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SENATE ARMED SERVICES COMMITTEE
SUBCOMMITTEE ON AIRLAND
UNITED STATES SENATE

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

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STATEMENT OF:

Hon. Andrew P. Hunter
Assistant Secretary of the Air Force
(Acquisition, Technology & Logistics)

Lt. Gen. S. Clinton Hinote, USAF
Deputy Chief of Staff
(Strategy, Integration, and Requirements)

Lt. Gen. Richard G. Moore Jr., USAF
Deputy Chief of Staff
(Plans and Programs)

Lt. Gen. James C. Slife, USAF
Deputy Chief of Staff
(Operations)

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INTRODUCTION

Chair Kelly, Ranking Member Cotton, and distinguished members of the subcommittee, thank you for having us here today to provide testimony on the Department of the Air Force's Fiscal Year 2024 (FY24) President's Budget (PB) request for Air Force modernization.

The United States Air Force is critical to our national defense. Our capabilities underwrite the entirety of the Joint Force. This is particularly true of the capabilities that are the purview of this subcommittee and that we will discuss today.

The Department of the Air Force's FY24 PB request is guided by the seven operational imperatives we must meet to win in the future fight which Secretary Kendall and General Brown outlined last year. Our budget request reflects our commitment to developing a threat-informed, concept-driven future Air Force. We have made significant progress in identifying the capabilities the Air Force will need to develop and field to prevail against our adversaries.

The Air Force is grateful for congressional support in FY23, which allowed us to continue our pursuit of the critical warfighting capabilities needed to deter our adversaries and, if needed, prevail in combat. As we continue to modernize or recapitalize our force, we are eager for continued collaboration with Congress, industry, and the communities that support our Air Bases to ensure our Nation's security.

AIR FORCE THE NATION NEEDS

Global Force Management

The shift from 20 years of counterinsurgency operations in a permissive environment to strategic competition in a contested environment requires a cultural shift in how the Air Force organizes, trains, and equips its forces. Years of low-intensity conflict resulted in expeditionary taskings that came at the expense of long-term preparedness for major combat operations. The shift to strategic competition requires the Air Force to restore long-term sustainable readiness, modernizing our force structure, and mature warfighting concepts to posture the Air Force as a combat-credible and ready force to meet the demands of great power competition.

As we transition to the force the nation needs, continued operational demand for Air Force capabilities combined with the National Defense Strategy (NDS) modernization priorities are driving difficult resource tradeoffs. To be ready and relevant for the strategic environment, we will transform the force, train the force, and retain the force all with the goal of achieving a

task-organized combat power to achieve the NDS demands. We will balance the risk and demands of the current environment with the need to arrive in the future with the capacity and capability we require. It is essential to modernize and eliminate costly and less-capable legacy systems. These actions will lower operating costs, improve availability, and provide essential capabilities to present a combat-credible and ready force to meet the demands of great power competition.

Readiness

Our readiness posture has been flat for over three years, and indicators suggest it will trend lower in the future as we continue to invest in overdue modernization. This condition represents the confluence of over 30 years of compounding issues. Continuous contingency deployments, delayed modernization, and personnel cuts have left the Air Force at a readiness deficit. This deficit cannot be recovered overnight and must continue to be balanced against the priority to modernize the force for the pacing challenge.

Building back readiness will take time and requires continued congressional support to make tough choices, including divestment of less relevant systems to maximize our resources for the nation's defense. Modernization efforts will yield greater capability, but will also require investment in manpower, the sustainment enterprise, training infrastructure, and a healthy flying hour program. These investments will enable a force that is ready and capable of employing and winning with the advanced capabilities we are acquiring.

Limitations in physical airspace, advances in blue capabilities and tactics, challenges in developing realistic threat replication, and live-fly OPSEC concerns drive high-end advanced training to a virtual environment. Supplemental synthetic training allows the warfighter to train to fight in a secure, multi-level security environment providing relevant and realistic integrated training interactions for all aviators. The Joint Simulation Environment (JSE), developed by the USN and USAF, is the synthetic backbone integrating into the Virtual Test & Training Center, shifting focus of electronic warfare and high-end training and test to the synthetic environment.

In the live domain, our range priority remains our two largest ranges: the Nevada Test and Training Range (NTTR) and the Joint Pacific-Alaska Range Complex (JPARC). We will modernize NTTR and JPARC to enable warfighters to train for the peer fight in an all-domain contested environment against relevant and realistic threats. These ranges will contain training assets that can be continually upgraded at the pace of our adversaries. With current and

programmed funding, NTTR and JPARC are projected to complete this modernization by FY30. Additionally, by FY32, we will upgrade six additional Primary Training Ranges to replicate the environment of an adversary that uses legacy aircraft and threat systems.

The Air Force is procuring the US Navy's Tactical Combat Training System II (TCTS-II)/P6 Combat Training System (CTS) to modernize our current P5 CTS capability. The TCTSII/P6 provides an ability to share encrypted data for training, allowing 4th, 5th, and Next Gen platforms to integrate in a way not currently achievable. The Air Force's version, P6, will offer fighter pilots real-time, enhanced assessments of training exercises, which will allow instructors to focus on learning points and maximize time for debrief.

Rated Force Management

The Air Force remains focused on improving overall pilot inventory and is committed to meeting the needs of both its Airmen and the Air Force through continuous improvements to production, absorption, and retention of our Total Force pilots. In FY22, the Total Force manned pilot shortfall increased leaving the Total Force short ~1,900 manned pilots. Most critical pilot shortages are in the Fighter and Bomber communities. The FY22 Undergraduate Pilot Training (UPT) production decreased from FY21 production and remained below the required 1,500 pilots per year. T-38 engine shortages, T-6, and T-38 CAD/PAD (ejection seat) inspection, and low Civilian Simulator Instructor influenced the decreased production.

It will take ten years of producing to the Company Grade Officers (CGO) requirement to right-size the force while retaining Field Grade Officers (FGO) to right-shape the force of the future. To close the gap, we need to improve CGO manning through increased production capacity and training innovation, coupled with increasing retention to address pending FGO shortfalls due to past year-group underproduction. To that end, efforts to close the gap include redesigning training programs, improving simulator instructor manning, and integrating technology, all with the goal of creating a healthy aircrew ecosystem.

The Air Force is employing a four-part strategy to improve the pilot inventory by increasing production plant capacity to align with requirements (size of the force), reducing risk within the production plant, maximizing retention to meet FGO requirements and mitigate previous underproduction (shape of the force), ensuring production & retention efforts deliver right size/shape of the pilot force (closed system).

AETC has several pilot training transformation initiatives to improve the quantity and quality of pilots produced. Initiatives include Accelerated Path to Wings, Helicopter Next, Civil Path to Wings, Air Mobility Fundamentals-Sim, Fighter/Bomber Fundamentals, Remote Sim Instruction. UPT now incorporates a spectrum of training devices, leading to more productive time airborne. The Air Force offers several incentives to recruit and retain including Direct Hire Authority, Recruitment, Relocation and Retention incentives, Special Salary Rates, Student Loan Repayment, Permanent Change of Station (PCS) assistance, and Training and Development Programs.

Air Force Force Generation

In November 2019, the Air Force began efforts to revise the USAF force generation model to more effectively present and subsequently report readiness of forces and capabilities to support the National Defense and National Security Strategies. The Air Force Force Generation (AFFORGEN) model replaces the Air Expeditionary Force construct with four, six-month phases of readiness. The cycle includes: "available to commit" (a unit is deployed or ready to deploy at a moment's notice), "reset" (Airmen focus on family and individual training), "prepare" (unit preparation for a possible future deployment), and certify (focus on high-end, more intense, multi-unit training).

AFFORGEN will provide more predictability enabling Airmen to train and deploy as a team. AFFORGEN is the Air Force's sustainable, capacity-driven model for presenting forces to the Joint Force. AFFORGEN allows the Air Force to clearly articulate the service's finite capacity and sustainable force offering to our consumers. By focusing on a capabilities-based sustainable force offering, our service can better manage the balance between generating ready forces and their consumption in support of global operations. The Air Force will review and iteratively update the AFFORGEN model to facilitate better readiness and performance in the high-end fight.

Agile Combat Employment

Changes to the modern operational environment and rapid technological improvements require the Air Force to adjust its scheme of maneuver. Our response to these challenges is to continue to refine the Agile Combat Employment (ACE) concept. ACE is the ability to quickly disperse and cluster tailorable force packages to a cooperative security location and conduct operations across all domains, while maintaining operational flexibility and increasing resiliency.

The operational unpredictability of ACE will present our adversaries with multiple dilemmas and targeting challenges during both day-to-day competition and potential future conflict. ACE requires a change in how the Air Force thinks about and conducts operations within the modern environment.

Agile Combat Employment (ACE) disperses operations from large bases to smaller networks of locations to create dilemmas for the adversary's targeting process. We are working on establishing enterprise-level requirements for training and certifying ACE-capable force packages. We are making construction investments in the European and Pacific theaters to support this concept's development. DAF efforts with resilient basing, sustainment, and communications set conditions to achieve the Joint Warfighting Concept scheme of maneuver. DAF must invest in additional capabilities and formalize training programs to field an agile force that sets the theater and establishes distributed command and control.

CURRENT CAPACITY AND CAPABILITY

In line with the 2022 National Defense Strategy (NDS) guidance on future force design, the Air Force seeks to invest in technologies and field systems that are both lethal and survivable against tomorrow's threats. Our greatest weapon system is the more than 333,000 Airmen and Guardians who proudly wear our uniforms. A critical need in transitioning to the high-end fight is assigning experienced pilots, maintainers, munitions specialists and support personnel to receive and operate the new platforms as they arrive at our bases. Ultimately, this means transitioning away from many legacy capabilities to free up manpower and resources to modernize and field more capable systems. We must modernize to address the emerging threat, which requires pivoting resources from our legacy platforms and weapons systems that are decreasing in relevance. If deterrence fails, our Airmen must have the training, tools, platforms, and operating systems required to win.

Bomber Force Structure

Our budget request supports the NDS call for continued modernization of the nuclear triad, to ensure a safe, secure, and effective nuclear deterrent to backstop our integrated deterrence approach. Air Force bombers anchor the air leg of the Nation's Nuclear Triad. They are also the essential element of the nation's capability for conventional long-range strike, as well as the only strategic bomber among all U.S. Allies and partners, a key national security priority. As a unique national security capability, the B-21 represents the future of this bomber

force along both dimensions. As modernization continues, the Air Force will gradually transition the current three-bomber fleet to a two-bomber fleet of next-generation B-21s and modernized B-52s to provide nuclear and conventional global strike options for decades to come.

B-21

The B-21 Raider will form the backbone of our future bomber force and is the centerpiece of the Secretary of the Air Force's sixth Operational Imperative. The B-21 underscores our national security as the most flexible leg of the Nuclear Triad and supports Combatant Commanders across the range of military objectives as both a nuclear and conventional bomber. The FY24 PB request includes $2.985 billion in Research, Development, Test & Evaluation (RDT&E) funding that continues to fund Engineering and Manufacturing Development. Additionally, the FY24 PB request includes modernization activities focused on nuclear certification, Long Range Standoff (LRSO) weapon integration and other activities. The FY24 PB request also includes $2.332 billion in procurement funding to continue support to the program's transition toward low rate initial production. All EMD test aircraft are in various stages of assembly on the production line, which uses the same tooling processes and technicians who will build the production aircraft. The first B-21, unveiled in December 2022, was successfully powered-on and initial system tests of the aircraft are being conducted in preparation for first flight. The Air Force, in partnership with industry, has invested heavily in software integration labs, a flying test bed, digital tools and other risk reduction efforts to shift discovery early-on in the program and will accelerate issue resolution as the program enters the flight test phase. First flight will be informed by events and data, and we anticipate it will occur in 2023.

In parallel, beddown preparations at Ellsworth Air Force Base (AFB), South Dakota, remain on-track. The FY24 PB requests $395 million to support one follow-on increment and two new military construction projects at Ellsworth AFB, and initiate planning and design for MILCON projects at Dyess AFB, Texas and Whiteman AFB, Missouri in support of beddown activities. The first B-21s are projected to arrive at Ellsworth AFB in the mid-2020s with base infrastructure ready to support. A second Environmental Impact Study continues with an estimated completion in FY24 to assess the final two basing locations.

The Air Force is committed and on track with respect to its key performance parameter of building B-21s with an average procurement unit cost of no more than $550 million (Base Year 2010) / $692 million (Base Year 2022), assuming a minimum fleet of 100 aircraft.

B-52

While the last B-52 Stratofortress entered service in the Air Force in 1962, we expect to continue operating the B-52 beyond 2050. We will continue to invest in modernization programs to keep the platform operationally relevant. Major modernization efforts include the Commercial Engine Replacement Program (CERP), the Radar Modernization Program (RMP), integration of LRSO nuclear air-launched cruise missile, and installation of Advanced Extremely High Frequency (AEHF) secured satellite communication capabilities.

The Air Force's number one priority for the B-52 is to ensure platform viability through 2050 and the CERP enables us to achieve this goal. CERP will replace legacy engines (TF33-PW-103) with new military-derivative commercial Rolls Royce F-130 engines. It is important to note that CERP is more complex than just a standard commercial engine refit. CERP includes new engines, flight systems, and cockpit throttles and displays. In September 2023, the CERP program will seek a Milestone B decision, which will authorize the program to enter the Engineering and Manufacturing Development phase and set the acquisition program baseline.

The RMP is also necessary to ensure viability through 2050 and modernize the current Strategic Radar (AN/APQ-166), which is based on 1960s technology modified in the 1980s. In 2024, the RMP will began aircraft modifications to support development testing and a Milestone C decision. Overall, the RMP program will upgrade all 76 B-52 aircraft with new radar systems to perform mission-essential navigation and weather avoidance functions.

Finally, integration of the LRSO weapon and AEHF terminals will bolster the B-52's role in the airborne leg of the Nuclear Triad. AEHF integration is on-track for an early FY24 Milestone B decision, which will establish the program's baseline supporting secure nuclear communications on the B-52 platform.

B-1

The FY24 PB request focuses resources on sustaining and modernizing the remaining combat-coded B-1s, after retirement of 17 B-1s as authorized in FY21. We will ensure the B-1s remain lethal and viable until B-21s are operational in sufficient numbers.

The B-1 is the Air Force's threshold platform for the Long Range Anti-Ship Missile (LRASM). Integration of this weapon, coupled with the B-1's long range, high speed, and large payload capacity, postures the B-1 for an important role in any conflict in the Indo-Pacific region.

Lastly, the B-1 will serve as a test platform for hypersonic weapons through additional congressional funding in FY22 and FY23.

B-2

In FY24, the Air Force will continue work to ensure the B-2 remains effective until the B-21 is operational. The Air Force has de-scoped the Defensive Management System modernization program because delays in the effort would have limited the operational utility of the system by the time it would have fielded. Instead, we are replacing the B-2's unsustainable cathode ray tube displays with modern sustainable displays as part of the B-2 Displays Modernization program.

In FY24, we are continuing B-2 modernization programs including Adaptive Communication Suite upgrades, enhancement of the Identification Friend or Foe (IFF) system, integration of hardware upgrades for employment of the B61-12 nuclear weapon, software upgrades to allow the B-2 to carry the extended range variant of the Joint Air-to-Surface Standoff Missile (JASSM-ER), and the Radar Aided Targeting System (RATS) software upgrade to improve the navigational handoff to the B61-12 nuclear weapon in a GPS-degraded environment. Finally, the B-2 will continue sustainment efforts for the Low Observable Signature and Supportability Modification effort to improve aircraft maintainability and availability and ensure the aircrew and maintenance training systems remain aligned with the aircraft.

Fighter Force Structure

The Air Force must continue to evolve its fighter force to meet the pacing challenge posed by China and the acute threat posed by Russia and ensure the capability and capacity to meet worldwide demands today. Extensive wargaming and analysis show that TACAIR modernization is critical to provide the Joint Force with the capability and capacity needed to deter and prevail against future aggression. The threat will not allow the Air Force to pause in place. We have critical investments across the 4th, 5th, and 6th generation fleet to meet the pacing challenge.

In realistic budget projections, we must balance the need for high end technology with affordable capacity. To attain a fighter fleet that matches capability and capacity of platforms and weapons to mission requirements, the Air Force is transitioning our fighter fleet from seven platforms (F-35, F-22, F-16, F-15EX, F-15E, F-15C, A-10) to four platforms (NGAD, F-35, F-15EX, F-16). Next Generation Air Dominance (NGAD) & F-35 Block 4 are required to address the most challenging missions assigned to the fighter force

On the path to achieving the desired future fighter fleet, the FY24 President's Budget procures 72 fighter aircraft in FY24, the largest single year fighter procurement since 1991. Divestment of legacy systems is critical to building a relevant future force capable of addressing the Department's pacing challenge. Resourcing those future capabilities and modernizing our remaining force demands both money and manpower currently tied up in our legacy systems and platforms. To transition fighter resources to a modernized, lethal force, the FY24 budget proposes a net change of minus 89 fighter aircraft in FY24, and a total FYDP net change of minus 425 fighter aircraft.

Next Generation Air Dominance (NGAD)

The NGAD Family of Systems is vital for securing air superiority for the U.S. Air Force. The NGAD Family of Systems will replace the F-22 in the Air Force Future Fighter Force Structure. Funds garnered from the divestment of F-22 Block-20s have been reinvested in NGAD development across the FYDP. The transition timeline from F-22 to NGAD is dependent on the progress of NGAD development efforts. The NGAD Family of Systems consists of the NGAD crewed platform, uncrewed Collaborative Combat Aircraft, the Agile Mission Suite open architecture, and advanced mission systems. Analyses, development, and prototyping within the NGAD program leads to enhancements in survivability, lethality, persistence, and interoperability. The NGAD crewed fighter platform enables counter-air missions in highly contested environments, thwarting advances in enemy anti-access capabilities, and allowing the joint force to seize and exploit the initiative. This new fighter will field novel technologies that could change the way we fight but, more importantly, it will have the ability to rapidly adapt to emerging technologies and threats to keep pace with our adversaries. The Air Force ensures cost control on NGAD by driving continuous competition for air vehicles, mission systems, software, and by mandating the use of a government-owned reference architecture. We are also changing the way we execute highly complex acquisition programs by taking a hands-on approach to

digital engineering that accelerates prototyping, drives efficiencies in manufacturing, and reduces costs in operations and sustainment. The FY24 PB requests $1.93 billion in FY24 to fund aircraft design, development, test, and integration of advanced mission systems, cooperative development of the government's Agile Mission Suite open architecture, and rapid software development to enable cutting-edge electronic warfare and communications techniques.

Collaborative Combat Aircraft (CCA)

While the NGAD crewed fighter will give us an exquisite edge, it will be unaffordable to purchase these in sufficient quantities to provide the necessary mass on a threat-relevant timeline. CCA provide affordable and capable mass by teaming with the NGAD crewed platform as well as numerous other current and future generation platforms across the joint force. CCA development unites the parallel disciplines of autonomy and low-cost air vehicle construction previously funded under Air Force Research Laboratory's (AFRL) Skyborg Vanguard program. We have learned a great deal through analysis and experimentation in the Skyborg program, and in our ongoing concept refinement studies. The FY24 PB requests $392 million for competitive concept refinement, design, and development of a first-generation CCA. Additionally, we request $119 million to fund supporting activities that will accelerate platform-agnostic autonomy development, and explore the optimal operations, maintenance, and sustainment concepts for these novel platforms. Our extensive analyses show that CCA are a force multiplier that will allow us to achieve air superiority affordably and at scale. Continued investment in the NGAD Family of Systems will ensure our ability to secure the air against proliferating threats to support future joint operations anytime, anywhere.

F-35

The F-35 is the cornerstone of our future fighter fleet and we have fielded nearly 400 F-35As to date. In the near-term, we must concentrate on achieving the F-35 capability needed for advanced threats. While the F-35 is a formidable platform today, the Air Force must confront key development, interoperability, sustainability, and affordability challenges to acquire, upgrade, and retrofit the F-35A fleet to obtain the minimum required capability and capacity as quickly as possible within projected resource constraints. First flight in a Technical Refresh – 3 (TR-3) configuration occurred earlier this year and is the foundation for Block 4. Block 4 modernization with TR-3 hardware ensures F-35 relevance in the high-end fight against China or Russia in 2025 and beyond.

The FY24 PB requests 48 F-35A aircraft, an increase of five aircraft from the FY23 enacted position. The Air Force is prioritizing investments in the F-35 fleet, seeking modernization, infrastructure, and advanced weapons in this budget request. Commitments include $6.0 billion in procurement, $1.3 billion in development and $2.3 billion to fund necessary sustainment. This increased investment ensures maximum future viability of the fleet. Propulsion and cooling development investments contained in the FY24 PB request will help ensure capability enhancements will continue to be viable for the platform while also reducing lifetime sustainment costs. In addition, the FY24 PB funds progress toward on-time nuclear operational certification of the F-35, which will ensure the continued credibility of our extended deterrence commitments to our NATO and Indo-Pacific allies.

The Air Force continues to make progress in addressing readiness challenges with the F-35A and stand-up depot capacity to improve future sustainment. We are recovering from the F-135 MICAP issue with today only five aircraft awaiting engines, power modules, or fan modules. The two largest sustainment cost drivers the Air Force controls are the number of aircraft possessed and programmed flying hours, and the major cost categories are parts, people, energy, and consumables. We are establishing more realistic affordability targets which will allow us to better prioritize Air Force resources. The Air Force is continuing work with the F-35 Joint Program Office, Navy, and industry to identify and evaluate opportunities to increase depot repair capacity and further reduce the cost of materiel and manpower.

The Air Force is committed to reducing F-35 costs for both production and sustainment as well as improving mission readiness. Additionally, the F-35 program is moving towards a supply chain, demand reduction Performance Based Logistics (PBL) contract at the end of 2023 to prioritize availability and affordability outcomes across the F-35 enterprise. In response to the FY22 NDAA Section 142, the Air Force is working with OSD, the Department of Navy, and the F-35 Joint Program Office (JPO) to assume greater management, planning and execution roles of the F-35 sustainment functions to further reduce sustainment costs.

Advanced Engine Development

The Air Force is working with the JPO to implement the F-35 enterprise decision to move forward with the F135 Engine Core Upgrade and accompanying Power and Thermal Management System upgrade. While Operational Analysis determined that the AETP three

stream adaptive cycle engines provide substantial F-35A operational performance advantages, the JPO-led BCA determined that the F135 Engine Core Upgrade will restore engine life and prevent degradation for all three F-35 variants and partner nations at the lowest cost. Data from testing of the AETP prototype adaptive cycle engines is informing design activities for the Next Generation Adaptive Propulsion (NGAP) program as are the validated advanced engine technologies. NGAP engines leverage the AETP technology suite and deliver capability enabling propulsion options for the most highly contested environments. Competitive NGAP prototyping, funded in this budget request, preserves key advanced engine design and manufacturing skills required to maintain U.S. strategic advantages in propulsion over competitors.

F-15

Our F-15C fleet is aging, with two-thirds of the fleet past its designed service life. The 179 F-15C/Ds in the Air Force inventory will reach the end of their design service life in the next five to seven years, and our analysis shows additional service life extension programs are not cost effective. The FY24 PB request divests 57 F-15C/Ds from the active fleet in FY24. We have already started to replace this fleet with a modernized successor by purchasing the F-15EX. The FY24 PB request procures 24 F-15EX aircraft and funds weapon system investment at $2.9 billion. Notably, the Air Force remains fully committed to developing advanced 5th and next generation capabilities and the F-35. The F-15EX is a complementary step to both F-35 procurement and NGAD development and helps mitigate capacity risk while balancing near-term readiness concerns.

The FY24 PB requests $406.5 million in FY24 to continue modernization efforts to ensure the F-15E Strike Eagle remains viable to the 2030s. Modernizing the F-15E with Early Passive Active Warning Survivability System (EPAWSS), also used on the F-15EX, demonstrates our commitment to building a more lethal Air Force. EPAWSS will allow the F-15E/EX to survive to attack targets in high threat environments.

F-16

Our more than 600 post block F-16s will provide affordable capacity for the next 15 or more years, in both competition and more permissive combat environments. We are beginning to transition away from our oldest, early block F-16s, with a reduction of 49 planned through

FY25. We will continue to modernize the late block F-16s we keep as our "affordable capacity" fighter into the 2040s. The F-16 investment strategy funds modifications for the most capable, late block aircraft to ensure they can operate and survive in today's threat environment. The FY24 PB requests $405.32 million in FY24 to continue these modernization efforts. This includes continuing the Service Life Extension Program comprising 12 structural modifications, affecting 450 aircraft, as well as several avionics capability upgrades including the Active Electronically Scanned Array (AESA) Radar upgrade. The new radar replaces the current mechanically scanned radar, with greater ability to detect, track, and identify low-observable, low-flying, and slow-flying targets. This Joint Emerging Operational Need (JEON) of 72 radar systems is complete and fielded. The underway Phase 3 will install a total of 443 radar systems across the Combat Air Force (CAF), Air Force Reserve Command (AFRC), and Air National Guard (ANG), bringing critical capabilities to the F-16 platform to meet aerospace control alert mission requirements to properly defend the homeland against modern threats. These radars continue fielding in FY24.

F-22

F-22 Block-20s are now in their third decade and have the highest operating costs of any Air Force fighter. They are not combat representative, meaning they do not possess the combat capabilities resident in the F-22 Block-30/35. Remaining committed to ensuring air superiority for the Joint Force in the highly contested environment against a peer adversary, it is imperative to modernize the F-22 to preserve its advantages while concurrently developing NGAD. To resource both F-22 modernization and NGAD, the Air Force maintains our FY23 position to divest the oldest and least capable F-22s (32 F-22 Block-20s) in FY24. In the near term, three heavily modified F-22 Block-20s will be kept for testing. Additionally, the FY24 PB request includes $1.62 billion in FY24 for modernization efforts essential to gain and maintain air superiority against evolving threats. The Rapid Prototyping and Rapid Fielding efforts follow an agile acquisition construct and combine former TacLink16 and Tactical Mandates (TACMAN), Low Drag Tanks & Pylons, Electronic Protection, and GPS M-code programs to deliver slices of each capability on an annual release cadence for capabilities as they mature. Future modernizations will continue to leverage the agile construct as a vehicle to rapidly prototype and iteratively field critical enhancements with capabilities delivered to the fleet in order to ensure "first look, first shot, first kill" capability in highly contested environments. Funds garnered from

the divestment of F-22 Block-20s have been reinvested in NGAD development across the FYDP. The transition timeline from F-22 to NGAD is dependent on the progress of NGAD development efforts.

A-10

In the FY24 PB request the Air Force seeks to continue the drawdown of the A-10 fleet by divesting a total of 42 A-10s in FY24. Aircraft will come from Davis-Monthan AFB (-36) and Moody AFB (-6). A controlled drawdown will allow the Air Force to continue transitioning its fighter fleet and maintenance personnel to an advanced force capable of defeating the threats outlined in the National Defense Strategy and National Security Strategy. Failure to execute the A-10 divestment as planned will inject unacceptable risk to the Air Force's ability to deter or defeat a peer adversary.

Trainers

T-7A

The T-7A Advanced Pilot Trainer replaces AETC's existing fleet of 422 T-38C aircraft with 351 aircraft and associated simulators, ground equipment, spares, and support equipment. The T-7A will provide student pilots with the skills and competencies required to be better prepared to transition into 4th and 5th generation fighter and bomber aircraft. The T-7A program was designed for the Air Force using a digital engineering approach, which offers significant benefits particularly during the design and build phases. Digital engineering reduces development times, lowers production costs, and allows greater collaboration between the Air Force and industry in the development and production of the initial T-7 prototypes. Embracing modern digital engineering practices reduced design costs, reduced production support manpower, improved first time quality by 75%, and reduced assembly hours by 80% through task reduction. The FY24 PB request continues the program's Engineering and Manufacturing Development (EMD) and early aircraft flight test efforts, ensuring we meet the 2027 Initial Operational Capability and 2036 Full Operational Capability milestones. Rollout of the first EMD T-7A occurred in April 2022 and First Flight is anticipated in 2023. The Air Force is working with Boeing to enable the T-7A program to achieve Milestone C in 2QFY25. While these dates are later than the initially proposed milestones for T-7, they represent realistic and achievable timelines which can sustain our training capability through the T-38 to the T-7 transition.

T-1, T-6, and T-38

The Air Force is continuing investment efforts in its trainer platforms, including critical modernization programs for the T-6 and T-38 fleets. The T-1A fleet is scheduled for divestment between FY23 and FY26. Training of future Mobility pilots, currently being conducted in the T-1A aircraft, will be accomplished in the T-1A simulators using procedures developed from the Pilot Training Next Innovation Cell at Air Education and Training Command (AETC). The T-6 continues mitigation efforts for the aircraft with the On-Board Oxygen Generation System (OBOGS) to improve the safety of pilot training and address Unexplained Physiological Events (UPEs). To date, mitigation efforts have resulted in an 82% reduction in UPEs. Expected completion of Enhanced OBOGS mitigation efforts is mid-FY24. In FY23, the T-6 will start a major Avionics Replacement Program (ARP) to address Diminishing Manufacturing Sources and Material Shortages (DMSMS) for critical avionics issues. For the T-38, modifications are also required to sustain and upgrade the fleet until the T-7A delivers, including avionics, Pacer Classic III, Talon Repair, Inspections, Maintenance, and front canopy replacement programs. The FY24 PB requests $14.3 million, $39.7 million, and $129.8 million for the T-1, T-6, and T-38 fleets, respectively.

Munitions

Extensive wargaming and analysis demonstrate that the Air Force requires an affordable mix of both air-to-air and air-to-surface weapons that can deliver the capacity and capability needed to maintain a competitive advantage over the pacing challenge. The FY24 PB request modernizes munitions and directly supports and influences the DAF's seven Operational Imperatives.

The Air Force shaped its investments based on the optimal mix of munitions, aligned with current OSD and Joint Staff planning guidance. In FY24, the Air Force is focused on critical high performance, standoff, and precision strike weapons to deliver munitions with increased range and precision effects in contested environments against high-value targets. The Air Force made investments to expand production capacity, procure munitions at favorable economic rates, and strengthen the industrial base. The munitions portfolio includes three new multi-year procurement programs, which aim to maximize weapon production efficiency with a buy-to-budget procurement approach. The Air Force will continue to collaborate with partner nations and the Navy to share cost and technology; this partnership is critical in countering naval

air defense threats. The FY24 PB request for Norway's Joint Strike Missile represents such a partnership to procure an operational long range, air-to-surface, precision guided survivable system that enables the U.S. to hold maritime targets at risk in contested environments and increases our maritime strike capacity. The Air Force continues to respond to current operational demands and ensuring we are prepared to defend against more advanced threats. Doing so requires advanced weapons capabilities and the FY24 PB request reflects the Air Force's plan to continue investing in those areas, specifically with the Joint Air to Surface Standoff Missiles (JASSM), Long Range Anti-Ship Missile (LRASM), and the Advanced Medium Range Air-to-Air Missile (AMRAAM). These weapons provide unique and necessary capabilities for the highly contested environment.

JASSM

JASSM is the premier air-to-ground, low observable missile for defeating threats in highly contested environments and is the weapon of choice for a future fight against peer adversaries. Through the use of multi-year procurement authority, the Air Force requests $1.6 billion in FY24 that includes an economic order quantity to increase inventory and ramp up to maximize production rates. Additionally, the President's Budget requests $77 million in facilitization funding, which increases the JASSM production line from 550 to a capability to produce 810 missiles per year in FY26.

LRASM

LRASM, produced in the same facility as JASSM, is a Navy developed purpose-built anti-ship missile particularly critical for the future fight in a maritime environment. The FY24 PB requests $188 million to procure 27 missiles and increases LRASM procurement in the future years defense program by utilizing Multi-year procurement authority. Included in the Navy's FY24 PB request is a $53 million facilitization request to increase LRASM production from 120 to a capability to produce 240 missiles per year in FY26.

AMRAAM

The Air Force also leverages Multi-year procurement authority in its FY24 PB request for AMRAAM as we continue to invest in the next generation medium and long-range air-to-air missiles. AMRAAM continues to be the Air Force's premier beyond visual range, all weather, launch and leave medium range air-to-air missile. The Air Force is requesting $701 million for

457 missiles, which includes an economic order quantity that supports the Multi-year procurement strategy to maximize production capacity through the future years defense program.

Stand-In Attack Weapon (SiAW)

The Air Force continues to invest in technology to counter future peer threats. Continued development of the Stand-in Attack Weapon (SiAW) delivers a strike capability to defeat rapidly relocatable targets, a hallmark of the highly contested environment. SiAW is the munition that gives the F-35 unique air-to-surface capabilities in the high-end fight for the Joint Force. The FY24 PB requests $298 million for SiAW development and prototyping, along with $42 million in procurement funding to field Advanced Anti-Radiation Guided Missile Extended Range (AARGM-ER) on the F-35 as an interim capability.

Hypersonic Weapons

Hypersonics are being designed to rapidly overcome the tyranny of distance in the Pacific and enable the U.S. to hold high value, time-sensitive targets at risk in contested environments from standoff distances within the region. When integrated with the broader munitions portfolio, their cost and complexity make hypersonic weapons a high-end, low volume capability, which, in concert with a wider weapon force mixture, are key to providing a war-winning force.

HACM

The FY24 PB request of $382 million for the Hypersonic Attack Cruise Missile (HACM) development allows the Air Force to mature HACM to critical design, continue model-based engineering activities, and mature the digital ecosystem to complete critical design analysis. It also allows for design verification testing, execution of initial qualification testing, procurement and building of initial flight test hardware and aircraft integration assets, and maturation of Weapon Open Systems Architecture (WOSA) compliance evaluations. All of this is in preparation for flight test in FY25, which enables production article procurement by FY27.

ARRW (AGM-183A)

The FY24 PB requests $150.3 million of RDT&E funding to complete the Air-launched Rapid Response Weapon (ARRW) AGM-183A rapid prototyping program and flight testing. It is important that we continue to test in order demonstrate that the system can meet the

requirements for which it was designed so we can consider procurement options, including our overall munitions mix, in the future.

Tanker Fleet

Near-peer competitors have made significant advancements that threaten today's tanker fleet and potentially forces them to operate farther away from their area of responsibility. The stacked demand of global operations requires a set number of air refueling tankers with specific connectivity, survivability, and agility capabilities, generating at mission capable rates to meet timelines and win the fight. The FY24 PB request modifies the Air Force's tanker recapitalization approach from the three-phase approach envisioned in the early 2000s (i.e., KC-X, which later became KC-46A, KC-Y, and KC-Z) to a more agile, threat-informed approach prioritizing and accelerating the right capabilities to deliver fuel to the fight.

Accelerating to Next Generation Air-refueling System (NGAS)

The Air Force is establishing and accelerating the Next Generation Air-refueling System (NGAS) to meet the future needs of the joint force and continue uninterrupted tanker recapitalization during the gap period between the end of the KC-46A production contract and delivery of the first NGAS aircraft.

NGAS will be an accelerated, advanced air refueling system that meets the future needs of the joint force. It will deploy advanced technologies and permit air refueling in the anticipated future contested battlespace. We are considering clean sheet, purpose-built designs that address projected future threats and delivers upgraded capabilities in multiple tankers, delivered in increments. The program is being designed to leverage continuous competition.

The FY24 PB requests $7.9 million for an NGAS Analysis of Alternatives (AoA), led by Air Mobility Command, which will shape requirements and determine the technology development timeline. This analysis will be informed by a wide array of industry capability providers. The results of the NGAS AoA may indicate a need for more than one type of aerial refueling platform, matching capabilities to scenarios and using a family of systems approach, which allows us to remain flexible and responsive to the ever-changing threat. We plan to build substantial vendor pools to assist us in developing a future aerial refueling family of systems leveraging competition throughout the effort.

Delivery of the first NGAS increment is expected in the mid-to-late 2030s. That will leave a gap period between the delivery of the final KC-46A under the current production contract and delivery of the first NGAS aircraft. During this gap period, we must continue to modernize our tanker fleet through continued recapitalization with a limited number of air refuelable, commercial derivative, limited development tankers. The tankers procured during this gap period will have capabilities similar to the KC-46A with Pegasus Advanced Communications Suite (PACS) also referred to as Block 1, plus potentially a digital backbone capable of Advanced Battle Management System (ABMS)/Joint All-Domain Command and Control (JADC2) integration, with minimal connectivity, survivability, and agility capabilities.

Continuous tanker recapitalization until NGAS delivers is critical to the warfighter because the KC-135 has inherent operational limitations. It is less survivable because it lacks the connectivity capability of the KC-46A. Further, it is not air refuelable and can only refuel either boom or drogue operations on a mission, lacking the flexibility of a KC-46A. It is not cost effective to add these capabilities to the aging KC-135 fleet in order to raise the mission capable rates required to compete in a contested environment. Under the previous tanker recapitalization strategy, the Air Force planned on procuring a fleet of 140-160 commercial-derivative aircraft following the completion of the KC-46A program. With NGAS accelerating from the 2050s to the mid/late 2030s, the Air Force will likely procure fewer recapitalization tankers before NGAS. Our goal is to use tanker recapitalization prior to NGAS to replace 15 KC-135s per year as they retire with tankers that have similar capabilities to the KC-46A.

The FY24 PB requests $4.97 billion over the Future Years Defense Program (FYDP) for tanker recapitalization. This includes $526 million for RDT&E, $136.2M for initial spares, and $4.3 billion for procurement of aircraft beyond the current KC-46A production contract, with deliveries in the FY29 to FY30 timeframe. It is estimated we will have final Joint Requirements Oversight Council (JROC) validated requirements in 3QFY23. Upon final Business Case Analysis (BCA) completion based on the JROC validated requirements, the Air Force will determine its acquisition strategy for tanker recapitalization, which is likely later this year.

KC-46A

The KC-46A continues to deliver greater operational readiness, flexibility, connectivity, and survivability to the Global Reach mission. One hundred twenty-four production aircraft are on contract, with 15 more planned in FY24.

Since January 2019, 68 KC-46As have been delivered among five Main Operating Bases (MOBs): McConnell AFB, Kansas, Altus AFB, Oklahoma (Formal Training Unit), Pease Air National Guard Base, New Hampshire, Seymour Johnson AFB, North Carolina, and Joint Base McGuire-Dix-Lakehurst, New Jersey. Travis AFB, California, is expecting its first delivery in 2023.

The Air Force continues to work with Boeing to correct deficiencies with the Remote Vision System (RVS) and stiff air refueling boom. We are committed to ensuring these deficiencies are properly addressed without undue burden on taxpayers or warfighters. The RVS 2.0 solution and start of fleet retrofit are now scheduled in 1QFY26. The design solution to resolve the stiff boom deficiency is expected to complete in 2QFY25 with fielding start in mid-FY26.

Despite its current deficiencies, the KC-46A is safe to operate (adhering to flight manual cautions provided to our operators). Since Summer of 2021, through its Interim Capability Release Process and associated rigorous assessment, AMC has made KC-46As available for training and worldwide operational employment and taskings to alleviate pressure on legacy tanker fleets and potentially allow legacy tanker retirements. AMC has cleared KC-46As to carry out operational refueling on nearly all required aircraft, except for the A-10 and any receiver aircraft without an approved technical compatibility assessment. Since January 2019, KC-46As have delivered over 95 million pounds of fuel through over 70,000 safe and effective aerial refueling contacts.

The FY24 PB requests $124.7 million in RDT&E to support the ongoing KC-46A Engineering and Manufacturing Development and post-production modification efforts, to include the boom telescope actuator redesign that resolves the stiff boom deficiency, continued test and receiver aircraft certifications, development for training system required updates, and increased effort on the KC-46A Block 1 program. Additionally, the budget requests $3.1 billion to fund procurement of 15 aircraft in Production Lot 10 and the associated support costs, along with increased depot standup and transition to organic sustainment efforts.

KC-10 and KC-135

The FY24 PB request will continue KC-135 modernization efforts to extend its capability into the 2040s, including the Block 45 program, the Rudder Position Indicator program, the Aero-I Satellite Communications (SATCOM) program, Real-Time Information in the Cockpit

program, Mobile User Objective System program, Comm 2 Crypto and Data program, High Frequency Modernization program, and the Center Console Refresh program.

This is the final year of operations for the KC-10 with all aircraft planned to retire at the end of FY24. Service bulletin funding is necessary to ensure FAA certification.

The FY24 PB request supports the FY23 NDAA air refueling minimum inventory of 466 tanker aircraft. In FY24, the Air Force is retiring the remaining 24 KC-10s as they are replaced by the KC-46A. These retirements are critical in providing the flexibility to free up resources and manpower to modernize and fund the Air Force's future tanker fleet.

Executive Airlift

VC-25B

The VC-25B program will replace the U.S. Air Force Presidential VC-25A fleet, which faces capability gaps, rising maintenance costs, and parts obsolescence as it ages beyond 30 years. Modifications to the 747-8 aircraft began in February 2020 in San Antonio, Texas, and include an electrical power upgrade, dual auxiliary power units that are usable in flight, a mission communication system, an executive interior, military avionics, a self-defense system, autonomous enplaning and deplaning, and autonomous baggage loading.

The FY24 PB requests $490.7 million to continue Engineering and Manufacturing Development, aircraft modifications, developmental test and evaluation, and other product support activities.

C-40

The FY24 PB reflects $8.9 million in procurement funding to address satellite communications system upgrades, cryptographic modernization, and low-cost modifications and service bulletins in order to provide secure and reliable government air transportation.

Strategic and Tactical Airlift

C-5

Current C-5 Super Galaxy investment programs focus on fleet obsolescence, maintainability, and safety of flight. The FY24 PB requests $24.4 million in procurement funding, predominantly for communications, navigation, surveillance/air traffic management (CNS/ATM) and core mission computer/weather radar (CMC/WxR) system equipment. CNS/ATM upgrades include modifications to Automatic Dependent Surveillance-Broadcast (ADS-B) Out required for global airspace compliance. The CMC/WxR effort replaces an

antiquated radar system and upgrades the core mission computer processor to meet the demands of future software modifications. Production funding also includes procurement of training systems.

Additionally, the FY24 PB requests $26.5 million RDT&E funding to support replacement of the Multifunctional Controls and Displays (RMCD). This comprehensive sustainment modification mitigates the obsolescence of the current control and display units and increases capacity for future technology integration into the cockpit. There is an additional $3.0 million to begin initial capability studies for a concept preliminarily termed the Next Generation Airlift (NGAL) that will determine requirements and technologies available to support a next generation airlift family of systems.

C-17

The C-17 is the only aircraft in the Air Force inventory that combines tactical capability with strategic range to operate from austere airfields. The fleet of 222 aircraft provides our nation with unmatched flexibility to conduct theater and inter-theater direct delivery, airdrop, aeromedical, and special operations airlift missions. Agile and efficient software and hardware updates ensure timely readiness, safety, and capability improvements as this premier airlift platform contributes to our national security objectives.

The FY24 PB requests $140.6 million in procurement funding to continue critical modifications to the C-17 fleet. The majority of this is allocated to procuring Beyond Line of Site (BLOS) communication equipment, but also includes a filter fire mitigation for the On-Board Inert Gas Generating System, Large Aircraft Infrared Countermeasures defensive systems, and Replacement Heads-Up Display (RHUD). The BLOS program integrates aircraft avionics as well as back-end mission communications to utilize both military and commercial satellite systems, extend communication ranges, and ensure aircraft complies with air space mandates. The RHUD modification effort addresses obsolescence of the current C-17 heads-up display and improves the system’s availability, reliability, and maintainability. Production funding also includes procurement of training systems.

FY24 RDT&E funding will finish testing of the BLOS program and begin the Flight Deck Replacement program. The Flight Deck Replacement program will develop, integrate, and retrofit the C-17 cockpit to replace four obsolete parts and provide an open systems architecture that enables future modular "plug and play” expansion of capability.

C-130H/J Fleet

The C-130 fleet consists of C-130H and newer C-130J aircraft, as well as special mission aircraft (AC/LC/EC/MC/HC/WC-130s). C-130Hs and C-130Js are medium-size transport aircraft capable of completing a variety of tactical airlift operations across a broad range of missions. The fleet delivers air logistics support for all theater forces, including those involved in combat operations.

C-130H

The Air Force continues to modernize the C-130H fleet to ensure aircraft safety, airspace compliance, and aircraft systems modernization. Our C-130H Center Wing Box replacement program breathes new life into some of our hardest flown aircraft, enabling them to continue to safely operate well into the future. The C-130H Avionics Modernization Program (AMP) Increment 2 improves the C-130H fleet maintainability and reliability by providing a new digital avionics suite and mitigating obsolescence and diminishing manufacturing source challenges. In addition, the Air Force plans to upgrade the C-130H fleets with a Mobile User Objective System. The FY24 PB requests $5.4 million in RDT&E and $71.9 million in procurement funding to support the C-130H fleet.

C-130J

The Air Force has partially recapitalized the C-130H fleet with C-130Js, which also support our Special Operations missions by providing Special Forces with extra weight carrying capacity, longer range, and better fuel efficiency. These special mission variants of the C-130J conduct weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). The Air Force has multiple modification efforts for the C-130J, including Center Wing Box replacement, Large Aircraft Infrared Countermeasures, communications upgrades, and Block 8.1. The C-130J Block 8.1 modernization program, currently in production, delivers new communication and data link capabilities, a modern flight management system, and other key capabilities to the field. In addition, the Air Force plans to upgrade the C-130J fleets with a Mobile User Objective System and a Second-Generation Anti-Jam Tactical Ultra High Frequency Radio satellite communication system to ensure we maintain key communication links anywhere in the world.

The FY24 PB requests $19.1 million for C-130J RDT&E and $156.2 million for C-130J procurement and modification efforts. The FY24 PB also requests funding for HC/MC-130J RDT&E and HC/MC-130J procurement and modification efforts.

Rotorcraft

CV-22

The CV-22 is the Air Force variant of the joint V-22 tilt-rotor aircraft. It allows for long-distance, terrain following, vertical lift operations with increased survivability and is the only high-speed vertical lift platform in the Air Force inventory. The FY24 PB requests $175.1 million to continue modifications to increase CV-22 fleet reliability, capability, and survivability. Investments in these areas will ensure the CV-22 fleet remains ready, reliable, and relevant in the future.

HH-60G and HH-60W (Combat Rescue Helicopter)

The Air Force is the only Service with a dedicated force organized, trained, and equipped to execute theater-wide Personnel Recovery. The HH-60G fleet currently accomplishes this mission by conducting day, night, and marginal weather Combat Search and Rescue (CSAR) operations to recover isolated personnel in hostile or permissive environments. The HH-60W will replace the SH-60F in this role. To date, Congress has provided resources to procure 85 HH-60W, which is sufficient capacity for the missions envisioned for this force. No additional HH-60 aircraft were requested in the FY24 PB. The FY24 PB requests $4.2 million and $330.8 million for the HH-60G and HH-60W programs, respectively.

MH-139A

The MH-139A program is a critical element of the Air Force nuclear enterprise reform initiative and also supports operational airlift within the National Capital Region. This program will deliver up to 80 replacement helicopters, training devices, and associated support equipment to replace the legacy UH-1Ns. The FY24 PB requests $274.9 million for the MH-139 program, which will fund Low-Rate Initial Production for seven aircraft, training devices, and support equipment. It also funds the MH-139A Performance Enhancements and Product Improvements Program, which is the development of solutions to provide capability issues identified during the development and test of the MH-139A. This includes solving communication and weapon systems challenges, improving mission planning compatibility, resolving usability concerns, and other critical capabilities. The first six aircraft continue to be used to finalize test and

development, while producing the first Low-Rate Initial Production lot of 13 aircraft procured in FY23.

Intelligence, Surveillance, and Reconnaissance

The Air Force is focusing Intelligence, Surveillance, and Reconnaissance (ISR) resources on systems that provide high quality tracking and target coordinates, establish meaningful data nodes to give tactical direction, and optimize weapon systems with information that matters in the most useful formats, at speed and scale. To meet the challenges of a highly contested environment, the future ISR portfolio will consist of a multi-domain, multi-intelligence, collaborative sensing grid that uses advanced technology. The end goal is a ready Next Generation ISR Enterprise possessing a decisive advantage for the warfighter while remaining competent across the entire spectrum of conflict.

The ability to win future high-end conflicts requires accelerating investment to transition our ISR force structure into a connected, persistent, and survivable force. To achieve this, we must move away from expensive legacy systems that offer limited capability against future competitors. The FY24 President's Budget request takes further steps towards repurposing, retooling, automating, and stabilizing the force to ensure the ISR Enterprise can achieve this vision within the next decade.

MQ-9

The FY24 PB request of $178.7 million will continue MQ-9 fleet modernization efforts aimed at providing needed capabilities to the Combatant Commands. To date the MQ-9 fleet has flown over three million hours, with the vast majority of those hours supporting combat operations. This level of warfighter support is facilitated by an agile acquisition strategy, creating flexibility to quickly add new requirements.

The Air Force continues to right-size the fleet for current requirements, while focusing on future priorities. In FY24, the remaining 48 MQ-9 Block 1 aircraft will be divested from the fleet and finalize transfer of 10 aircraft to the Marine Corps. The Air Force will begin to remove high time Block 5 aircraft towards the end of the FYDP; however, the remaining fleet will continue to meet the required force offering.

MQ-9 modernization efforts include the continued development of MQ-9 Multi-Domain Operations (M2DO) capability upgrades that will keep the fleet relevant. Upgrades in the M2DO

configuration include Anti-jam GPS, Command and Control Resiliency, Enhanced Power, Link-16, and an effective and reliable open systems architecture.

RQ-4

The RQ-4 Global Hawk remotely piloted aircraft system provides high altitude, long endurance, all weather, wide area reconnaissance and surveillance. The FY24 PB request of $1 million will maximize Block 40 utility through the remainder of the Global Hawk service life and maintain its ISR capabilities.

The Air Force plans to divest Block 40 in FY27, as we continue to develop space-based Ground Moving Target Indicator (GMTI) to meet Combatant Commander's needs in accordance with the NDS. The reduced investment in the RQ-4 also enables the Department to better align resources with the NDS.

EC-37B COMPASS CALL

COMPASS CALL is the Air Force's only wide-area, standoff, Airborne Electromagnetic Attack (AEA) Command and Control Warfare/Information Operations weapon system. The COMPASS CALL program is currently undergoing a re-host effort to transition the capability from the EC-130H to the EC-37B in order to maintain U.S. Electromagnetic Spectrum (EMS) Superiority in future conflicts. Ten EC-37B aircraft have been procured, to date, and are at various stages of modification, with limited fielding for training only in FY25, and initial operational fielding in FY26.

With the FY24 PB, the Air Force will be focused on continuing Developmental and Operational Test for the rehosted EC-37B capability, as well as continuing development of the mission system upgrade for the fielding of System Wide Open Reconfigurable Dynamic Architecture (SWORD-A) capabilities. The open and agile architecture of SWORD-A will enable a more rapid response capability against emerging threats and will be included on aircraft number six through ten initially and then to the first five aircraft as an upgrade modification.

E-3 Airborne Warning and Control System

Despite modernization efforts, the aging E-3 Airborne Warning and Control System (AWACS) offers limited operational utility in contested conflicts. The FY24 PB includes a resourced plan to replace the E-3 expeditiously to address this capability gap. Pursuant to the FY23 NDAA, the Air Force begins divesting the first 13 E-3 AWACS aircraft in FY23. This

fleet reduction allows the Air Force to concentrate resources and improve E-3 aircraft availability rates, while efforts to procure E-7A are underway. Full fleet divestment is currently scheduled to occur by FY29; therefore, most E-3 modernization programs are being terminated except mandated requirements for crypto and communication systems as well as safety of flight efforts. Keeping any number of the E-3s beyond the current DAF plan will not change the capability to address the "bathtub" because of the increasing sustainment and readiness challenges. The FY24 PB request divests two E-3s in FY24 reducing the fleet from 18 E-3s in FY23 to 16 E-3s by the end of FY24. The FY24 PB request of $849 million funds these efforts to maintain existing AWACS Battle Management and Command and Control capabilities.

E-7A

The E-7A program replaces the E-3 AWACS. It will enable the long range kill chain by delivering the ability to detect and track highly maneuverable, small radar cross-section airborne targets (modern and emerging threats); enabling greater airborne battlespace awareness with its precise, real-time air picture of sufficient quality to control and direct individual aircraft under a wide range of environmental and operational conditions. It will also mitigate reliability, operational availability, maintainability, and sustainability issues. These enhancements are made possible by state-of-the-art radar capabilities including beam steering, sector staring, and much faster target revisit rates that translate into better target detection and tracking of modern threats, as well as more robust Electronic Protection not possible with the mechanically scanned radar on the E-3 AWACS. The FY24 PB requests funds to continue the rapid prototyping of the E-7A weapon system. Rapid prototyping includes development efforts to ensure compliance with US cyber security and program protection standards; development efforts to ensure navigation and communication systems comply with GPS M-Code and Narrowband SATCOM mandates; design and build-out of contractor and government System Integration Laboratories supporting development, integration, and test activities, and provide analysis and products supporting future requirements and airworthiness certification. The FY24 PB request of $681 million funds these continued efforts to develop the first two E-7A aircraft.

Connecting the Joint Force

The Air Force continues to work closely with the other services, the Joint Staff, and OSD to drive implementation of Joint All-Domain Command and Control (JADC2). The Department of the Air Force established a new PEO for Command, Control, Communications, and Battle

Management (C3BM), which is leading the integration of command and control and battle management functions across the Department of the Air Force to ensure our planned capabilities deliver the C2 capabilities supporting the joint force. The cornerstone of this effort is the DAF BATTLE NETWORK, including the Advanced Battle Management System (ABMS), which creates decision advantage by delivering critical information and capabilities to warfighters and operators at multiple echelons.

Operationally optimized ABMS/JADC2 is one of the Secretary of the Air Force's operational imperatives and is foundational to many other operational imperatives. Within the ABMS portfolio, DAF PEO C3BM is pursuing multiple interconnected investments: digital infrastructure, aerial networking, software and applications, and architecture and systems engineering focusing on closing the right kill chains and delivering near-term operational capability. The Architecture and Systems Engineering (ASE) team within DAF PEO C3BM drives mission integration to enable warfighter capabilities for resilient decision advantage. Its primary product is engineering data to drive decisions on effective and efficient integration of the DAF BATTLE NETWORK across the Joint Force. DAF PEO C3BM is working as the Integrating PEO to ensure Air Force and Space Force systems have seamless interoperability and compatibility to meet the JADC2 concept.

Driven by strategic requirements approved by the Chief of Staff of the United States Air Force and the Chief of Space Operations, DAF PEO C3BM has identified DAF BATTLE NETWORK core and connected programs across the acquisition community, while also continuing to execute the ABMS portfolio. The FY24 PB request of $500.6M will enable ABMS to remain on track to deliver initial capabilities such as the Cloud-Based Command and Control (CBC2) tactical C2 software to multiple Air Defense Sectors, as well as multiple digital infrastructure efforts for software-defined wide area networking and deployable edge solutions for battle management teams at multiple echelons.

CONCLUSION

Thank you again for the opportunity to testify. We look forward to working with this subcommittee to ensure the Department of the Air Force maintains the necessary military advantage to secure our vital national interests and support our allies and partners in Fiscal Year 2024 and beyond.