REPORT OF THE 
SECRETARY OF THE AIR FORCE

Introduction

In 2001, the United States Air Force accelerated its transformation into a global reconnaissance and strike force for the 21st century, while meeting the current operational requirements of our nation’s joint warfighting commanders. From precise, long-range strikes and humanitarian missions in Afghanistan, to persistent surveillance over the skies of Iraq and the Balkans, to contributing to homeland security, we are answering the nation’s call for action. From building tomorrow’s integrated situational awareness capabilities and strike systems, to serving as a focal point for national security in space, America’s airmen are part of the team that will ensure our citizens can enjoy freedom forever.

Meeting Current and Future Challenges

Our immediate goals include modernizing our air and space forces to enhance joint operations and our ability to monitor global activities. We are placing special emphasis on providing Intelligence, Surveillance, and Reconnaissance (ISR) to joint operations in critical regions of the world. Additionally, we are pursuing the horizontal integration of manned, unmanned, and space platforms to reduce the find, fix, track, target, engage, and assess decision cycle. The Air Force has already begun to achieve synergistic effects by applying current technologies in innovative ways, such as arming the Predator unmanned aerial vehicle (UAV) with Hellfire air-to-ground missiles, placing streaming video from the Predator aboard gunships, and linking soldiers on the ground with strike systems in the air. We are developing capabilities-based Concepts of Operations (CONOPS) with lessons learned and new ways of contributing toward joint warfare.

Although the Air Force is well established on a strategic path toward transformation, significant challenges remain. Operations and maintenance of aging systems and quality of life and work initiatives for our people compete with modernization requirements of a world-class air and space
force. These costs are compounded by unprecedented operational demands for air and space forces. Still, the Air Force remains committed to meeting President Bush's mandate to renew and rebuild our warfighting concepts, organizational constructs, and a force structure based on a strategic posture configured for this era. In this changed security environment, the Air Force is focused on contributing the world's most capable air and space forces to the joint warfighting commanders and posturing these forces to meet future national security challenges.

**Current Operations**

In 2001, the Air Force supported a multitude of joint operations around the world. We executed military operations across the entire spectrum of our capabilities—from humanitarian relief missions, to major contingency operations, to the war on terrorism. Currently, USAF operations have been dominated by our nation's response to the events of September 11. The Air Force was among the first to respond, launching interceptors and tankers from across the United States within minutes of the attacks. This vigilance has continued ever since in the form of Operation Noble Eagle. Air Force assets established the air bridge into the Afghanistan Theater of operations, providing rapid global reach and power to Central Command’s commander. On October 7, the U.S. military carried out the President’s orders and initiated Operation Enduring Freedom. This operation includes long-range strike assets from the continental United States and forward deployed forces; robust Command, Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) missions; and targeting and tanker support to Air Force, Naval, Special Operations Forces (SOF) and Coalition Forces. As of December 2001, over 20,000 Air Force personnel deployed to Southwest Asia have flown almost half of the 10,000 combat, tanker, airlift, special operations, command and control, and ISR sorties. Finally, in support of Operation Enduring Freedom, the Air Force applied new technologies to the battlefield by deploying the Global Hawk UAV to the theater to increase battlefield situation awareness.

These new operational requirements did not take place in a vacuum. Throughout 2001, the Air Force met its global deterrence and operational commitments to the nation and its allies. The Air Force contributed to deterrence by maintaining two legs of the nuclear triad with our bombers
and intercontinental ballistic missiles. The Air Force participated in joint operations in the skies over Iraq in Operations Northern and Southern Watch, flying over 14,000 combat sorties without the loss of any manned aircraft. In the Balkans, the Air Force flew approximately 1,000 sorties enforcing no-fly zones mandated by the United Nations. In Korea, almost 8,000 airmen are standing alert on the most militarized border in the world. Additionally, the Air Force supported numerous humanitarian relief operations throughout the world including earthquake relief to India, firefighting air operations in Idaho and California, and the delivery of over two million daily rations to Afghanistan. Finally, the Air Force flew over 750 counterdrug sorties in the Caribbean and South America, contributing to the seizure of over 75,000 kilos of illegal drugs.

With regard to space, the Air Force began realizing one of the operational goals of the Quadrennial Defense Review—enhancing the capability and survivability of space systems. For the first time, the Air Force integrated a potential adversary’s space capabilities into wargaming exercises, ensuring our personnel are prepared to react to attacks on our space-related infrastructure. In addition, the Air Force launched several payloads into space to enhance precision location and navigation, reliable and secure communications, and global surveillance and warning capabilities. Space systems are now integrated into virtually every aspect of our military operations and are essential to our success, whether in peace or armed conflict.

Air Force operations tempo in 2001 demonstrated the results of our commitment to readiness, training, and the development of an Expeditionary Air and Space Force after years of declining defense spending. Sustaining these wide-ranging missions around the clock and around the globe, however, does carry a price. These unprecedented, and in some cases unanticipated, demands for air and space assets are increasing the cost of operations, maintenance, and personnel programs, and are accelerating our recapitalization requirements. Compounding these challenges is the “procurement holiday” of the 1990s and the associated deep cuts in personnel. We have a force that has reduced its force structure by nearly 40 percent from Cold War levels, while increasing deployments, supporting excess infrastructure, and conducting combat operations with weapons systems reaching the end of their life cycle. Overall readiness has
declined 29 percent since September 1996, bottoming out at 65 percent in February 2001.

**Strategy**

The 2001 QDR established the Defense Department’s vision of the future including a new defense strategy based on honing strategic capabilities in an uncertain world. The Expeditionary Air and Space Force (EAF) concept provides the structure to further exploit emerging capabilities. The Air Force is molding itself around this new defense strategy as reflected in current and emerging capabilities. During Operation Enduring Freedom, for example, long-range strike platforms, aided by air and space reconnaissance assets in concert with Special Forces and intelligence operations, struck at the heart of the Taliban and al Qaeda network, diminishing its ability to conduct terrorist attacks around the globe. One of our nation’s greatest advantages is our ability to strike targets precisely and from great distances. Still, the real advantage of long-range strike derives not simply from destroying targets from the air, but from leveraging the capabilities of friendly forces on the ground. Interoperability between joint forces deployed across the globe is absolutely essential.

Our transformational efforts also include the horizontal integration of C2ISR systems to provide essential leverage from different platforms. For example, in Afghanistan, we have linked various platforms such as Global Hawk, Predator, RC-135, U-2 reconnaissance aircraft, E-8C Joint Stars radar aircraft, and space assets to share information and guide each other to uncovered areas or focus on specific targets. We are also placing special emphasis on providing robust Intelligence, Surveillance, and Reconnaissance (ISR) to joint operations in critical regions of the world. For example, the Air Force deployed the Global Hawk UAV in support of Operation Enduring Freedom, demonstrating our capability to deploy the latest technology to the battlefield.

In the future, our new fighter aircraft will enhance our asymmetric technological advantages. The F-22’s attributes of stealth and super-cruise will allow it to penetrate and “kick down the door” of an adversary’s anti-access capabilities, enabling follow-on joint forces to operate with relative freedom. The F-22 also expands our overall precision strike capability by
further enhancing legacy stealth systems, such as the B-2 and F-117, enabling them to conduct daylight strike operations. The Joint Strike Fighter (JSF), with its combination of stealth, large internal payload, and multi-spectral avionics will provide, for the first time, persistent battlefield stealth. F-22 and JSF technological advances will enable around-the-clock employment of stealth to meet emerging threats.

The Air Force is also modernizing its space forces to further enhance joint operations and its ability to monitor global activities. As the designated Executive Agent for Space within the Department of Defense, the Air Force, in conjunction with the other Services and appropriate Agencies, is in the process of implementing numerous actions to establish a new and comprehensive approach to national security space management and organization. The Air Force will establish Air Force Space Command as a separate, four-star command. Also, the recent realignment of the Space and Missile Systems Center from Air Force Material Command to Air Force Space Command and its lead in the development of the National Security Space Plan further demonstrates the Air Force’s commitment to space. This plan will provide, for the first time, a comprehensive document that links both Department of Defense and Intelligence Community space-related requirements to current and planned budgets allowing for the detailed projection of future space capabilities.

Air Force current and emerging capabilities are essential to meet the new defense strategy established by the QDR and its six critical operational goals designed to focus the Department of Defense’s transformational efforts. The Air and Space Expeditionary Force provides the organizational construct to manage resources to meet the myriad global demands. Still, the transformation efforts of the Air Force rely on a marriage of people and technology. Recruiting and retaining the right number and mix of people to develop the ideas that leverage technology into capabilities are essential to the future success of the Air Force.

**People**

A high-technology Air Force cannot operate without outstanding people and supportive families; the leadership of this service has no higher priority. The events of 2001, especially since September 11, have placed
high demands on our Total Force—Active, Reserve Component (Air Force Reserve and Air National Guard) and civilians. Prior to September 11, an average of 11,400 Air Force personnel was deployed worldwide. Another 73,000 were assigned overseas. Since September 11, the Air Force mobilized over 20,000 Reserve Component personnel and has over 30,000 personnel deployed worldwide. In conjunction with these call-ups, we implemented STOP LOSS to prevent separations and retirements until steady-state requirements can be determined. The new homeland defense mission and the requirements of fighting a new kind of war require us to take these prudent measures to preserve combat capability.

The Air Force missed its programmed end strength for the third consecutive year despite having achieved 102 percent of its enlisted recruiting and 105 percent of its officer accessions goals. Although the Air Force exceeded its enlisted recruiting goal for FY 2001, challenges remain in hard-to-fill critical skill areas. In addition to using enlisted and officer accession bonuses to attract people into critical skills, the Air Force increased the number of recruiters from 985 in FY 1999 to 1,477 at the end of FY 2001, increased its media and advertising budget, and allowed 1,155 prior service members to return. Despite steady progress in officer accessions, the Air Force was unable to recruit enough officer candidates with degrees in science and engineering disciplines. A number of initiatives are addressing this challenge, including new Reserve Officer Training Corps (ROTC) scholarship opportunities.

In order to meet operational demands, the most critical long-term personnel challenge for the Air Force remains retaining highly trained and skilled people. While we have been successful in meeting our enlistment goals, we have been less successful in retaining officers and airmen. The Air Force is pursuing a “re-recruiting” campaign, designed to retain officers in critical specialties. Recruiting and retention challenges are not limited to the uniformed members of the Air Force. Within the next five years, approximately 40 percent of the Air Force’s civilian work force will be eligible for optional or early retirement. In order to mitigate this potential problem, the Air Force is pursuing hiring and force management flexibilities.
The USAF is a retention force, known for attracting and retaining the very best individuals to serve, both civilian and military, and then taking care of them and their families. Quality of Life issues remain a focal point for us, so we persistently seek increased funding for dorms, family housing improvement, housing privatization, transient lodging facilities, and fitness centers. Additional Quality of Life initiatives include reducing out-of-pocket living expenses for housing, improving DoD dependent schools, affordable child care, and improving spouse employment and educational opportunities. Our initiatives demonstrate our commitment to attract and retain quality people.

Further, the Air Force is pursuing leadership development and career mentoring strategies. These strategies are designed to develop all military and civilian leaders who understand the full spectrum of air and space operations. The Air Force is examining more deliberate, broadened career development based on institutional versus functional requirements to prepare our Total Force for leadership into the 21\textsuperscript{st} century. It is also examining potential changes to the professional development of officers, including the rationalization of advanced degrees and professional military education. Force readiness, sustainability, and mission performance all depend on selecting, training, and retaining the best individuals with the necessary skills, as well as motivating every member of the service and taking care of Air Force families.

\textit{Recapitalization}

The Air Force is firmly committed to improving the air and space capabilities we provide to joint warfighters and embracing the transformational goals of the 2001 QDR. We are pursuing the necessary investments needed to sharpen the “teeth” of our long-range strike, ISR, mobility, UAV, and space assets. We are making critical investments to improve the capability of our current weapon systems, and, at the same time, bringing new capabilities to the fight. The Air Force is solidly on the path of modernizing our aging aircraft fleet and addressing our deteriorating infrastructure.

Today, the average age of our aircraft fleet is 22 years old. Without additional investments in modernization beyond what is currently
programmed, by FY 2020, the average age will still increase to nearly 30 years. This would translate to 60-year-old tankers, 47-year-old ISR platforms, and 44-year-old bombers. Aging aircraft are fraught with increasing operational and maintenance costs and decreased readiness.

The Air Force has a comprehensive plan to modernize current aircraft weapon systems. This plan includes replacing our fighter aircraft with F-22s and Joint Strike Fighters, although our legacy systems such as F-15s, F-16s, and A-10s reach the end of their service life before these replacement systems are fully fielded. Our C-17 procurements are bringing revolutionary strategic airlift capabilities to our warfighter and we are pursuing a two-phased modernization approach for the C-5 aircraft to boost its mission capable rates. Further, the Air Force’s Boeing 707-based fleet of tankers and C2ISR platforms require replacement to meet future commitments. Additionally, the Air Force is examining the potential of transforming single-mission platforms into multi-mission platforms. For example, our plan to replace our aging fleet of Boeing 707-based aircraft includes examining the innovative possibility of placing additional sensors or data links on future “smart” tankers. In addition to these potential capabilities, the Air Force will pursue investments in space as well.

Modernization of our missile warning system is under way via Space-Based Infrared System (SBIRS). Preparation for the first launch of our new Evolved Expendable Launch Vehicle (EELV) in CY 2002 is on track, ensuring our nation has assured, reliable, and cost-effective access to space well into the 21st century. Progress is also being made in the area of Space Surveillance and Control with the multi-year Space Surveillance Network recapitalization effort that will incorporate space-based surveillance and situation awareness systems into the network’s capabilities.

Finally, in order to support aging weapons systems, we have developed select high-priority avionics, engine, and structural modernization programs to extend weapon systems’ service lives. Continued recapitalization of these systems is essential to ensure that the Air Force will be ready to meet all future national security challenges. In FY 2001, Congress funded $570 million towards our spare parts shortage. The Air Force Flying Hour Program was fully funded at $525 million, as well as an additional $45 million in Readiness Spares Package. Even given these improvements, the
Air Force must still defer restoration and modernization of infrastructure with only the most urgent requirements addressed, leaving important projects postponed into the future.

**Efficiencies and Innovation**

The Air Force is embracing efficiency and innovation across the full spectrum of our operations. Efficiencies and innovation will liberate wasted resources and increase the effectiveness of our air and space capabilities. The future of the Air Force depends on a robust, vibrant defense industrial base. The Air Force has begun a concerted process to find ways to provide incentives and motivate defense contractors, large and small, to become more competitive, efficient, innovative, and take full advantage of the fast-paced technological and business-process changes in today’s information-dominated economy.

The Air Force is also committed to acquisition excellence and to improve its ability to deliver capabilities faster and smarter. Savings achieved through acquisition excellence can be reinvested into warfighting capabilities. Cycle-reduction, contractor incentive programs, using commercial practices, and reducing the modification management process are just a few examples of ways in which we can streamline processes. Well-trained, highly skilled individuals equipped with the best capabilities from technology and industry can harness the economic and technological advantages of this era in order to preserve U.S. influence and leadership around the globe.

In addition, innovative changes can be found in our approach to implementing the intent of the Space Commission. The Air Force is developing the National Security Space Plan, as well as leading the effort to conduct the first National Security Space Program Assessment. Further, the Air Force and the National Reconnaissance Office, identified numerous “best practices” associated with the integration of space acquisition and operations processes. These “best practices” will increase the efficiency and effectiveness of space-related activities and facilitate the further integration of black and white space.
In FY 2001, the Air Force made great progress toward drafting an innovative and unprecedented long-range depot strategy ensuring support to the warfighter by providing critical maintenance and depot capabilities for our weapon systems. Furthermore, the Air Force is committed to developing additional, innovative concepts in warfighting operations. We have demonstrated our commitment by accelerating the deployment of Global Hawk, while still in the test phase, to support Operation Enduring Freedom. We continue to search for innovative ways to employ weapons systems such as arming the Predator with an attack capability. The Air Force continues to push the CONOPS envelope by pursuing conventional air power cooperation with SOF forces. We remain committed to becoming a more efficient and innovative military organization.

Conclusion

The Air Force is committed to realizing the full potential of organizational changes, new concepts of operations, and next generation technologies to provide preeminent air and space power to the joint warfighting commanders. We are in the midst of several years of Air Force transformation, but savings realized from efficiency improvements and good business practices alone are insufficient to fund further transformation. Balancing today's unprecedented demand for air and space forces against the need to continually transform will require a significant investment commitment to meet the goals of the 2001 Quadrennial Defense Review.