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HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
UNITED STATES HOUSE OF REPRESENTATIVES

DEPARTMENT OF THE AIR FORCE

PRESENTATION TO THE
HOUSE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON TACTICAL AIR AND LAND FORCES
UNITED STATES HOUSE OF REPRESENTATIVE

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SUBJECT: Air Force, Force Structure and Modernization Programs

STATEMENT OF:

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INTRODUCTION

Chairman Turner, Ranking Member Tsongas and distinguished members of the Tactical Land Forces Subcommittee, thank you for the opportunity to provide an update on the United States Air Force Modernization programs and Force Structure. For the past 70 years, from the evolution of the jet aircraft to the advent of the ICBM, satellite-guided bombs, and remotely piloted aircraft, the Air Force has been breaking barriers as a member of the finest joint warfighting team on the planet. Today's demand for Air Force capabilities continues to grow as Airmen provide America with unmatched **Global Vigilance**, **Global Reach** and **Global Power**.

In, through and from air, space, and cyber, the fabric of our Air Force weaves multi-domain effects and provides joint warfighters the blanket of protection and ability to power project America's full range of combat capabilities…we're 'Always There'. But, in a world of increasing threats, ever-improving adversaries, and a persistent war against violent extremism, there is a greater disparity than ever before between commitments and the resources necessary to provide unmatched Global Vigilance, Global Reach and Global Power. We are supporting Combatant Commander requirements in response to growing challenges from Russia, China, North Korea and Iran, in addition to the ever present counterterrorism 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. To address ever narrowing capability gaps, the Air Force needs your support in the form of, steady and predictable appropriations that fulfill our annual budget requests. Budget levels under the current Budget Control Act restrictions will force the Air Force to continue making unacceptable tradeoffs between force structure, readiness, and modernization. With your

support of our FY 2018 budget request, the Air Force can invest in critical capabilities and modernization programs while sustaining capacity and recovering readiness to ensure the joint force can deter, deny and decisively defeat any enemy that threatens the United States or our national interests.

We are committed to providing the most effective bomber, robust tanker, and dominant fighter force to the nation. That is why our top three acquisition priorities in our FY18 Budget Request remain the B-21 Bomber, the KC-46A aerial tanker, and the F-35A Joint Strike Fighter.

ALWAYS THERE Your Air Force relentlessly provides **Global Vigilance**, **Global Reach**, and **Global Power** for the nation…we're always in demand…and we're always there.

Stitched together, the fabric of our Air Force weaves multi-domain effects and provides U.S. servicemen and women the blanket of protection and the ability to power project America's full range of combat capabilities. Make no mistake, your Air Force is always there.

READINESS IN A CHANGING WORLD Being "always there" comes at a cost to our Airmen, equipment, and infrastructure, and we are now at a decision point. Sustained global commitments and funding constraints have affected capacity and capability for a full-spectrum fight against a near-peer adversary. In 2013, sequestration forced hard decisions that sacrificed the readiness and size of the Total Force in order to ensure our technological superiority against future adversaries. In the FY16 and FY17 budgets, we made the necessary adjustments to balance near-term readiness with future modernization, but due to continuous combat operations, reduced manpower, an aging fleet, and inconsistent funding our readiness has suffered.

In a world of increasing threats, stronger adversaries and a persistent war against violent extremism, there is a greater disparity between commitments and the resources necessary to achieve our national security objectives. Instead of rebuilding readiness for near-peer conflicts,

your Air Force is globally engaged in operations against lesser-equipped, but still highly lethal and adaptive enemies. Airmen serve at home and abroad to underpin joint force success but it comes at the expense of full-spectrum readiness.

The first step to regain full-spectrum readiness is to rebuild our Operational Training Infrastructure. This includes not only live, virtual and constructive environments, but also the ranges and space necessary to train against high-end threat systems in a multi-domain environment. Once established, our 4th and 5th generation fighter units need relief from current tasking against low-end adversaries in order to train for emerging threats. We prioritized this initiative by creating a directorate on the Air Staff dedicated solely to this monumental effort. We took the first step, but the complexity of linking all of the systems needed for tomorrow's fight and deconflicting training requires both manpower and finances.

Your Air Force needs permanent relief from the current BCA caps, sufficient funding, flexible execution authority, and manpower to recover full-spectrum readiness. We will continue to do all we can to innovate, transform, and improve how we maximize our resources.

PEOPLE Airmen are our greatest resource and our Air Force needs to increase end strength to meet national security requirements. Manpower shortfalls in key areas remain the number one issue limiting readiness and is our top priority as we rebuild squadrons across the Air Force. At the start of 2016, our end strength stood at 311,000 active duty Airmen, down from more than 500,000 during Desert Storm—a 38 percent decrease. Though we appreciate your support to build the force up to about 321,000 in 2017, we will still be stretched to address national security requirements.

To improve readiness and attain manning levels matching our mission requirements, we worked with the Secretary of Defense to address personnel shortages in the FY 2018 President's

Budget to include an increase in our Active Duty, Guard, and Reserve end strength. Our Total Force model (incorporating our Active Duty, Guard, Reserve, civilians, and our contracted capabilities) not only recognizes the value of an integrated team, but helps guarantee today's and tomorrow's capability. We will develop plans to address shortfalls in a number of key areas, including critical career fields such as aircraft maintenance, pilots, NC3, intelligence, cyber, and battlefield Airmen.

As a Service, we face an aircrew shortage crisis across all disciplines. Your Air Force has the world's finest aircrew who enable an incomparable duality of global mobility and combat lethality. In the aircraft maintenance field, we were short approximately 3,400 aircraft maintainers at the close of 2016. Because of this shortage, we cannot generate the sorties needed for our aircrews. As airlines continue hiring at unprecedented rates, they draw away our experienced pilots. Without a healthy pool of pilots, we risk the ability to provide airpower to the nation.

Pilots are strategic national assets and the pilot crisis extends beyond the Air Force and military. It is a national problem which requires senior-level attention in Congress, the Commercial Industry, and the DoD. To address this national challenge, since 2014 the 'Air Force -Airline Collaboration', formally known as the National Pilot Sourcing Forum has increased efforts to effectively utilize and train an adequate number of pilots to meet our nation's pilot demand signal.

However, pilot retention has declined for five straight years. Today the Air Force has a rated manpower shortfall of approximately 1,550 pilots across the Total Force. This shortfall is most pronounced in our regular Air Force fighter community which is short more than 950 pilots. We are grateful for your support to increase the pilot bonus, and we will continue to

ensure our retention programs are appropriately sized and utilized. Your Air Force will utilize the new FY17 NDAA Aviation Bonus authority ($35K per year maximum) and implement a tiered-model using a directed business case model to identify areas of greatest need.

Retaining our pilot force goes beyond financial incentives…it is about culture. Your Air Force is implementing many non-monetary efforts to reinvent the culture and improve the quality of life and quality of service for our Airmen. We have reduced additional duties and superfluous training courses, as well as acquired contracted support in fighter squadrons to perform burdensome administrative tasks, enabling our pilots to focus on their primary duty: flying. We have also increased the transparency of the assignment process and increased flexibility to promote family stability. Your Air Force is exploring opportunities to reduce deployment burdens by enabling more Air Reserve Component volunteers for 179/365-day deployments. We must show our Airmen that we are creating a culture that reminds them they serve in something bigger than themselves…defending America.

In addition to retaining our talented personnel, the Air Force must also increase pilot production and absorption while reducing requirements. The increased end-strength provided in the FY17 NDAA will allow us to maximize the training pipeline and fill out under-manned units, which are vital to our recovery. Our fighter pilot production targets have increased 15% (to 335 Total Force pilots) per year while we surge the number of new aircraft maintainers by more than 1,500 per year to better man flying squadrons and reestablish sortie generation rates with a completion target of 3-5 years. However, other options beyond manpower increases exist to season our young pilots while accelerating readiness recovery.

The Air Force is also investigating a new light attack aircraft (OA-X) that may provide opportunities to create a "high/low" mix for combatting low-end threats in more permissive environments. We have invited industry to participate in a demonstration this summer to determine if a business case exists to add a light attack aircraft to our arsenal. A commercial off-the-shelf OA-X could be used to complement, not replace, our current aircraft inventory. This approach could provide more cockpits to absorb and season a greater quantity of fighter pilots and provide 4th and 5th generation aircraft the required training time to prepare for high-end threats and the operational tempo relief to extend their service life.

SAFETY ISSUES Over the past year, the Air Force is experiencing Class A, B and C mishaps at rates which are lower when compared to the previous 10 year average. This lower than average trend has been sustained over the last two years. Of note, in the past year, the Air Force has realized a significant decrease in Class A mishaps involving Remotely Piloted Aircraft (RPA); primarily due to a large increase in MQ-9 flight hours and a decrease in MQ-1 flying hours. Class A safety issues remain: material failure and aircrew error. Over the past year, when Class A mishaps have resulted in the total loss of the aircraft, about 40% involve some type of material failure. Safety issues in Class B mishaps are related to engine failures and wildlife strikes to aircraft. In the past 12 months, the Air Force has experienced over 50 mishaps involving wildlife strikes where the damage to the aircraft exceeded $500,000, the class B threshold.

Regarding physiological incidents, the preponderance of these incidents result in no damage to the aircraft as the aircrew recognize and properly respond to the incident and safely recover the aircraft. Unfortunately, these incidents are not isolated to one aircraft type or to one oxygen delivery system and as a result, there is most likely not one solution. Therefore the Air

Force continues to pursue technology to measure and report oxygen delivery to the pilot, possible containments in the oxygen system, and overall aircrew physiological state.

The goal in the Air Force is to preserve our combat readiness by eliminating mishaps that result in the loss of aircraft or worse, an Airman. To achieve this goal we continue to pursue technological and material solutions, such as the Auto Ground Collision Avoidance Systems, to enhance pilot performance and prevent mishaps. Finally, a large part of our safety program is done through proactive safety programs which identify and address hazards before they ever result in damaging mishaps or injuring. Mitigating hazards before they injure our Airmen or damage and degrade our combat capabilities is fundamental to the Air Force's pro-active mishap prevention program.

FORCE STRUCTURE AND MODERNIZATION Five years ago during a period of 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 we were willing to accept higher risk. This resulted in the current fighter inventory of approximately 1,000 primary mission aircraft and slightly more than 1,950 total aircraft. The current inventory complies with FY16 NDAA language on the limitation on retirement of Air Force fighter aircraft; however, with today's sustained operational demand for rotational fighter presence, our current 55 combat-coded fighter squadrons do not allow for enough time at home station to train pilots and maintain aircraft to achieve the full spectrum readiness necessary to meet the requirements set forth in the Defense Planning Guidance.

We need to regrow our current fighter force, both in quantity of fighter squardons and fighter aircraft, across our Active, Guard, and Reserve components. The Fiscal Year 2018 President's Budget begins to address this need by retaining 55 combat squadrons through 2030

and laying the foundation for a fighter force recapitalization. This balance will continue to evolve as we procure more F-35 aircraft and develop Penetrating Counterair (PCA) capability to modernize our fighter force.

However, we are faced with more than just a fleet capacity challenge. Your Air Force's ability to ensure the freedom from attack, freedom to attack, and freedom to maneuver that we provide to the Joint warfighter is being challenged by potential adversaries who are developing and implementing advanced Anti-Access / Area Denial (A2/AD) capabilities. Adversary A2/AD technologies continue to advance at a pace where they will soon out-match our current capabilities, and are being proliferated world-wide as demonstrated by the introduction of advanced Surface-to-Air Missiles in Syria. Modernizing our fleet to address this shrinking gap in capability is one of our top priorities.

Recent fiscal constraints forced your Air Force to make difficult choices in regards to readiness and modernization. With relief from the current BCA caps, we can address both readiness through increased force structure and modernization of the fleet. This relief will allow the Air Force to continue to develop and procure new advanced systems like the F-35A, the B-21, and PCA to address the highly contested threat environment while also modernizing our legacy fleet to ensure these aircraft remain relevant in the contested threat environment.

The Air Force's major modernization focus today is the F-35A, which is the centerpiece of our future fighter precision attack capability. Its primary missions will include Air Interdiction, Offensive and Defensive Counter Air, Close Air Support, Strategic Attack, Suppression of Enemy Air Defenses. The F-35A will also serve as a dual capable aircraft for the U.S. and partner nations. Following the declaration of Initial Operational Capability, Red Flag participation and deployments to Europe, the F-35A has already started proving its mettle. The

Air Force remains on track to field Block 3 capabilities in 2018. This budget request includes $6.3 billion for continued development and procurement of 46 F-35s, but to fill capability and capacity shortfalls, the Air Force needs to increase F-35A procurement to a minimum of 60 aircraft per year as quickly as possible. This must be carefully balanced with the required follow-on modernization effort for the F-35A.

The F-35's follow-on modernization effort centers on the Block 4 upgrade, which is geared toward meeting the estimated threat in the 2025 timeframe and beyond. We cannot emphasize enough how important it is that we fully fund Block 4 to prevent delaying required capabilities for American and Coalition warfighters, including integration of additional weapons and upgrades to the electronic warfare system, data link systems, and radar.

The F-22, currently the only U.S. fighter capable of operating in highly contested environments is also an integral piece of the Air Force's force structure modernization plan. Its stealth, super cruise, integrated avionics and sensors combine to deliver the Raptor's unique capability. We plan to retain the F-22 until the 2060 timeframe, meaning a sustained effort is required to counter advancing threats that specifically target its capabilities. The FY18 budget includes 624.5 million dollars in RDT&E and $398.5 million in procurement towards this goal. New software and hardware in increment 3.2B remains on track to field in FY19and will deliver advanced missile capabilities and improved awareness of ground threats. The FY18 budget also funds the acceleration of the TACLink 16 program, which adds transmit capability for the Raptor—providing situational awareness to all US and coalition fighters through the Link 16 network.

FY18 begins an increase in the Air Force's commitment to fielding a future penetrating counterair capability following the recommendations of the Air Superiority 2030 Enterprise

Capability Collaboration Team. As our adversary capabilities advance, a new PCA capability will play a critical role in targeting and engaging future threats in the most highly contested environments. It will also be instrumental as a node in the larger network, providing data from its sensors to enable complementary weapon systems. This capability will provide the survivability, lethality and persistence to meet emerging worldwide threats across the spectrum of conflict and will be the cornerstone of the Air Force shift from $4^{th}/5^{th}$ generation to a $5^{th}/6^{th}$ generation fleet.

In addition to pursuing new capabilities and modernizing fifth generation fighters, the Air Force also seeks to extend the service life and modernize critical capabilities of key fourth generation aircraft. Doing so will help maintain Service capacity and readiness to meet the needs of today's counterterrorism fight while ramping up the F-35 production line and developing PCA.

The legacy service life extension program (SLEP) will extend the F-16 airframe structural service life from the current 8,000 hours to more than 12,000 hours, adding fifteen to twenty years of service for 300 selected F-16s through an effort budgeted at $350 million dollars. To ensure the F-16's lethality and preminence for homeland defense and current conflicts, we are pursuing an active electronically scanned array (AESA) radar upgrade that offers advanced capabilities and improved reliability and maintainability over current systems. The contract was awarded on 31 May, leading to initial operational capability in the second quarter of 2019 for the Homeland Defense Aerospace Control Alert mission requirement. We are also upgrading the mission computer, display generator, electronic warfare components, and the ALQ-131 self-protection jamming pod, known as the Pod Upgrade Program (PUP) that enables advanced technology jamming techniques.

Along with the F-16, the Air Force expects the F-15E to be an integral part through at least 2040 and we are pursuing a new electronic warfare self-protection suite, the Eagle Passive/Active Warning Survivability System (EPAWSS) for the Strike Eagle fleet. Based on the interim results of a full-scale fatigue test, due to be completed in 2018, no service-life extension programs are currently planned for the F-15E.

We also continue to modernize our F-15C/D fleet with AESA radars, a more capable aircraft mission computer, an infrared frequency targeting sensor and a more robust and powerful data link. To ensure the integrity of the F-15 airframe we are replacing the fuselage longerons starting in FY2018, mitigating risks to F-15 aircrew and ensuring integrity of the aircraft into the next decade. The program is budgeted at $205 million for 235 aircraft. The Air Force anticipates recapitalization of a portion of the F-15C/D fleet in the 2020-2030 timeframe as we balance capability, sustainability and capacity across the fighter force.

This year's budget also provides $17.5 million in investment funding for the A-10 weapon system. Full funding for sustainment and modernization postures your Air Force to keep the full fleet of A-10s relevant until after F-35 Initial Operational Test and Evaluation is complete. It also provides $6 million to begin procurement of hardware under the ADS-B program to meet FAA mandates. Pending IOT&E results, the Air Force is committed to maintaining a minimum of six A-10 combat squadrons flying and contributing to the fight through 2030. Additional A-10 force structure is contingent on future budget levels and force structure requirements.

The Air Force will not be able to rely solely on our current programs and capabilities to ensure readiness to fight the most advanced threats in the future. To that end, we are aggressively pursuing a path toward strategic agility in our capability development. We have

reinvigorated development planning (DP) at the enterprise level to build-in agility and formulate truly innovative strategic choices for capability development. Core Development Planning functions include: formulating and evaluating viable future concepts, defining operational trade space, identifying technology shortfalls and Science and Technology needs, and assisting the operations community in refining requirements.

To oversee and direct capability development of the highest priority operational challenges and opportunities, the Air Force established the 3-star Capability Development Council (CDC), chaired by the Vice Chief of Staff of the Air Force, as well as stood up the Strategic Development Planning and Experimentation (SDPE) office to plan, manage, and execute warfighting experimentation campaigns. Experimentation provides the ability to rapidly explore a wide range of innovative materiel and non-materiel solution options. To further these efforts, the Air Force programmed resources starting in Fiscal Year 2017 to conduct concept-driven experimentation campaigns, including funds for prototyping, live and virtual simulations; developing a cadre of expertise, along with the tools to conduct experimentation campaigns.

The Light Attack Experimentation Campaign informs planning and strategic choices in this critical area. The Air Force is experimenting with potential off-the-shelf aircraft as part of a broader assessment into industry's capability, capacity, and interest to provide cost-effective innovative solutions with low procurement, operating and sustainment costs. Since the deployment demand is not expected to decrease, the Air Force must meet capability demands in permissive environments while building and maintaining readiness to meet emerging threats in more contested environments. Aligning capability, capacity and cost with wartime demands is key to meeting Air Force commitments to combatant commanders and effectively using taxpayer

resources. Assessing the viability of low operating cost, light attack platforms has the potential to reduce operating costs while still meeting combatant commander needs.

After completing an evaluation of all respondents under the competitive process outlined in the invitation, the Air Force notified invited companies of their selection to participate in the live-fly experiment this summer. We are currently in the process of reaching agreement on Other Transaction Agreements with these companies to outline the details of their participation. This live-fly experiment will assess the capabilities of these off-the-shelf light attack aircraft, which will be flown by Air Force personnel in scenarios designed to highlight aspects of various combat missions, such as close air support, armed reconnaissance, combat search & rescue and strike control and reconnaissance. The experiment will also include the employment of weapons commonly used by other fighter/attack aircraft to demonstrate the capabilities of light attack aircraft for traditional counter-land missions. Results from this experimentation campaign will be used to inform future capability development and investment decisions.

MUNITIONS There is an ever growing demand for the effects airpower brings to the joint force. Within our fiscal boundaries, we have sought to balance the requirement for current munitions with the need to advance capabilities in the same manner we have with our aircraft force structure. However, sustained combat operations, BCA limitations, and support for our coalition partners have negatively impacted these efforts. Absent sustained and increased funding, munition stockpiles will continue to decrease as well as negatively impact readiness and our ability to meet national security objectives in the future.

Historically, munitions funding has been reduced to pay other critical service bills. To resolve this issue, we need increased and sustained funding at our FY 2018 requested levels to send a more consistent demand signal to our industrial base. With the dispensation provided by

the Congressional Defense Committees, we were able to utilize the Overseas Contingency Operations funding to replenish munitions with high combat expenditures.

We are currently using legacy munitions on our 5th generation fleet which negates the full advantage these platforms can provide. Investments into programs such as the Small Advanced Capabilities Missile (SACM) and the Stand in Attack Weapon (SiAW) are crucial to realizing the full potential of our next generation of aircraft. The SACM is a smaller, affordable air to air weapon that is required to increase magazine depth and maximize utility of a PCA capability. SiAW is an air-to-surface weapon designed to hold at risk the surface elements that make up the A2AD environment and will be integrated on F-35 and other future platforms like PCA. With your continued help the USAF must continue to invest in and develop advanced munition capabilities such as these to ensure future air superiority for the Joint Force.

INTELLIGENCE, SURVEILLANCE & RECONNAISSANCE (ISR) The RQ-4 Global Hawk provides a continuous, high altitude long endurance all weather, day/night, wide area reconnaissance and surveillance unmanned aircraft system. The Office of Secretary of Defense approved the RQ-4 modernization approach in September 2015 to include the MS-177 sensor integration, a Ground Segment Modification Program and a Communication System Modification Program. The MS-177 development and integration work began in November 2015 and the sensor is on track for Initial Operating Capability (IOC) in First Quarter FY18. The FY18 PB request is for $383.2 million in investment dollars for this program.

The Ground Segment Engineering & Manufacturing Development (EMD) contract was awarded in July 2016. Installation of cockpits at Grand Forks AFB and Beale AFB will begin in First Quarter FY18. The Communication System Modification Program (CSMP) effort is in the Requirements Definition/Market Research phase. The program is finalizing requirements for

modernization of Ground and Air Vehicle communications equipment, which will both improve communications capability and alleviate Diminishing Manufacturing Sources (DMS) issues with the equipment. We expect to field the CSMP in the 2022-2025 timeframe.

The funding request for the MQ-9 program in FY18 is $1.1 billion. This program continues to modernize it's fleet and capabilities it provides to Combatant Commanders. It accomplishes this by sustaining the MQ-9 program of record and incorporating planned modernization efforts, while a separate program of record develops and tests those modernizations making them ready for the program at large. This process keeps the MQ-9s current and able to meet Combatant Commanders demands, while keeping an eye on the future for emerging requirements. Such efforts include the new Ground Control Station – Block 50 that is actively being developed, the new DAS-4 sensor package that will fly on the MQ-9 platform and the Extended Range enhancement to the MQ-9 Block 5 aircraft. Additionally, the MQ-9 program is actively engaged in a study to determine the actual service life of the MQ-9 platform. The first phase of that study will be completed in summer FY17, with phase two being completed in FY20. The results of this study will better inform the Air Force's decision on long-term sustainment of the MQ-9 program.

Gorgon Stare has been delivering Wide Area Motion Imagery (WAMI) in support of Operation Freedom Sentinel and Operation Inherent Resolve areas of responsibility since 2012. The Air Force has no plans to fund additional capability at this time but will sustain this MQ-9 podded WAMI capability in its current state. The FY18 request to for $85.6 million in Operation and Maintenance funding for this sustainment effort. The Air Force is migrating its primary ISR Processing, Exploitation and Dissemination (PED) weapon system, the Distributed Common Ground System (DCGS), to an Open Architecture. To support this effort $193.8 million has been

requested in the FY18 PB. The previous architecture required 5-7 years of development, test, and fielding per major release. Open Archecture will support software releases in weeks and months. This accelerated development and fielding timeline will enhance our ability to get inside the adversaries decision cycle, enable our ISR analysts to leverage cutting-edge analytic tools, and allow increased access to more intelligence sources and Intelligence Community (IC) capabilities.

MULTI-DOMAIN COMMAND AND CONTROL (MDC2) An MDC2 capability generates effects that present the adversary with multiple dilemmas at an operational tempo that cannot be matched. Your Air Force is focused on creating feasible investment options throughout its BMC2 portfolio that drive towards the attainment of an advanced MDC2 capability for the joint force. At the tactical edge, the AWACS weapon system integrates multi-domain inputs to provide air, land, and sea Battle Management and Command and Control (BMC2). The FY18 PB includes a request for $506.2 million for the AWACS program. To ensure the United States maintains mulit-domain dominance, multiple AWACS modernization activities are underway with the most notable being the upgrade to the Block 40/45 mission system which is the foundation for all future AWACS capability improvements. Additionally, the Air Force is in the midst of accomplishing activities for a follow-on battle management command and control capability, the Advanced Battle Management and Surveillance (ABMS), which is currently provided by the E-3/AWACS fleet. The ABMS system is envisioned to be an evolutionary leap in capability intended to achieve IOC prior to the end of AWACS projected service life in 2035.

The E-8C Joint Surveillance Target Attack Radar System (JSTARS) executes Battle Management and Surveillance of air-to-ground operations, an integral piece to today's fight. $417.2 million has been requested in FY18 for the JSTARS Recapitalization program. Our

JSTARS recapitalization strategy integrates mature sensor, communications and battle management technologies on a business class aircraft; the results should reduce life cycle cost while increasing operational availability and mission system capability. As a service we seek to balance mission capability, risk and cost, and will look for opportunities to accelerate the recapitalization as the program progresses. As the Air Force transitions to JSTARS Recapitilization, we remain sensitive to the critical role JSTARS fills for Combatant Commanders and recognize the demand for this capability will likely not decline. As a result, the Air Force remains committed to delivering JSTARS Recapitilization as soon as possible to avoid a potential capacity gap. The program is currently in source selection, upon contract award, the Air Force will further assess any potential capacity gap.

While the Air Operations Center (AOC) Weapon System (WS) Increment 10.2 is currently in a strategic pause, interoperability with the MDC2 vision is essential to the AOC way ahead. The fielded AOC WS 10.1 legacy system will not be able to support the vision for MDC2 without significant improvement/modernization and the Air Force is committed to fielding a modern architecture for the AOC that enables MDC2. During this strategic pause, the program office is partnering with the Defense Innovation Unit Experimental (DIUx) and the Defense Digital Services (DDS) to explore a pathfinder effort to establish an Agile DevOps pipeline to rapidly deliver capability to a single AOC. This pathfinder will help inform the way forward for modernizing the AOC and providing a system capable of being the foundation of MDC2 operations. The AF has requested $119.7 million in the FY18 PB for the AOC program.

ROTORCRAFT The FY18 PB continues investment in your Air Force's critical rotorcraft modernization programs. The FY18 PB requests $88.21 million for the CV-22 fleet to assist in execution of the National Military Strategy by providing transformational mission capability to

special operations forces warfighters. The Air Force continues to make improvements to the CV-22 with modifications designed to improve reliability, survivability and capability. Future efforts will make the CV-22 more cost-effective, while ensuring the viability of its unique long-range payload capacity coupled with vertical take-off and landing capability.

The Air Force is the only Service with a dedicated force organized, trained, and equipped to execute theater-wide Personnel Recovery. The newly designated combat rescue helicopter (CRH) will be specifically equipped to conduct Combat Search and Rescue across the entire spectrum of military operations. Due to the advancing age and current attrition rates of the HH-60G, the Air Force must continue to modify existing HH-60G helicopters while utilizing the Operational Loss Replacement program to meet Combatant Command requirements until we can fully recapitalize with the CRH program. In addition to 112 air vehicles, the CRH program will provides for training devices, support equipment and the necessary post production support to successfully field a replacement for the HH-60G. The AF has fully funded CRH research and development across the FYDP to meet National Military Strategy objectives through Personnel Recovery missions. The FY18 PB requests $76 million and $354.5 million for the HH-60G and CRH programs.

Furthermore, the current UH-1N fleet supports a wide range of missions for 5 major commands. It does not however meet speed, range, payload, or survivability requirements. The risk created by these capability gaps makes replacing the UH-1N a critical priority and a vital element of our nuclear enterprise reform initiative. The FY18 President's Budget requests $108.6 million for the UH-1N Replacement Program across and reflects a full and open competitive procurement, which will integrate non-developmental items into off-the-shelf production helicopters to replace the entire UH-1N fleet.

TRAINERS The FY18 PB continues investment efforts for Air Force trainer platforms, including modernization programs for the T-1, T-6, and T-38 fleets. The T-1A Avionics Modernization Program will modernize the T-1A fleet and address known obsolescence and diminishing manufacturing capability issues. The AF is working to install ADS-B Out across the entire T-6 fleet, modernize the Aircrew Training Device, modify the Canopy Fracture Initiation System, and support engineering change proposals and logistics support. Modifications are also required to sustain and upgrade the T-38C fleet, including Pacer Classic III and avionics upgrade programs, until T-X is delivered. The FY18 PB requests $21.5 million, $38.7 million, and $53.6 million for the T-1, T-6, and T-38 fleets, respectively.

The PB also requests $106 million for the Advanced Pilot Trainer (T-X) program, which will provide student pilots in the Specialized Undergraduate Pilot Training advanced phase and Introduction to Fighter Fundamentals with the skills and competencies required to transition into 4th- and 5th-generation fighter aircraft. This new training capability will enable pilots to receive realistic training in a system similar to fielded fighters. It will replace the existing fleet of 430 T-38C aircraft with 350 aircraft and associated Ground Based Training Systems, ground equipment, spares, and support equipment. The T-X program is currently in source selection and plans to award a contract 1QFY18 to ensure we meet a 2024 Initial Operational Capability and 2034 Full Operational Capability.

SUMMARY

The demand for air, space, and cyber power is growing and our Chief is committed to ensuring that America’s Airmen are resourced and trained to fight alongside the Army, Navy, Marines and Coast Guard to meet national security obligations. The Air Force seeks to balance risk across capacity, capability, and readiness to maintain an advantage, however persistently

unstable budgets and fiscal constraints have driven us to postpone several key modernization efforts. These delays created a rapid approaching modernization bow wave that includes programs critical to meet our capacity and capability requirements across all mission areas.
The delays have also opened an opportunity to our competitors to close gaps and negate our traditional advantages.

The result of these changes by the world is a marked decrease in our technological advantage. The Air Force once had a decided advantage across all fronts. Today, the Air Force has some advantage in some technological areas however potential adversaries are nipping at our heals or shoulder to shoulder with us in others. To address the shrinking technology gap, we must modernize and continue to invest in S&T so we can ensure we grow back the technology gap so our most valued treasure – America's sons and daughters – we send into harm's way have a decisive advantage….we do not want a fair fight.

Although we are grateful for the recent fiscal relief, we still face uncertainty. Sustainable funding across multiple fiscal year defense plans is critical to ensure we can meet today's demand for capability and capacity without sacrificing modernization for tomorrow's high-end fight against a full array of potential adversaries.

As critical members of the joint team, the USAF operates in a vast array of domains and prevails in every level of conflict. However, we must remain focused on delivering **Global Vigilance**, **Global Reach** and **Global Power**, through our core missions of Air Superiority, Space Superiority, Global Strike, Rapid Global Mobility, ISR, and C2 to continue to provide our nation with security it enjoys. 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.