DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON DEFENSE

UNITED STATES SENATE

SUBJECT: FISCAL YEAR 2007 AIR FORCE BUDGET OVERVIEW

STATEMENT OF: **THE HONORABLE MICHAEL W. WYNNE**
SECRETARY OF THE AIR FORCE

GENERAL T. MICHAEL MOSELEY
CHIEF OF STAFF
UNITED STATES AIR FORCE

MARCH 2006

NOT FOR PUBLICATION UNTIL RELEASED
BY THE COMMITTEE ON APPROPRIATIONS
UNITED STATES SENATE

BIOGRAPHY

UNITED STATES AIR FORCE

MICHAEL W. WYNNE

Michael W. Wynne is the Secretary of the Air Force, Washington, D.C. He is responsible for the affairs of the Department of the Air Force, including the organizing, training, equipping and providing for the welfare of its nearly 370,000 men and women on active duty, 180,000 members of the Air National Guard and the Air Force Reserve, 160,000 civilians, and their families. With an annual budget of approximately $110 billion, he ensures the Air Force can meet its current and future operational requirements.

Mr. Wynne graduated from the U.S. Military Academy and served in the Air Force for seven years, ending his career as a captain and assistant professor of astronautics at the U.S. Air Force Academy. He spent three years with Lockheed Martin selling the Space Systems Division to then Martin Marietta. He successfully integrated the division into the Astronautics Company and became the General Manager of the Space Launch Systems segment, combining the Titan with the Atlas Launch vehicles. For the next 23 years, Mr. Wynne held a variety of senior positions at General Dynamics, retiring in 1999 as Senior Vice President where his role was in International Development and Strategy. Throughout his career at General Dynamics, he held positions with the Aircraft (F-16s), Main Battle Tanks (M1A2), and Space Launch Vehicles (Atlas and Centaur) Divisions.

Prior to joining the Bush Administration, Mr. Wynne was involved in venture capital. He nurtured small technology companies through their startup phase as a member of the NextGenFund Executive Committee, and served in executive positions of two of those companies. In July 2001, Mr. Wynne was confirmed as Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, and in May 2003 he was appointed as acting Under Secretary of Defense for Acquisition, Technology and Logistics. In this role, Mr. Wynne was the Principal Staff Assistant and adviser to the Secretary and Deputy Secretary of Defense for all matters relating to the Department of Defense Acquisition System, research and development, advanced technology, developmental test and evaluation, production, logistics, installation management, military construction, procurement, environmental security, and nuclear, chemical and biological matters. Mr. Wynne has published numerous professional journal articles relating to engineering, cost estimating and contracting.

EDUCATION

1966 Bachelor of Science degree in general engineering, U.S. Military Academy, West Point, N.Y.
1970 Master's degree in electrical engineering, Air Force Institute of Technology, Wright-Patterson Air Force Base, Ohio
1975 Master's degree in business, University of Colorado, Colorado Springs

CAREER CHRONOLOGY

1. June 1966 - June 1973, Air Force officer
2. May 1994 - March 1997, General Manager, Space Launch Systems, Lockheed Martin Astronautics, Denver, Colo.

3. July 1997 - October 1999, Senior Vice President, General Dynamics, Falls Church, Va.
4. December 2000 - July 2001, Chairman and Chief Executive Officer, IXATA Group, McClean, Va.
5. July 2001 - October 2005, Principal Deputy Under Secretary of Defense for Acquisition, Technology and Logistics, Washington, D.C. (May 2003 - April 2005, also served as acting Under Secretary of Defense for Acquisition, Technology and Logistics)
6. April 2005 - June 2005, Under Secretary of Defense for Acquisition, Technology and Logistics, Washington, D.C.
7. November 2005 - present, Secretary of the Air Force, Washington, D.C.

PROFESSIONAL MEMBERSHIPS AND ASSOCIATIONS
Fellow, National Contracts Management Association
Former President, Association of the U.S. Army, Detroit Chapter
Former President, American Defense Preparedness Association, Michigan Chapter

(Current as of December 2005)

BIOGRAPHY

UNITED STATES AIR FORCE

GENERAL T. MICHAEL MOSELEY

General T. Michael Moseley is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipage of more than 710,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, the general and other service chiefs function as military advisers to the Secretary of Defense, National Security Council and the President.

General Moseley graduated from Texas A&M University in 1971 with a Bachelor of Arts degree in political science. He earned a Master of Arts degree from Texas A&M University in 1972, also in political science. He has commanded the F-15 Division of the USAF Fighter Weapons School at Nellis AFB, Nev., the 33rd Operations Group at Eglin AFB, Fla., and the 57th Wing, the Air Force's largest, most diverse flying wing, also at Nellis. The general has served as the combat Director of Operations for Joint Task Force-Southwest Asia. General Moseley also commanded 9th Air Force and U.S. Central Command Air Forces while serving as Combined Forces Air Component Commander for operations Southern Watch, Enduring Freedom and Iraqi Freedom. The general is a member of the Council on Foreign Relations. He has been awarded the Order of National Merit (Officer) and the Order of National Merit (Commander) by the president of the French Republic. The Order of National Merit is the second highest French military award. He has also been awarded the United Arab Emirates' Military Medal, 1st Class, by the president of the U.A.E.

General Moseley's staff assignments have been a mix of operational, joint and personnel duties. These include serving in Washington, D.C., as Director for Legislative Liaison for the Secretary of the Air Force; Deputy Director for Politico-Military Affairs for Asia/Pacific and Middle East, the Joint Chiefs of Staff; Chief of the Air Force General Officer Matters Office; Chief of Staff of the Air Force Chair and Professor of Joint and Combined Warfare at the National War College; and Chief of the Tactical Fighter Branch, Tactical Forces Division, Directorate of Plans, Headquarters U.S. Air Force.

EDUCATION
1971 Bachelor of Arts degree in political science, Texas A&M University, College Station
1972 Master of Arts degree in political science, Texas A&M University, College Station
1977 Squadron Officer School, Maxwell AFB, Ala.
1981 Fighter Weapons Instructor Course, U.S. Air Force Fighter Weapons School, Nellis AFB, Nev.
1984 Air Command and Staff College, Maxwell AFB, Ala.
1988 U.S. Air Force Joint Senior Battle Commander's Course, Hurlburt Field, Fla.
1990 National War College, Fort Lesley J. McNair, Washington, D.C.
2000 Combined Force Air Component Commander Course, Maxwell AFB, Ala., and Hurlburt Field, Fla.

ASSIGNMENTS
1. June 1972 - May 1973, student, undergraduate pilot training, Webb AFB, Texas

2. May 1973 - July 1977, T-37 instructor pilot and spin flight test pilot; flight check pilot, and standardization and evaluation flight examiner, 3389th Flying Training Squadron, 78th Flying Training Wing, Webb AFB, Texas
3. July 1977 - September 1979, F-15 instructor pilot, flight lead and mission commander, 7th Tactical Fighter Squadron, Holloman AFB, N.M.
4. September 1979 - August 1983, F-15 weapons and tactics officer, instructor pilot, and flight lead and mission commander; standardization and evaluation/ flight examiner, 44th Tactical Fighter Squadron and 12th Tactical Fighter Squadron, Kadena Air Base, Japan
5. August 1983 - June 1984, course officer, Air Command and Staff College, Maxwell AFB, Ala.
6. June 1984 - June 1987, Chief, Tactical Fighter Branch, Tactical Forces Division, Directorate of Plans, Deputy Chief of Staff for Plans and Operations, Headquarters U.S. Air Force, Washington, D.C.
7. June 1987 - June 1989, Commander, F-15 Division, and instructor pilot, Fighter Weapons Instructor Course, U.S. Air Force Fighter Weapons School, Nellis AFB, Nev.
8. June 1989 - June 1990, course officer, National War College, Fort Lesley J. McNair, Washington, D.C.
9. June 1990 - August 1992, Chief of Staff of the Air Force Chair and Professor of Joint and Combined Warfare, National War College, Fort Lesley J. McNair, Washington, D.C.
10. August 1992 - January 1994, Commander, 33rd Operations Group, Eglin AFB, Fla.
11. January 1994 - May 1996, Chief, Air Force General Officer Matters Office, Headquarters U.S. Air Force, Washington, D.C.
12. May 1996 - November 1997, Commander, 57th Wing, Nellis AFB, Nev.
13. November 1997 - July 1999, Deputy Director for Politico-Military Affairs, Asia/Pacific and Middle East, Directorate for Strategic Plans and Policy, the Joint Chiefs of Staff, Washington, D.C.
14. July 1999 - October 2001, Director, Legislative Liaison, Office of the Secretary of the Air Force, Headquarters U.S. Air Force, Washington, D.C.
15. November 2001 - August 2003, Commander, 9th Air Force and U.S. Central Command Air Forces, Shaw AFB, S.C.
16. August 2003 - September 2005, Vice Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.
17. September 2005 - present, Chief of Staff, Headquarters U.S. Air Force, Washington, D.C.

FLIGHT INFORMATION
Rating: Command pilot
Flight hours: More than 2,800
Aircraft flown: T-37, T-38, AT-38 and F-15A/B/C/D

MAJOR AWARDS AND DECORATIONS
Defense Distinguished Service Medal
Distinguished Service Medal with oak leaf cluster
Defense Superior Service Medal with oak leaf cluster
Legion of Merit with oak leaf cluster
Meritorious Service Medal with three oak leaf clusters
Air Medal
Joint Service Commendation Medal
Air Force Commendation Medal
Air Force Achievement Medal
Global War on Terrorism Expeditionary Medal
Global War on Terrorism Service Medal
Korea Defense Service Medal
French National Order of Merit (Commander)
French National Order of Merit (Officer)
United Arab Emirates' Military Medal, 1st Class

OTHER ACHIEVEMENTS
2003 H.H. Arnold Award, the Air Force Association's highest honor to a military member in the field of National Security
2004 Sergeant William Jasper Freedom Award for contributions in maintaining freedom
2005 U.S. Air Force Sergeant’s Association Excellence in Military Leadership
2005 James V. Hartinger Award for significant achievements in advancing the military space mission
2005 Inducted into the Texas A&M Corps of Cadets Hall of Honor

EFFECTIVE DATES OF PROMOTION
Second Lieutenant July 9, 1971
First Lieutenant July 9, 1974
Captain Jan. 9, 1976
Major Oct. 1, 1983

Lieutenant Colonel March 1, 1986
Colonel April 1, 1991
Brigadier General Dec. 1, 1996
Major General Feb. 1, 2000
Lieutenant General Nov. 7, 2001
General Oct. 1, 2003

(Current as of October 2005)

Mr. Chairman and distinguished members of the committee, the Air Force has a rich heritage and a boundless future. The Service continues its transformation to meet the emerging challenges of a dynamic world, and to ensure the nation's security by dominating the global commons of air, space and cyberspace. The fiscal year 2007 budget takes a significant step toward that future.

We are America's Airmen. Our mission is to deliver sovereign options for the defense of the United States of America and its global interests—we fly and we fight—in air, space and cyberspace. For the past 15 years, our Air Force team has proven its mettle and skill every day. Since the days of DESERT STORM, we have been globally and continuously engaged in combat. We will continue to show the same ingenuity, courage and resolve and achieve success in our three most important challenges: winning the Global War on Terror (GWOT); developing and caring for our Airmen; and maintaining, modernizing and recapitalizing our aircraft and equipment.

In the GWOT we face vile enemies—enemies devoid of any positive vision of the future, who seek only to destroy the United States and the ideals and freedoms upon which America is built. We will win this fight. We will maintain our focus on winning this fight. While maintaining focus on winning the GWOT we will also maintain vigilance—vigilance in defense of our homeland and vigilance against emerging threats in an uncertain world.

Our expeditionary fighting forces and culture, centered on the Air and Space Expeditionary Force, provide the foundation for our operations. We will

more closely align our Regular Air Force, Air National Guard and Air Force Reserve units with Total Force initiatives to enhance our overall capability. We will continue transforming to meet the challenges of a dynamic world.

We will remain focused on caring for and developing our Airmen—our most valuable resource. We will continue to look for ways to maintain and improve their training, their personal and professional development and their quality of life, so they may continue to meet the commitments of today while preparing for the challenges of tomorrow.

We are operating the oldest inventory of aircraft in our history, while maintaining the intense Operations Tempo required by the GWOT, humanitarian crises, and routine requirements. Meanwhile, competitor states are developing air and air defense systems that could threaten our ability to maintain Air and Space Dominance. These factors drive the urgent need to modernize and recapitalize our aircraft. We must act now to preserve our Nation's freedom of action in the future. The Secretary of Defense described future threats in terms of four quadrants—traditional, irregular, catastrophic and disruptive. We must develop, acquire and maintain systems that can counter threats in any of these quadrants. We will do so by incorporating lean principles that eliminate waste while providing transparency in our processes.

Our 2006 Posture Statement outlines our plan to accomplish these goals regarding GWOT, our Airmen, and our aircraft and equipment. It reflects our commitment to good stewardship of the resources entrusted to us, and our dedication to protecting our Nation in air, space and cyberspace.

INTRODUCTION – HERITAGE TO HORIZON

Over a century ago, America crossed the threshold of powered flight and gave wings to the world. Soon military leaders realized the implications of this development, and warfare was changed forever. America was fortunate to have "Great Captains" with the vision to imagine the possibilities of air and space power—Airmen like Billy Mitchell, Frank Andrews, Hap Arnold, Ira Eaker, Jimmy Doolittle and Bennie Schriever. They have given us a proud heritage of courage, excellence and innovation. In so doing, they also give us a sense of perspective and a way to understand the Air Force's future.

They have shown us an unlimited horizon. Each of them lived in dangerous times and faced many demanding challenges. Today, we also find ourselves as a Nation and an Air Force facing similarly dangerous and demanding challenges. Some are global or national in scope; others are specific to the Air Force.

During the last decade the United States Air Force transformed to a modular expeditionary force of ten Air and Space Expeditionary Force (AEF) packages providing agile air and space power. Our Airmen have proven tremendously successful across the spectrum of operations from humanitarian efforts to Homeland Defense operations and the Global War on Terrorism. We will continue transforming to meet the challenges of a dynamic world by rebalancing the force and realigning our structure into a Total Force that meets increased demands for persistent intelligence, rapid mobility and precision strike capabilities. The AEF construct provides the ideal toolbox from which we can

provide tailored, efficient and lethal air and space forces to deal with future challenges.

The Air Force faces the broadest set of mission requirements across the entire spectrum of warfare. We will bolster our Nation's ability to respond swiftly, flexibly and decisively to asymmetric, irregular and emerging threats. We have embarked on a bold, new initiative known as Air Force Smart Operations for the 21st Century (AFSO21) as a means to best allocate our resources to meet this increasing set of challenges. All of these challenges will require the very best efforts of our Airmen throughout the Total Force.

Winning the Global War on Terror (GWOT)

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

We must keep in mind that the GWOT is not defined by today's headlines or locations. It will be a long war, with shifting venues and constantly evolving threats. The character and capabilities of potential U.S. adversaries are increasingly uncertain, veiled, growing and changing, as both state and non-state

actors acquire advanced technology and the means to either acquire or develop weapons of mass destruction (WMDs).

We can foresee serious threats posed by increasing numbers and sophistication of ballistic and cruise missiles; chemical, biological, radiological and nuclear weapons; advanced surface-to-air missiles (SAMs); and sophisticated combat aircraft. We also anticipate the real threat of potentially crippling attacks on our Nation's critical infrastructure, including space networks. Not only must we be prepared to confront known threats, but we also must be ready for unexpected, disruptive breakthroughs in technology that may undercut traditional U.S. advantages.

Maintaining a strong defense able to overcome and defeat these threats remains an imperative for our Nation. Currently, the Air Force can command the global commons of air and space and significantly influence the global commons of the sea and cyberspace; however, we cannot indefinitely maintain this advantage using the current technology of the air and space systems and equipment comprising our existing force structure.

Developing and Caring for Our Airmen

Our Regular Air Force Airmen, Air National Guardsmen, Air Force Reservists and civilians, who together form our Total Force, are building on their inheritance of courage, excellence and innovation. They are highly educated and resourceful, and have created the most lethal Air Force that has ever existed. We must continue to look for ways to maintain and improve their training, their personal and professional development and their quality of life, so that they may

continue to meet the commitments of today while preparing for the challenges of tomorrow.

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

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

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

By ensuring that our Airmen are prepared for combat, effectively developed and properly supported, we will continue to provide our Nation with the best Air Force in the world.

Maintenance, Modernization and Recapitalization

One of our most daunting challenges is maintaining the military utility of our aircraft as reflected in mission readiness, maintenance costs and other factors. We have been actively engaged in combat for the past 15 years. We currently maintain an Air Bridge to Southwest Asia. Our state of alert for GWOT requires us to operate at an elevated and sustained operations tempo (OPSTEMPO). Increased investment and increased maintenance tempo can keep our older aircraft flying and slow their decaying military utility, but equipment age and use are unrelenting factors.

Presently, we have the oldest aircraft inventory in our history. Our aircraft are an average of over 23 years old—older in many cases than those who fly and maintain them. In particular, our inventory of tanker aircraft averages over 41 years old, and our C-130 tactical airlifters average over 25 years old. As our equipment ages, it requires more frequent maintenance and replacement of parts; meanwhile, increased OPSTEMPO accelerates wear and tear on our equipment and operational infrastructure, exposes our equipment to extreme conditions and, in some cases, delays routine maintenance.

We must recapitalize our aircraft and operational infrastructure, as well as modernize our processes for services, support and information delivery in order to maintain the grueling pace required into the foreseeable future. We must do

so in a fiscally prudent manner. This means retiring and replacing our oldest, least capable and most expensive aircraft and equipment, as well as accepting a manageable level of risk in order to selectively maintain some older systems until newer systems are on the ramp.

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

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

The future is what you bring with you when tomorrow comes. Our 2006 Air Force Posture Statement outlines our flight plan into the future. By focusing

on winning the GWOT, maintaining the excellence and maximizing the potential of the America's Airmen, and maintaining, modernizing and recapitalizing our aircraft and equipment, we will provide Air and Space Dominance for U.S. forces well into the future.

AIR AND SPACE POWER TODAY – BUILDING ON OUR HERITAGE

Current Security Environment

The current security environment is marked by seemingly constant change and uncertainty. Our security environment is also marked by the threats posed by terrorist organizations and rogue states around the world bearing ill will toward our Nation. In times of uncertainty and heightened threat, our citizens turn to the military to defend this great Nation at home and abroad. Our Airmen stand alongside Soldiers, Sailors, Marines and Coast Guardsmen—a Joint team poised and ready to defend the Nation.

Throughout the history of American air and space power, Airmen have often faced complex challenges during times of change and uncertainty—times when our Nation's survival was at stake. In early 1945, General "Hap" Arnold reported to the Secretary of War, "…our Air Force must be flexible in its basic structure and capable of successfully adapting itself to the vast changes which are bound to come in the future. Whatever its numerical size may be, it must be second to none in range and striking power." In retrospect, Hap Arnold's words were amazingly prescient.

Today our force is still second to none in range and striking power. Potential adversaries, well aware of the strength of our Air Force, seek to limit

our range and striking power through development of new and emerging threat systems. These systems, coupled with the proliferation of weapons of mass destruction, form a formidable threat to the Joint Force and to our Nation.

In order to achieve victory in the GWOT and meet the challenges of emerging threats, the Air Force looks to build on the great heritage established by decades of Airmen—Airmen who have confronted daunting challenges and succeeded as vital members of the Joint warfighting team.

Global War on Terror (GWOT)

Several key elements—ideologies of hatred, vast resources, mutual support structures, as well as veiled state and private sponsorship—provide linkages across the array of enemies confronting us in the GWOT. The general terrorist threat also spans several regions of the world, often acting on a global scale. While the strategy to prosecute and win the GWOT is an enterprise necessarily involving many agencies and actions in addition to military forces, the Air Force, in particular, serves a vital role in our Nation's battle against terrorist networks.

America's Airmen have become seasoned veterans of Post-Cold War conflicts and are postured to answer any contingency or challenge on a moments' notice. The Air Force has been taking the war to America's enemies for 15 consecutive years. Our constant presence in Southwest Asia since Operation DESERT SHIELD and DESERT STORM kept regional instability in check. Airpower effectively controlled two-thirds of Iraq for over a decade,

setting the conditions for Iraq's stunning military collapse in Operation IRAQI FREEDOM.

Recognizing the new reality of rapidly emerging global threats in the Post-Cold War environment, the Air Force has significantly reduced its force structure and transitioned from a Cold War legacy paradigm to a vastly more agile, responsive and scalable force structure built around the AEF concept. The AEF construct provides the Combatant Commanders and the Joint Force with the agility and lethality required to engage U.S. adversaries anywhere in the world with correctly tailored forces—all in a matter of hours to single-digit days. The AEF construct presents air and space forces in a continuous rotation cycle—currently a 20-month cycle with nominal 4-month deployments—and provides the Combatant Commands with greater capability and stability of forces in theater while providing more predictability for our Airmen.

As defined by our national leadership, the GWOT strategy seeks to reduce both the scope and capability of terrorist networks globally, regionally and locally. This strategy requires global perspective and regional focus. It also demands an ability to simultaneously conduct long-range strikes and humanitarian relief on opposite sides of the world. In order to execute effectively, the strategy requires unparalleled command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR). These are all activities our Air Force conducts for the Joint Force on a daily basis—activities critical to successfully prosecuting the GWOT.

As an essential part of the Joint team, the Air Force contributed to defeating the Taliban and eliminating Afghanistan as a safe haven for al Qaeda. While the Air Force remains actively engaged in operations in Afghanistan, our national strategy is simultaneously focused on Iraq as the central front for the war on terror. While the United States and its partners have defeated Saddam Hussein's regime of terror, the enemies of freedom—both members of the old regime and foreign terrorists who have come to Iraq—are making a desperate attempt in the name of tyranny and fascism to terrorize, destabilize and reclaim this newly-liberated nation and aspiring democracy.

The Air Force continues to lead the fight in defending the home front as well. The Air Force recently conducted an Air Force-Navy strategy conference addressing the GWOT and counterinsurgencies. The conference report forms the basis for an ongoing Air Force study to further improve the Air Force's posture for Homeland Defense. The Air Force has also taken a leadership role in developing a Concept of Operations for Joint Maritime Interdiction to defend our shores and those of our allies. In addition, Air Force aircraft maintain a 24/7 alert status in defense of the United States and its approaches, against both airborne and maritime threats.

From a global perspective, we are continually bolstering Airman-to-Airman relationships with our allies and partners to build interoperable and complementary capabilities as well as to ensure access to foreign airspace and support infrastructure. We are using training, exercises, personnel exchanges, cooperative armaments development and foreign military sales to expand and

cement these vital coalitions that are essential to prosecuting the GWOT and to our future Joint air operations.

In addition, from local, regional and global perspectives, foreign internal defense is an indispensable component of successful counterinsurgency strategies. The Air Force is partnering with Special Operations Command to rapidly expand Air Force Foreign Internal Defense forces to bolster partner nations on the front lines of the GWOT.

From direct support of Special Forces, to maritime interdiction, to Global Strike, the Air Force remains prepared to engage those who would threaten our friends, our interests, or our way of life.

Emerging Threats

The threats Airmen will encounter in the coming years are changing dramatically. Adversaries are developing and fielding new ground-based air defenses, improved sensor capabilities and advanced fighter aircraft. These capabilities will increasingly challenge our legacy aircraft, sensors and weapons systems.

Advances in integrated air defense systems, to include advanced sensors, data processing and SAMs continue trends noted in the 1990s. SAM systems are incorporating faster, more accurate missiles, with multi-target capability, greater mobility and increased immunity to electronic jamming. Currently possessing ranges of over 100 nautical miles (NM), these anti-access weapons will likely achieve ranges of over 200 NM by the end of the decade. These advanced SAMs can and will compel non-stealthy platforms to standoff beyond

useful sensor and weapons ranges. Proliferation of these long-range SAMs is on the rise, with projections for 2004-2007 indicating a twofold increase over the number of advanced SAM system exports during the mid to late 1990s.

Another trend is the development and proliferation of upgrades to older, 1960/70's-era SAMs. At a fraction of the cost of a new advanced, long-range SAM, many African, Asian and Mid-East nations are looking to upgrade older SAMs to revitalize their aging air defense forces. By bringing in modern technologies, improved missile propellants and increased mobility, older SAM systems are becoming more reliable and more credible threats.

Finally, the threat from Man Portable Air Defense Systems (MANPADS) continues to grow. Large, poorly secured stockpiles of these weapons increase the chances of highly capable MANPADS ending up in the hands of an insurgent or terrorist group.

The threats from advanced fighter aircraft also continue to grow. Currently there exist 31 nations already fielding 2,500 or more airframes. Increased use of state-of-the-art radar jammers, avionics, weapons and reduced signature airframes/engines are becoming the norm in fighter design. Additionally, countries like India and China are now able to produce their own advanced fighters, thereby increasing the quantity and quality of adversary aircraft the Air Force may face in the future. By 2012, China will more than double its advanced fighter inventory to over 500 airframes, most with advanced precision-guided munitions and air-to-air weapons. Similarly, self-protection jamming suites are

growing in complexity and proliferation, potentially eroding our ability to target adversary aircraft.

The threat from the development, fielding and proliferation of standoff weapons such as long-range cruise missiles will also provide potential adversaries with offensive capabilities of ever-increasing accuracy and range which, when combined with their relatively small size, presents an increasing challenge to detection and tracking.

Many nations are enhancing the utility of advanced fighters by pursuing, procuring and integrating support aircraft as force multipliers. They acquire aerial refueling tankers to extend the range of strike operations and increase on-station time for fighters. Furthermore, airborne early warning aircraft are extending the reach of many nations through datalink capabilities that provide control of fighter operations well beyond the reach of land-based radars. Several nations are also purchasing standoff jamming assets in both manned and unmanned platforms to attempt to deny our traditional sensor advantages. Unmanned Aerial Vehicles (UAVs) of all varieties are in high demand and are becoming increasingly available on today's market, providing low-cost, but highly effective reconnaissance capabilities. This situation represents a new and increasingly prolific and complex challenge on the battlefield.

Additionally, the combination of improved C4ISR with improved ballistic and cruise missile capabilities will increasingly threaten regional and expeditionary Air Force basing. China, in particular, has a growing over-the-horizon intelligence, surveillance and reconnaissance (ISR) capability from a

combination of ground, air and space-based systems. Coupled with its large and growing inventory of conventionally armed theater ballistic missiles, China's increasing capabilities and reach collectively present a serious potential to adversely impact allied and Joint air and space operations across the Asian theater.

Worldwide advancements in the development, deployment and employment of foreign space and counterspace systems are challenges to U.S. Space Superiority. Adversaries, including terrorists, are more and more easily obtaining a number of increasingly sophisticated space services. Furthermore, they are developing the means to degrade U.S. space capabilities, freedom of action and access. The intent of U.S. adversaries combined with the capabilities of foreign space and counterspace systems will increasingly threaten U.S. military forces and interests worldwide.

Threat of WMD Proliferation

The threat of proliferation of WMD to countries with advanced military capabilities has changed dramatically since the end of the Cold War. India and Pakistan became overt nuclear powers in 1998, adding to their formidable conventional capabilities. North Korea claims and is assessed to have built nuclear weapons, while Iran is suspected of pursuing them; both countries face intense international pressure to halt their efforts.

Less catastrophic, but of equal concern, are chemical and biological weapons (CBW). Chem-bio WMDs can range in sophistication from World War I-vintage gases or traditional agents like anthrax, to highly advanced "fourth-

generation" chemical agents or genetically modified bacterial or viral weapons that challenge state-of-the-art defenses and countermeasures. It is much less expensive and more technologically feasible to produce CBW than it is to obtain nuclear weapons or fissile materials. Furthermore, CBW can be concealed very effectively and inexpensively, veiled under a veneer of legitimate civilian industry or "dual-use" activities.

Future adversaries, deterred from challenging the U.S. openly, may seek to offset U.S. warfighting advantages by developing, using or threatening to use these weapons. As such, the acquisition of WMD capabilities by terrorists/non-state actors is a grave concern. Many groups have declared their desire to pursue such a goal, and evidence is growing they are attempting to obtain the necessary financial means, weapons knowledge and necessary materials.

Air Force Contributions to OIF, OEF and ONE

Air and Space Operations in OIF and OEF

Over 26,000 Airmen are currently forward deployed in support of Combatant Commanders throughout the world. These Airmen continue to deliver key Air Force capabilities of precision engagement, rapid global mobility and information superiority to OEF and OIF missions.

Pulling from 89,000 tailored deployment teams built around specific capabilities, the Air Force has flown the preponderance of Coalition sorties in support of OIF and OEF. In Iraq, the Air Force has flown over 188,000 sorties, while in Afghanistan, Airmen have flown over 130,000. Overall, the Air Force has flown a total of over 318,000 sorties, or approximately 78% of the total Coalition

air effort. Counted among these sorties are missions ranging from airlift and aeromedical evacuation, to close air support (CAS) missions to protect ground troops as well as provide them with precise fire support and sensor capabilities.

In 2005, Air Force fighters and bombers supporting OIF and OEF expended over 294 munitions (bombs), 90% of which were precision-guided, including the Joint Direct Attack Munition (JDAM). These trends represent a 10% increase over 2004 totals in the use of precision-guided munitions (PGMs). Our Airmen have also provided nearly all of the in-flight refueling for Joint and Coalition forces.

Leading the way in reconnaissance and imagery, the Air Force is currently flying Predator UAV missions 24 hours a day, 7 days a week. This capability will grow from 8 to 12 total orbits in 2006 to meet increased demand. Predator aircraft are able to transmit live video pictures to ground-based targeting teams equipped with the Remote Operations Video Enhanced Receiver (ROVER) system. Linking precision engagement and persistent C4ISR capabilities to forces on the ground, ROVER has been used repeatedly to detect, target and destroy improvised explosive devices (IEDs) and disrupt insurgent activities across the region. Bolstering these capabilities are Tactical Airborne Reconnaissance System (TARS) equipped F-16s flown by Air National Guard units. In recent testing, TARS has demonstrated the ability to aid in the location and destruction of IEDs.

Air Force operations in Iraq and Afghanistan also highlight the importance of space-based C4ISR capabilities to U.S. and Coalition forces. These

capabilities have become integral to effective warfighting operations and include secure communications, global weather, persistent worldwide missile warning and intelligence gathering. Commanders continue to rely extensively on the all-weather precise position, navigation and timing capability provided by the Air Force's Global Positioning System (GPS) constellation, satellite communications (SATCOM) and timely observations of weather and enemy activity to conduct operations in Iraq and Afghanistan. In strikes against time-sensitive targets, nearly 40% of all munitions used in OIF were GPS-guided, which made them unaffected by sand storms and inclement weather. Additionally, at the senior leadership level of warfighting, the Joint Force Air and Space Component Commander's duties as the Space Coordination Authority have become critical to successful Joint planning and execution of space capabilities for Joint Forces. Holding the ultimate high ground, Air Force space professionals keep a constant vigil over a global battle space – planning, acquiring, maintaining and operating the systems that sustain our Nation's advantages in space.

Sister-services and U.S. government agencies continue to heavily rely on Air Force capabilities. Running the spectrum from logistics expertise to medical care, the Air Force is fully partnered with the Army and Marine Corps units running convoys throughout Iraq with more than 1,000 transportation, security forces and medical Airmen trained to support convoy missions.

Moreover, Air Force capabilities are saving Soldiers' lives and simultaneously reducing our required footprint in Southwest Asia. Increased use of Air Force airlift capabilities—notably the unconventional yet highly effective

use of workhorse C-17s as well as C-5 aircraft to increase our intra-theater airlift capabilities in Iraq—has dramatically reduced the need, number and frequency of ground convoys along the most dangerous roads and routes in Iraq. These capabilities and optimized theater airlift mission planning methods have also contributed to a planned reduction of the number C-130s required for OIF support.

Additionally, Air Force support personnel are taking a more active role in the direct protection of personnel and resources. In early 2005, Air Force Security Forces at Balad Air Base, Iraq, in conjunction with the Army, were assigned a sector outside the base to patrol and clear of insurgent operations. This aspect of the air base defense mission has not been seen since the Vietnam War, yet Task Force 1041 was successful in reducing attacks on Balad Air Base by 95%.

Airmen also worked to strengthen relationships, develop capabilities and enhance the self-reliance of Afghanistan, Iraq, and other regional GWOT partners. For example, Air Force Air Traffic Controllers helped return safety and commercial viability to Afghan airspace. At Ali Airbase, Iraq, a cadre of Air Force instructors taught Iraqi airmen how to fly and maintain their newly acquired C-130 aircraft. In Kyrgyzstan, Air Force C-130s air-dropped U.S. Army and Kyrgyz National Guard troops over a drop zone in the capital of Bishkek during a joint training exercise. Additionally, United Arab Emirates (UAE) recently acquired American-made F-16 Block-60 aircraft. This acquisition provides them with cutting edge aviation technology and a capability complementary to the UAE's

new Gulf Air Warfare Center, which has become a tremendously successful training venue for our regional and global Coalition partners.

Finally, Air Force innovations in C2 technologies have allowed Airmen to seamlessly automate and integrate efforts of critical air assets. The systems baseline in use in the Falconer Air and Space Operations Center (AOC) at Al Udeid has improved automated support for the daily air tasking orders, while the capabilities of the Battle Control System-Mobile communications module reduces the number of Airmen needed at forward locations in Iraq, resulting in fewer Airmen exposed to hostile fire.

Air and Space Operations in ONE

While engaged in OEF and OIF, the Air Force simultaneously contributes to Operation NOBLE EAGLE—the defense of the homeland. Through a variety of efforts, the Air Force continues to guard the skies of our Nation from coast to coast. The Air Force's principal Homeland Defense mission is Air Defense and preserving the air sovereignty of the United States and its territories.

Since 9/11, over 41,000 fighter, aerial refueling and airborne early warning sorties have been flown in defense of the U.S., while over 2,000 air patrols have responded to actual incidents and suspicious flight operations. This is a true Total Force mission, leveraging the combined capabilities of the Air Force Reserve, Air National Guard and Regular Air Force components to provide seamlessly orchestrated C2 and refueling support for fighter aircraft operating from alert sites throughout the U.S.

The range, flexibility, persistence and precision inherent in U.S. air and space power provide Joint warfighters with a unique tool set for creating war-winning results with a relatively small footprint. Air and Space operations stand ready to continue providing these important resources to OIF, OEF and ONE, as well as exploring new ways to lead the way in the GWOT.

Air and Space Power – An Essential Element of the Joint Fight

Innovation is a central theme in Air Force heritage. It is a strength the Air Force lends to the overall effort to transform Joint operations into a more seamless, integrated and interdependent team effort. U.S. military performance during ongoing operations in Iraq and Afghanistan demonstrates unprecedented Joint interdependence. We've gone from struggling with C2 and coordination of air and ground forces on the battlefields of Operation DESERT STORM to demonstrating a high degree of integration among Joint and Coalition forces engaged in OIF.

Overall success of future interdependent Joint Force efforts will place greater demands on Air Force capabilities. As ground forces seek to increase their agility and speed, they will rely increasingly on air and space power to move them throughout the battlespace; provide the information needed to outmaneuver numerically superior or elusive adversaries; and deliver precise, rapid strikes across multiple, distributed operations areas. The future Joint Force concept of Seabasing, as yet another means to project power and support ground forces, further underscores the requirements for land-based air and space power.

Clearly, the need for rapid mobility, persistent C4ISR and precision engagement will only increase in the future.

Concurrently, as we reduce prepared, garrisoned overseas bases in the out-years, the Air Force will increasingly operate from expeditionary air bases. The Air Force, having transformed over the past fifteen years to an AEF construct and culture, continues to innovate and evolve with new expeditionary concepts. AEF contingency response groups (CRGs) are organized, trained and equipped to provide an initial "Open the Base" capability to Combatant Commanders. The theater CRG provides a rapid response team to assess operating location suitability and defines combat support capabilities needed to AEF operating locations. In addition, Basic Expeditionary Airfield Resources (BEAR) will provide the scalable capability necessary to open and operate any austere airbase across the spectrum of AEF contingency or humanitarian operations. BEAR will provide vital equipment, facilities and supplies necessary to beddown, support and operate AEF assets at expeditionary airbases with limited infrastructure and support facilities.

Battlefield Airmen

Airmen are increasingly engaged beyond the airbase and "outside the wire," bringing ingenuity and technology to Joint warfighting on the ground by using advanced systems to designate targets, control aircraft, rescue personnel and gather vital meteorological data. The Air Force is optimizing this family of specialties, known as Battlefield Airmen. So far, we have identified program management, acquisition and sustainment synergies across the Combat Rescue,

Combat Control, Terminal Attack Control and Special Operations Weather functional areas. Air Force personnel are an integral part of the battlespace, and we are continuously identifying and updating common training requirements for these Airmen.

We are organizing Battlefield Airmen for maximum effectiveness in the modern battlespace. In addition, we will train Battlefield Airmen in the skills required to maximize airpower and standardize that training across those Battlefield Airmen. Finally, we must equip our Battlefield Airmen with improved, standardized equipment for missions in the forward and deep battlespace. This will expand the commander's ability to employ battlefield airpower professionals able to integrate unequaled accuracy, responsiveness, flexibility and persistence into air operations supporting Joint ground forces.

From forward positions, Joint Terminal Attack Controllers (JTACs), a subset of Battlefield Airmen, direct the action of combat aircraft engaged in CAS and other offensive air operations. Recently JTACs have become recognized across the Department of Defense (DoD) as fully qualified and authorized to perform terminal attack control in accordance with a Joint standard.

In addition to night vision equipment, JTACs carry a hardened laptop computer and multi-channel radio. We've significantly reduced the weight these Battlefield Airmen must carry while simultaneously providing them with greater ability to perform critical tasks such as designate targets ranging up to several kilometers away. We are striving to further decrease the weight of their gear while increasing the capabilities and interoperability of their equipment with other

air, space and ground assets. This combination of technology facilitates the direct transfer of information to combat aircraft, minimizing errors in data transfer. This equipment will increase situational awareness, assist in combat identification, maximize first-attack success, shorten the kill-chain and provide better support to ground forces.

Innovative Uses of Technology

Innovation—our Air Force heritage and strength—is critical to success in defeating enemies on the battlefield as well as in defending our homeland. Each day, Airmen across the world produce military effects for the Joint team through ingenuity or with advancements in technology.

To meet U.S. Central Command's (CENTCOM's) urgent operational needs, the Air Force is accelerating the modification of our Sniper and LITENING Advanced Targeting Pods (ATPs) with video datalink transmitters to share information more rapidly. The high resolution images from our targeting pod TV and infrared video is generations better than the Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) pods used during previous conflicts, and they provide tactical information in greater volume and relevance than ever before.

The Air Force is quickly adapting new tactics, techniques and procedures for integrating the ROVER III and ATPs into Non-Traditional Intelligence Surveillance and Reconnaissance (NTISR) missions. These include convoy escort, raid support and infrastructure protection missions in addition to traditional CAS missions. Equipped with air-ground weapons, our ATP-equipped

aircraft have the flexibility to provide responsive firepower and unprecedented tactical reconnaissance, making our fighters and bombers more effective and versatile than ever.

Furthermore, some ROVER IIIs were diverted to support Disaster Relief and Humanitarian Assistance in the aftermath of Hurricanes Katrina and Rita. Instead of flying ATPs on fighter or bomber aircraft, we located video transmitters on rooftops or attached them to helicopters to provide overhead video streams to the recovery teams equipped with ROVER III.

Predator UAV systems continue to demonstrate the Air Force penchant for innovative application of technology for fighting the GWOT. Current operations allow Airmen in Nevada to pilot and control Predators operating in the Iraq and Afghanistan theaters of operations. Increasing experience in these novel approaches to flight and mission control operations have led to revolutionary advances in the execution of military capability.

Equipped with an electro-optical, infrared, and laser designator sensor, and armed with Hellfire missiles, Predator has not only shortened the sensor-to-shooter timeline—it has allowed the sensor to become the shooter. Since 1995 Predator has amassed over 120,000 total flying hours. From January through September of 2005, Predators logged more than 30,000 flight hours, over 80% of which were in direct support of combat operations. In August 2005, the Predator program flew 4 aircraft controlled by a single pilot and ground control station, successfully demonstrating the Multiple Aircraft Control concept.

Complementing the Predator's capabilities, the Global Hawk is a high altitude, long endurance, Remotely Piloted Aircraft (RPA). Through the innovative use of synthetic aperture radar as well as electro-optical and infrared sensors, Global Hawk provides the Joint warfighter persistent observation of targets through night, day and adverse weather. Global Hawk collects against spot targets and surveys large geographic areas with pinpoint accuracy, providing Combatant Commanders with the most current information about enemy location, resources and personnel. The Global Hawk program is delivering production systems to the warfighter now and is in constant demand by Combatant Commanders.

Since its first flight in 1998, Global Hawk has flown over 8,000 hours—including over 4,900 combat hours and over 230 combat missions with prototype systems deployed in support of GWOT. In OIF and OEF the prototype systems have produced over 57,000 images.

The long-established ISR stalwart, the RC-135 RIVET JOINT continues to demonstrate its adaptability to a changing and evolving threat environment with the application of progressive technologies and upgrade programs.

The RC-135 RIVET JOINT continues to field improvements in tactical SIGINT capabilities and platform performance, including re-engining and avionics modernization, to support the full spectrum of combat operations and national information needs. Additionally, RIVET JOINT has become the cornerstone for airborne net-centric development. RIVET JOINT plays a key role in the Network-Centric Collaborative Targeting Advanced Concept Technology Demonstration

and serves as the platform of choice for implementation of new reachback technologies to enhance national and tactical integration. Adding yet another chapter to RIVET JOINT's continuous record of support to CENTCOM since 1990, the platform flew over 550 airborne reconnaissance missions in support of OEF and OIF.

Aeromedical Evacuations

As early as 1918, the military has used aircraft to move the wounded. The Air Force continued this proud tradition with the aeromedical evacuation of over 11,000 wounded personnel from Afghanistan and Iraq. The aeromedical evacuation system has transformed to ensure the Air Force can conduct rapid and precise operations in an expeditionary environment. The placement of aeromedical crews in forward locations continues the chain of survival that starts on the battlefield with self-aid and buddy care. The chain continues through Expeditionary Medical Support hospitals, to aeromedical in-flight care and finally to stateside medical centers within as little as 72 hours. Expeditionary aeromedical operations reduce the necessity and large footprint of theater medical assets and conserve valuable health care resources.

The force mix of aeromedical evacuation crewmembers consists of 12% Regular Air Force and 88% Air Reserve Component. This use of the Total Force was best demonstrated in the fall of 2005 during the swift aeromedical evacuation of over 3,800 sick and elderly people threatened by Hurricanes Katrina and Rita.

As modern medicine evolves, the aeromedical system continues to adapt to meet future challenges. The Air Force continues to lean forward by looking at future threats such as biological warfare. We are leading the way in the development of a litter transportable patient isolation unit for the movement of contaminated patients. The aeromedical evacuation system demonstrates the Air Force's commitment to providing the best capabilities to the Joint team and our Coalition partners.

Adaptive Airmen: Airmen Filling Non-traditional Roles

Presently, Airmen are meeting the challenges of filling CENTCOM shortfalls in several critical roles which are non-traditional for Airmen, including Convoy Support, Detainee Operations, Protective Service details, Law and Order Detachments, Military Transition Teams and Provincial Reconstitution Teams.

Detainee Operations and Convoy Support are our most heavily supported missions. Airmen attend training at Fort Lewis, WA or Fort Dix, NJ where they learn the fundamentals of detainee security, handling and interaction. At the conclusion of this training, Airmen move forward to a detainee facility in theater and receive additional on site training. Airmen provide Convoy Support in the form of heavy weapons teams supporting long haul convoy operations. These Airmen attend heavy weapons training followed by a convoy-training course. From that training platform, Airmen deploy forward to support theater operations.

Air Force intelligence personnel are also fulfilling non-standard, unconventional roles as members of the Joint team. Air Force intelligence analysts attend the Enhanced Analyst and Interrogation Training Course at Fort

Huachuca, AZ, where they learn to provide analytical support for interrogations. At the conclusion of this training, intelligence personnel deploy forward as part of the interrogator teams to Joint Interrogation Detention Centers in Southwest Asia.

Law and Order Detachments provide vital Joint support missions throughout the Area of Operations. In this capacity, Air Force security forces personnel provide garrison law enforcement and security. Never routine, these missions occasionally support operations outside the confines of an installation.

Military Transition Teams are comprised of specially trained personnel who work within the organizations of indigenous forces. They are responsible for training these forces to support and sustain themselves without the assistance of advisors. Provincial Reconstruction Teams are organizations that move into a different region within the Area of Operations and provide additional support, training and sustainment.

With the exception of the Law and Order Detachments, none of these missions fall within the traditional skill mix of Air Force Security Forces. Additional training varies from one to five months, and deployments are normally longer than the standard 120-day deployment. We are understandably proud of the outstanding adaptability and professionalism with which our Airmen have filled the shortfalls in required skillsets on the Joint roster and accomplished these non-traditional yet critical missions on behalf of the Joint team.

Other Operations

In addition to our major contingencies and defense of the homeland, the Air Force remains engaged in numerous other operations around the world ranging from humanitarian relief and disaster response to maintaining our strategic nuclear forces and space assets. The presence of forward deployed forces is just the leading edge of a greater effort representing the totality of Air Force daily support to the Combatant Commanders.

Humanitarian and Disaster Relief Operations

In December 2004, nearly sixty years after the great Berlin Airlift of 1948-1949, the Air Force, while fully engaged in operations in Afghanistan and Iraq, once again answered the call for help in the wake of the tsunami that devastated Indonesia and South Asia—one of the worst natural disasters in history. Our Airmen responded immediately, and in the course of the first 47 days following the disaster led an allied effort that airlifted over 24 million pounds of relief supplies and over 8,000 people. The entire world witnessed the absolute best of America at work—agility, strength, resolve and compassion—just as it had witnessed nearly sixty years before.

At home, the Air Force leveraged the agility, scalability and responsiveness inherent in our AEF structure and culture to speed support to civil authorities for Hurricanes Katrina and Rita. Hurricane Katrina devastated an entire region of the southern U.S. While destruction of infrastructure stifled ground transportation, Airmen continued to reach flooded areas and bring relief. The Air Force flew over 5,000 sorties, airlifting more than 30,000 passengers and

16,000 tons of cargo and accomplishing 5,500 search and rescue saves. Additionally, Air Force operations were a Total Force effort, incorporating Guard and Reserve capabilities into airlift and rescue operations as well as into the establishment of state-of-the-art medical facilities that treated over 17,000 patients.

Air Force support during Hurricane Katrina and Rita recovery operations illustrated how persistent C4ISR can integrate with other agencies and proved critical to supporting U.S. Northern Command (NORTHCOM) and the Department of Homeland Security during civil support operations. Our airborne reconnaissance platforms, ranging from C-130s to U-2s, combined with military satellite communications (MILSATCOM) capabilities like the Global Broadcast Service (GBS), provided detailed imagery critical for decision makers and aided in directing relief efforts to the worst hit areas.

Additionally, our civilian auxiliary, the Civil Air Patrol (CAP) provided capability to NORTHCOM, federal agencies and state and local governments during all phases of the hurricane rescue and relief efforts. The CAP provided nearly 2,000 hours of air and ground search and rescue, airborne reconnaissance and air transport of key personnel. The CAP leveraged the skills and vigilance of 60,000 non-paid volunteers in over 1,700 units to bolster the Nation's defense during these national crises.

Future natural disasters and relief operations will likely be similar to those faced by the U.S. over the past year. Major populations requiring immense support are often isolated from the infrastructure that is their lifeline. Airpower

provides the capability to overcome terrestrial obstacles and deliver aid directly to those in need. Always seeking new ways to innovate and improve, the Air Force will continue its ongoing transition to a force with unprecedented capability for civil support and Homeland Defense.

Maintaining Our Nuclear Deterrent

The DoD's new strategy of employing a capability-based approach vs. threat-based approach to planning led to the ongoing transformation of the existing triad of U.S. strategic nuclear forces, consisting of intercontinental and sea-launched ballistic missiles and bomber aircraft armed with cruise missiles and gravity weapons, into a New Triad composed of a diverse portfolio of systems. Elements of the New Triad will include nuclear and non-nuclear strike capabilities, active and passive defenses, and robust research and development programs and industrial infrastructure for developing, building, and maintaining offensive and defensive weapon systems. Maintaining our traditional nuclear strategic forces is a key capability in an effective New Triad.

National Security Presidential Directives outline the future force structure and requirements for U.S. nuclear forces. To meet National Military Strategy, Nuclear Posture Review and the Moscow Treaty requirements, near-term capability and sustainment improvements must be made to the legacy forces while development and procurement of follow-on systems proceed. These efforts will enable Air Force nuclear forces to continue to provide critical capabilities to policy makers. The nuclear forces will dissuade current and

potential adversaries from pursuing policies or military initiatives that are unfavorable to our interests or those of our allies.

Our Intercontinental Ballistic Missiles (ICBMs) and cruise missiles are poised to decisively defeat an adversary if deterrence fails. The cruise missile inventory, both Air Launched Cruise Missile and Advanced Cruise Missile, is being upgraded through a Service Life Extension Program (SLEP) to maintain a viable and flexible bomber-delivered weapon. Additionally, the Department of Energy is conducting a SLEP on the cruise missile warhead.

The Air Force is committed to the New Triad and the associated nuclear C2 systems. To provide survivable strategic communications, the Air Force fielded and currently operates the Milstar SATCOM system. We are preparing to field the next generation Advanced EHF SATCOM system to replace it, as well as a single terminal to provide reliable, redundant and secure radio and satellite communication links with Minuteman ICBM forces. The Air Force recognizes the importance of the Nation's nuclear C2 resources and will continue to pursue the New Triad strategy for our strategic systems to ensure they are always ready to respond to the direction of our national leaders.

Space Support for Operations

The U.S. depends upon the Air Force to supply critical space capabilities to meet the needs of Joint operations worldwide, and also the needs of national missions across the instruments of diplomatic, informational, military and economic power. The National Security Strategy commits us to assuring allies, dissuading military competition, deterring threats and decisively defeating

adversaries. The robust space capabilities our Airmen provide and maintain will continue to ensure our Nation's goals are met.

As the DoD Executive Agent for Space, the Under Secretary of the Air Force released a coordinated National Protection Framework in 2005. This framework will aid senior decision makers by stating how space systems will be expected to operate during and following an intentional attack. The framework supports senior leaders in creating a Total Force solution across the national security space community. Air Force satellite communications will ensure our Nation's leaders can communicate globally through times of crisis while providing warfighters instant access to information. As evidenced by the hurricanes in the Gulf of Mexico, space environmental monitoring has become essential in saving lives and property as well as ensuring ground, sea and air forces prepare effectively for weather impacts.

In support of worldwide military operations, the Air Force launched eight DoD and National satellite systems in 2005 from Air Force-managed and maintained launch ranges at Cape Canaveral Air Force Station, Florida and Vandenberg Air Force Base, California. That number is expected to increase to 13 in 2006 as the Evolved Expendable Launch Vehicle (EELV) program takes over as the foundation for U.S. assured access to space.

We have seen the first challenges to U.S. advantages gained from space assets. During OIF, the Iraqis employed GPS jammers in an attempt to reduce the precision of U.S. and allied strikes. We defeated this threat through a variety of methods including space system design, munitions design and tactics

development to operate in a GPS-hostile environment. As technology develops and becomes available to more countries, organizations and individuals, new types of threats to space capabilities will emerge. Preparation now using non-materiel and materiel solutions to address the variety of potential realistic threats will lead to continued success in the battlespace.

Comprehensive space situation awareness (SSA) and defensive and offensive counterspace capabilities are the foundational elements of our Space Superiority efforts. Enhanced ground-based and new space-based SSA assets will provide the necessary information to gain and maintain space superiority. With respect to defensive counterspace, we maintain a diversified ground-based C2 network, and we are developing increased protection for our satellites and space-based services to ensure the vital capabilities they provide are available when needed. We also recently fielded the Counter-Communications System to deny these same services to our adversaries. A well-balanced, multi-tiered architecture enables execution of a robust, effective space superiority strategy.

Even as the first challenges to our Space Superiority have arisen, the Air Force is already working toward responses to the next set of potential challenges. First, the U.S. would like to deter potential adversaries from attacking or exploiting our space capabilities. To accomplish this objective, worldwide space operations must be monitored, assessed and understood. SSA involves those capabilities that allow the interagency and Joint communities to find, fix, track, characterize and assess space operations on orbit and inside the various Combatant Commanders' areas of responsibility. SSA capabilities will

allow the Air Force or other members of the Joint community to target, if necessary, our adversaries' space capabilities. As part of the C2 process, we will evaluate options ranging from diplomatic to economic to military actions to determine the best flexible option to achieve the desired outcome. By understanding how friendly and hostile actors are leveraging these space capabilities in their operations, senior decision makers can deter potential adversaries while preventing unnecessary escalation and allowing for a range of response options to meet national objectives.

The Air Force will protect space capabilities vital to the success of the Joint Force and the defense and prosperity of our great Nation. Some defensive measures will be integrated into new satellite designs. Other space systems, such as the Rapid Attack Identification Detection and Reporting System (RAIDRS) will be specifically designed to conduct defensive operations. We are also leaning forward on the development of new tactics, techniques and procedures to mitigate potential threats to Air Force space systems. Furthermore, experimentation has aided us immensely by facilitating risk reduction and providing interim defensive capabilities today—RAIDRS is an excellent example. The Air Force developed a prototype RAIDRS and demonstrated the capabilities of the system during Joint Expeditionary Force Experiment 2004 (JEFX 04). The inclusion of this prototype laid the groundwork for both tactics development and for design improvements for future development programs. As a result of JEFX 04, CENTCOM requested this prototype to support real-time Joint operations in theater. The results and lessons of this

operational employment will certainly shape future capabilities by improving our understanding and providing further opportunities for innovation.

AIR AND SPACE POWER FOR TOMORROW – AIMING FOR THE UNLIMITED HORIZON

Priorities

Developing and Caring for Our Airmen

Force Shaping

For the past 18 months, the Air Force has reduced our active duty end strength to Congressionally authorized levels taking action to relieve some of our most stressed career fields. The 2004-2005 Force Shaping Program allowed officers and enlisted personnel to separate from active duty service earlier than they would otherwise have been eligible. In addition to voluntary force shaping measures, the Air Force significantly reduced enlisted accessions in 2005 to help meet our Congressional mandate.

While the Air Force met our 2005 end strength requirement, we began 2006 with a force imbalance: a shortage of enlisted personnel and an excess of officer personnel, principally among those officers commissioned from 2000 to 2004. This imbalance created several unacceptable operational and budgetary impacts. Consequently, the Air Force took several actions to ensure our force is correctly sized and shaped to meet future challenges and to reduce unprogrammed military pay costs. First, we increased our enlisted accession target for 2006 to address the enlisted imbalance. Second, we continued to encourage qualified officers, especially those commissioned in 2000 and later, to

consider voluntary options to accept service in the Air National Guard, Air Force Reserve, civil service, or as an inter-service transfer to the Army.

Additionally, we are institutionalizing the force shaping authority granted in the 2005 National Defense Authorization Act to restructure our junior officer force. Only after exhausting all efforts to reduce officer end strength by voluntary means, the Air Force will convene a Force Shaping Board in 2006 to consider the performance and potential of all eligible officers commissioned in 2002 and 2003. This board will be held annually thereafter, as required, to properly shape and manage the officer corps to meet the emerging needs of the Air Force. Essentially, the Force Shaping Board will select officers for continued service in our Air Force. Current projections indicate that we need about 7,800 of these eligible officers (2002 and 2003 year groups) to continue on active duty. Approximately 1,900 officers will be subject to the force reduction. Exercising this authority is difficult, but our guiding principle is simple—we must manage our force to ensure the Air Force is properly sized, shaped and organized to meet the global challenges of today and tomorrow.

Balancing the Total Force

In addition to maintaining and shaping the active duty force, we must continue to focus on the balance of forces and specialties between Regular, Air National Guard and Reserve components—the Total Force. We are diligently examining the capabilities we need to provide to the warfighter and to operate and train at home. We continue to realign manpower to our most stressed areas and are watchful for any new areas that show signs of strain.

As we look to the future in implementing Base Realignment and Closure (BRAC) and Quadrennial Defense Review (QDR) decisions, we must ensure a seamless transition to new structures and missions while preserving the unique capabilities resident in our Regular Air Force, Air National Guard and Reserve communities. Examining functions for Competitive Sourcing opportunities or conversion to civilian performance will continue to be one of our many tools for striking the correct balance of missions across the Total Force.

Force Development

The Air Force's Force Development construct is a Total Force initiative that develops officers, enlisted and civilians from the Regular Air Force, the Air National Guard and the Air Force Reserve. The fundamental purpose of force development is to produce leaders at all levels with the right capabilities to meet the Air Force's operational needs by leveraging deliberate training, education and experience opportunities.

The Air Force Personnel Center created a division dedicated to supporting corporate and career field development team needs. Development teams have now been incorporated into the officer assignment process and they now guide assignment of all officer career fields. Additionally, development teams recommend officers for special selection boards and developmental education opportunities.

The Air Force is also deliberately developing our enlisted Airmen through a combined series of educational and training opportunities. We are exploring new and exciting avenues to expand our process beyond the current system in

place today. Each tier of the enlisted force will see changes to enlisted development. Airmen (E-1 to E-4) will be introduced to the enlisted development plan, increasing their knowledge and solidifying future tactical leadership roles. The noncommissioned officer (NCO) tier will be encouraged and identified to explore career-broadening experiences and continuing with developmental education. Our Senior NCO tier will see the most dramatic changes as we explore the use of development teams in conjunction with assignment teams to give career vectoring and strategic level assignments. Institutionalizing the practice of development as a part of enlisted Air Force culture is paramount for supervisors, commanders and senior leaders.

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

Recruiting/Retention

After intentionally reducing total accessions in 2005, the Air Force is working to get the right mix of officer and enlisted Airmen as we move to a leaner, more lethal and more agile force. We will align the respective ranks to

get the right person, in the right job, at the right time to meet the Air Force mission requirements in support of the GWOT, the Joint Force and the Air Force's expeditionary posture.

A key element for success is our ability to continue to offer bonuses and incentives where we have traditionally experienced shortfalls. Congressional support for these programs, along with increases in pay and benefits and quality-of-life initiatives, has greatly helped us retain the skilled Airmen we need to defend our Nation.

Personnel Services Delivery

To achieve the Secretary of Defense's objective to shift resources "from bureaucracy to battlefield," we are overhauling Air Force personnel services. Our Personnel Services Delivery initiative dramatically modernizes the processes, organizations and technologies through which the Air Force supports our Airmen and their commanders.

Our goal is to deliver higher-quality personnel services with greater access, speed, accuracy, reliability and efficiency. The Air Force has been able to program the resulting manpower savings to other compelling needs over the next six years. This initiative enhances our ability to acquire, train, educate, deliver, employ and empower Airmen with the needed skills, knowledge and experience to accomplish Air Force missions.

National Security Personnel System (NSPS)

Our civilian workforce will undergo a significant transformation with implementation of the DoD NSPS. NSPS is a simplified and more flexible civilian personnel management system that will improve the way we hire, assign, compensate and reward our civilian employees. This modern and agile management system will be responsive to the national security environment, preserve employee protections and benefits, and maintain the core values of the civil service.

NSPS design and development has been a broad-based, participative process to include employees, supervisors and managers, unions, employee advocacy groups and various public interest groups. We plan to implement these human resource and performance management provisions in three phases called “spirals.” The first spiral will include approximately 89,000 General Schedule and Acquisition Demonstration Project civilian employees in the Air Force. NSPS is the most comprehensive new federal personnel management system in more than 50 years, and it’s a key component in the DoD’s achievement of a performance-based, results-oriented Total Force.

Caring for Airmen

Combat capability begins and ends with healthy, motivated, trained and equipped Airmen. We must remain 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.

Through various investment strategies in both dormitories and military family housing, we are providing superior living spaces for our single Airmen and quality, affordable homes for our Airmen who support families. Our focus on providing quality childcare facilities and programs, on and off installations, enables our people to stay focused on the mission, confident that their children are receiving affordable, quality care. The Air Force is a family, and our clubs and recreation programs foster and strengthen those community bonds, promoting high morale and an esprit de corps vital to all our endeavors.

Additionally, we are equally committed to ensuring that all Airmen in every mission area operate with infrastructure that is modern, safe and efficient, no matter what the mission entails—from Depot Recapitalization to the bed down of new weapon systems. Moreover, we must ensure Airmen worldwide have the world class training, tools and developmental opportunities that best posture them to perform with excellence. We also continually strive to provide opportunities and support services that further enable them to serve their Nation in a way that leaves them personally fulfilled, contributes to family health, and provides America with a more stable, retained and capable fighting force.

Housing and Military Construction (MILCON)

One of the highlights in our emphasis on developing Airmen is our focus on housing investment. Through military construction and housing privatization, we are providing quality homes faster than ever before. Over the next two years,

the Air Force will renovate or replace more than 49,000 homes through privatization. At the same time, we will renovate or replace an additional 10,000 homes through military construction.

Investment in dormitories continues to accelerate in order to provide superior housing to our unaccompanied members—evidenced by nearly 8,600 dormitory rooms programmed for funding over the next six years. Approximately 75% of these initiatives will rectify currently inadequate dormitory conditions for permanent party members. Our new "Dorms-4-Airmen" standard is a concept designed to increase camaraderie, social interaction and accountability by providing four single occupancy bedroom/bathrooms with a common kitchen and living area in each module. Finally, the remaining dormitory program initiates modernization of inadequate "pipeline" dormitories—those dormitories that house young enlisted students during their initial technical training.

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

Sustain, Restore, And Modernize Our Infrastructure

In order to maintain readiness, your Air Force remains committed to sustaining, restoring, and modernizing our infrastructure. Central to that commitment is our focus on both preserving our existing investment in facilities

and infrastructure as well as optimizing our limited Restoration and Modernization (R&M) funding to fix critical facility deficiencies that impact our readiness. With the increased OPTEMPO of GWOT, these efforts are more important than ever.

Our sustainment program maximizes the life of our infrastructure and preserves our existing investment. With proper sustainment, we will prevent our infrastructure from wearing out under the strain of increased operations and activities. In addition, Commanders in the field use O&M accounts to address facility requirements that directly impact mission capabilities.

When facilities require restoration or modernization, we use a balanced program of O&M and MILCON funding to make them "mission ready." Unfortunately, restoration and modernization requirements in past years have exceeded available O&M funding, forcing us to defer much-needed work. It is critical for us to steadily increase our R&M investment in order to halt the growth of this backlog. Simultaneously, it is important that we fully fund our sustainment efforts in order to maximize the life of our good infrastructure. The Air Force Total Force sustainment funding for fiscal year 2007 carefully balances infrastructure sustainment, R&M and MILCON programs to make the most effective use of available funding in support of the Air Force mission.

We must avoid separating the Sustainment, Restoration and Modernization (SRM) account from the Operations and Maintenance (O&M) appropriation. In past years, all O&M was funded from the Defense Appropriation. Commanders are afforded the necessary flexibility to effectively

manage budget shortfalls and unexpected requirements such as utility rate increases, natural disasters, infrastructure failures, or mission-driven requirements. Without legislation that would permit the movement of funds between all O&M accounts, Commanders would face serious challenges addressing these emergent requirements.

Basic Allowance For Housing (BAH)

We must also avoid migration of BAH out of the Defense Appropriation Bill. Should emergent requirements create shortfalls during the year of execution, commanders will be unable to address them. Our hands will be tied. The Services will no longer have the ability to flexibly use the Military Personnel account. Furthermore, the Committee will have to create a new mechanism to ensure our Airmen are paid the housing allowance to which they are entitled.

Common Airman Culture

An Airman Culture manifests the totality of our commonly transmitted behaviors, patterns and beliefs. Our Air Force clearly recognizes the relationship between mission capabilities and our Air Force Core Values. *Integrity*, *Excellence* and *Service*, remain critical guideposts to every Airman's personal and professional flight path. Principles of dignity, self-worth, respect and diversity are firmly embedded elements of these values. Together, our Core Values are reflected in every Airman's pride, dedication to mission, subordination of their own needs for those of their wingman, and devotion to duty and this great Nation. In this past year, we have made significant strides in our efforts to

promote, reinforce and inculcate our Core Values across the Air Force and throughout the Total Force team—including our Regular, Guard, Reserve, Civilian and Contractor teammates. We expect and accept no less from everyone on the Air Force team.

Certain behaviors are absolutely incongruous with the Common Airman Culture and our Core Values. Among these is sexual assault. The Air Force has created the Sexual Assault Prevention and Response Program to ensure every Airman is provided the respect and dignity they deserve as their Nation's Air and Space warfighters. We have trained and fielded Sexual Assault Response Coordinators and Victim Advocates to ensure every Airman has access to immediate assistance, should it be required. We are rewriting our education and training curricula at every level to ensure Airmen understand how these crimes occur, how they are often unwittingly facilitated by bystanders and third-party witnesses and how we can better take care of our people by preventing sexual assault crimes from occurring to them, their wingmen, friends and family members.

Reflecting our belief that diversity adds strength to our organization, the Air Force has accepted the challenge to "create a diverse and an inclusive Total Force which reflects and leverages the talents of the American people to maximize the Air Force's combat capabilities." We created The Office of Air Force Strategic Diversity Integration in the summer of 2005 to lead the Air Force's Diversity efforts. This office provides leadership guidance and strategic

support for the understanding, furtherance and advantage of diversity within the ranks of the Air Force.

Inherent in our Common Airman Culture is a belief in professional and personal dignity and a deep respect for individual religious beliefs. The protection of every Airman's freedom of religion, while also defending the Constitutional prohibition on official establishment of religion, is an area of significant emphasis. As Airmen, we take an oath to support and defend the Constitution. In that endeavor, we are striving to assist Air Force personnel, in the course of their official duties, to meet and balance their multiple Constitutional obligations and personal freedoms, regarding the free exercise of religion, avoidance of government establishment of religion, and defense of the Nation. This is an area of national debate. The balancing of these foundational American principles demands common sense, good judgment and respect for each Airman's right to hold to their own individual personal beliefs.

We also recognize our Airmen must have the ability to interact with coalition partners and local communities at home and abroad, and the Air Force is transforming how it engages friends and partners in the expeditionary environment. Operations in this dynamic setting necessitate extensive international insight to work effectively with existing and emerging coalition partners in a wide variety of activities. Through the AF International Affairs Specialist program, we are developing leaders who are regional experts with foreign language proficiency. Our focus is on building a cadre of officers with the

skills needed to foster effective relationships with global partners in support of the Combatant Commanders and U.S. global interests.

Over the next year, the Air Force will continue to vigorously reinforce our Common Airmen Culture, our belief in professional and personal dignity and most importantly our enduring Core Values of *Integrity First*, *Service Before Self* and *Excellence in All We Do*.

Training at Keesler AFB Following Hurricane Katrina

In August 2005, Hurricane Katrina struck the Gulf Coast of the United States. Keesler Air Force Base (AFB), Mississippi lay in its direct path. The Air Force is attempting to rapidly reestablish Keesler's critical training missions. Of 56 enlisted initial skills training "pipelines," 90% have already resumed operation. Additional pipelines have been temporarily reestablished at other locations. Significant challenges remain ahead, but training and developing our expeditionary Airmen remains one of our highest priorities. We take exceptional pride in the work our Airmen have done, and continue to do, in restoring Keesler AFB's training capability.

<u>Maintenance, Modernization and Recapitalization</u>

Our Airmen are the best in the world. However, they can only be as effective as the tools we give them. Within today's fiscal constraints, we must fight the GWOT and protect the homeland while transforming the force and maintaining an appropriate level of risk. The Air Force is committed to the modernization and recapitalization necessary to maintain the health of the force

and bridge our current capabilities to systems and capabilities required in the future.

Aircraft

Our primary fighter modernization and recapitalization program is the F-22A Raptor. The F-22A is a 5th generation fighter aircraft that delivers Joint Air Dominance to counter persistent and emerging national security challenges. Given its vast improvements in every aspect—air-to-air, air-to-ground, all-aspect stealth, and an open, adaptable architecture—the F-22A is an insurance policy against future threats to Joint Air Dominance and represents the absolute best value for the American taxpayer. The F-22A is the only fighter currently produced that will defeat conceivable threats to Joint Air Dominance in anti-access environments over the next 20-30 years.

The F-22A is flying today and is in full rate production. Its performance continues to meet or exceed key performance parameters and spiral modernization will enhance its air-to-air and air-to-ground target engagement capability.

The F-35 Joint Strike Fighter (JSF), also a 5th generation fighter, will complement the tremendous capabilities of the F-22A. The JSF will recapitalize combat capabilities currently provided by the F-16 and A-10. Optimized for all-weather performance, JSF will specifically provide affordable precision engagement and global attack capabilities. In 2005, the JSF program continued to address design challenges to develop three aircraft variants and coordinate

the requirements of the Air Force, Navy and Marines, along with our international partners.

The C-17 continues to be a success story for the Joint warfighter, deploying troops and cargo to Iraq and Afghanistan, as well as numerous locations around the world. The Air Force is on schedule for delivery of the next 40 aircraft through 2008—for a total of 180. During the past year, C-17s flew over 63,000 sorties, bringing the total number of OEF and OIF missions to over 109,000. Additionally, the C-17 flew over 100 humanitarian and disaster relief missions following Hurricanes Katrina and Rita, as well as the October 2005 earthquake in Pakistan. The C-17, in concert with C-5 modernization programs, is critical to meeting our U.S. inter-theater airlift requirements.

To meet continuing intra-theater airlift demands, we have a two-pronged approach to modernize our C-130s. First, but most problematic, we are striving to replace our oldest aircraft with new C-130Js. Second, the remaining C-130s are being standardized and modernized via the C-130 Avionics Modernization Program and center-wing box replacement programs. C-130s have been the workhorse for intra-theater airlift during numerous contingencies. C-130Js have supported GWOT and humanitarian operations since December 2004 and have proven to be a force enhancer as they deliver more cargo in a shorter time than older C-130s. C-130 modernization, coupled with the wing-box modification, reduces operation and sustainment costs and improves combat capability.

The Air Force is developing the next generation combat search and rescue (CSAR) recovery vehicle, called CSAR-X. We are planning to replace the

current and aging CSAR inventory of “low-density, high-demand” (LD/HD) HH-60G Pave Hawk helicopters with 141 CSAR-X aircraft. The CSAR-X will address deficiencies of the current HH-60G by providing increased capabilities in speed, range, survivability, cabin size and high altitude hover operations. The CSAR-X will provide personnel recovery forces with a medium-lift vertical take-off and landing aircraft that is quickly deployable and capable of main base and austere location operations for worldwide recovery missions. The CSAR-X will be capable of operating day or night, during adverse weather conditions, and in all environments including Nuclear, Biological and Chemical conditions. On-board defensive capabilities will permit the CSAR-X to operate in an increased threat environment, and in-flight refueling capability will provide an airborne alert capability and extend its combat mission range.

UAVs

UAVs are demonstrating their combat value in the GWOT. The Air Force rapidly delivered operational UAV capabilities to the Joint warfighter and is continuing to mature and enhance those capabilities.

Predator is transforming the way we fight, providing a persistent ISR, target acquisition and strike capability against critical time sensitive targets (TSTs) in direct response to warfighters’ needs. Today, by controlling combat operations remotely from the U.S., Predator provides a truly revolutionary leap in how we provide persistent military capability to the warfighter.

The Air Force will continue to enhance Predator’s ability to support the Joint warfighter. We are developing the ability to operate multiple aircraft by a

single pilot, which will increase our overall combat effectiveness. We demonstrated this capability in August 2005. We are also developing and deploying the Predator B, a larger, more capable, more lethal variant. In its role as a "hunter-killer," Predator B will be capable of automatically finding, fixing, tracking and rapidly prosecuting critical emerging TSTs.

Global Hawk is a high-altitude, long endurance RPA providing robust surveillance and reconnaissance capabilities. Despite being a developmental prototype system, Global Hawk has flown over 4900 combat hours. This year the Air Force moved beyond the proven capability of the Global Hawk prototypes by deploying two production aircraft to support GWOT operations.

Airborne ISR

E-8C Joint Surveillance Target Attack Radar System (J-STARS) continues to be a high-demand asset. J-STARS aircraft provide wide theater surveillance of ground moving targets. Crews from the 116th Air Control Wing at Robins AFB, Georgia, the first-ever "blended wing" of Regular Air Force, Air National Guard and Army, operate these aircraft. Modernizing these aircraft while maintaining the current high OPSTEMPO in combat theaters will be ongoing challenges. The recent installation of the Force XXI Battle Command Brigade and Below module, the reduced vertical separation minima module, and the Airborne Battlefield Command and Control Center are some of the latest capability upgrades. The most urgent modernization needs for J-STARS include re-engining, radar upgrades, installation of the Traffic Alert Collision Avoidance System and integration of a self-protection suite.

The E-10A program will highlight the advanced capabilities of the Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensor by demonstrating advanced cruise missile defense, interleaved ground tracking, and ground imaging capabilities in 2010 and 2011. A smaller variant of the MP-RTIP sensor, developed within the E-10A program, will be integrated into the Global Hawk in 2008 to begin developmental and operational testing. These demonstrations will advance critical sensor technology and provide vital warfighting capabilities.

Space and Nuclear Forces

Air Force modernization and recapitalization efforts also continue for space systems. The Air Force is modernizing critical capabilities across the spectrum of global strike, navigation, weather, communication, missile warning, launch, surveillance, counterspace and ground-based space systems.

The Minuteman Intercontinental Ballistic Missile (ICBM) was originally designed in the late 1950s and deployed operationally in October 1962. Modernization programs have been crucial to this system originally designed to last just ten years. Service life extension programs are underway to ensure the Minuteman III remains mission capable through 2020. These programs, nine in all, will replace obsolete, failing and environmentally unsound materials while maintaining missile reliability, survivability, security and sustainability. These efforts are critical in sustaining the ICBM force until a follow-on system can be fielded.

The Air Force is also addressing the need for a follow-on ICBM system. This system will address future warfighter needs, reduce ownership costs and continue to provide policy makers the critical capabilities provided by the ICBM. The effort to modernize the ICBM force is vital to the U.S. for the foreseeable future.

Continued, unhindered access to space is vital to U.S. interests. As the Air Force continues programs to upgrade and modernize America's launch ranges, the EELV program will continue to provide the U.S. with assured access to space for both DoD and National space assets. The EELV program includes two launch vehicle designs—Delta-IV and Atlas-V—with each design comprising a family of scalable, tailorable launch vehicle variants.

The TSAT program will employ Internet Protocol networks, on-board routing and high-bandwidth laser communications relays in space to dramatically increase warfighter communications connectivity. TSAT capability enables the realization and success of all DoD and Joint visions of future network-centric operations, such as the Army's Communications-on-the-Move (COTM) and Future Combat System (FCS) concepts and the Navy's Sea Power 21 vision and Fleet FORCEnet/FORCEview concepts.

Global Positioning System (GPS) modernization and development of the next-generation GPS-III will enhance navigation capability and improve resistance to jamming.

In partnership with NASA and the Department of Commerce, the National Polar-orbiting Operational Environmental Satellite System (NPOESS) will

accurately calculate surface winds over the oceans and gather meteorological data for our forces deployed overseas.

The Space Based Infrared System (SBIRS) will provide a transformational leap in capability over our aging Defense Support Program satellites. Complementing the space-based system are ground-based missile warning radars, being upgraded to support the missile defense mission.

Another future transformational space-based ISR program is the Space Radar (SR) system. SR's day-night and all-weather capabilities will include Synthetic Aperture Radar (SAR) imagery, High-Resolution Terrain Information (HRTI), Surface Moving Target Indication (SMTI), Geospatial Intelligence (GEOINT) and Open Ocean Surveillance (OOS), and rapid revisit. It will support a broad range of missions for the Joint warfighter, the Intelligence Community, and domestic users. SR will be integrated with other surface, air and space ISR capabilities to improve overall collection persistence and architecture effectiveness.

Modernization of our ground-based space systems will provide new capabilities to keep pace with the satellites they support and will continue to provide assured C2 for our satellites and space-based capabilities. This effort includes the modernization of ground-based radars, some of which are over 25 years old. Through programs like the Family of Advanced Beyond Line of Sight Terminals (FAB-T) and the Ground Multi-band Terminal, the Air Force is modernizing its ground-based space capabilities with satellite communications terminals that consolidate logistics support, provide increased satellite throughput

and laser communications and ensure seamless command and control. Additionally, enhanced ground-based and new space-based SSA assets will provide the necessary information to gain and maintain Space Superiority.

As part of the broader Space Control mission, the ground-based, theater-deployable Counter Communications System (CCS) has achieved Initial Operational Capability (IOC) and provides the Combatant Commander with a non-destructive, reversible capability to deny space-based communication services to our adversaries. Incremental upgrades to the CCS will continue to enhance our Offensive Counterspace capabilities. Overall counterspace enhancements also include ongoing RAIDRS development, which is a Defensive Counterspace system designed to assist in the protection of our space assets. RAIDRS will provide a capability to detect and geolocate satellite communications interference via fixed and deployable ground systems. Future developments will automate data access analysis and data fusion and provide decision support tools.

Operational Infrastructure and Support Modernization (OSM)

Finally, the Air force is pursuing to modernize its operational infrastructure and the tools we use to manage operational support to our Airmen and Joint warfighters. The Air Force's ongoing Operational Support Modernization (OSM) program will improve operational support processes, consolidate personnel and financial service centers, and eliminate inefficiencies in the delivery of services, support and information to our Airmen and the Combatant Commanders. Realizing these economies, OSM will improve Air Force-wide enterprise

efficiency and provide a resources shift from business and combat support systems, thereby returning resources to Air Force operations, equipment 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.

Acquisition Reform

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

Program cost and schedule growth have drawn widespread criticism and undermined confidence in the defense acquisition process. A recent Government Accounting Office (GAO) study of 26 DoD weapon systems reports

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

In an effort to address these concerns, the Air Force formed the Acquisition Transformation Action Council in December 2004. This group is comprised of general officer and senior executive service representatives from the Air Force product centers, labs, air logistics centers and headquarters. The group continues to lead the transformation of Air Force acquisition from its present state into that of an Agile Acquisition Enterprise. The goals of Agile Acquisition include shortened acquisition process time and improved credibility with both internal and external stakeholders. Achieving these goals will be critical to making the delivery of war-winning capabilities faster, more efficient and more responsive.

The Acquisition Transformation Action Council's short-term focus is on incremental improvements and eliminating non-value-added processes in areas such as conducting Acquisition Strategy Panels, meeting immediate warfighter needs and effectively incentivizing contractors. A more comprehensive strategic plan for acquisition transformation, due later this year, will detail not only where the near-term changes fit into the big picture of acquisition reform, but also the longer-term actions needed to achieve the goals of Agile Acquisition.

The Air Force is also pursuing initiatives aimed at improving the Air Force's cost analysis capability. Among these initiatives are efforts to strengthen the Air Force Cost Analyst career field, improve the quality, quantity and utilization of program cost and technical data and estimating methods, and

establish new policy requiring robust independent cost estimates for programs—earlier and more often. These improvements will promote realistic program cost and technical baselines as well as strengthen the Air Force's capacity to produce accurate, unbiased cost information for Air Force, DoD and Congressional decision-makers.

The Air Force is on a bold, ambitious, yet necessary journey to provide our Commanders and decisions-makers with accurate, reliable real-time business and financial management information that is validated by a "clean audit" opinion. Basic building blocks for this effort include a revitalized emphasis on transparency in our business processes and an enterprise-wide financial management capability that is modern, comprehensive and responsive to the warfighter. Sound financial management and improved accountability are at the core of our financial management transformation.

Initiatives in Air Force contracting include development and implementation of the Enterprise Architecture for Procurement, consolidation of Major Command (MAJCOM) Federal Acquisition Regulation Supplements, standardization of the strategic sourcing process and assessment of current contracting organizational alignments.

The Air Force will continue to promote small business participation in our acquisitions. Partnering with small businesses—including Historically Underutilized Business Zones; Women Owned Small Businesses; Service Disabled Veteran Owned Small Businesses; Small Disadvantaged Businesses; and Historically Black Colleges, Universities and Minority Institutions—helps

ensure we maintain a strong defense industrial base and have the widest range of products and services available to support the Joint warfighter.

The Air Force is also working with OSD to understand the demand on our acquisition personnel and to appropriately size our workforce. Our objective is to have the right mix of military and civil service acquisition professionals with the appropriate education, experience and training.

Focus Areas

Total Force Integration

The Chairman of the Joint Chiefs of Staff, General Pace stated, "We must transform if we are to meet future challenges." One of the Air Force's more significant commitments to long-term transformation is the creation of the Total Force Integration Directorate. This new directorate is responsible for future force structure, emerging-mission beddown and development of Total Force organizational constructs. Working with our partners in the Air National Guard and Air Force Reserve, the Air Force is maximizing our overall Joint combat capability. Our efforts will enable the Air Force to meet the challenges of a shrinking budget, an aging aircraft inventory and new and emerging missions.

The Air Force plans to shift investment from "traditional" combat forces, with single-mission capabilities, to multi-role forces by aggressively divesting itself of older systems. The result will be a force structure with expanded capability to combat conventional threats while continuing to wage the GWOT. Simply stated, the Air Force will become a smaller, yet more capable force

through modernization and recapitalization of selected weapon systems with a commitment to networked and integrated Joint systems.

Our Total Force initiatives will maximize efficiencies and enhance combat capability through innovative organizational constructs. We have developed an organizational construct based on the success of an associate model in use by the Regular Air Force and Air Force Reserve since 1968. Associate units are comprised of two or more components operationally integrated, but whose chains of command remain separate. This model capitalizes 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 heraldry and 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.

Air National Guard and Air Force Reserve members will continue to support the Air Force's global commitments and conduct vital Homeland Defense and Security missions. Total Force initiatives will integrate Air Force components into missions critical to future warfighting: ISR, UAV operations and space operations. These missions are ideally suited for the Guard and Reserve since many provide direct support to the Joint warfighter from U.S. locations. Using this approach will improve our operational effectiveness, reduce our overseas footprint, reduce reliance on involuntary mobilization and provide more stability for our Airmen and their civilian employers.

Ongoing Total Force transformation benefits from a robust, dynamic, cross-functional coordination process, involving the headquarters, all regular component MAJCOMs, the National Guard Bureau and Air Force Reserve Command.

The Air Force continues to make significant progress on Total Force initiatives such as the Richmond-Langley F-22A integration in Virginia; community basing in Vermont; F-16 Integration at Hill AFB, Utah; new Predator missions in Texas, Arizona, New York, North Dakota, California and at the Air Force Warfare Center in Nevada; and C-17 associate units in Alaska and Hawaii. We are also working additional initiatives such as C-130 Active Associate units in Colorado and Wyoming; a C-5 Flight Training Unit in Texas; C-40 Integration in Illinois; and Centralized Intermediate Repair Facilities in Illinois, Connecticut, Louisiana, Utah, South Carolina, Georgia, North Carolina and Florida.

The Air Force, through its Total Force Integration Directorate, is continuing a broad effort to ensure that new Total Force concepts are embedded in our doctrine, policy directives, instructions and training. We are creating procedures to ensure resource and other decisions related to Total Force initiatives become routine parts of the planning and programming processes. The goal is clear, albeit ambitious: take greater advantage of Total Force elements and capabilities in the way the Air Force does business.

The Air Force is transforming from a Cold War force posture to a structure that supports expeditionary warfare and leverages Total Force capabilities. 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.

Science and Technology (S&T)

The Air Force develops and exploits new technologies to meet a wide range of conventional and asymmetric threats. To achieve required future capabilities, we continue to support S&T investments for the major tasks the Air Force must accomplish to support the Combatant Commanders.

Air Force S&T is focused on high payoff technologies that could provide current and future warfighting capabilities to address not only conventional threats, but also those threats encountered in the GWOT. The Air Force has embraced a new technology vision to guide our S&T Program – "Anticipate, Find, Fix, Track, Target, Engage, Assess…Anytime, Anywhere." We are integrating this vision into our annual planning activities to ensure we develop and transition relevant technology to the Joint warfighter.

Air Force technological advantages and superior warfighting capabilities are the direct result of decades of Air Force investment in S&T. Similarly, today's investment in S&T will produce future warfighting capabilities as we adapt to continually changing threats. The Air Force continues to seek ways to create a significantly greater advantage over these threats. Investment in technologies such as nanotechnology could provide stronger and lighter air vehicle structures, while investment in hypersonic research could provide on-demand access to space and reduced time-to-target for conventional weapons. New information assurance technologies should allow real-time automatic detection and reaction

to network attacks, enabling us to automatically isolate the attack and collect forensic evidence, all while continuing uninterrupted network operations. Research in sensor and information technologies should provide increased battlefield situational awareness, which will provide unprecedented insight and understanding of events in the battlespace. These are but a few examples of developing technologies that could lead to operational systems that are smaller, lighter, smarter, faster, stronger and more effective, affordable and maintainable than they are today.

The Air Force Directed Energy (DE) Master Plan is on track and some DE applications are already being fielded, especially for defensive purposes. For example, the Large Aircraft Infrared Counter Measures has now been used extensively and successfully in OIF and OEF on C-17s. Also, the Airborne Laser program continues to move DE technology forward. The capabilities possible through DE hold the potential to profoundly transform how we fly, fight and defend ourselves.

Impressive as our technological advances have been, maintaining an advantage relies, in part, on our commitment to future S&T investments. These investments also clearly highlight that air and space power is an asymmetric advantage for the Joint warfighter and the Nation.

Air Force Smart Operations for the 21st Century (AFSO21)

To meet the challenges of the road ahead, we have embarked on an Air Force-wide journey embracing Continuous Process Improvement, Lean Thinking and Six Sigma Quality. This major initiative is called AFSO21. Achieving

excellence in all that we do requires us to institutionalize the precepts of AFSO21 throughout all of our operations, across the Total Force, and in our daily lives as Airmen. The Air Force is stepping up to the challenge and making the commitment necessary to achieve true process excellence. AFSO21 focuses on the identification and elimination of activities, actions and policies that do not contribute to the efficient and effective operation of the Air Force. We will seek out and discontinue any activity not ultimately contributing to creating military utility and mission capability. Continuous identification and systematic elimination of so-called "non-value added" activities are the keys to improving service, reducing costs and enriching the lives of our Airmen.

We are seeking three outcomes from this approach. First, we want Airmen who are fully aware of the importance of their work and how it contributes to the mission; Airmen must look to improve what they do every day. We want Airmen to see their role in a fundamentally different way: by focusing on increasing value and eliminating waste. Second, we want to make the most of our existing budgets and free resources for future modernization by systematically identifying and eliminating the waste in our day-to-day processes. Finally, we want to enhance our ability to accomplish our mission and provide greater agility in response to rapidly changing demands.

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

Fuel Conservation and Efficiency

The Air Force is the largest renewable energy power purchaser in the U.S. and is set to continue making large buys that will not only greatly reduce reliance on petroleum-based fuels but, over time, will reduce utility costs.

The Air Force is pursuing an aggressive energy conservation strategy and is committed to meeting and surpassing the energy goals mandated by the Energy Policy Act of 2005 and other overarching policies and mandates. We have been successful at reducing our energy consumption in accordance with past legislation and will continue to use a variety of programs aimed at reducing our use of petroleum-based fuels.

Our overall ground fuel conservation efforts in accordance with mandates and guidance have yielded some notable reductions. Specifically, Air Force motor vehicle gas and diesel consumption has fallen significantly alongside a corresponding increase in Air Force use of alternative fuels. Air Force progress in these areas will be driven largely by commercial research and funding, since we do not substantially drive alternative fuels technology and infrastructure changes. The Air Force is partnering with the Army to develop and use a hybrid electric-diesel engine for the High Mobility Multi-purpose Wheeled Vehicle (HMMWV) with a planned delivery starting in 2008. Other alternative fuel-technology is still in the development stage.

Michigan's Selfridge Air National Guard Base (ANGB) will become the demonstration center for the latest fuel-efficient and environmentally compliant technologies for use in Air Force support equipment to include Basic

Expeditionary Airfield Resources (BEAR) and ground vehicle inventories. Tests at Selfridge ANGB, Michigan will look at fuel cell powered vehicles, hydrogen fuel infrastructure requirements and will ultimately provide models for future Air Force/DoD procurement.

Our use of energy from renewable sources and construction and infrastructure improvement programs are designed to create cost effective energy efficiencies in new and existing facilities. In addition, our aggressive pursuit of on-base renewable power generation is rapidly increasing. We have bases where power is being produced from wind, solar, geothermal and biomass, and we have projects planned, in design or under construction to greatly expand this capability. Some of our bases are already using 100% renewable power from purchases and on-site production. With our combined purchase/production strategy, the Air Force is poised to surpass the renewable goals set by the Energy Policy Act.

We realize our reliance on petroleum-based fuels must be curtailed and it will take a concerted and coordinated effort to meet the energy reduction needs of the Air Force. We use the tools available to improve infrastructure while we continue to strive to instill an energy conservation mindset in our Airmen.

C4ISR

Future transformational C4ISR capabilities will provide all-weather, persistent surveillance to the Joint warfighter and the Intelligence Community, and they will be tightly integrated with space, air and land assets to deliver even

more precise and responsive situational awareness in support of national security objectives.

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

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

The concepts of intelligence fusion and streamlined sensor-to-shooter processes imply a high level of system interoperability at many levels. Information technology increases the ability to send ISR information to any point

on the globe in near-real time. The Air Force is adapting doctrine, tactics, techniques and procedures to manage this ever-changing growth in C4ISR capabilities.

To maximize our C4ISR capabilities, the Air Force is eliminating organizational restrictions that inhibit the flow of information between these systems. Advances in information technology are removing historical limitations inherent in legacy systems, such as line-of-sight data links, incompatible C2 systems and manual collection-management processes. Our goal is to increasingly "share" rather than "own" information.

Overcoming past shortfalls through improvements in the timeliness, accuracy and completeness of battlespace knowledge will also bring tactical-level information to command functions that previously had access to only the operational or strategic levels of war. The AOC is the focal point for operational C2 of air and space assets delivering combat effects to the warfighter. To make this capability more effective, we made it a weapon system—the Air Force provides manpower and training as it does for every other weapons system—standardized, certified and lethal. We injected the technology necessary to increase machine-to-machine connectivity. Through both technical and procedural improvements, we have increased the system's capacity for information fusion and accelerated the decision-to-shooter loop. All five of our full-function AOC weapon systems (Falconers) should be fully operational in 2006.

In support of DoD and the Joint community's broader efforts to adopt and transition to network centric warfare, the Air Force is aggressively integrating existing C4ISR platforms across a distributed processing environment. The Network Centric Collaborative Targeting Program (NCCTP) will initially integrate capabilities that include airborne C2, ground surveillance, signals intelligence and operational C2 at the AOC. The Air Force will expand NCCTP into a broader Airborne Networking capability that will support the full and expanding range of future Joint air and space operations.

The Air Force is actively pursuing the extension of Global Information Grid (GIG) networked capabilities out to the extreme edge of tactical air operations. Programs like Family of Advanced Beyond-Line-of-Sight Terminals (FAB-T), the Joint Tactical Radio System (JTRS), Tactical Targeting Network Technology (TTNT), the Battlefield Airborne Communications Node (BACN), and, eventually, the TSAT constellation will provide rich connectivity and interoperability for Joint air operations as well as tactical users and warfighters.

The Air Force is working closely with the other Services and Agencies to define new doctrine and organizational structures to optimize Joint warfighting operations. Consequently, we are developing the necessary technical capabilities, refined processes and trained personnel to achieve desired effects.

Warfighting Headquarters (WFHQs)

The Air Force is transforming our C2 structure by establishing new WFHQs. These will be positioned globally, replacing our old Cold War structures and providing the Joint Force Commander (JFC) with the most effective means

to lead air and space forces in support of National Security objectives. These forces will be organized and resourced to plan and deliver air and space power in support of Combatant Commanders, enabling a seamless transition from peacetime to wartime operations. WFHQs will maximize usage of C4ISR technology and reachback to minimize required manpower. The WFHQs are also designed to act as the Combined/Joint Force Air Component Commander Headquarters, or Joint Task Force Headquarters.

Joint Warfighting Space (JWS)

The JWS concept is an outgrowth of Air Force efforts to develop Operationally Responsive Space (ORS) capabilities. JWS and ORS will enable rapid deployment and employment of communication, ISR and other vital space capabilities and services. JWS will emphasize agility, decisiveness and integration to provide dedicated, responsive space and near-space capabilities and effects to the JFC.

In 2005, the Air Force successfully conducted the first JWS demonstration. By capitalizing on an existing commercial communications capability using free-floating platforms, the Air Force was able to extend line-of-sight communications for ground forces from 5-7 miles to over 300 miles. This demonstration was the initial step in exploiting existing off-the-shelf technologies in a long loiter environment.

In 2006, the Air Force will team with our sister Services to conduct the first in a series of small (1000 pounds or less) satellite experiments. These demonstrations are designed to enhance and incorporate space capabilities in

Joint training and exercises, increase space integration and allow the Joint Force to take advantage of the many synergies multi-service space professionals provide. Lessons learned from these activities have the potential to further evolve and improve space doctrine and help the Joint community in developing innovative space-derived effects.

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

Long Range Strike

To further refine its rapid strike capabilities, the Air Force is transitioning its Long-Range Strike strategy to focus on effects instead of platforms. We view long-range strike as the capability to achieve desired effects rapidly and persistently on any target set in any operational environment.

Our forces must be simultaneously responsive to multiple Combatant Commanders and be able to strike any point on the planet. Today, we provide deep strike capabilities through a variety of platforms and weapons. Future capabilities must continue to enhance the effectiveness of the system. Responsive capabilities will combine speed, stealth and payload to strike hardened, deeply buried, or mobile targets, deep in enemy territory, in adverse weather and with survivable persistence.

Improving CAS

Detailed integration of each air mission with the fire and movement of supported Joint Forces is the trademark of CAS. In the past, aircrews and ground forces shared information through lengthy voice descriptions. When providing CAS or time-critical-targeting, this dialogue often took several minutes and occasionally resulted in missed opportunities. To increase integration and lethality, the Air Force has developed new equipment and training to increase situational awareness in CAS operations. We also continue to sustain and modernize the A-10, the only Air Force aircraft dedicated to the CAS mission.

With video downlinks, Battlefield Airmen can share time-sensitive information instantaneously and complete target coordination in mere seconds. Most JTACs are already equipped with ROVER III receivers to display video feeds from most UAVs and ATPs.

In 2006, the Air Force will begin operational fielding of the Precision Engagement modification that integrates ATPs and data links and enhances employment of GPS-aided munitions. This modification will greatly enhance the pilot's situational awareness and improve both the responsiveness and accuracy of A-10 targeting. This will increase the A-10's lethality while reducing the probability of fratricide incidents. The Air Force will also improve the sustainability of its A-10s by continuing a SLEP that doubles the flight hour life of the A-10, helping to ensure the A-10 can remain in service for as long as the warfighter requires.

In 2006, the A-10 Propulsion Upgrade Program will enter the system design and demonstration phase. This program will upgrade the A-10's current TF34-100A engines to provide approximately 30% more thrust. This will help overcome some limitations that the A-10 faces when operating from expeditionary airfields at high field elevations and temperatures. It will also improve the A-10 performance at medium altitudes and increase its weapon load, thus improving survivability and more fully leveraging the capabilities of the Precision Engagement modification and ATPs.

Special Operations Forces (SOF)

Air Force Special Operations Command (AFSOC) offers Combatant Commanders specialized airpower and ground forces to conduct and support special operations and personnel recovery missions. These forces offer a unique combination of capabilities and personnel that the U.S. can call upon for the GWOT, Homeland Defense and disaster response missions.

To meet operational requirements, we will add four AC-130U Gunships to the force structure in 2006, followed by ten MC-130H Combat Talon IIs by 2010. The first CV-22 Osprey combat unit anticipates IOC in 2009. The Osprey will add a long-range, self-deployable, vertical lift mobility aircraft to sustain SOF in remote environments.

We will support expanding our SOF Combat Aviation Advisory forces so they can assess, train, advise, assist and integrate more nations' Air Forces into the GWOT and other combined operations and contingencies. We have begun

the CSAR-X program in an effort to provide a fast, long-range, all-weather aircraft to achieve IOC in 2010 and replace the HH-60 CSAR aircraft.

The Air Force is also developing the Persistent Surface Attack System of Systems as the follow-on to the current AC-130 Gunship. This gunship follow-on will provide responsive, survivable, persistent and precise fire support in the low-threat to selected high-threat engagements in the 2015 timeframe.

BRAC

BRAC 2005 will transform the Air Force for the next 20 years to meet new challenges as a Total Force. The BRAC results improve Air Force warfighting effectiveness, realign Cold War era infrastructure to meet future defense strategy, maximize operational capability by eliminating excess physical infrastructure, and capitalize on opportunities for Joint teaming with our sister Services. We will continue the excellent record established in prior BRAC rounds by closing bases as quickly as possible so savings are realized and properties expeditiously turned over for viable reuse, in concert with community plans for development and economic revitalization.

SUMMARY – HERITAGE TO HORIZON

We have received a proud heritage forged through the ingenuity, courage and strength of the Airmen who preceded us. Our duty today is to deliver their Air Force to the limitless horizon ahead of us. The mission of the Air Force remains to fly, fight and win whether we are delivering lethal effects against insurgents in Iraq, protecting the skies of the U.S. against terrorist attacks,

providing a Global Positioning System that is essential to our modern military and the global economy, or providing relief to victims of natural disasters both at home and abroad.

The Air Force of today and of the future will strengthen the entire Joint and Coalition team. Dominance of air, space and cyberspace paves the way to overall success. In keeping with the current emphasis on innovation and transformation, our future Air Force will be a more capable yet smaller force. As such, the future Air Force will increase the capability and flexibility of the Joint Force and, subsequently, will increase the depth and breadth of options available to the President and the Secretary of Defense. These military options will be crucial to the defense of the Nation as the U.S. continues to wage the GWOT while transforming and strengthening the Joint Force for any future contingency.

The Air Force offers an unparalleled set of combat capabilities to directly influence any Joint, Coalition or interagency operation, as well as the enabling capabilities to improve Joint warfighting in conjunction with our partners on the ground, on or under the sea and through the air, space and cyberspace. Recognizing that no Service, or even DoD, can achieve success by itself, the Air Force has focused on increasing the integration and effectiveness of the Joint Force and interagency team.

To achieve new levels of integration and effectiveness, the Air Force will take advantage of our Nation's long-held command of the global commons—air, space, sea and cyberspace. The Air Force will extend its current air and space power advantage. As part of the Joint Force, the Air Force is positioned to

leverage its persistent C4ISR, global mobility and rapid strike capabilities to help win the GWOT, strengthen Joint warfighting capabilities and transform the Joint Force—while maintaining good stewardship of public resources.

The Air Force faces the broadest set of mission requirements across the entire spectrum of warfare. We will bolster our Nation's ability to respond swiftly, flexibly and decisively to asymmetric, irregular and emerging threats. We have embarked on AFSO21 as a means to best allocate our resources to meet this increasing set of challenges.

To accomplish this requires continued focused investment in our people, science and technology and the maintenance, sustainment, modernization and recapitalization, and, where it makes sense, retirement of our aging aircraft and weapon systems.

We are America's Airmen. Our heritage is innovation. Our culture is Expeditionary. Our attitude is Joint. Our mission is clear. As threats change and America's interests evolve, we will continue to adapt, evolve and remain the world's premier air and space force. Together with our fellow Services, we stand resolute, committed to defending the United States and defeating our enemies.