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SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON AIRLAND FORCES
UNITED STATES SENATE

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE
SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON AIRLAND FORCES
UNITED STATES SENATE

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I. Introduction

Chairman Cotton, Ranking Member Manchin and distinguished members of the Airland Subcommittee, thank you for the opportunity to provide an update on the United States Air Force's Force Structure and Modernization. Today's demand for Air Force capabilities continues to grow as Airmen provide America with unmatched Global Vigilance, Global Reach and Global Power. Airmen are engaged defending US interests around the globe, supporting Combatant Commander requirements in response to growing challenges from Russia, China, North Korea and Iran, all in addition to the ever present counter-terrorism mission in the Middle East and around the world. While our forces have been heavily engaged in deterring or addressing these operational challenges, our adversaries have taken the opportunity to invest in and advance their own capabilities. For the first time in decades, our adversaries are closing in on our capability advantage. Our efforts to address these increasing challenges have been stymied by reduced and unpredictable appropriations.

The limited resources available since the Budget Control Act of 2011 have hampered our ability to balance readiness, capability and capacity. The FY2017 Presidential Budget balances modernization requirements with the requirement to sustain the capacity necessary to meet the combatant commanders' urgent needs for air, space and cyber forces and begin recovering readiness levels after 25 years of continuous combat. We're grateful for the additional resources the Bipartisan Budget Act provides compared to Budget Control Act caps; however, even at these funding levels, we continue to face difficult choices between capacity, readiness and modernizationWe need your support in the form of stable and predictable appropriations if we are going to build the Air Force that ensures the joint force can continue to deter, deny and decisively defeat any enemy that threatens the United States or our national interests. Any return to sequestration-level funding will force us to chase short term requirements at the expense of long term strategic planning, modernization and readiness.

II. Operations Update

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 200,000 Total Force Airmen are "committed in place" supporting daily Combatant Command (COCOM) 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. Approximately 24,000 Airmen are deployed across the globe, including nearly 16,000 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 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.

During 2015, Air Force aircraft flew over 295,000 hours in support of Overseas Contingency Operations (OCO). On the home front, Air Force fighter, air refueling, and early warning aircraft have flown over 69,000 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 70 percent of these sorties.

Today, the Air Force is actively engaged in two major efforts; conducting operations against the Islamic State (ISIL) in Iraq and Syria as part of Operation Inherent Resolve (OIR), and providing training and operational support to the Afghan National Defense & Security Forces (ANDSF) as part of Operation Freedom's Sentinel (OFS) and NATO-led Operation Resolute Support (ORS).

Our two main efforts in OFS are continuing counterterrorism (CT) operations against the remnants of al-Qaeda, and training, advising and assisting (TAA) our Afghan partners. The CT and TAA efforts are concurrent and complementary. While U.S. and Afghan forces continue to attack the remnants of al-Qaeda, we are also building the ANDSF structure so they can secure the Afghan people and contribute to stability throughout the region. Both of these efforts will contribute to a more secure and productive Afghanistan and prevent the re-emergence of terrorist safe havens. As an example, the U.S. Air Force helped develop the Afghan Special Mission Wing (SMW), which provides the Afghan Special Security Forces (ASSF) with the operational

reach and manned Intelligence, Surveillance, Reconnaissance (ISR) capability required to support counter terrorism and counter narcotics missions. The SMW is now capable of executing long-range, full-mission profiles in low illumination. Working together with the ASSF, the commando units and SMW consistently conduct unilateral direct action missions against insurgent leaders and facilitators.

The NATO Resolute Support mission provides training, advice and assistance in eight key areas: multi-year budgeting; transparency, accountability and oversight; civilian governance of the Afghan Security Institutions; force generation; force sustainment; strategy and policy planning, resourcing and execution; intelligence; and strategic communications. In support of these essential functions, U.S. Air Force advisors work to develop the Afghan Air Force across their entire air enterprise—from fixed and rotary wing operations and maintenance, to engineering and logistics, and force development and budgeting. The Afghan Air Force operates the Mi-17 transport helicopter, Mi-35 attack helicopter, Cessna 208B basic trainer and light lift aircraft, MD-530 light attack helicopter, A-29 turbo prop light attack aircraft, and the C-130 medium lift Hercules. Recently the first four A-29 Super Tucano light air support fighters were delivered to Afghanistan. The aircraft are scheduled to go into action in early April when four more will be delivered. The Afghan Air Force has a total of 20 A-29 aircraft on order. Future Afghan pilots are currently in training at Moody Air Force Base. In the last year, the Afghan Air Force has taken over much of the mission, providing casualty evacuation and aerial attack in support of Afghan ground forces and providing the majority of helicopter and much of the fixed wing maintenance

Our two main efforts in OIR are to systematically attack ISIL’s critical capabilities and support indigenous forces on the ground as they take the fight to ISIL. U.S. Airpower has already achieved positive effects in Iraq and Syria. By virtue of the pressure we're putting on ISIL from the air, we've disrupted their communications, reduced their financial capacity and degraded their freedom of maneuver. They've dispersed, they’re hiding among the population more, and they aren't as free to operate as they once were. In Iraq and northern Syria, airstrikes and resupply efforts have helped indigenous forces to retake and hold key territory, although the situation on the ground remains dynamic. Airstrikes have destroyed ISIL command and control (ex: headquarters buildings), logistics (training camps & vehicle staging areas), and revenue

sources (oil infrastructure & bulk cash storage), making it harder for ISIL to sustain itself as a fighting force.

The U.S. Air Force takes great care in everything from our intelligence collection and analysis to our choice of weapons used for targeting to minimize the chance of harming civilians. No other military in the world takes the responsibility to protect civilians more seriously than we do. In addition, the U.S. Air Force has alleviated civilian suffering in Iraq through delivery of meals, water, and other vital supplies via airdrops and, more importantly, by providing advice and training that have enabled the Iraaqi air force to continue independent humanitarian relief and operational resupply efforts.

Despite differences, the U.S. and our International Coalition partners are united over the long term against the common threat posed by ISIL. More than a dozen coalition nations are supporting air operations against ISIL, where they are responsible for more than 20 percent of all sorties and more than 15 percent of all strikes. As of February 23rd, the U.S. and coalition partners have conducted a total of 10,545 strikes (7,061 Iraq / 3,484 Syria). The U.S. has conducted 8,076 strikes in Iraq and Syria (4,809 Iraq / 3,267 Syria) and the rest of the Coalition has conducted 2,469 strikes in Iraq and Syria (2,252 Iraq /217 Syria) As of February 22nd, U.S. and partner nation aircraft have flown an estimated 69,877 sorties in support of operations in Iraq and Syria. More than 60 nations have expressed willingness to participate in the effort against ISIL, and more than 30 nations have indicated their readiness to offer military support. All 22 nations of the Arab League have adopted a resolution calling for comprehensive measures to combat ISIL.

The ISIL contagion is a transregional threat that extends outside of Iraq and Syria and across COCOM borders. As demonstrated by the deliberate airstrikes against Islamic State in Libya, the flexibility, precision and lethality of US Air Force airpower continues to provide effective options against transregional threats. Despite these successes in CENTCOM and AFRICOM, we recognize there are limits to what U.S. Airpower can accomplish. Airstrikes alone will not achieve our full military objectives. The forces that matter most are indigenous ground forces. This is going to be a long, difficult struggle that requires strategic patience.

III. Force Structure and Modernization

Fighters

Four years ago, based on the 2012 DSG and severe fiscal constraints, the Air Force rebalanced our fighter force structure using analysis which showed the Air Force could decrease fighter force structure by approximately 100 aircraft if it were willing to accept higher risk. This resulted in the current fighter inventory of approximately 1,100 primary mission aircraft and slightly more than 1,950 total aircraft. This inventory complies with FY16 NDAA language on the limitation on retirement of Air Force Fighter Aircraft.

The Air Force needs an affordable force structure that meets the needs of today's counter terrorism fight while still advancing our capabilities to fight the most advanced threats in the future. The Air Force is committed to balancing the costs of maintaining an adequate number of fighters that can operate across the spectrum of conflict to meet strategic guidance and will continue to pursue modernization efforts, recapitalization, and multi-domain capabilities that assure our freedom to operate in future threat environments.

The Air Force's fighter fleet is approaching 30 years old on average—the oldest in our history. Without recapitalization and selective capability upgrades, it will not be possible to mitigate the growing risk. Gaining and maintaining air and space superiority in increasingly contested environments will be our toughest mission. The Air Force is currently pursuing programs that will modernize and potentially extend the service life of our existing fleets. The F-35 acquisition program is key to our efforts to improve our capabilities relative to improving threats and maintain capacity as our legacy fleets become unsupportable. Any further delay in the F-35 program will create a serious shortfall (mid and far-term) in fighter capabilities and force structure. Maintaining the 1900 TAI fighter force mandated in the 16 NDAA will require selected fourth generation sustainment and modernization efforts, F-22 modernization, and F-35 Full Rate Production (FRP). Fighter combat is a technologically driven that requires constant effort–agility is key. We have to reduce technology risks and field advanced capabilities in time to meet the operational needs over the long term. Following the top-down, multi-domain Air Superiority 2030+ Flight Plan being produced by the Air Superiority 2030 Enterprise Capability Collaboration Team (ECCT), the Next Generation Air Dominance concept development and

technology assessments will identify concepts and technologies that improve persistence, survivability, lethality, connectivity, interoperability and affordability. This effort will prove critical to the joint force's ability to engage in the most highly contested environments around the globe.

Air Force mission success also depends on efficient management of our rated force, the most challenging of which is fighter force structure manning. The Air Force is currently 511 fighter pilots short of the total manning requirement and our projections indicate this deficit will continue to grow to approximately 834 by 2022. The shortfall is the result of force structure reductions of active duty fighter and fighter training squadrons. The remaining active component fighter squadrons do not produce enough experienced fighter pilots to meet all of the staff, test, and training requirement. The Air Force prioritized 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, and the Air Force has developed plans for future actions to address the shortfall, but current fiscal constraints place the implementation of these actions at risk. In addition, the Air Force created the non-rated 13L Air Liaison Officer (ALO) career field to reduce fighter pilot requirements in the ALO function. 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. Without these fighter pilots, the Air Force will be very challenged to continue to provide the air supremacy upon which all our other forces depend.

A-10

The FY17 budget includes an Air Force decision to re-phase A-10 retirement (FY18-FY22) to sustain capacity for the current fight against ISIL while balancing long term capability requirements. This re-phase will cost $3.4B over the FYDP. The FY17 budget fully funds the A-10 through the planned retirements, to include training, flying hours, depot maintenance, and required modernization efforts. The A-10 continues to be a steady, cost effective performer in today's permissive environment; however, it cannot survive or operate effectively in a highly contested environment dominated by more advanced aircraft or air defenses.

The Air Force is funding a Combat Air Force Study over the next year, with a portion of this study dedicated to informing the FY18-22 budget cycle on possible Tactical Air Support (TACAIR) Platform Alternatives for Low-intensity/Permissive Conflict. This will serve to ensure that other current platforms and future systems meet future close air support requirements. As part of this study, the Air Force will assist OSD Cost Assessment and Program Evaluation (CAPE) and USD for Acquisition, Technology, and Logistics (AT&L) as they lead a joint/inter-service team to assess needed capabilities for prolonged operations (greater than one year) in permissive environments, such as counterinsurgency, counterterrorism, stability operations, homeland defense, and peacekeeping operations. The analysis will address readiness costs, operating environment, basing, weapons carriage, time-on-station, ISR capability, survivability, and communications capability.

F-16

The multi-role F-16 comprises 50 percent of our fighter fleet. The FY17 budget request invests $2.03B across the FYDP for F-16 modernization and service life extension to meet critical warfighter needs to 2030 and beyond. The majority of efforts in the FYDP focus on Legacy Service Life Extension Program (SLEP), Operational Flight Program (OFP) enhancement, upgrades to the Modular Mission Computer (MMC) and Programmable Display Generator (PDG), upgrades to the Multifunctional Information Distribution System (MIDS), and a radar upgrade to meet a USNORTHCOM Homeland Defense Joint Urgent Operational Need (JUON).

Fatigue testing completed in 2015 shows that Legacy SLEP will extend the airframe structural service life for up to 300 aircraft by approximately 50 percent from the current 8,000 hours to 12,000+ hours, adding about fifteen to twenty years of service life. The FY17 budget request begins initial procurement funding for Legacy SLEP needed for the Block 40-52 fleet to remain responsive to the Air Force's total fighter requirement. The FY17 budget request for OFP enhancement will continue the integration of new weapons, avionics, improved targeting pods, and airspace compliance systems. The MMC and PDG upgrade will resolve processor, memory, and bandwidth issues that will allow capability growth through future OFP development. The MIDS upgrades will improve operational Link 16 reliability while also incorporating frequency remapping, crypto upgrades and growth capability. The

USNORTHCOM Homeland Defense Active Electronically Scanned Array (AESA) radar JUON provides an upgrade from the current APG-68 radar to a radar that offers advanced capabilities as well as improved reliability and maintainability to support the Aerospace Control Alert (ACA) mission.

F-15

The FY17 budget request invests approximately $6.5B across the FYDP on modernization and sustainment programs for the F-15 fleet. On-going structural tests indicate the C and D models airframes will reach their service life starting in the mid-2020s, and will likely require an airframe service life extension to operate beyond that timeframe. The FY17PB includes initial funding in FY20/21 for C/D airframe upgrades, but the final results of the structural testing and costs associated with a service life extension program must be weighed against the opportunity costs of investing in a 30 year old airframe. The Air Force expects the F-15E to be an integral part of the Nation's force through at least 2040. A full-scale fatigue test, due to be complete in 2018 will provide data regarding the feasibility of a service life extension for the F-15E. Currently, the Air Force manages the fleet through scheduled field and depot inspections under an individual aircraft tracking program.

In the meantime, we are continuing to modernize all F-15 models with state-of-the-art AESA radar systems with advanced capabilities to identify and engage targets. We will equip the F-15Cs with an infrared frequency targeting sensor that will vastly improve its targeting capabilities. The FY17PB also provides for upgrading F-15 C and E models with a more capable aircraft mission computer, a more robust and powerful data link, and a new electronic warfare self-protection suite, the Eagle Passive/Active Warning Survivability System (EPAWSS). This EW system will be absolutely crucial to ensuring the F-15C's and E's are able to operate well into the future, especially in contested environments. Lastly, the FY17 PB request includes funding for the F-15E to integrate the latest precision weapons to accurately hit targets with reduced collateral damage, and adds a more robust and powerful data link to ensure the aircraft can accurately and securely be assigned targets when in support of ground units.

Fifth Generation Fighters

Fifth generation fighters like the F-22A and F-35 are vital elements of our nation's defense and deterrent capability. These advanced, state-of-the-art aircraft are absolutely essential in maintaining our current global air superiority that permits 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. While our potential adversaries continue to modernize, our legacy fourth generation aircraft are rapidly approaching the end of their effective service lives and are limited in their ability to operate in a highly contested environment. Our Air Force must rapidly re-capitalize our fourth generation aircraft. At the same time, we must sustain and modernize our fifth generation fleet in order to maintain our ability to execute our National Defense Strategy in the near to mid-term while looking even further into the future at further modernization efforts that ensure continued dominance in the air.

F-22

The F-22 Raptor is the only 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. Focused on maintaining operational superiority against the evolving threat, the FY17 budget request for F-22 modernization includes $457.9M in RDT&E in addition to $354.3M in procurement. Increment 3.1 fielding continues, delivering advanced air-ground capabilities including Synthetic Aperture Radar (SAR) ground mapping, threat geolocation, and Small Diameter Bomb (SDB) I carriage. Increment 3.1 is scheduled to complete in FY18. Increment 3.2A is fielding concurrently with Increment 3.1, delivering critical electronic protection and combat identification upgrades. Increment 3.2B remains on track to field in 2018, and will deliver AIM-120 D and AIM-9 X missile capability and significantly-improved ground threat geolocation. The FY17 budget also implements open mission systems—the essential, common enabler for three new programs that accelerate development, integration and fielding of 5th-5th / 5th-4th communications interoperability, helmet-mounted weapons cueing & GPS M-Code upgrades on the F-22.

F-35

During FY17, 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 aforementioned legacy fighter modifications are intended to keep a viable air superiority fleet in operation as the F-35 program works toward IOC in 2016.

The multi-role F-35A is the centerpiece of the Air Force's future fighter precision attack capability, and it is of vital importance to our nation's security, forming the backbone of U.S. air combat superiority for decades to come. 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 FY17 budget request includes $5.85 billion for continued development and procurement of 43 F-35A, conventional take-off and landing (CTOL) aircraft.

The F-35 program reached several milestones in 2015. Luke Air Force Base, Arizona, began training F-35 student pilots on January 23, 2015. The 31st Test and Evaluation Squadron's F-35As, from Edwards Air Force Base, California, flew close air support during the Green Flag 15-08 exercise and in June, they worked with soldiers from the 1st Brigade Combat Team, Fort Bliss, Texas, to provide Close Air Support; one of the baseline missions for our IOC declaration. Also in June, two F-35As assigned to the 16th Weapons Squadron, Nellis Air Force Base, Nevada, were the first F-35s to participate in a capstone large-force employment exercise with the United States Air Force Weapons School. Finally, the first external weapons release tests, internal gun tests, and the first operational ordnance expenditures all occurred during 2015, showing clear progress towards operationalizing the F-35.

Today, the program is on the road to IOC for the Air Force, and we expect to declare IOC as planned in 2016. The 34th Fighter Squadron at Hill Air Force Base, Utah, the Air Force's IOC fighter squadron, took delivery of its first two F-35As on September 2, 2015, and it expects to have 12 aircraft by the end of May 2016. On September 23, 2015 the Integrated Test Force at Edwards Air Force Base, California, completed planned developmental test of the Block 3i mission software, which will be the baseline for the Air Force IOC declaration, and F-35A aircraft are in place at Nellis AFB to support tactics development for the warfighter. Going

forward, we will continue to closely monitor progress toward IOC including implementation of any required post-DD-250 air system modifications, delivery of necessary Mission Data File loads, and the continued maturation of ALIS, a system that is critical to F-35 operations at home and abroad. The Air Force will also continue to watch Block 3F (full warfighting capability), which currently has 4-6 months of schedule risk. Production affordability remains a major priority, and the F-35 program continues to make great strides on this front. The price of F-35s continues to decline steadily lot after lot. For example, the price of a Lot 7 F-35A was 4.3 percent less than a Lot 6 F-35A aircraft and a Lot 8 F-35A aircraft was 3.6 percent less than a Lot 7 F-35A, including the engine and profit for both contractors. We expect this trend to continue over the next two lots.

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. SDB weapons along with low observable platforms are force multipliers in a highly contested environment and their shortage could increase friendly force attrition. The shortage of penetrator weapons will increase risk to our forces and decrease our ability to target adversary critical capabilities. Combat operations and support for our coalition partners in Iraq and Syria are reducing inventories of JDAM tail kits, Hellfire missiles, and SDB I weapons faster than we are procuring them. Future Hellfire shortfalls were mitigated by FY15 reprogramming for $400M that increased production orders by 4,000 missiles. Those missiles will begin delivering in the FY17 timeframe. In FY15, the Air Force received approval to replace current operational forecasted expenditures of JDAM tail kits and SDB I weapons with Overseas Contingency Operations (OCO) funding. However it takes two to four years before procured assets make it back to the USAF inventory.

Hellfire

The Air Force continues to actively manage Hellfire inventories that have been depleted due to high expenditure rates in current operations against ISIL. FY15 reprogramming action

sufficiently funded Hellfire inventories to begin inventory recovery in FY17, allowing production orders in FY16 and FY17 to the maximum factory capacity.

JDAM Tail Kits

Due to current operations, the shortfall in JDAM tail kits will continue to increase. The root causes of the problem include extremely high expenditure rates—higher than previous contingencies—and a starting inventory below the desired objective. Additionally, historically low procurements over the past decade (7,758 average), driven by restricted budgets, led to diminished industrial capacity. The Air Force is mitigating the shortfall with three lines of effort: the rebalancing of stockpiles across combatant commands, the employment of alternative Precision Guided Munitions (PGMs) when possible, and increased production of tail kits. The Air Force is negotiating with Boeing to increase production capacity from 18,900 units per year to 36,500 by the fourth quarter of FY17.

SDB I and II

Prior to current operations, the Air Force was already short of the SDB I inventory objective and had ceased procurements. Combat operation in Iraq and Syria have expended significant numbers of SDB I. In FY17, the Air Force plans to procure 4,195 SDB I missiles with OCO funding.

The SDB II will fill a key capability gap by using a multi-mode seeker and dual band weapon data link to enable attacks against mobile targets at standoff ranges, through the weather, outside of point defenses. SDB II will be a force multiplier by increasing the number of target platforms that can be attacked 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 survivable initial combat forces to achieve operational objectives early in conflicts, paving the way for follow-on forces. SDB II is an Acquisition Category (ACAT) 1D 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 (Department of Navy threshold), and F/A-18E/F.

SDB II currently remains in Engineering, Manufacturing and Development and successfully received a favorable Milestone C decision in May 2015. Subsequently, the Air Force awarded the first Low Rate Initial Procurement (LRIP) contract to procure 144 weapons in June 2015. In FY16, SDB II will continue developmental and live fire testing and conduct government confidence test shots. The FY17 procurement plans are to buy 312 weapons with deliveries starting in FY18. Currently, the Air Force's total planned procurement for SDB II is 12,000 weapons.

JASSM and JASSM-ER

JASSM (baseline) 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 200 nautical miles while the JASSM-ER has a range greater than 500 nautical miles.

The JASSM (baseline) weapon is in Full Rate Production (FRP); the 14th production contract was awarded to Lockheed Martin on December 1, 2015, for 100 missiles. About 1,520 missiles have been delivered. Of these about 1,227 are in the field and 278 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 warranty with no additional cost to the Air Force. A new coating (starting at lot 8) has corrected the surface wrinkling problem. FY16 procurement of 100 is the last JASSM (baseline) buy, for a total procurement of 2,034 missiles.

JASSM-ER started FRP in FY15, after completing four LRIP lots. As part of the 14th production contract awarded to Lockheed Martin on December 1, 2015, a total of 140 missiles were awarded, along with an option for an additional 100 missiles anticipated to award in March 2016. Currently, 96 missiles have been delivered. In FY17, the combined JASSM production line transitions to JASSM-ER only at the maximum and most efficient rate of 360 missiles per year. Currently, the last JASSM-ER procurement is planned for FY23, for a total JASSM-ER buy of 2,866 missiles.

Air-to-Air Weapons

Air-to-Air missile inventories in their latest variants are also short of objectives. The AIM-120 Advanced Medium Range Air to Air Missile (AMRAAM) and the AIM-9X Block II are in limited supply, placing reliance on less capable variants to meet combat objectives. These weapons enable the joint force to achieve Air Superiority by providing a first look first kill capability. A 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. Adversary capabilities and capacity continue to challenge the Joint Force's historical advantage in the air superiority arena.

AIM-120D AMRAAM

The AIM-120 AMRAAM is the Department of Defense's premier beyond-visual-range missile, operating at high or low altitude with electronic attack capabilities to counter existing and emerging air vehicle threats. AMRAAM is a key enabler for gaining air superiority and air dominance providing F-15, F-16, F/A-18, F-22 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 completed operational testing in July 2014. The Navy fielded the missile and declared IOC for the F/A-18E/F on 7 January 2015. The Air Force fielded the missile and declared IOC for the F-15, F-16, and F-22 on 9 Jul 2015. In FY17, the Air Force plans to procure 256 AIM-120D's and the Navy plans to procure 163 AIM-120D's. 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.

Space

We view our national security as inextricably dependent on space-enabled capabilities. At the same time, space has become contested, congested and competitive; our space capabilities today are facing advanced, demonstrated, and evolving threats, which require fundamental

changes in the way we organize, train, and equip our forces. Congestion has increased the complexity of maintaining space situational awareness. There are over 60 active space-faring nations, nine of which have indigenous space launch capability. Almost any nation or state actor can access space services globally and globalization has made the latest technology available to our competitors and adversaries.

Legacy space acquisitions relied on packing as much capability as possible into a few systems creating critical vulnerabilities. Current budget realities drive us to rely on legacy systems, while warfighter demands have driven the need for more capable systems. We must provide space capabilities that assure performance of military space functions, regardless of the hostile action or adverse condition. We must invest smartly in the highest payoff capabilities that enhance space domain mission assurance to include resilience, defense operations, and reconstitution of our space systems and architectures to ensure U.S. and Allied use of space through all phases of conflict. We seek to balance military and commercial systems and leverage international partner capabilities to allow the U.S. to share the cost of space power; provide additional coverage in areas the U.S. requires assistance in, and create a coalition structure that can promote deterrence.

We recognize a conflict in space would hurt world economies and global stability; therefore, to address growing space threats, we are focused on sustaining our space capabilities, deterring threatening activity, and if necessary, pursuing means to mitigate counterspace threats.

Cyber

The Air Force continues to build its contribution to joint cyber mission forces by adding manpower for offensive and defensive cyber operations and equipping them with the right capabilities to ensure effective operations. We are building a standard cyber mission platform to simplify training and enable full-spectrum operations and continue to invest in converged cyber and electronic warfare capabilities. We are working with others across the Department of Defense to build a persistent training environment, consisting of jointly-interoperable ranges, dedicated operating forces, and supporting structures. We are enhancing our capacity to test our

critical weapon, intelligence, and business systems for survivability in the increasingly hostile cyber environment.

Further, we are leading the effort, in partnership with the other Services and Department of Defense agencies, to build Joint Regional Security Stacks. When fielded, this defensive boundary will provide global insight into activity, enabling rapid, coordinated Joint defensive operations. The standardized approach will enable sharing of Tactics, Techniques, and Procedures (TTP) across the Department of Defense, so that detection of an attack on one Service, and the resultant mitigations, can be seamlessly applied across the entire Department of Defense. This reduces operational response times and mission impact. No individual service could have afforded this level of capability with its own resources; it is only by pooling funding across the entire department that we can obtain the level of capabilities we require to counter the growing cyber threats. This new defensive boundary is the foundational step toward a trustworthy, efficient Joint Information Environment.

In short, we are on the path to put Cyber on par with Air and Space forces to achieve a multi-domain approach to mission accomplishment.

Airborne Electronic Attack

The Air Force is committed to providing airborne electronic attack capability in support of operations across all operational warfighting domains. The EC-130H COMPASS CALL is required in multiple war plans by multiple Combatant Commanders. House and Senate consensus language in the FY 2016 National Defense Authorization Act stated that the divestiture, retirement or placing in storage any of the EC-130H COMPASS CALL aircraft would present unacceptable risk to ongoing and future combat operations. Thus, the Air Force has delayed the divestiture of six EC-130H COMPASS CALL aircraft until FY 2019. The Air Force will continue to investigate alternatives for airborne electronic attack capabilities to replace and rebuild capacity of the existing EC-130H COMPASS CALL fleet as part of the Joint Airborne Electronic Attack Family of Systems concept.

Rapid Global Mobility and Personnel Recovery

The Rapid Global Mobility fleet continues to pursue capability enhancements balanced by rec**a**pitalization and required modifications to operate in international airspace and avoid diminishing manufacturing source issues. Comprised of 396 KC-135 Stratotankers and 59 KC-10 Extenders, our tanker fleet provides the backbone of rapid U.S. global operations. In addition to ongoing modernization efforts for our legacy tanker fleets, the FY17 PB requests $2.9 billion to procure 15 KC-46A Pegasus tankers. Stability of requirements and funding are the keys to KC-46 program success.

The Air Force is modernizing the C-130H fleet through a four-phased approach emphasizing aircraft safety, compliance, modernization, and recapitalization. First, we are ensuring that the C-130H is safe to operate by keeping the aircraft structurally sound through programs such as ongoing center wing replacements. Second, we will focus on meeting U.S. and foreign airspace compliance mandates through the C-130 Avionics Modernization Program (AMP) Increment 1. The FY17 PB accelerates this program to deliver 172 airspace compliant aircraft by December 2019, before the FAA 2020 deadline. Third, C-130 AMP Increment 2 will improve the fleet's maintainability and reliability by providing a new avionics suite, enhanced communications, and electrical improvements. It also solves pending obsolescence and DMS issues. The FY17 PB accelerates AMP Increment 2 to complete installations in 2028. Finally, the Air Force will continue to recapitalize the C-130H fleet through procurement of new C-130Js. We plan to field 134 total C-130J aircraft by FY19.

The strategic airlift fleet of C-5s and C-17s is capable of supporting the million ton miles per day metric established in our most stressed response scenarios. The Air Force continues to modernize and enhance 52 legacy C-5 aircraft to a common configuration to ensure fleet viability to 2040. The C-17 fleet of 222 aircraft was completed in September 2013 and provides our nation unmatched flexibility to conduct direct delivery, airdrop, aeromedical, and special operations airlift missions.

The Air Force is the only Service with a dedicated force organized, trained, and equipped to execute theater-wide Personnel Recovery. The Combat Rescue Helicopter will replace 112 of our aging HH-60G aircraft specifically equipped to conduct Combat Search and Rescue across the entire spectrum of military operations. The program remains on schedule to meet initial operational capability in 2021 and full operational capability in 2029.

Despite supporting a wide range of missions for five major commands, the current UH-1N fleet does not meet speed, range, payload, or survivability requirements. The risk created for our nuclear support mission by these capability gaps makes replacing the UH-1N a critical priority and a vital element of our nuclear enterprise reform initiative. A decision on the way forward for procurement of the portion of the UH-1N fleet servicing the nuclear support mission is anticipated soon.

IV. Conclusion

The United States Air Force continues to be the world's finest Air Force across the spectrum of conflict, but but our potential adversaries employ increasingly sophisticated, capable, and lethal systems. The Air Force must modernize to deter, deny, and decisively defeat any actor that threatens the homeland and our national interests. 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 or fully support the joint force. Furthermore, the Air Force faces a modernization bow wave over the next 10 years that requires funding well beyond the BCA caps—this includes critical programs necessary to meet our capacity and capability requirements across all mission areas. Although we are grateful for the Bipartisan Budget Act relief, we still face great uncertainly for Fiscal Year 2018 and beyond. Without the funding requested in this budget, we cannot meet current demand for Air Force capability and capacity without sacrificing modernization.

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 Superiority, Space Superiority, Global Strike, Rapid Global Mobility, Intelligence, Surveillance and Reconnaissance and Command and Control. We look forward to working closely with the committee to ensure the ability to deliver combat air power for America when and where we are needed.