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HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES  
U.S. HOUSE OF REPRESENTATIVES

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE  
HOUSE ARMED SERVICES COMMITTEE  
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES  
U.S. HOUSE OF REPRESENTATIVES

SUBJECT: Fiscal Year 2015 Department of Defense Combat Aviation Programs

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## **I. Introduction**

Chairman Turner, Ranking Member Sanchez and distinguished members of the subcommittee, thank you for the opportunity to provide you with an update on Air Force tactical aviation programs. Today our Air Force is engaged globally, supporting the Combatant Commanders (CCDR) requirements and executing our National Military Strategy (NMS).

It takes the combined efforts of all of our military Services and the whole of government to deny, deter, and defeat an enemy, and over the last decade this integration has tightened. Just as we depend on our joint partners, every other Service depends on the Air Force to do its job.

Whether it is Global Positioning System (GPS) information to navigate waterways, airlift to get troops to and from the fight, manning intercontinental ballistic missile (ICBM) silos to deter aggression, or reconnaissance and satellite communication to tell forces where enemy combatants gather or hide, the Air Force provides these capabilities, as well as many others. Here at home, our Airmen patrol the skies, ready to protect the homeland, and they are integral to the movement of people and lifesaving supplies when disasters, like Hurricane Sandy or the California wildfires, strike.

Over the past 35 years, the Air Force has been called upon more than 150 times to conduct combat or humanitarian operations in more than 50 countries around the world. As our world becomes more interconnected, Air Force capabilities that allow America to see, reach, and affect a situation anywhere on the globe within a matter of hours, will become even more critical. This capability to see what is happening and project power anywhere in the world at any time is what *Global Vigilance*, *Global Reach*, and *Global Power* are all about.

## **II. Current Environment**

The magnitude of the cuts generated in Fiscal Year 2013 (FY13) by sequestration was difficult to absorb in the short term. We stood down 31 active component squadrons, to include 3 combat-coded squadrons for more than three months. We initiated civilian furloughs, putting extreme stress on the workload and personal finances of our civilian workforce. We cut maintenance of our facilities, in many cases by 50 percent, and delayed major maintenance actions, including depot aircraft overhauls.

With support from Congress, the Air Force was able to realign \$1.7B into operations accounts. This allowed us to cover our overseas contingency operations requirements and enabled us to resume flying operations, but these budget adjustments came at a sacrifice to future weapon system modernization. Of the units affected by the FY13 sequestration, only about 50 percent have returned to their pre-sequestration combat ready proficiency levels, which was already much less than required, and it will take years to recover from the weapon system sustainment backlog.

Though the Bipartisan Budget Act (BBA) and the FY14 Consolidated Appropriations Act provided partial sequestration relief in FY14, and some help for FY15, they do not solve all of our problems. The additional funds help us reverse our immediate near-term readiness shortfalls and enable the Air Force to build a plan that mostly shields our highest priorities, including: flying hours; weapon system sustainment; top three investment programs; and key readiness requirements such as radars, ranges, and airfields. However, the tightening fiscal caps combined with the abrupt and arbitrary nature of sequestration in FY 2013 clearly drove the Air Force into a “more ready force today” versus a “more capable force tomorrow” dilemma, forcing us to sacrifice future modernization for current readiness.

During the development of the FY15 budget submission, the Air Force took a bold but realistic approach to support the Air Force 2023 framework and the 2012 Defense Strategic Guidance (DSG), as updated during deliberations on the 2014 Quadrennial Defense Review (QDR). To do this within fiscal guidance, including the Strategic Choices and Management Review, we had to make difficult trades among force structure (capacity), readiness, and modernization (capability). As a result, the Air Force established four guiding principles to steer our strategy and budget process.

- (1) We must remain ready for the full-spectrum of military operations;
- (2) When forced to cut capabilities (tooth), we must also cut the associated support structure and overhead (tail);
- (3) We will maximize the contribution of the Total Force; and

(4) Our approach will focus on the unique capabilities the Air Force provides the joint force, especially against a full-spectrum, high-end threat.

Moving forward, we seek to maintain a force ready for the full range of military operations while building an Air Force capable of executing our five core missions: 1) air and space superiority; 2) intelligence, surveillance, and reconnaissance (ISR); 3) rapid global mobility; 4) global strike; and 5) command and control, all against a well-armed and well-trained adversary in 2023 and beyond.

The FY15 budget request attempts to develop and retain the most critical force structure and capabilities to maintain the Air Force's ability to rapidly respond to global demands in most missions. We will become smaller, which will require new approaches to reducing the rotational or current commitments in order to sustain it. This force structure reduction is budget-driven and not a logical consequence of transitioning out of nearly 13 years of war. In fact, the Air Force has progressively reduced its size since September 11, 2001; for example, we had 75 combat fighter squadrons in 2001, and today we have 55, with further cuts to 48 projected by the end of the Future Years Defense Program (FYDP) (FY19). In addition, history since the 1991 Gulf War suggests the Air Force will not experience a significant reduction in operations tempo even when Operation ENDURING FREEDOM combat operations end. Fighter, bomber, command and control (C2), ISR, personnel recovery, and special operation forces (SOF) assets are likely to remain in high demand. To compound matters, the Air Force still has not recovered the readiness lost due to sequestration in FY13, and readiness was unacceptably low even before sequestration. Despite these present challenges, we cannot afford to mortgage the future of our Air Force and the defense of our Nation. Recapitalization is not optional—it is required to execute our core missions against a high-end threat for decades to come.

If we continue to be funded at the FY15 budget top line level, we can continue a gradual path of recovery to combat readiness levels that enable us to meet the full range of operational missions, begin to close the gap in munitions inventories, and protect investments such as the new training aircraft system and the next generation of space-based systems. Additionally, the President has proposed an additional Opportunity, Growth, and Security Initiative (OGSI) to accompany the FY15 budget request. For the Air Force, this \$7B additional investment would enhance our

readiness posture, enable us to fund critical modernization programs, accelerate our recapitalization efforts, and improve our installations and bases.

A sequestration-level budget would result in a very different Air Force. To pay the sequestration-level bill, we will have to sacrifice current tanker and additional ISR capacity by divesting KC-10 and RQ-4 Block 40 fleets, decrease F-35 quantities, all of our major investment programs will be at risk, and our readiness recovery will be significantly slowed due to required cuts in weapon system sustainment and ranges, as well as reduced levels of investments in preferred munitions. A return to sequestration-level funding would result in a less ready, less capable, less viable Air Force that is unable to fully execute the defense strategy.

The FY15 budget request does not enable full near-term recovery of warfighting capability, capacity and readiness, but we have made the risk-informed decision to re-strike the balance, ultimately trading some current capacity and modernization for future readiness and recapitalization. When building the budget, there were no easy choices. We divested fleets and cut manpower that we would have preferred to retain. We focused on global, long-range, and multi-role capabilities, especially those that can operate in contested environments, which meant keeping key recapitalization programs on track.

### **III. Operations Update**

Today, the Air Force flies and fights in air, space, and cyberspace—globally and reliably—as a valued member of our Joint and Coalition teams. Approximately 218,000 Total Force Airmen are “committed in place” supporting daily Combatant Command operations to defend the homeland, provide command and control of our nuclear forces, operate remotely piloted aircraft, provide rapid global mobility, and many other requirements. Over 28,000 Airmen are deployed across the globe, including more than 20,000 in the U.S. Central Command Area of Responsibility. The Air Force is an active partner in Department of Defense planning that will shift our emphasis from today’s wars to a broader range of challenges and opportunities. The Department of Defense is currently reassessing the strategic guidance issued last year, but we anticipate continued emphasis on and planning for a rebalance to the Asia Pacific region. Our

challenge is to provide those who deploy in support of our global commitments an Air Force that is capable, agile, flexible, ready, and technologically advanced.

In Calendar Year 2013 (CY13), Air Force global precision attack aircraft flew over 21,000 sorties and logged 40,000 hours in support of Overseas Contingency Operations. On the home front, Air Force fighter, air refueling, and early warning aircraft have flown over 64,000 total sorties supporting Operation NOBLE EAGLE since September 11, 2001. As a testament to the capability of our Total Force, the Air National Guard and Air Force Reserve have flown more than 65 percent of these sorties.

However, aviation is not without risk. In FY13, there were 19 Class A aviation flight mishaps, including 14 destroyed aircraft and 11 fatalities. This was a decrease in one Class A aviation flight mishap from FY12, and an increase in destroyed aircraft and fatalities from the FY12 numbers of 10 aircraft destroyed, and nine fatalities respectively. Analysis of these events found trends similar to previous years, with the top two mishap factors being compliance and decision-making errors.

There were 33 Class B aviation flight mishaps in FY13, significantly higher than the 23 in FY12. Class C aviation flight mishaps stayed relatively consistent with 262 in FY13, slightly below the 269 total in FY12. Additionally, FY13 Unmanned Aerial System mishaps decreased across the board in Class A, B and C mishaps from FY12. Class A mishaps dropped from 13 to 12, Class B mishaps from four to one, and Class C from 16 to 13.

#### **IV. Force Structure and Modernization**

##### **Fighters**

Air Force fighter force structure is dependent on both fighter aircraft and rated manning. Three years ago, the Air Force determined through extensive analysis that a force structure of 1,200 primary mission aircraft and 2,000 total aircraft was required to execute the NMS with increased operational risk. Two years ago, based on the 2012 DSG and fiscal constraints, the Air Force rebalanced our force structure across core functions. Analysis showed the Air Force could decrease fighter force structure by approximately 100 aircraft with higher risk, resulting in the current fighter requirement of 1,100 primary mission aircraft and 1,900 total aircraft. The 2014

QDR Report also advances an updated national defense strategy that embodies and builds on the DSG priorities. The Chairman's assessment of the QDR strategy states we will continue to need capabilities that can operate effectively in contested environments. During the build of the FY15 budget, fiscal constraints drove force structure divestments of 334 fighters, leaving a fighter force structure significantly below the 1900 total aircraft requirement. Fiscal pressures drove these tough choices—balancing today's needs against tomorrow's—and accepting near-term risk today to be ready and viable tomorrow.

The Air Force's fighter fleet is approaching 30 years old on average—the oldest in our history. Without service life extensions and capability upgrades, it will not be possible to manage risk. The Air Force is pursuing programs that will modernize and extend the service life of our remaining fleet. The F-35 is a key component in preserving future force structure and mitigating risk. Any further delay in the F-35 program will create a serious shortfall (mid and far-term) in fighter capabilities and force structure. The Air Force is very concerned with recent budget reductions and continues to monitor how these cuts will affect risk. Air Force modernization of legacy systems was traded to pay for readiness and continue to fund our top three investments. It is absolutely critical that selected fourth generation sustainment and modernization efforts continue, the F-22 continues to modernize, and the F-35 matures and begins Full Rate Production (FRP) to avoid further increases in risk.

Manning our current force is a challenge we continually work. Air Force mission success depends on efficient management of our rated force, the most challenging of which is fighter force structure manning. The Air Force is currently 240 fighter pilots short of the total manning requirement and our projections indicate this deficit growing to approximately 500 by 2022. The shortfall evolved from force structure reductions that cut active duty fighter squadrons and fighter training squadrons to a number that cannot sustain billet requirements. As a result, the Air Force is currently unable to produce and experience the required number of fighter pilots across the total force. The Air Force is prioritizing overall available rated manpower to fill our operational cockpits, at significant risk to institutional requirements. Projected impacts include reductions in air-operations expertise during the development of war plans and a gradual erosion of fighter pilot experience in test and training. Recent programming and policy actions raised production and absorption capacities, but current fiscal constraints place the implementation of

these actions at risk. However, even with these changes, the Air Force is only able to slow the decline in fighter pilot inventory and will be incapable of meeting our overall requirement for fighter pilot expertise for the foreseeable future.

### A-10

Beginning in FY15, the Air Force will retire the entire A-10 fleet of 283 aircraft, resulting in a savings of \$3.7B (\$4.2B including cost avoidance). The A-10 provides our Joint Force Commanders with responsive, lethal, precise, and persistent firepower for close air support and combat search and rescue, and has been a steady, stellar performer in all recent conflicts. It was a tough decision to retire the fleet, but under current fiscal constraints, we made the strategic decision to divest this platform, which cannot survive or operate effectively in a highly contested environment where there are more advanced aircraft or air defenses. As ably shown in Iraq and Afghanistan, we will rely on other platforms to provide effective close air support, from multi-role fighters to B-1 bombers to remotely piloted aircraft; however, these decisions do not come without risk or impacts to the mission. One of the impacts to using other platforms for close air support (CAS) is that use of these platforms for CAS must be balanced with their other missions, putting stress on the force in certain scenarios. Divesting the entire fleet allowed us to harvest savings we could then apply to efforts that allow us to be ready and viable tomorrow.

The FY15 budget does not fund future modernization efforts for A-10 aircraft; however, we will continue to fund modernization programs to keep the aircraft viable until 2019.

### F-16

Our primary multi-role fighter aircraft, the F-16 comprises 50 percent of our fighter fleet. The FY15 budget request invests \$1.04B across the FYDP for F-16 modernization and service life extension to meet critical warfighter needs to 2025 and beyond. The majority of efforts in the FYDP focus on Legacy Service Life Extension Program (SLEP), Operational Flight Program (OFP) enhancement, and a new start program for upgrades to the Modular Mission Computer (MMC) and Programmable Display Generator (PDG).

Legacy SLEP will extend the airframe structural service life for 300 aircraft by approximately 25 percent from the current 8,000 hours to 10,000+ hours, adding about six to eight years. The



FY15 budget request continues design and development of structural modification kits for the Block 40-52 fleet to be responsive to the Air Force's total fighter requirement. The FY15 budget request for OFP enhancement will continue the integration of new weapons, avionics and improved targeting pods. The FY15 new start for the MMC and PDG upgrade will resolve processor, memory, and bandwidth issues that will allow capability growth through future OFP development.

The Combat Avionics Programmed Extension Suite (CAPES) program contains four distinct pieces that provide critical new capabilities to the F-16, including an Active Electronically Scanned Array (AESA) radar, a center display unit, an ALQ-213 integrated electronic warfare management system, and an integrated broadcast service (IBS) that integrates off board threat data and blue force tracking via SATCOM. Originally, 300 aircraft were scheduled to be upgraded with these capabilities, but the program was unfunded in FY15. The modernization of fourth generation aircraft continues to be a critical bridge with the fifth generation fleet and, although the Air Force is continuing with selected F-16 modernization, the lack of these specific avionic upgrades will result in F-16 Block 40-52 aircraft that will not be nearly as effective in a contested environment and will put the Air Force at greater risk from emerging threats.

To partially mitigate the impact of terminating CAPES, we are upgrading the F-16's electronic attack pod. This upgrade brings the self-protection capabilities of the aircraft in line with current and emerging threats, thereby increasing its effectiveness in the contested environments we expect it to encounter.

### **F-15 C/D**

The FY15 budget request divests the F-15C/D fleet by 51 aircraft across the FYDP. The FY15 budget request invests approximately \$1.9B across the FYDP on modernization and sustainment programs for the remaining F-15C/D fleet. We project the F-15C/D fleet will remain viable until at least 2035, with potential for an airframe service life extension following full-scale fatigue testing. This test is underway and will conclude in 2014. The Air Force manages the fleet through scheduled field and depot inspections under an individual aircraft tracking program.

We continue to modernize our F-15C/D fleet with AESA radars, a more capable aircraft mission computer, and a new electronic warfare self-protection suite, the Eagle Passive/Active Warning Survivability System (EPAWSS). This new system will be absolutely crucial to ensuring the F-15C/D is able to operate into the future, especially in highly contested environments. We have had to delay EPAWSS for one year to remain within budget constraints. We expect these efforts to enable 179 F-15C aircraft to operate safely and effectively through at least 2035 as determined by the full-scale fatigue test.

### **F-15E**

The FY15 budget request invests approximately \$2.5B across the FYDP for F-15E modernization and sustainment programs. This request includes integrating the latest precision weapons to hit targets accurately and reduce collateral damage, and adding a helmet mounted cueing system for all front seat cockpits that will reduce the F-15E's time to engage a target. Finally, we are adding a state-of-the-art AESA radar system advancing capabilities to identify and engage targets, a more capable aircraft mission computer, and a slightly delayed self-protection electronic warfare system (EPAWSS). As with the F-15C/D, the EPAWSS system will be absolutely crucial to ensuring the F-15E is able to operate into the future in highly contested environments. The Air Force expects the F-15E to be an integral part of the Nation's force through at least 2035. A full-scale fatigue test, due to be complete in 2015, will provide data regarding the feasibility of a service life extension.

### **Fifth Generation Fighters**

Vital elements of our nation's defense and deterrent capability are fifth generation fighters like the F-22A and F-35. These advanced, state-of-the-art aircraft are absolutely essential to maintain our current global superiority that permit air, sea, and ground forces freedom of action. Each aircraft possess exclusive, complimentary, and indispensable capabilities that provide synergistic effects across the spectrum of conflict. As future adversaries modernize, our legacy fourth generation aircraft will have limited capability to operate in a highly contested environment. Our Air Force must continue to invest in fifth generation weapon systems, and begin looking even further into the future, to ensure continued dominance of American Airpower.

## **F-22**

The F-22 Raptor is the only currently operational U.S. fighter currently capable of operating in highly contested environments. F-22 attributes of stealth, super cruise, integrated avionics and sensors combine to deliver the Raptor's unique operational capability. F-22 modernization is required to counter advancing threats that specifically target F-22 capabilities. Accordingly, F-22 modernization is consistent with the DSG to "invest as required to ensure [the] ability to operate effectively in [anti-access and area denial] environments". Focused on maintaining operational superiority against the evolving threat, the FY15 budget request for F-22 modernization investment includes \$330.6M in RDT&E in addition to \$331M in procurement. Increment 3.1 is fielding now and is scheduled to be complete in FY17, delivering advanced air-ground capabilities including Synthetic Aperture Radar (SAR) ground mapping, threat geolocation, and Small Diameter Bomb (SDB) carriage. Increments 3.2A/B remain on track for fielding in 2015/2018 respectively, and will deliver advanced electronic protection and combat identification, AIM-120D and AIM-9X missile capability, and significantly-improved ground threat geolocation.

The F-22 is operating safely world-wide, averaging about 26,000 flying hours a year since return to flight in September 2011. It has been over 24 months since the last unknown-cause hypoxia-like event occurred. Notably, the retrofit of the Automatic Back-up Oxygen System is on track for completion by 2015. Fielding of this system at Elmendorf Air Force Base is complete. The remaining fleet will be complete by mid-April 2015.

## **F-35**

During FY15, the Air Force will continue to manage risk across the global precision attack portfolio by prioritizing investment in fifth-generation aircraft while sustaining legacy platforms as a bridge to the F-35 Joint Strike Fighter.

The multi-role F-35A is the centerpiece of the Air Force's future fighter precision attack capability. In addition to complementing the F-22's world class air superiority capabilities, the F-35A is designed to penetrate air defenses and deliver a wide range of precision munitions. This modern, fifth-generation aircraft brings the added benefit of increased allied interoperability and cost-sharing across Services and eight partner nations. The FY15 budget request includes

\$4.9 billion for continued development and procurement of 26 F-35A, conventional take-off and landing (CTOL) aircraft. The program continues to make steady progress in overcoming software development delays and technical issues.

During CY13, the F-35 program team achieved a number of significant milestones, including: award of production contracts for aircraft Low Rate Initial Production (LRIP) Lots 6 and 7 and engine LRIP Lot 6; commencement of flight operations at Nellis Air Force Base; and the first live fire launch of an AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM) from an F-35. Additionally, the program team completed all planned weapon separation events, the first multi-function advanced data link 4-ship connectivity test, and successful weapons delivery tests for the Joint Direct Attack Munition (JDAM). Thirty-five production aircraft were delivered for the Air Force, Navy, and Marine Corps, the program reached over 10,000 test and operational flight hours, and nearly fifty F-35A pilots have now been trained at Eglin Air Force Base. Further, the 61st Fighter Squadron at Luke Air Force Base was reactivated as the first of six training squadrons at the new pilot training center, and Hill Air Force Base and Burlington Air Guard Station were announced as the first operational locations for the Air Force.

In FY14, the Air Force plans to procure 19 F-35A CTOL aircraft. Sequestration did not affect Air Force procurement quantities in 2014.

Affordability remains a major priority, and the F-35 program made great strides on this front in 2013. In the negotiations concluded for aircraft LRIP Lot 7 and engine LRIP Lot 6, costs dropped over 4 percent and 2 percent per unit, respectively, from previous lot negotiations, representing a decrease of approximately \$5M in unit recurring flyaway cost for each F-35A. In addition, the Joint Program Office, in partnership with prime contractors Lockheed Martin and Pratt & Whitney, established a Cost War Room to continue driving down development, production, and sustainment costs. These combined efforts have resulted in a number of cost reduction initiatives that will continue to be analyzed in 2014.

The progress made so far and the steps we take today are crucial in our efforts for declaring F-35 Initial Operational Capability (IOC). After the 2012 program re-baseline and Milestone B re-certification, the joint services were tasked to provide Congress our updated IOC criteria and

timeline estimates by June 1, 2013. These IOC criteria and IOC dates were established, and the Air Force plans to reach IOC for the F-35A by December 2016 (threshold).

Steady progress continues to be made on the development program, with over 50 percent of planned testing complete. The Joint Program Office has reduced risk on the helmet mounted display system, certification of night/IMC operations, fuel dump, and lightning protection issues. However, software remains the number one technical risk. We expect to reach initial warfighting capability, with Block 2B/3i software, and meet Air Force IOC as scheduled in 2016, but there is risk in reaching Full Warfighting Capability with Block 3F as planned in 2017. Maturity of the Autonomic Logistics System (ALIS) remains a concern. The Air Force understands ALIS is a necessary and integral element of the F-35 weapon system, and as such, is a top program priority. As designed, ALIS will tie F-35 mission planning, operational flight, ops and maintenance training, debrief, tech and flight manuals, prognostic health management, and supply chain management into one seamless information system. Corrective actions for ALIS deficiencies are in work, and a maintenance release in place at Eglin Air Force Base and Marine Corps Air Station Yuma are successfully addressing many user concerns in an effort to improve aircraft turnaround time. Improvement in ALIS is now tied to the projected increase in production ramp rate beginning in 2015.

### **Air-to-Surface Weapons**

All three mission areas (Stand-Off, Direct Attack, and Penetrator munitions) in the Air-to-Surface munitions inventory are short of inventory objectives. The most critical are stand-off and penetrator weapons. Joint Air-to-Surface Standoff Missile (JASSM) and SDB weapons along with Low Observable platforms are force multipliers in a highly contested environment and their shortage could increase friendly force attrition driving a much higher level of effort enabling the attack of other critical targets. The shortage of penetrator weapons will result in some inability to target adversary critical capabilities and increase risk. Direct attack munitions shortages drive the use of non-preferred munitions with decreased effectiveness and resulting in increased time and Air Force attrition to accomplish CCDR objectives.

## **JASSM and JASSM-ER**

JASSM and JASSM-ER (Extended Range) are currently the nation's only stealthy, conventional, precision, launch-and-leave, standoff missiles capable of fighter and bomber aircraft employment. They are capable of penetrating next generation enemy air defenses to strike high value, hardened, fixed, or mobile targets. The JASSM (baseline) has a range greater than 200nm while the JASSM-ER has a range greater than 500nm.

The JASSM (baseline) weapon is in FRP; the 11th and 12th production contracts were awarded to Lockheed Martin on December 19, 2013, for a total of 340 missiles. About 1,230 missiles have been delivered; of these about 1,000 are in the field and about 230 at the Lockheed Martin production facility for repair, mostly for the surface wrinkling due to exposure to high humidity conditions. The repair is fully covered by the warranty with no additional cost to the Air Force. A new coating (starting at lot 8) has corrected the surface wrinkling problem. FY16 is the last JASSM (baseline) buy for a total procurement of 2,054 missiles.

JASSM-ER is currently in LRIP; the 3rd and 4th LRIP contracts were awarded to Lockheed Martin on December 19, 2013, for a total of 100 missiles. A problem with the fuel supply motor initially delayed the deliveries of the 30 LRIP lot 1 JASSM-ER missiles; however, the problem was resolved and deliveries will complete in April 2014. JASSM-ER will start FRP in FY15. The combined JASSM production line transitions to JASSM-ER only at the maximum and most efficient rate of 360 missiles per year. The last JASSM-ER procurement is planned for FY23, for a total JASSM-ER buy of 2,846 missiles.

## **SDB II**

The SDB II will fill the capability gap of attacking mobile targets at standoff ranges through the weather outside of point defenses using a multi-mode seeker and dual band weapon data link. SDB II will be a force multiplier in the number of targets platforms can attack per sortie while inherently limiting collateral damage. Providing a four-fold increase in load out with its carriage system will allow the limited number of initial combat forces to achieve operational objectives early in conflicts, paving the way for follow-on forces. SDB II is an Acquisition Category (ACAT) ID program with the Air Force as the lead service in partnership with the

Navy. Initial aircraft integration of the SDB II will be on the F-15E (Air Force threshold), F-35B & C (DoN threshold), F/A-18E/F and AC-130W.

Currently, SDB II is in Engineering, Manufacturing and Development with an LRIP decision planned by the end of this fiscal year. In FY15, SDB II will continue developmental testing, complete live fire testing, and conduct government confidence test shots. The FY15 procurement plans are to buy 246 weapons with deliveries starting in FY17. SDB II fielding on the F-15E is planned for January 2017. The Air Force total planned procurement for SDB II is 12,000 weapons.

### **Air-to-Air Weapons**

Air-to-Air missile inventories are short of objectives. AIM-120 AMRAAM and the AIM-9X continue to be in short supply. These weapons enable the joint force to achieve Air Superiority by providing a first look first kill capability. The shortage of Air-to-Air missiles will increase the number of days required to gain Air Superiority, and will decrease the amount of time the Joint Force can maintain Air Superiority, which may leave the combatant commander short of their campaign objectives.

### **AIM-120D AMRAAM**

The AIM-120 AMRAAM is the Department of Defense's premier beyond-visual-range missile to counter existing and emerging air vehicle threats, operating at high or low altitude with electronic attack capabilities. AMRAAM is a key enabler for gaining air superiority and air dominance providing F-22, F-16, F-15, F/A-18, and eventually F-35 aircraft the ability to achieve multiple kills per engagement. The latest evolution of AMRAAM is the AIM-120D, which brings increased range and kinematics, improved high off-boresight targeting, and an enhanced two-way data link for improved accuracy and lethality at range. AIM-120D is an ACAT 1C joint program, with the Air Force as lead service in partnership with the Navy. The AIM-120D Operational Test Readiness Review was successfully completed in May 2012 and the program is currently in dedicated operational testing.

Operational testing is expected to be complete in this fiscal year and fielded on F/A-18 E/F and F-15 C/D aircraft. Total procurement for FY15 is 200 units with increases in future procurement

quantities for both the Air Force and Navy. The program will continue to update the AMRAAM technical data package to ensure a viable, producible design through the expected production life of the AMRAAM program, and to maintain a robust supplier base capable of sustaining production for the life of the program.

### **Updates Requested by Congress**

#### **Industrial Base**

The Air Force has been concerned over the future of the aerospace industrial base particularly in the segment supporting engineering design and development of tactical aircraft for several years. For the first time in over 50 years, there is only one tactical aircraft in development, the F-35. When production of the F/A-18 and the F-15 ends, there will be only one prime contractor producing tactical aircraft.

This situation presents a national challenge. Given the current fiscal constraints, how do we provide meaningful opportunities to develop, sustain, and advance the design, engineering, and technical knowledge to preserve our lead in this mission area? The Air Force continues to invest in key areas such as advanced turbine engines. However, as with all other programs, there are no easy choices left. We are accepting the risk that some elements of the current aerospace industrial capacity may atrophy. These capabilities, in terms of engineering and design teams, production workers, and facilities may need to be reconstituted to meet future requirements.

#### **RQ-4 and U-2**

The decision to buy-back the RQ-4 and retire the U-2 in the FY15 budget was a difficult decision for the Department. The Air Force has long maintained that both platforms have their unique strengths, and they are in many ways complementary. In a BCA environment we simply cannot afford to keep both. The FY15 budget process reviewed the RQ-4 and U-2 decision in light of opposing National Defense Authorization Act (NDAA) language prohibiting the retirement of either system. Given that only one of the systems is necessary to meet High Altitude ISR Combat Air Patrol requirements, while still not meeting overall ISR demand, the department decided to retain the RQ-4 and retire the U-2.



The DoD determined the Block 30 was sufficient to meet the requirements when considered within the total portfolio of ISR capabilities. The lower operating cost of the Global Hawk, as seen in the reduction of the RQ-4 cost per flight hour, enabled by its greater endurance, became the primary rationale for retaining the RQ-4. Although upgrades to the Block 30 will cost more in the near-term versus keeping the U-2, the potential long-term cost savings provided a rational basis to retain the RQ-4. The Air Force is committed to modernizing its ISR enterprise with the RQ-4 Block 30 as an important component combined with other capabilities that will meet current and future Combatant Command requirements.

Historically, the CCDR's ever growing demand for ISR has exceeded the Air Force's current force structure and capacity. Even with both the U-2 and RQ-4 fleets, the Air Force will not be able to meet the total COCOM demand. To provide a complementary ISR force structure capable of meeting the daily intelligence demand signal, the Air Force would require significant investment that is not affordable.

The Air Force will have less force structure, capacity, and ISR support to conventional high-altitude wartime ISR requirements compared to keeping both the U-2 and RQ-4 Block 30 forces. However, the department determined that the RQ-4 Block 30 force structure is sufficient when combined with other capabilities. Some losses in ISR capability and capacity can be mitigated with upgrades to the RQ-4 over the next five to ten years and by utilizing the larger ISR capability portfolio. Even with our best mitigation measures, some increased risks to combat and peacetime ISR collection remains. However, the Department is willing to accept some risks while focusing on the ISR core competencies and long term affordability.

### CV-22

The current CV-22 fleet stands at 37 aircraft. The Air Force will execute the final buy in FY14 which includes one Operational Loss Replacement (OLR) aircraft. Declaration of full operational capability is scheduled to follow delivery of the last CV-22 in FY17, for a total of 50 operational AFSOC aircraft.

The Joint V-22 Program Office is increasing CV-22's capabilities while at the same time executing an aggressive improvement program; both continue to make significant progress. The Program Office has emphasized improving CV-22 engine time-on-wing, which has resulted in

doubling the engine time-on-wing since FY10. The CV-22 also experiences engine stress due to operating and training in austere desert environments. In FY15, the Air Force will continue development of an improved engine inlet to address sand ingestion problems that severely degrade engine performance.

In addition to these critical engine upgrades, the Air Force continues to make other improvements to the CV-22. Retrofit modifications recently brought the oldest CV-22s to the current configuration. The Air Force has also initiated modifications designed to improve reliability/maintainability, safety, deployability, and mission effectiveness. Future modifications and improvements will make the CV-22 even more reliable, productive, and cost-effective, ensuring future availability of this long-range vertical take-off and landing capability.

### **Combat Rescue Helicopter (CRH)**

The Air Force is the only Service with a dedicated force organized, trained, and equipped to execute theater-wide Personnel Recovery. The CRH will replace the aging HH-60G, our current Personnel Recovery platform, which routinely operates from austere locations to recover personnel isolated from friendly control. Accordingly, CRH will be outfitted for delivery and extraction of Para-rescue teams. These teams are trained in small unit tactics and advanced battlefield trauma medicine from hostile landing zones. The CRH will also deliver first responders during disaster relief and humanitarian assistance operations. Finally, the CRH will likely be called on to continue support of special operations and medical evacuation missions, as the HH-60G has been over the past several years.

Due to the advancing age and current attrition rates of the HH-60G, the Air Force must continue to modify existing HH-60G helicopters and utilize the OLR program to meet operational requirements until we can fully recapitalize with the CRH. The CRH program provides 112 aircraft to replace the legacy HH-60G fleet. The contract for this effort is currently funded and on pace to award in FY14 in order to reach IOC in 2021.

### **Command and Control (C2)**

Command and Control, as a core function, is fundamental for all other Air Force Core Functions. The C2 vision is to provide sufficiently robust, scalable, flexible, and rapidly deployable C2

capabilities, enabling commanders to fully exploit air, space, and cyberspace capabilities. Underpinning the proper employment of Airpower is the Air Operations Center (AOC)—the senior element of the Theater Air Control System (TACS) which serves as the focal point for planning, directing, and assessing air, space, and cyberspace operations to meet Joint Force Air Component Commander operational objectives and guidance.

The C2 emphasis in the FY15 budget complies with the Department of Defense's budget reduction goals while maintaining an adequate C2 capability. The FY15 budget request supports the AOC, E-8C Joint Surveillance Target Attack Radar System (JSTARS), E-3 Airborne Early Warning and Control System (AWACS), and Three-Dimensional Expeditionary Long Range Radar (3DELRR) programs.

Based on the outcome of the 2011 Airborne SAR, Moving Target Indicator JSTARS Mission Area Analysis of Alternatives (AoA), the Air Force is requesting funds in the FY15 budget to recapitalize the E-8C JSTARS, while the E-3 AWACS will continue modernization activities. The 3DELRR program entered source selection in December 2013 for a new ground based sensor.

### **E-8C JSTARS and JSTARS Recapitalization**

The E-8C JSTARS is the airborne Command, Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) platform for air-to-ground Battle Management operations. It provides long-endurance, all-weather, surveillance and targeting of moving and stationary targets via Ground Moving Target Indicator (GMTI) and SAR technology.

Based on the results of the Airborne SAR/MTI JSTARS Mission Area AoA in 2011, the Air Force has begun a JSTARS Recapitalization (Recap) effort. The JSTARS Recap, which is fully funded throughout the FYDP, will use an affordable commercially available aircraft, reducing operation and sustainment costs by 27 percent compared to the E-8C. The new platform will reduce the logistics footprint and improve operational capability with an advanced ground surveillance radar and on-board battle management suite. JSTARS Recap is slated for IOC in FY22 and our plans are to procure a total of 16 aircraft.

JSTARS Recap will continue to provide a unique blend of Battle Management Command and Control (BMC2) and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities that enable the central tenet of Air Forces doctrine "Centralized Control and Decentralized Execution". Crews onboard the JSTARS use its wide area ground surveillance radar to build situational awareness and identify targets which are passed to strike assets or crossed cued with ISR platforms. The capability to perform this dual mission at the tactical edge provides C2 mission assurance in a contested environment.

To partially fund the Recap in the current fiscal environment, the Air Force will reduce the size of the E-8C JSTARS fleet. Through the transition, the Air Force will retain sufficient E-8C aircraft and crews to meet CCDR's most important requirements. The Air Force approached the decision to reduce the legacy E-8C fleet with a balanced risk perspective. Ultimately, we reduced capacity in the short term, at an appropriate risk level, in order to gain the capability and capacity required to operate in future highly-contested environments.

### **E-3 AWACS**

The E-3 AWACS fleet is the Department of Defense's premier airborne surveillance and BMC2 weapon system. AWACS is a key airborne element of the TACS and delivers combat effects of BMC2, Battlespace Awareness (BA) and Decision Superiority (DS). As a rapidly deployable system, the E-3 is often the first surveillance and BMC2 capability in theater.

Current modernization efforts focus on upgrading the battle management mission systems, combat identification and the cockpit avionics suite. These upgrades provide AWACS with the computing and communications architecture required for participation in a net-enabled battlespace, as well as avionics free from Diminishing Manufacturing Source (DMS) issues and mandated for continued worldwide airspace navigation. Additionally, AWACS is modernizing its wide-band communication capability to allow for netcentric operations and data exchange with other weapon systems and elements of the enterprise, as well as performing sensor upgrades to mitigate the effects of advanced electronic attack in contested environments.

With the implementation of the modernization programs, AWACS is adequate for executing the National Military Strategy, but the platform will require future initiatives to address emerging

adversarial threats and for effective participation in coalition or joint networked battlespace. Future capability enhancements will depend on the priority and phasing of funding relative to other Department of Defense efforts, and difficult choices will be required to live within the constraints.

Under current fiscal constraints, the Air Force made significant across the board reductions while staying as consistent as possible with strategic guidance. This included reducing the AWACS fleet from 31 to 24 aircraft to retain critical modernization programs needed for Joint Air Command and Control in highly contested environments. Additionally, evidence of increased corrosion and aging aircraft issues are becoming more prevalent, thus leaving the AWACS fleet struggling to consistently meet Air Combat Command's Mission Capable Requirement. To resolve the capacity shortfall created by the fleet reduction and increasing corrosion/aging aircraft issues, the Air Force is funding an AoA to consider modern and efficient solutions for the follow-on Airborne BMC2 mission along the lines of the work accomplished in support of JSTARS.

#### **IV. Conclusion**

The Air Force continues to be the world's finest across the spectrum of conflict, but the gap is closing. A return to sequestration-level funding would result in a less ready, less capable, less viable Air Force that is unable to fully execute the defense strategy. At FY15 BBA-level funding, the Air Force has some ability to manage risk in supporting the strategy, but significant challenges will remain. In order to defeat advancing threats, the Air Force must continue investments in top recapitalization and key modernization programs, and gain and maintain full-spectrum readiness.

Our sister services and allies expect the Air Force to provide critical warfighting and enabling capabilities. We remain focused on delivering Global Vigilance, Reach and Power, through our core missions of Air and Space Superiority, Global Strike, Rapid Global Mobility, Intelligence, Surveillance and Reconnaissance and Command and Control. We look forward to working closely together as we address the challenges of near-term uncertainty and risk to provide the ability to deliver combat air power for America when and where we are needed.