DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEE ON DEFENSE

UNITED STATES HOUSE OF REPRESENTATIVES

SUBJECT: COMBAT AIRCRAFT ACQUISITION

STATEMENT OF: LIEUTENANT GENERAL MARK D. SHACKELFORD
MILITARY DEPUTY, SECRETARY OF THE AIR FORCE
FOR ACQUISITION

MARCH 25, 2009

NOT FOR PUBLICATION UNTIL RELEASED
BY THE COMMITTEE ON APPROPRIATIONS
SUBCOMMITTEE ON DEFENSE
UNITED STATES HOUSE OF REPRESENTATIVES

BIOGRAPHY

UNITED STATES AIR FORCE

LIEUTENANT GENERAL MARK D. "SHACK" SHACKELFORD

Lt. Gen. Mark D. "Shack" Shackelford is the Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C. He is responsible for research and development, test, production, and modernization of Air Force programs worth more than $23 billion annually.

General Shackelford entered the Air Force in 1977 as a distinguished graduate of the U.S. Air Force Academy. He has more than 2,700 flight hours in 40 aircraft types with operational experience in the F-4 and F-16. The general was an experimental test pilot in the F-16 and the first Air Force pilot to fly the YF-22 Advanced Tactical Fighter prototype. He managed the F-22 Cockpit Development Program and directed the T-38, F-5, F-16 and F-22 programs. The general commanded a test squadron at Ogden Air Logistics Center, Hill Air Force Base, Utah, and the test wing at the Air Armament Center, Eglin AFB, Fla. He also served as Deputy, Test and Assessment, for the Missile Defense Agency, and then Director of Plans and Requirements, Headquarters Air Force Space Command, Peterson AFB, Colo. Prior to his current assignment, he was the Director, Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Headquarters U.S. Air Force, Washington, D.C

General Shackelford holds Department of Defense Acquisition Corps Level III certifications in Test and Evaluation; Program Management; and Systems Planning, Research, Development and Engineering. He holds master level certification in the Space Professional Development Program. The general is a distinguished graduate of undergraduate pilot training, F-16 Fighter Weapons School and the U.S. Air Force Test Pilot School.

EDUCATION

1977 Bachelor of Science degree in astronautical engineering, U.S. Air Force Academy, Colorado Springs, Colo.
1977 Squadron Officer School, by correspondence
1984 F-16 Fighter Weapons School, Nellis AFB, Nev.
1985 Air Command and Staff College, by correspondence
1987 U.S. Air Force Test Pilot School, Edwards AFB, Calif.
1990 Master of Science degree in mechanical engineering, California State University, Fresno
1991 Program Management Course, Defense Systems Management College, Fort Belvoir, Va.
1995 Air War College, Maxwell AFB, Ala.
2000 Defense Systems Management College, Fort Belvoir, Va.
2000 Advanced Management Program, Carnegie-Mellon University, Pittsburgh, Pa.
2008 Program for Executives in Logistics and Technology, University of North Carolina at Chapel Hill
2008 Enterprise Leadership Seminar, University of North Carolina at Chapel Hill

ASSIGNMENTS
1. November 1977 - October 1978, student, undergraduate pilot training, Columbus AFB, Miss.
2. November 1978 - February 1979, student, fighter lead-in training, 436th Tactical Fighter Training Squadron, Holloman AFB, N.M.
3. February 1979 - September 1979, student, F-4 training, 306th Tactical Fighter Training Squadron, Homestead AFB, Fla.
4. September 1979 - November 1980, F-4E aircraft commander, 68th Tactical Fighter Squadron, Moody AFB, Ga.
5. December 1980 - August 1981, F-4D aircraft commander, 80th Tactical Fighter Squadron, Kunsan Air Base, South Korea
6. January 1982 - July 1982, F-16 fighter pilot, 35th Tactical Fighter Squadron, Kunsan AB, South Korea
7. August 1982 - June 1986, F-16 instructor pilot, and weapons and tactics officer, 72nd Tactical Fighter Training Squadron, MacDill AFB, Fla.
8. July 1986 - June 1987, student, U.S. Air Force Test Pilot School, Edwards AFB, Calif.
9. July 1987 - September 1987, experimental test pilot, 6512th Test Squadron, Edwards AFB, Calif.
10. September 1987 - March 1989, experimental test pilot, F-16 Combined Test Force, Edwards AFB, Calif.
11. March 1989 - January 1991, YF-22 project test pilot, Advanced Tactical Fighter Combined Test Force, 6511th Flight Test Squadron, Edwards AFB, Calif.
12. January 1991 - June 1991, student, Defense Systems Management College, Fort Belvoir, Va.
13. August 1991 - August 1993, Chief, Cockpit Integrated Product Team, F-22 System Program Office, Wright-Patterson AFB, Ohio
14. August 1993 - June 1994, Commander, 514th Flight Test Squadron, Hill AFB, Utah
15. July 1994 - June 1995, student, Air War College, Maxwell AFB, Ala.
16. July 1995 - August 1997, Director, Fighter and Trainer Directorate, San Antonio ALC, Kelly AFB, Texas
17. August 1997 - August 1999, Commander, 46th Test Wing, Eglin AFB, Fla.
18. August 1999 - June 2000, Deputy Director, Directorate of Plans and Programs, Headquarters Air Force Materiel Command, Wright-Patterson AFB, Ohio
19. June 2000 - May 2002, Director, F-16 System Program Office, Aeronautical Systems Center, Wright-Patterson AFB, Ohio
20. May 2002 - November 2002, Director, F-22 SPO, ASC, Wright-Patterson AFB, Ohio
21. November 2002 - January 2003, special assistant to the Commander, ASC, Wright-Patterson AFB, Ohio
22. February 2003 - May 2005, Deputy, Test and Assessment, Missile Defense Agency, Office of the Secretary of Defense, Washington, D.C.
23. May 2005 - April 2007, Director of Plans and Requirements, Headquarters Air Force Space Command, Peterson AFB, Colo.
24. April 2007 - October 2008, Director, Global Power Programs, Office of the Assistant Secretary of the Air Force for Acquisition, Headquarters U.S. Air Force, Washington, D.C.
25. October 2008 - present, Military Deputy, Office of the Assistant Secretary of the Air Force for Acquisition, the Pentagon, Washington, D.C.

FLIGHT INFORMATION
Rating: Command pilot
Flight hours: More than 2,700
Aircraft flown: F-4, F-16 and 40 aircraft types

MAJOR AWARDS AND DECORATIONS
Distinguished Service Medal
Defense Superior Service Medal
Legion of Merit with oak leaf cluster
Meritorious Service Medal with three oak leaf clusters
Air Medal with two oak leaf clusters
Joint Service Commendation Medal
Air Force Commendation Medal with two oak leaf clusters

OTHER ACHIEVEMENTS
1977 Outstanding Cadet in Astronautical Engineering, U.S. Air Force Academy
1978 Air Training Command Commander's Trophy, Undergraduate Pilot Training

1978 Orville Wright Achievement Award, Order of Daedalians
1987 Liethen-Tittle Award, U.S. Air Force Test Pilot School
1988 Lieutenant General Bobby Bond Memorial Aviators Award

EFFECTIVE DATES OF PROMOTION
Second Lieutenant June 1, 1977
First Lieutenant June 1, 1979
Captain June 1, 1981
Major March 1, 1988
Lieutenant Colonel July 1, 1991
Colonel Feb. 1, 1995
Brigadier General April 1, 2002
Major General Nov. 1, 2005
Lieutenant General Oct. 6, 2008

(Current as of October 2008)

Introduction

Chairman Murtha, Representative Young and distinguished members of the Subcommittee, thank you for the opportunity to appear before you today to discuss Air Force combat aircraft acquisition, matters that are extremely important to the Air Force and our Nation.

Legacy Fighter Fleet

The Air Force fighter force is the oldest it has ever been at an average age of more than 20 years. Our legacy aircraft are showing signs of age; however, it is able to accomplish today's missions. The duration and intense overseas contingency operations tempo have accelerated service life consumption for numerous platforms. This sustained high operations tempo has also contributed to lower readiness levels, which does not allow us to take much risk in operations and maintenance. We must sustain readiness and be able to fight today.

The Air Force continues to improve fighter aircraft capability to conduct precision targeting in close coordination with our Soldiers on the ground by fielding the Sniper and LITENING Advanced Targeting Pods (ATPs) with video downlink (VDL) capability. The VDL-equipped pods are able to transmit streaming sensor video directly to ground forces equipped with the Remotely Operated Video Enhanced Receiver terminal, greatly speeding target acquisition and providing a revolutionary improvement in support to ground forces both in the traditional Close Air Support and emerging non-traditional intelligence, surveillance, and reconnaissance missions. There are currently 198 Sniper and 225 Litening ATPs in the Combat Air Forces. Of those, 94 Sniper and 111 Litening are VDL equipped, and all 91 ATPs in theater have VDL.

A-10

The A-10 provides the Joint Force Commander lethal, precise, persistent, and responsive firepower for Close Air Support and Combat Search and Rescue. It has performed superbly in OPERATIONS DESERT STORM, ALLIED FORCE, ENDURING FREEDOM and IRAQI FREEDOM. However, the age of the A-10 and high operations tempo have taken a toll

on the fleet. In the fall of 2006, the Air Force Fleet Viability Board recommended that the Air Force upgrade 242 thin-skin center wing A-10 aircraft with thick-skinned center wing replacements. Additionally, A-10 landing gear failures have resulted in a program for replacing failure-prone parts. In the near-term, a Service Life Extension Program and overhaul programs will allow us to continue flying these venerable aircraft. The Air Force is currently upgrading 337 A-10s to the "C" configuration through the precision engagement modification and anticipates completion by the end of Fiscal Year 2011. This modification enables J-Series weapons, such as Joint Direct Attack Munitions (JDAM) and Wind Corrected Munitions Dispenser; integrates advanced targeting pods with video downlink; replaces monochrome cockpit displays with color multi-function displays; installs new pilot throttle and stick controls; adds a moving map capability and a mass-memory upgrade; and doubles current DC power. Additionally, we have integrated beyond line of sight radios into the A-10 for faster communication with ground units, forward controllers, and command and control centers.

F-15 A-D

The average age of the F-15A-D fleet is over 25 years old and the average age of F-15E fleet is over 16 years old. However, analysis suggests that Air Combat Command can manage the fleet through scheduled field/depot inspections under an individual aircraft tracking program.

The F-15A-D fleet has returned to flying status after engineering analysis confirmed they are safe for flight. Of the 407 aircraft in the inventory, only nine were grounded due to the longeron crack. The Air Force repaired five, and four were retired due to their proximity to planned retirement. The five aircraft were repaired in 2008 at a cost of approximately $235,000 each using organic materials and labor at Warner-Robins Air Logistics Center.

Based on the recommendation of Boeing and depot engineers, the Air Force has instituted recurring inspections of F-15 longerons every 400 flight hours to detect cracks before they become catastrophic. Analysis confirms that this interval is very conservative and will avoid a mishap such as the one that occurred on November 2, 2007. Additionally, the Air Force will conduct a full-scale fatigue test, aircraft teardown, and improved structural monitoring to

help establish the maximum F-15 service life and more effectively manage structural health of the fleet. We expect these efforts to successfully enable the 176 F-15C/D long-term "Golden Eagles" to operate safely and effectively through 2025.

F-15E

The F-15E fleet, which was not affected by the longeron crack, continues to provide support for on-going operations in Afghanistan and Iraq. Like the A-10, the F-15E performed superbly in operations OPERATIONS DESERT STORM, ALLIED FORCE, ENDURING FREEDOM and IRAQI FREEDOM. The Air Force has been working hard to improve the F-15E's ability to rapidly engage and destroy time sensitive targets by adding secure radios and data links for faster communications with ground units and forward controllers; by integrating the latest precision weapons that not only hit a target accurately but are designed to reduce collateral damage; by adding a helmet mounted cueing system that will reduce the F-15E's time to engage a target by up to 80%; and by adding a state-of-the-art Active Electronically Scanned Array (AESA) radar system that not only addresses sustainment issues with the current system but will give the F-15E advanced capabilities to identify and engage targets, share real-time information with other aircraft, and protect itself from enemy threats. The Air Force plans for the F-15E to be an integral part of the Nation's force through at least 2035.

F-16

Our F-16s, the bulk of the fighter fleet, are undergoing a structural upgrade program to replace known life-limited structural components. Due to the use of more stressing mission profiles, this upgrade program is required to maintain the original design airframe life of 8,000 flight hours. Wing pylon rib corrosion, a known problem with the F-16 aircraft, is an issue we monitor closely. This corrosion can prevent the F-16s from carrying pylon mounted external fuel tanks which limits their effective combat range. We currently inspect F-16 aircraft every 800 hours to monitor for this problem. In partnership with industry, the Air Force has recently developed and certified an effective repair allowing repair of affected aircraft at the unit in a single day instead of requiring a lengthy wing overhaul at the depot. As of February 23, 2009,

maintainers have repaired 34 wings at four units worldwide, restoring those aircraft to full mission capability. We will award a long term support contract within the next four months which will further enhance the ability of units to obtain repairs for their aircraft.

In other inspections, maintainers have found bulkhead cracks in approximately 24% (97 of 398) of our Block 40/42 F-16 aircraft. As of February 23, 2009, two Block 40/42 F-16 aircraft were in non-flying status awaiting bulkhead repair or replacement. An additional 37 aircraft continue to fly with increased inspection requirements to measure crack growth. We will continue to monitor this situation closely.

The Common Configuration Implementation Program is a top F-16 priority and will enable the maintenance of a single operational flight program configuration on the Block 40/42/50/52 F-16s. The Block 50/52 modification is complete and the Block 40/42 modification will be complete in Fiscal Year 2010. It combines several modifications including a new mission computer, color displays, air-to-air interrogator (Block 50/52 only), Link-16, and Joint Helmet Mounted Cueing System. The F-16 is expected to be a capable element of the fighter force well into 2024.

Fifth Generation Fighters

Fifth generation fighters like the F-22 and the F-35 are key elements of our Nation's defense and ability for deterrence. As long as hostile nations recognize that U.S. airpower can strike their vital centers with impunity, all other U.S. Government efforts are enhanced, which reduces the need for military confrontation. This is the timeless paradox of deterrence; the best way to avoid war is to demonstrate to your enemies, and potential enemies, that you have the ability, the will, and the resolve to defeat them.

Both the F-22 and the F-35 represent our latest generation of fighter aircraft. We need both aircraft to maintain the margin of superiority we have come to depend upon, the margin that has granted our forces in the air and on the ground, freedom to maneuver and to attack. The F-22 and F-35 each possess unique complementary and essential capabilities that together provide the synergistic effects required to maintain that margin of superiority across the

spectrum of conflict. The OSD-led 2006 QDR Joint Air Dominance study underscored that our nation has a critical requirement to recapitalize tactical air forces. Legacy 4th generation aircraft simply cannot survive to operate and achieve the effects necessary to win in an integrated, anti-access environment.

F-22 Future Capabilities & Modifications

The F-22 Raptor is the Air Force's primary air superiority fighter, providing unmatched capabilities for air supremacy, homeland defense, and cruise missile defense for the Joint Team. The multi-role F-22's combination of speed, stealth, maneuverability and integrated avionics gives this remarkable aircraft the ability to gain access and survive in high threat environments. Its ability to find, fix, track, and target enemy air and surface-based threats ensures air dominance and freedom of maneuver for all joint forces.

Similar to every other aircraft in the U.S. inventory, there is a plan to regularly incorporate upgrades into the F-22 to ensure the Raptor remains the world's most dominant fighter in the decades to come. The F-22 modernization program consists of two major efforts that, together, will ensure every Raptor maintains its maximum combat capability: the Common Configuration program and a pre-planned product improvement (P3I) program (Increments two and three). We are currently in year six of the planned 13-year program.

As of February 1, 2009, the Air Force has accepted 135 F-22 aircraft, out of a programmed delivery of 183. Most of these aircraft include the Increment two upgrade, which provides the ability to employ JDAM at supersonic speeds and enhances the intra-flight data-link to provide connectivity with other F-22s. The Air Force will upgrade the F-22 fleet under the Joint Requirements Oversight Council approved Increment three upgrade designed to enhance both air-to-air and precision ground attack capability. Raptors from the production line today are wired to accept Increment 3.1, which when equipped, upgrades the APG-77 AESA radar to enable synthetic aperture radar ground mapping capability, provides the ability to self-target JDAMs using on-board sensors, and allows F-22s to carry and employ eight small diameter bombs (SDBs). The Air Force will begin to field Increment 3.1 in Fiscal Year 2010. Future

F-22s will include the Increment 3.2 upgrade, which features the next generation data-link, improved SDB employment capability, improved targeting using multi-ship geo-location, automatic ground collision avoidance system (Auto GCAS) and the capability to employ our enhanced air-to-air weapons (AIM-120D and AIM-9X). Increment 3.2 should begin to field in Fiscal Year 2013.

The planned end-state of the F-22 modernization plan will result in 34 Block 20 aircraft used for test and training, 63 combat-coded Block 30s fielded with Increment 3.1, and 83 combat-coded Block 35s fielded with Increment 3.2.

There is also an Increment 3.3 upgrade planned, which is currently unfunded. It includes Mode 5/S, which is the next generation Identification Friend or Foe and advanced air-traffic control transponder, radar auto search/auto detect, which gives automated target cueing using fourth generation AESA radar, and a ground-moving-target-indicator-and-tracking capability.

F-22 Procurement Plans

The F-22 production program is currently delivering Lot 7 aircraft ahead of scheduled contract delivery dates at a rate of about two per month. Lot 7 Raptors are the first lot of the three-year multiyear procurement contract awarded the summer of 2007. The Air Force completed F-22 deliveries to Elmendorf Air Force Base, Alaska and we are currently underway with deliveries to Holloman Air Force Base, New Mexico with expected completion in January 2011. When the plant delivers the last aircraft of Lot 9 in December 2011, we will have completed the program of record of 183 Raptors.

F-35

The F-35 program will develop and deploy a family of highly capable, affordable, fifth generation strike fighter aircraft meeting operational needs of the Air Force, Navy, Marine Corps, and Allies with optimum commonality to minimize life cycle costs. The Joint Strike Fighter (JSF) was designed from the bottom-up to be our premier surface-to-air killer and is uniquely equipped for this mission with its cutting edge processing power, synthetic aperture

radar integration techniques, and advance target recognition. The JSF also provides "leap ahead" capabilities in resistance to jamming, maintainability, and logistic support. The F-35 is currently in the 8th year of the 13 year System Development and Demonstration phase.

The F-35 is projected to meet all Key Performance Parameters (KPPs) and as of February 20, 2009 A-1 has completed 69 test flights. Recently, it completed its first supersonic flight and the Cooperative Avionics Test Bed (CAT-B) continues to provide unprecedented risk reduction at this stage in a major weapon system not seen in any legacy program. In December 2008, the Undersecretary of Defense for Acquisition, Technology and Logistics approved full funding for seven Conventional Take-Off and Landing (CTOL) aircraft and engines, plus sustainment and associated equipment as part of the Low Rate Initial Production Lot 3 acquisition decision memorandum. In addition, Secretary Young approved full funding for seven Short Take-Off and Vertical Landing (STOVL) aircraft plus sustainment and associated equipment contingent upon successful completion of the F135 Pratt & Whitney lead engine Stress Test, Flight Test Engine six Proof Test and receipt of full STOVL flight clearance. He also approved advance procurement for long lead items and associated material and support equipment for Lot 4 for 12 CTOL aircraft, up to 16 STOVL aircraft and up to four carrier variant aircraft.

Joint Strike Fighter Alternative Engine Program

The Department continues to believe the risks associated with a single source engine supplier are manageable and do not outweigh the investment required to fund a competitive alternate engine. However, the Air Force and Navy are executing the funding appropriated by Congress in 2009 to continue the F136 program. General Electric/Rolls Royce successfully started their "First Engine To Test" on January 30, 2009, one month ahead of contract requirement.

The cost to continue F136 engine development and production is estimated at $4.3 billion through Fiscal Year 2015. Continued funding for the F136 engine carries cost penalties to both F135 and F136 engines for reduced production line learning curves.

Legacy Bomber Fleet

The Air Force bomber fleet exemplifies how we continue to sustain and modernize legacy aircraft as they are passed from one generation of crew force to the next.

B-1

The B-1 provides the Joint Force Commander massive firepower potential coupled with a significant loiter capability perfectly suited for the inconsistent tempo of today's ongoing operations. Added to this is the B-1's unique supersonic dash potential which allows a single aircraft to perform as a roving linebacker over large portions of the overall area of responsibility. Once solely a nuclear deterrent, the Air Force has re-focused the B-1's capabilities through modernizing its current conventional lethality.

A perfect example of the B-1's potential was realized by adding Advanced Targeting Pod to the platform's sensor suite. In an exceptional display of acquisition effectiveness, in 2007 the Air Force and our corporate partners responded to Air Force Central Command's (AFCENT) highest Urgent Operational Need requirement by energizing a fast-track development and procurement timeline. With the help of supplemental funding, by June 2008 the 34th Bomb Squadron out of Ellsworth Air Force Base, South Dakota was able to deploy a full complement of Sniper-equipped B-1 bombers to support both OPERATIONS ENDURING FREEDOM and IRAQI FREEDOM operations without a single break in daily combat operations. The program continues in 2009 to outfit the remaining fleet and incorporate laser-guided weapons as well as integrating the pod data directly into the avionics system, allowing for direct machine-to-machine transfer of targeting data. As stated by the Combined Force Air Component Commander, "The Sniper pod on the B-1 Bomber is amazing."

This new capability means the B-1 is even more in demand for current operational taskings. The non-stop overseas contingency operations are taking a toll on the overall fleet. Currently in Fiscal Year 2009, the Air Force is addressing five different issues which would have meant potentially grounding aircraft if they were not addressed. As a baseline to many of these sustainment modifications, the Air Force also embarked on its largest cockpit and

communications modernization for the B-1 since its inception. Begun in 2005, the B-1 Fully Integrated Data Link (FIDL) program infuses a tactical Link-16 data link and a Joint Range Extension Beyond Line of Sight data link into an entirely overhauled modern cockpit. This system of modifications removes legacy monochrome displays and incorporates a series of color multifunction displays capable of displaying a wide array of fused data at all crew stations. Although the B-1 FIDL program has suffered several setbacks, through the continued persistence of Air Force and congressional support the program is now turning the corner and progressing toward completion. This upgrade will not only help protect the B-1 parts from obsolescence, it will evolve an already capable conventional platform into a networked provider of precision firepower.

B-2

The B-2 Spirit Advanced Technology Bomber provides a lethal combination of range, payload, and stealth, and remains the world's sole long-range, low observable bomber, and the only platform capable of delivering 80 independently targeted 500-lb JDAMs. Four B-2 bombers are currently deployed to Guam along with a contingent of F-22 fighters. This is the fourth Spirit deployment to Guam.

While B-2 availability has steadily increased over the past five years, in large part due to focused efforts to enhance low observable maintenance such as the highly successful Alternate High Frequency Material program, it still faces increasing pressures to upgrade avionics originally designed over twenty years ago. The three-increment Extremely High Frequency Satellite Communications and Computer Upgrade program (EHF SATCOM and Computer Upgrade) seeks first, in Increment one, to upgrade the Spirit's flight management computers as an enabler for future avionics efforts. Increment two integrates the Family of Beyond-line-of-sight Terminals along with a low observable antenna to provide secure, survivable strategic communications, while Increment three will connect the B-2 into the Global Information Grid. Increment 1 of EHF SATCOM and Computer Upgrade is currently in Engineering and

Manufacturing Development and on track to begin procurement in Fiscal Year 2011 for fleet installations beginning at the end of Fiscal Year 2013.

The B-2 is also replacing the original radar antenna and upgrading selected radar avionics as part of the Radar Modernization Program (RMP) to change the radar operating frequency. RMP recently recovered from development challenges and has been approved to enter production. The Low Rate Initial Production contract for the first six production radar kits was signed on December 29, 2008, with the second and final buy for the remaining seven shipsets slated for later this year. Seven radar shipsets were also bought during development and are currently being installed in fleet aircraft to round out the twenty-aircraft B-2 fleet; the developmental units will be retrofitted to the final production configuration. Thanks in large part to congressional support, the RMP acquisition strategy was modified to include both life-of-type component buys to avoid diminishing manufacturing issues during the production run, and advance procurement to recover five months of the schedule lost while resolving the RMP integration issues during development.

B-52

The B-52 Stratofortress is our Nation's oldest frontline long-range strategic bomber, with the last airframe entering service with the United States Air Force in 1962. Given the expected service life of the aircraft, the B-52 airframes will be the longest operationally employed powered war machine in history, far surpassing the lifespan of any other single model land, sea or air weapon system. For more than 40 years B-52s have been the backbone of the manned strategic bomber force for the United States. The B-52 is capable of dropping or launching the widest array of weapons in the U.S. inventory, including gravity bombs, cluster bombs, precision guided missiles and joint direct attack munitions. Updated with modern technology, the B-52 will be capable of delivering the full complement of joint developed weapons and will continue into the 21st century as an important element of our Nation's defenses.

The Air Force has invested in B-52 modernization programs to keep the platform operationally relevant by adding satellite and nuclear survivable and secure wideband high data

rate communications; Advanced Targeting Pods - Sniper and LITENING; aircraft computer and data transfer unit upgrades; and integration of smart weapons to improve conventional warfare capability.

Together with the B-1 Lancer and the B-2 Spirit, the B-52 Stratofortress serves as a key component of the United States' long-range bomber force. It has earned respect as a highly capable conventional and nuclear combat platform during the Cold War, the Vietnam War, OPERATIONS DESERT STORM, ALLIED FORCE, ENDURING FREEDOM and IRAQI FREEDOM, and is currently deployed to the 20th Expeditionary Bomb Squadron in Guam to provide a continuous bomber presence mission in the Pacific. The B-52 continues to serve the nation well as it has during its long and distinguished history, and we have provided significant support across the future years defense program in recognition of its value.

Combat Search and Rescue Replacement Vehicle (CSAR-X)

The Combat Search and Rescue Replacement Vehicle (CSAR-X) program is the Air Force's next generation CSAR aircraft and one of the Secretary of the Air Force's top five acquisition priorities. The Air Force intends to replace 101 aging HH-60G Pave Hawk helicopters with 141 CSAR-X aircraft.

The CSAR-X program is currently in source selection with an expected contract award targeted for Spring 2009. The desired initial operational capability (IOC) is the third quarter of Fiscal Year 2013 with a required IOC by the second quarter of Fiscal Year 2015. There are nine KPPs in the August 2005 JROC approved CSAR-X Capability Development Document. They are combat radius, deploy-ability, net ready, payload and cabin space, rotor downwash, self defense, vulnerability reduction, RF threat disengagements, and EO/IR threat disengagements; for which all thresholds must be met in source selection. Additionally, in December 2008, the DoD Inspector General released a report on the audit of the requirements supporting the Air Force process, citing the "Air Force properly vetted CSAR-X KPPs through the JROC validation and approval process, in accordance with DoD and Air Force acquisition guidelines."

Closing

We are building a 21st Century Air Force prepared to succeed – strategically, operationally, and tactically. Our highly capable and lethal aviation programs provide Global Vigilance, Global Reach, and Global Power. These capabilities are critical today and for the future Joint force. The Air Force is appreciative of the support of this Committee to our Airmen and our combat aircraft acquisitions programs