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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 2014 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 requirements and executing our National Strategy.

In this environment of fiscal uncertainty our focus remains on our five core missions of Air and Space Superiority, Intelligence, Surveillance, and Reconnaissance, Rapid Global Mobility, Global Strike, and Command and Control by which we deliver Global Reach, Global Power and Global Vigilance. It is more important than ever to balance near-term readiness with modernization efforts for the mid and long-term. Today's discussion is focused on Air and Space Superiority and Global Strike but covers all five core missions.

Our force structure meets most Combatant Commander requirements, but the current fiscal environment will necessitate that we stand down 13 fighter and bomber squadrons in Fiscal Year 2013. Multiple investment programs will be negatively impacted resulting in unit cost increases, terminations and schedule delays. There is still considerable uncertainty in the Fiscal Year 2014 Air Force topline funding level. The Fiscal Year 2014 budget request will not reverse the damage done by the Fiscal Year 2013 Sequestration. Recovering in warfighting capability and improving readiness requires a reduction in operations tempo and additional resources.

As we work together through these difficult times, our objectives are: to remain as ready as possible today, set a course toward full-spectrum readiness, preserve a highly responsive and scalable force, and overcome force structure and modernization challenges to provide the nation with the world's most capable combat Air Force now and in the future.

## **II. Current Environment and 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. Over 28,000 Airmen are deployed across the globe, including over 22,000 in the U.S. Central Command Area of Responsibility, with another 138,000 "committed in place" to defend the homeland, command and control our nuclear forces, operate remotely piloted aircraft, and support other Combatant Commander requirements. 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 Soldiers, Sailors, Airmen, and Marines who deploy in support of our global commitments with an Air Force that is capable, agile, flexible, ready, and technologically advanced.

In 2012, Air Force global precision attack aircraft flew over 28,000 sorties and 41,000 hours in support of Overseas Contingency Operations. In support of these operations, our Intelligence, Surveillance and Reconnaissance Airmen provided intelligence that shaped combat plans for 33 named operations, enabled the removal of 700 enemy combatants from the fight and built awareness for coalition forces in over 250 "troops-in-contact" engagements. Air Force Special Operations personnel executed over 1,600 strike missions and 7,700 specialized mobility missions. On the home front, Air Force fighter, air refueling, and early warning aircraft have flown almost 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 Operation NOBLE EAGLE sorties with the Air National Guard currently operating 17 of 18 Aerospace Control Alert sites across the United States.

Aviation is not without risk. In Fiscal Year 2012, there were 20 Class A aviation mishaps, including ten destroyed aircraft and nine fatalities. This was an increase from the Fiscal Year 2011 numbers of 15 Class A, eight aircraft destroyed, and two 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 24 Class B aviation mishaps in Fiscal Year 2012, significantly down from 53 in Fiscal Year 2011. Similarly, Class C mishaps dropped to 443 from 482 the year prior. Additionally,

Fiscal Year 2012 Unmanned Aerial System mishaps decreased across the board in Class A, B and C mishaps from Fiscal Year 2011. Class A mishaps dropped from 15 to 13, Class B mishaps from eight to four and Class C from 18 to 17.

As we undergo further updates to Defense Strategy, we must carefully balance our force between the active and reserve components. To get a better understanding of our Total Force mixture, we launched the Total Force Task Force, a team led by general officers from the Active Duty, Guard and Reserve components. The Total Force Task Force is conducting a comprehensive review of Total Force requirements and will develop strategic options to ensure that the Air Force correctly balances the strengths of each component to sustain the capabilities required in the years ahead. The team is scheduled to present their findings by October 1, 2013.

Additionally, The National Commission on the Structure of the Air Force, which is required by the Fiscal Year 2013 National Defense Authorization Act, will undertake a comprehensive study of the structure of the Air Force to determine whether, and how, the structure should be modified to best fulfill current and anticipated mission requirements in a manner consistent with available resources. The panel is scheduled to complete their report not later than February 1, 2014.

The Fiscal Year 2014 budget request retains critical force structure and maintains the Air Force's ability to rapidly respond to global mission demands. It evolved from a concerted effort to balance risk, modernization and force structure reductions with a commitment to readiness and taking care of our people.

However, sequestration forced the Air Force to implement immediate actions to mitigate a Fiscal Year 2013 topline reduction. A major impact of sequestration will be a marked decrease in readiness at the beginning of Fiscal Year 2014. Reductions in flying hours will cause unit stand downs, which will result in severe, rapid, and long-term unit combat readiness degradation. Within 60 days of a stand down, affected units will be unable to meet emergent or operations plans requirements. Depot delays will require the grounding of some of the affected aircraft. The deferments will result in idled production shops, a degradation of workforce proficiency and productivity, and corresponding future volatility and operational costs. Additionally, sequestration cuts to Air Force modernization will impact every one of our investment programs.

These program disruptions will, over time, cost more taxpayer dollars to rectify contract restructures and program inefficiencies, raise unit costs, and delay delivery of validated capabilities to warfighters in the field. The impact to modernization programs reduces our Air Force's competitive advantage and decreases the probability of mission success in contested environments. The Fiscal Year 2014 budget request does not enable full recovery of warfighting capability, capacity and readiness; additional resources will be required.

### **III. Force Structure and Modernization**

#### **Fighters**

Air Force fighter force structure is dependent on both fighter aircraft and rated manning. Two 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 National Military Strategy with increased operational risk. Last year, due to new strategic guidance 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 Air Force's fighter fleet is over 20 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. It is absolutely critical that 4<sup>th</sup> Generation sustainment and modernization efforts continue as programmed, the F-22 continues to modernize, and the F-35 matures and begins full rate production.

In the Fiscal Year 2013 budget, the Air Force accepted risk in our Combat Air Forces by retiring or reclassifying aircraft from seven squadrons: five A-10 squadrons, one F-16 squadron, and one training/support coded F-15 Aggressor squadron. After reductions, we retained sufficient

combat-coded fighter squadrons to maintain the capabilities and capacity required to meet the requirements of new strategic guidance at increased risk while providing a bridge to the Fifth Generation F-35.

Manning these aircraft is a challenge we are aggressively working. Air Force mission success is dependent on fighter force structure manning. The Air Force is currently 200 fighter pilots short of the total manning requirement. Our projections indicate this deficit growing to approximately 900 by 2022, excluding any additional negative impact on flying training driven by sequestration. The shortfall evolved from force structure reductions that cut active duty fighter squadrons to a number that cannot sustain billet requirements. As a result, the Air Force is currently unable to produce and absorb the required number of fighter pilots across the total force. The Air Force is prioritizing available manpower at significant risk to institutional requirements. Projected impacts include reductions in air-operations expertise during the development of war plans and a limited ability to train and maintain combat readiness. Recent programming and policy actions raised production and absorption capacity by Fiscal Year 2028; however, even with these changes, the Air Force will only be able to sustain a fighter pilot inventory capable of meeting 82 percent of our overall requirement for fighter pilot expertise.

### **A-10**

The A-10 provides our Joint Force Commanders responsive, lethal, precise, and persistent firepower for close air support and combat search and rescue. It has been a steady, stellar performer in all recent conflicts. Notably, the A-10's very high operations tempo and advanced age present substantial sustainment challenges. Most notably, the wings on the aging aircraft must be replaced in order to keep the fleet flying through 2035 and beyond.

Beginning in Fiscal Year 2013, the Air Force will retire 61 of the oldest A-10s. This will leave a fleet of 283 A-10s through 2035. The Fiscal Year 2014 budget request reflects our commitment to fund A-10 modernization, sustainment, and life extension programs. Installation of the Helmet Mounted Cueing System, now underway, will provide increased situational awareness to the pilot. Operational Flight Program upgrades will provide the A-10 with new combat capabilities to employ a variety of smart weapons, improve situational awareness, and enhance target identification and designation capability. Production and installation of the new

replacement wings are moving ahead at full-rate production levels. Other critical updates include an upgrade to the A-10's transponder, allowing for secure, military-only identify friend or foe modes, and an improved engine turbine and aircraft monitoring system used to identify and monitor structural fatigues and stresses. Emphasis on the continued health and upgrade of the A-10 will ensure the aircraft continues to excel in the close air support role for the next two decades.

## **F-16**

Our primary multi-role aircraft, the F-16 comprises 50 percent of the current fighter fleet. The Fiscal Year 2014 budget request invests approximately \$1.32 billion across the Future Years Defense Program (FYDP) for F-16 modernization, life extension, and continued sustainment to meet critical warfighter needs to 2025 and beyond. The majority of the efforts to accomplish this across the FYDP will focus on the Legacy Service Life Extension Program (SLEP) and Combat Avionics Programmed Extension Suites (CAPES) modernization program for 300 aircraft. We believe we will have to SLEP and modernize more.

Legacy SLEP will extend airframe structural service life by approximately 25 percent from the current 8,000 hours to 10,000+ hours, adding about six to eight years. The Fiscal Year 2014 budget request adds \$18 million to continue design and development of structural modification kits for the Block 40-52 fleet to be responsive to the Air Force's total fighter requirement. Additionally, the Falcon Structural Augmentation Roadmap (STAR) program, which replaces known life-limited structural components and maintains the original design airframe life of 8,000 actual flight hours, has been re-phased to complete in Fiscal Year 2014.

The Fiscal Year 2014 budget request adds \$44 million in development, with a total of \$489 million in development and procurement funding laid in across the FYDP for F-16 CAPES. This will allow for the development of capabilities for Active Electronically Scanned Array (AESA) radar, a new center cockpit display unit, data link enhancements and an improved electronic warfare defensive suite. These avionics upgrades must be done to keep the F-16 Block 40-52s relevant in a contested environment until replaced by the F-35 Joint Strike Fighter.

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

The Fiscal Year 2014 budget request invests approximately \$1.9 billion across the FYDP on modernization and sustainment programs for the 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). We expect these efforts to enable 175 F-15C/D aircraft to operate safely and effectively through at least 2035 as determined by the full-scale fatigue test.

### **F-15E**

The Fiscal Year 2014 budget request invests approximately \$2.5 billion across the FYDP for F-15E modernization and sustainment programs. This 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 that advances capabilities to identify and engage targets, a more capable aircraft mission computer, and a new self-protection electronic warfare system (EPAWSS). 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 an anti-access and area denial 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 fielded U.S. fighter capable of operating in anti-access and area denial 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 Department of Defense Strategic Guidance 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 Fiscal Year 2014 budget request for F-22 modernization investment includes \$459.6 million in RDT&E in addition to \$460.3 million in procurement in Fiscal Year 2014. Increment 3.1 is fielding now and is scheduled to be complete in Fiscal Year 2017, 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 2014/2018 respectively, and will deliver advanced electronic protection and combat identification, AIM-120D and AIM-9X missiles, and significantly-improved ground threat geolocation.

The Air Force Scientific Advisory Board Aviation Oxygen Generation System Study made eight near-term and 14 long-term recommendations for corrective and mitigating actions to prevent hypoxia-like events that led to the fleet stand-down in May-Sept 2011. The Air Force completed all eight near-term actions to include replacement of the emergency oxygen system activation handle; modification of the pilot upper pressure garment and installation of an independent oxygen sensor and helmet-mounted pulse oximeter. Additionally, nine of 14 longer-term recommendations were implemented, with the remaining five expected to be complete by November 2014. Most notably, the retrofit of the Automatic Back-up Oxygen System is on track for completion by 2015. The first 16 Raptors at Elmendorf Air Force Base are expected to be complete by mid-April. The F-22 is operating safely world-wide, and flew over 38,000 hours since return to flight in September 2011. It has been over 12 months since the last unknown-cause hypoxia-like event occurred.

## **F-35**

During Fiscal Year 2014, the Air Force will continue the balanced approach 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 Fiscal Year 2014 budget request includes \$4.5 billion for continued development and procurement of 19 F-35A, conventional take-off and landing (CTOL) aircraft. The program has made significant strides overcoming software development delays and technical issues.

During Calendar Year 2012, the F-35 program team achieved a number of significant milestones, including: Milestone B approval, Low Rate Initial Production Lot 5 contract definitization, Lot 6 undefinitized contract action, an Operational Utility Evaluation, a ready for training declaration; the start of pilot training at Eglin Air Force Base, completion of over 1,100 test flights, first weapon separation test on an F-35A CTOL, and the delivery of 30 production aircraft to the Air Force and Marine Corps. These early production deliveries to our operational test and training fleet allows the Air Force to begin the necessary operational test and validation efforts of the (F-35) this year, while also building our initial cadre of instructors to train our future generations of combat-ready pilots and maintainers.

In Fiscal Year 2013, the Air Force planned to procure 19 F-35A CTOL aircraft. As a result of sequestration, the Air Force will have to reduce the procurement quantity by at least three and potentially as many as five aircraft.

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 last year's 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. The Air Force fully expects to have our IOC position to you by this suspense.

One last area of F-35 development to address is the Autonomic Logistics Information System, or ALIS. 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. Early flight operations at Eglin Air Force Base demonstrated ALIS initial capability to support training, flight, and maintenance efforts. Although there were deficiencies identified and addressed during these early flight operations, and significant challenges remain through development, the Air Force remains cautiously optimistic continued ALIS development will deliver the required F-35 sustainment elements.

### **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 an anti-access and area denial environment and their shortage could increase friendly force attrition and drive 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 that decrease effectiveness and result in increased time and Air Force attrition accomplishing Combatant Commander objectives.

### **JASSM and JASSM-ER**

JASSM and JASSM-ER (Extended Range) are currently the nation's only stealthy, conventional, precision, launch-and-leave, stand-off missile capable of fighter and bomber aircraft employment. It is capable of penetrating next generation enemy air defenses to strike high value, hardened, fixed, or mobile targets.

Currently, JASSM is in Lot 11 production with over 1,000 missiles delivered and JASSM-ER is in Lot 2 production. The Fiscal Year 2014 procurement plans are to buy 182 missiles: 102 JASSMs and 80 JASSM-ERs. Fiscal Year 2014 also funds reliability efforts and the JASSM Weapon System Evaluation Program for flight testing of inventory assets. The Air Force is ramping-up the JASSM production to the most efficient rate (360 per year) by buying 224 missiles in Fiscal Year 2015 and 360 in Fiscal Year 2016 and beyond. While the range of JASSM is more than 200 nautical miles, JASSM-ER's range is over twice that (over 500 nautical miles). JASSM-ER completed Initial Operational Test and Evaluation in January 2013 with 20 successful flight test shots out of 21, a success rate of over 95 percent. The Full Rate Production decision for JASSM-ER is December 2013, with a plan to transition to JASSM-ER only production in Fiscal Year 2017 and beyond at the max production rate of 360 missiles per year.

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

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

The AIM-120 Advanced Medium Range Air-to-Air Missile (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, and F/A-18 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 Acquisition Category 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. Fiscal Year 2014 plans are to complete dedicated operational testing, to include captive carry and free flight, and fielding on F/A-18 E/F and F-15 C/D aircraft. Force procurement for Fiscal Year 2014 is 199 units; along with a purchase of 54 units by the 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**

### **CV-22**

Air Force Special Operations Command (AFSOC) uses the CV-22 Osprey's unique long range, speed, and vertical take-off and landing (VTOL) characteristics to provide special operations warfighters with specialized air mobility. In 2012, CV-22s completed 1,022 Operation ENDURING FREEDOM sorties, hauling over 135,000 pounds of cargo and extracting 299 detainees. In 2013, we will station aircraft at RAF Mildenhall, UK, the CV-22's first overseas squadron.

The current CV-22 fleet stands at 32 aircraft with the final buy scheduled in Fiscal Year 2014 as part of the program's second multi-year procurement. Current funding levels support the procurement of four Fiscal Year 2013 aircraft and the final three aircraft in Fiscal Year 2014. Declaration of full operational capability is scheduled following the delivery of the last CV-22 in Fiscal Year 2016, for a total of 49 operational AFSOC aircraft.

The Joint V-22 Program Office is increasing CV-22's capabilities while executing an aggressive improvement program, which continues to make significant progress. Since Fiscal Year 2010, aircraft availability rates are up over 20 percent. Particular emphasis is being placed on improving CV-22 engine time-on-wing, which has already seen a 62 percent increase since Fiscal Year 2010. These trends have continued in the first half of Fiscal Year 2013. In Fiscal Year 2014, we will start development of an improved engine inlet solution to address sand ingestion problems that severely degrade engine performance and necessitate costly engine removals and repairs due to operating and training in austere desert environments.

Improvements to the CV-22 are being made in block increments and each block includes a number of modification upgrades installed as they become available. Retrofit modifications continue to bring the oldest CV-22s to the most current configuration. Sequestration reductions will delay installation of Block 20/C improvements on fielded aircraft. Future modifications and improvements to the CV-22 will make the aircraft even more reliable, productive, and cost-effective; thus ensuring the AFSOC's long range VTOL capability is available and will provide specialized air mobility wherever and whenever required.

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

The Air Force is the only Service with a dedicated force that is organized, trained, and equipped to execute Personnel Recovery. Advanced helicopter capabilities, high-end tactically trained aircrews, and Battlefield Airmen who are trained in advanced battlefield trauma medicine allow these forces to provide lifesaving measures at the point of injury, anywhere in the world. These highly trained Airmen support Air Force, Joint, Coalition and Special Operations Forces in a wide variety of mission areas. In addition to overseas contingency deployments, these Airmen also serve as first responders during disaster relief and humanitarian assistance operations, making them some of the most highly stressed career fields in the U.S. military. Since 2001, our combat rescue forces saved over 7,000 lives, and in 2012 alone, they flew 4,500 missions saving 1,128 Coalition, Joint and partner nation lives in some of the harshest environments in the world.

The Air Force will continue to modify existing HH-60G helicopters to keep them viable until we can fully recapitalize the fleet with the CRH. This effort includes an operational loss replacement program that returns the HH-60G fleet to numbers capable of meeting our operational requirements. The operational loss replacement program is only a temporary bridge to allow us to meet operational demands until the entire fleet is recapitalized through CRH.

The CRH will conduct day and night marginal weather combat search and rescue in order to recover downed aircrew and isolated personnel in hostile environments. The program replaces the legacy fleet of aging HH-60G Pave Hawks. CRH is in source selection for 112 in-production helicopters and training systems configured by the original equipment manufacturer to meet the warfighter requirement. Our Fiscal Year 2014 budget supports contract award.

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

Command and Control, as a core function, is fundamental for all 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 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 Fiscal Year 2013 budget complies with the Department of Defense's budget reduction goals while maintaining an adequate C2 capability. The Fiscal Year 2014 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.

Investments in JSTARS will sustain the fleet pending decisions from the Airborne Synthetic Aperture Radar (SAR)/ Moving Target Indicator (MTI)/JSTARS Mission Area Analysis of Alternatives (AoA), while the E-3 AWACS will continue the Block 40/45 upgrades with the 3DELRR program pressing towards source selection for a new ground based sensor.

### **Air Operations Center (AOC)**

The AOC provides operational-level C2 of air, space, and cyberspace operations. The AOC coordinates closely with superior and subordinate C2 nodes, as well as the headquarters of other functional and service component commands to integrate the numerous aspects of air, space, and cyberspace operations and accomplish its mission. To effectively integrate the Theater Air Control System (TACS) elements, the AOC develops and establishes theater-wide C2 guidance of regular and irregular warfare, providing overarching direction to all the TACS elements. The baseline AOC Weapons System (Increment 10.1) requires modernization to enable collaboration, improve information accuracy, and provide enhanced system security against known and projected cyber threats. The sustainment of AOC Weapon System 10.1, and the continued development and successful fielding of AOC Weapon System 10.2 is critical to maintain joint interoperability and provide operational-level C2 to assigned and apportioned forces.

### **E-8C JSTARS**

The E-8C JSTARS is the world's premier 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 GMTI and SAR technology.

The Air Force completed the Airborne SAR/MTI JSTARS Mission Area AoA in 2011, which concluded that the optimum choice for the future of Air Force MTI was to use a business jet class aircraft with an advanced radar and on-board Battle Management Command and Control (BMC2) suite. The AoA also concluded that upgrading the current E-8C fleet with an Advanced Radar and new BMC2 Suite would be the next best solution, but has significantly high lifecycle costs. In the current fiscal environment, there is a lack of funding for a JSTARS replacement surveillance aircraft. The Air Force continues to fund the operations and support of the JSTARS platform to meet warfighter requirements. Critical near term diminishing manufacturing sources (DMS) issues have been addressed through the Multifunctional Information Distribution System (MIDS) Joint Tactical Radio System (JTRS) and Prime Mission Equipment DMS efforts. It is currently estimated that DMS issues will not cause grounding of any JSTARS platforms until 2025+. These modernization efforts keep JSTARS viable to support the National Military Strategy.

The JSTARS weapons system has been in continuous surge operations since 2004 and this level of tasking is expected to continue as Combatant Commander requirements for ground and maritime moving target surveillance continue to escalate. Current Global Force Management Allocation Plan (GFMAP) taskings and projected E-8C GFMAP allocations for Fiscal Years 2014-2015 will require continued deployment at these rates, limiting E-8C worldwide availability in support of emerging contingency responses.

### **E-3 AWACS**

The 31 aircraft E-3 AWACS fleet is the Department of Defense's premier airborne surveillance and BMC2 weapon system. AWACS is a key airborne element of 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.

The E-3 fleet has struggled to consistently meet Air Combat Command's Mission Capable requirement. Additionally, the depot is seeing increased corrosion in the fuselage and wings leading to expectations for increased aging aircraft issues in the next programmed depot maintenance cycles. System mission capable rates will likely deteriorate further when considering recent reductions to operations and sustainment budgets.



AWACS, with its current modernization programs, is adequate for executing the National Military Strategy. Current modernization efforts focus on upgrading battle management mission systems through the 40/45 upgrade, as well as cockpit avionics to provide the AWACS with the computing and communications architecture to participate in a net-enabled battlespace, and avionics that are free from DMS issues to meet worldwide airspace navigation requirements.

AWACS requires these future efforts to address adversary threats and effectively participate in coalition and joint networked battlespace. Future efforts include BMC2 enhancements and wide-band communications to allow for net centric operations and data exchange with other weapon systems and elements of the enterprise as well as sensor upgrades to detect low/very low radar cross section air target sets and improve operations in an electronic attack environment. Future capability enhancements will depend on the priority and phasing relative to other Department efforts and difficult choices may be required to live within funding constraints.

### **Three-Dimensional Expeditionary Long Range Radar (3DELRR)**

Fundamental to the Air Force's ability to provide unparalleled, expert, and sustained BMC2 is the ground-based Control and Reporting Center (CRC) weapon system, is the replacement of its 1970s-era technology primary sensor that is becoming unsupportable. The mission of the CRC is to provide persistent tactical level BMC2 to joint and combined air, land, and sea power assets in support of the Joint/Combined Forces Air Component Commander's objectives. The 3DELRR is planned to be the principal Air Force long range, ground-based sensor to detect, identify, track, and report aerial targets in support of theater commanders, with the Full Operational Capability for 35 radars scheduled for 2025. Extensive operational analyses have resulted in well-defined requirements based on current and future threats and scenarios. After a \$252 million cut to the program in the Fiscal Year 2013 budget, the Air Force identified cost/performance trades to enable the program to move the forward.

## **IV. Conclusion**

The Air Force is still assessing the exact impacts of sequestration on Air Force total obligation authority in Fiscal Year 2014 and beyond. Any further reductions to our Fiscal Year 2014 budget request will drive additional risks to our readiness, force structure, and ability to

modernize an aging aircraft inventory. In addition, the outcome of the strategic choices and management review may drive profound changes across the Department of Defense.

As we navigate the uncertain way ahead, to mitigate risk in critical areas like readiness, force structure and modernization, we will continue to work with Congress to develop executable force shaping options, and ask support for another BRAC round to reduce excess infrastructure as a means to meet sizable budget reduction goals.

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