades of investment in S&T. As we continue to adapt to a world of changing threats, today's planning and focused investment in our S&T Program will produce the future warfighting capabilities needed to ensure our continued technological pre-eminence. In addition, Air Force S&T organizations work closely with the other Services, Defense Agencies, Intelligence Community, and other Federal agencies, such as the NASA and other ally and partner nations to advance the state-of-the-art.

The Air Force S&T Program provides the cornerstone for future joint warfighting capabilities and is focused on dominating the Air, Space, and Cyberspace domains for America. The following paragraphs highlight a few of the areas we are working now.

# **Operationally Responsive Space**

Small satellite technologies with modular buses and plug-n-play payloads will allow rapid launch options for the tactical warfighter. A tactical satellite technology demonstration effort is achieving smaller, lighter payloads and two-year development times that help mitigate technology risks for larger satellite acquisition programs. The operationally responsive payloads offered by small satellites could provide either tailored capabilities that do not require a full constellation of satellites, or stand-in capability for a satellite that suffers failure or attack. Delivering these into space can also be achieved at lower launching costs given the payload weight versus traditional sized satellites.

# Composite Technologies

Air Force S&T explores advancements in composite structures and manufacturing technologies for light-weight unconventional aircraft shapes. Example applications include short take-off and landing capabilities, high-lift aircraft wing systems, integrated propulsion inlet/diffuser geometries, and integrated flight control surfaces. We expect these efforts to help shorten

development times for next generation aircraft with lighter, stronger airframes and far greater mission utility than legacy aircraft.

#### Alternative Fuels

The Air Force is taking the lead in reducing the DoD's dependence on foreign oil. As DoD's leading consumer of jet fuel, we are currently engaged in evaluating alternative fuels and engine technologies that may lead to greater fuel efficiency. We are supporting development of synthetic fuel, based on domestic sources, to ensure a stable energy supply regardless of political uncertainties in oil-producing countries or supply disruptions spurred by natural disasters, such as Hurricane Katrina.

The Air Force has a goal of fulfilling 50 percent of its CONUS aviation fuel requirements from a synthetic fuel blend by 2016. As part of this effort, the Air Force continues flight tests on a B-52 using a blend of JP-8 fuel and a synthetic fuel derived from natural gas. The Air Force is working with the civil market to expand the demand for synthetic jet fuel and make it more economical to produce.

## **SUMMARY**

The fiscal challenges of aging aircraft, aging facilities, increased personnel costs, and the cost of operating at wartime levels for sixteen years have impacted our decisions to take more risk in the modernization portion of our budget in the past. This FY08/09 budget submission balances our modernization needs with our operational and personnel program needs. The investments we are making in the systems and technologies described in this Future Challenges section will help the United States maintain and in many cases increase the technological advantage we have over our enemies. These investments will bring more capability and flexibility to our CCDRs for decades to come.

# SECTION V – SUMMARY

Modernization is a desired outcome of the FY08 Budget. This PBB submission is a reflection of how we have balanced our risks across all four of the focus areas: Operations, Force Management, Institutional, and Future Challenges. We continue to make progress in budget and performance integration and are institutionalizing processes to better quantify risk. These methodologies are helping decision makers to resource the mission areas requiring the most attention. This is critical in order to meet all of our mission responsibilities today, while investing in our future so we can maintain and in some cases increase our advantage in Air, Space, and Cyberspace.

The Air Force is focused on continual refinement of performance measures used in this Budget Overview. The goal is to have more correlation between outcome-oriented measures and the budget, as well as more accountability for outcomes. The Air Force Strategic Plan for 2006-2008 will aid in this push for measures to better predict outcomes. Each of our goals has a list of specific objectives to help us meet those goals. These objectives will each have performance measures that will be used to aid senior leadership in their understanding of how we are doing and what corrective actions can be taken to improve performance. Many of these performance measures will be included in future PBB submissions as part of our plan to constantly improve our budget and performance integration.

The Air Force has been engaged in continuous combat operations for over 16 years and will remain in Southwest Asia long after the ground forces have departed. Our commitment to the GWOT will continue and we will sustain our 24/7/365 response operations Nationally and Worldwide. GWOT and response operations continually highlight the United States' dependency on Air, Space, and Cyberspace power to an extent unprecedented in history. The Air Force is committed to providing good stewardship of resources which are entrusted to them, but fiscal constraints and economic realities continue to challenge our ability to ensure dominant Air and Space Power for the 21<sup>st</sup> Century. The Air Force is ready and engaged today, but our Nation must invest to ensure tomorrow's Air, Space, and Cyberspace dominance.

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# APPENDIX A – FY08 GWOT REQUEST

The Air Force is requesting GWOT funding for FY08 in the amount of \$17.8 Billion. The highlights of the request by program and appropriation are detailed below. This request will allow continued daily operations as well as replacement of aircraft lost in combat/contingency operations, modifications, and reconstitution of other assets. The Air Force's FY08 GWOT request is critical to winning the long war on terror.

Daily O	perations	\$11.9B	
Aircraft Replacement			
	12 C-130J (Stressed)		\$934M
	5 CV-22 (Losses)		\$493M
7	3 C-130J (Losses)		\$233M
	1 F-35A (Losses)		\$189M
	2 MC-130J (Recap)		\$188M
Bomber Mods		\$271M	
A-10 PUP		\$230M	11.25
F-15 AESA		\$130M	

**Table C: GWOT Request Highlights** 

Appropriation Title	Amount (\$ in Billions)
Investment/RDT&E	5.4
O&M	10.4
MILPERS	1.5
MILCON	-
Total	17.3

**Table D: GWOT Request by Appropriation** 

# APPENDIX B – ACRONYMS

Acronym	Definition
ACS	Agile Combat Support
ACTD	Advanced Concept Technology Demonstration
ADSC	Active Duty Service Commitments
AEF	Air and Space Expeditionary Forces
AETC	Air Education and Training Command
AF	Air Force
AFB	Air Force Base
AF-DCGS	Air Force Distributed Common Ground System
AFEMP	Air Force Effects Management Program
AFMC/ESC	Air Force Materiel Command/Electronic Systems Center
AFR	Air Force Reserve
AFRC	Air Force Reserve Center
AFRES	Air Force Reserve
AFSC	Air Force Specialty Code or Air Force Safety Center
AFSOC	Air Force Special Operations Command
AHAS	Avian Hazard Advisory System
AMC	Air Mobility Command
ANG	Air National Guard
AOC	Air & Space Operations Center
AOR	Area of Responsibility
APPG	Annual Planning and Programming Guidance
Appn	Appropriation
ASP	Acquisition Strategy Panel
ATC	Air Traffic Control
AWACS	Advanced Warning and Control System
В	Billion
BAM	Bird Avoidance Model
BMT	Basic Military Training
BOS	Base Operating Support
BRAC	Base Realignment And Closure
C/JFACC	Combined/Joint Force Air Component Commander
C2	Command and Control
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
CCDR	Combatant Commander
CFO	Chief Financial Officer
CJR	Career Job Reservation
COE	Community of Expertise
CONOPS	Concept of Operations
	1 1

CONUS Continental United States
COS Continuum of Service

CRRA Capabilities Review and Risk Assessment

CSAF Chief of Staff Air Force

CSAIP Critical Skills Assignment Incentive Pay

CSAR Combat Search and Rescue
CSRB Critical Skills Retention Bonus
CTOL Conventional Take-off and Landing

CY Calendar Year

DAPA Defense Acquisition Performance Assessment

DEAD Destruction of Enemy Air Defenses

DEAMS Defense Enterprise Accounting and Management System
DIMHRS Defense Integrated Military Human Resources System

DNI Director of National Intelligence

DoD Department of Defense

DoDI Department of Defense Instruction

DSCS Defense Satellite Communications System
DSOC Defense Safety Oversight Committee

DSP Defense Satellite Program

ECSS Expeditionary Combat Support System EELV Evolved Expendable Launch Vehicle

EO/IR Electro-Optical/Infrared
EPAct05 Energy Policy Act of 2005
ESC Electronic Systems Center

FAA Federal Aviation Administration

FCS Future Combat System

FIAR Financial Improvement and Audit Readiness

FO Facilities Operation

FOC Full Operational Capability
FOM Facilities Operation Model
FRM Facilities Recapitalization Metric

FSB Force Shaping Board
FSC Financial Services Center
FSM Facilities Sustainment Model

FY Fiscal Year

FYDP Fiscal Year Defense Plan

GAO Government Accountability Office
GCSS Global Combat Support System
GEO Geosynchronous Earth Orbit

GMRA Government Management Reform Act
GPRA Government Performance and Review Act

GPS Global Positioning System

GWOT Global War on Terror

HAF Headquarters Air Force

HQ AFSC/SEF Headquarters Air Force Systems Command/Flight

Safety Division

HVT High Value Targets

IAD Integrated Air Defense

ICBMInter-Continental Ballistic MissilesICDInitial Capabilities DocumentIEBInitial Enlistment BonusIEDImprovised Explosive DevicesIMRIndividual Medical ReadinessIOCInitial Operational CapacityIPLIntegrated Priority List

ISR Intelligence, Surveillance, Reconnaissance

ITMRA Information Technology Management Reform Act

JCA Joint Cargo Aircraft

JFACC Joint Forces Air Component Commander

JNTC Joint National Training Center

JSF Joint Strike Fighter

JSpOC Joint Space Operations Center

JSTARS Joint Surveillance Target Attack System

K Thousands

LEED Leadership in Energy and Environmental Design

M Million

MAJCOM Major Command MC Mission Capable

MCL Master Capability Library
MFH Military Family Housing

MFOQA Military Flight Operations Quality Assurance

MILCON Military Construction
MILPERS Military Personnel

MILSTAR Military Strategic Tactical Relay

NASA National Aeronautical Space Administration

NCA National Command Authority NCW Network Centric Warfare

NDAA National Defense Authorization Act NIM Natural Infrastructure Management

NSI Nuclear Surety Inspection

O&M Operations & Maintenance

OEF Operation ENDURING FREEDOM
OIF Operation IRAQI FREEDOM
OMB Office of Management and Budget
ONE Operation NOBLE EAGLE

OPLANS Operations Plans

OPS Operations

OPSTEMPO Operations Tempo

ORE Operational Readiness Evaluation/Exercise

ORI Operational Readiness Inspection
ORS Operationally Responsive Spacelift
OSA Organizational Safety Assessment
OSD Office of the Secretary of Defense

OSHA Occupational Safety and Health Administration

OSM Operational Support Modernization

OSMI Operational Support Modernization Initiative
OSMP Operations Support Modernization Program

PACAF Pacific Air Forces

PART Program Assessment Rating Tool
PAS Political-Military Affairs Strategist

PBB Performance Based Budget PBD Program Budget Decision

PB President's Budget

PMA Program Management Assessment
PME Professional Military Education
POM Program Objective Memorandum

PPBE Planning Programming Budgeting and Execution

PSD Personnel Service Delivery

QDR Quadrennial Defense Review

QOL Quality of Life

RAS Regional Affairs Strategist

RDT&E Research, Development, Test, & Evaluation

RF Reconnaissance Force ROI Return on Investment

ROTC Reserve Officer Training Corps

S&T Science and Technology
SAM Surface to Air Missile
SAR Synthetic Aperture Radar
SAT Safety Analysis Team

SBIRS Space Based Infrared System SDAP Special Duty Assignment Pay

SEAD/DEAD Suppression of Enemy Air Defenses and Destruction of Enemy

Air Defense

SECAF Secretary of the Air Force SecDef Secretary of Defense

SERB Selective Early Retirement Board SERE Survival, Evasion, Resistance, Escape

SMR Small Mobile Radar

SOA Service-Oriented Architecture SOE Service-Oriented Environment

SR Space Radar

SRB Selective Reenlistment Bonus

TA Total Available

TAC-P Tactical Air Control Party
TAI Total Active Inventory
TCD Time Certain Development
TFI Total Force Integration
TOA Total Obligation Authority

TSAT Transformational Satellite Communications System

TWCF Transportation Capital Working Fund

U.S. United States

UAS Unmanned Air System **UAV** Unmanned Air Vehicle **Unit Compliance Inspection** UCI United States Air Forces Europe **USAFE** USCENTCOM **United States Central Command** United States European Command **USEUCOM** United States Northern Command **USNORTHCOM USPACOM** United States Pacific Command

USSOCOM United States Special Operations Command

USSOUTHCOM United States Southern Command USSTRATCOM United States Strategic Command

VPP Voluntary Protection Program VSP Voluntary Separation Pay

WGS Wideband Gapfiller Satellite
WMD Weapons of Mass Destruction

