



**DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010**

APR 22 2015

**The Honorable John McCain
Chairman
Committee on Armed Services
United States Senate
Washington, DC 20510**

Dear Mr. Chairman:

As required by title 10, U.S.C., section 231a, I am forwarding the annual plan and certification for the procurement of aircraft for the Department of Defense. I certify that both the budget for fiscal year 2016 and the future-years defense program (FYDP) for fiscal years 2016-2020 provide a sufficient level of funding to procure the aircraft specified by the plan on the scheduled outlined therein.

The enclosed plan outlines the aviation force structure requirements derived in response to the strategic priorities and guidance contained in Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, and updated by the 2014 Quadrennial Review; the inventory and plan necessary to meet this guidance; and the fiscal resources necessary to implement the plan. The plan is affordable within the FYDP and represents the Department's commitment to provide a balanced force able to meet the needs of current conflicts, as well respond to a broad spectrum of future challenges, in a challenging fiscal environment.

I have sent similar letters to the other Congressional committees required by statute.

Sincerely,

**Enclosure:
As stated**

**cc:
The Honorable Jack Reed
Ranking Member**





DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

APR 22 2015

The Honorable William M. "Mac" Thornberry
Chairman
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

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Sincerely,

Enclosure:
As stated

cc:
The Honorable Adam Smith
Ranking Member





**DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010**

APR 22 2015

**The Honorable Thad Cochran
Chairman
Committee on Appropriations
United States Senate
Washington, DC 20510**

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As stated**

**cc:
The Honorable Barbara A. Mikulski
Vice Chairwoman**





DEPUTY SECRETARY OF DEFENSE
1010 DEFENSE PENTAGON
WASHINGTON, DC 20301-1010

APR 22 2015

The Honorable Harold Rogers
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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Sincerely,

Enclosure:
As stated

cc:
The Honorable Nita M. Lowey
Ranking Member



**Annual Aviation
Inventory and Funding Plan**

Fiscal Years (FY) 2016-2045

April 2015

Preparation of this study/report cost the
Department of Defense (DoD) a total of
Approximately \$1,112,901 in Fiscal Years
2014 - 2015.

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Table of Contents

Part I – Executive Summary

Introduction

Summary of the Annual Plan and Certification

Part II – 30-year (FY2016 – FY2045) Aviation Plan

Aviation Force Structure Requirements

Aviation Investment Objectives

Aviation Plan

- *Fighter/Attack Aircraft*
- *Attack Helicopters*
- *Intertheater Lift/Intratheater Lift/Operational Support/Executive Lift/Utility Aircraft*
- *Combat Search and Rescue Aircraft*
- *Air Refueling/Tanker Aircraft*
- *Long-Range Strike/Bomber Aircraft*
- *Anti-surface/submarine Warfare*
- *Trainer Aircraft*
- *ISR/Scout/C2 Aircraft*
- *Special Operation Aircraft*

Budget Certification

Sufficiency of Forces Assessment

Appendix I – Inactive Aircraft Inventory

Appendix II – Sources of Cost/Funding Information

Annual Aviation Inventory and Funding Plan

Part I – Executive Summary

Introduction

Section 231a of title 10, United States Code, as amended by section 1069 of the National Defense Authorization Act (NDAA) for Fiscal Year 2012, Public Law 112-81, requires the Secretary of Defense to submit an annual, long-term aviation plan for fixed wing and rotary wing aircraft, to include unmanned systems, for all Services and for combatant commanders that have aircraft assigned to them. This report responds to that requirement.

Guided by the current strategic guidance, as laid out in *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense* and updated by the 2014 Quadrennial Defense Review (QDR), this plan represents the Department's commitment to provide a balanced force able to meet the needs of current conflicts, as well as respond to a broad spectrum of future challenges, in a changing fiscal environment.

Summary of the Annual Plan and Certification

This plan was developed based on the FY 2016 President's Budget submission and is consistent with the tenets of the January 2012 Defense Strategic Guidance and the three strategic pillars of the 2014 Quadrennial Defense Review. It meets the national security requirements of the United States.

The Department's FY 2016 budget request and the associated FY 2016-2020 FYDP provide the requisite funding to implement the aviation investment plan through FY 2020 for all programs of record and reflect the five principal investment objectives identified below.

- Meet the demand for persistent, multirole intelligence, surveillance, and reconnaissance (ISR) capabilities;
- Provide sufficient enabler capability and capacity;
- Acquire fifth-generation fighter/attack aircraft while maintaining sufficient inventory capacity;
- Modernize long-range strike (LRS) capabilities; and
- Emphasize modernization and readiness.

Annual Aviation Inventory and Funding Plan

Part II – FY 2015 Report

The report presents:

- A current year (2015) description of the aviation force structure, including active mission, training, and test aircraft.
- A detailed aviation plan for the Departments of the Air Force, Navy, Army, and United States Special Operations Command for both fixed wing and rotary wing assets necessary to meet the national military strategy of the United States. The plan includes legacy aircraft, aircraft in procurement or development, and aircraft projected to begin development in the next few years.
- The total funding estimates for each inventory category includes the annual research and development (RDT&E), procurement, operation and maintenance (O&M), military personnel (MILPERS), and military construction (MILCON) funding necessary to achieve the planned aviation inventory and to operate, maintain, sustain, and support this aviation inventory.

Force Structure Requirements

The Department's FY 2016-2045 aviation plan provides the mix of capability and capacity to meet the broad range of security challenges facing the nation. The plan represents the Department's ongoing commitment to support the Joint Force in dynamic operational environments, with diverse mission requirements from current operations in Afghanistan, Syria, and Iraq, to humanitarian relief efforts at home and abroad, to preparations for military action against possible adversary nations and non-state actors. Accordingly, the aviation plan provides the aircraft needed to cover the full complement of operations that U.S. military forces could undertake in the decades ahead, and it will evolve as security needs change.

Consistent with this vision, the FY 2016-2045 aviation plan provides the capabilities needed to meet current and projected national security objectives, while prudently balancing security risks over time and against fiscal realities. These efforts will ensure the Department procures the right aircraft at the right time to manage risk against existing and emerging anti-access/area denial (A2/AD) threats. In planning for an uncertain future, the United States must possess the aviation capability and capacity to protect the homeland, build security globally, and project power and to win decisively.

Investment Objectives

In keeping with the Department's desire to provide a flexible and balanced force, the aviation plan provides a diverse mix of aircraft. The capabilities provided by these aircraft correspond with five principal investment objectives:

- Meet the demand for persistent, multirole ISR capabilities;
- Provide sufficient enabler capability and capacity;

- Acquire fifth-generation fighter/attack aircraft while maintaining sufficient inventory capacity;
- Modernize long-range strike capabilities; and
- Emphasize modernization and readiness.

These objectives are discussed in more detail in the sections below.

Meet the demand for persistent, multirole intelligence, surveillance, and reconnaissance (ISR) capabilities. The aviation plan's emphasis on long-endurance, unmanned ISR assets—many with light-strike capabilities—is a direct reflection of recent operational experience in permissive environments and combatant commander (CCDR) demand.

- Air Force RQ-4 Global Hawk and MQ-9 Reaper Remotely Piloted Aircraft (RPA) will receive capability improvements to improve sensors and overall reliability and utility. MQ-1s will be phased out over time and replaced with more capable MQ-9 and MQ-9 Extended Range (ER). The Air Force will provide 60 steady state MQ-9 CAPS, and maintain today's existing surge capability using MQ-1s and MQ-9s. The Air Force will divest the U-2 Dragon Lady starting in FY 2019 coinciding with the projected fielding of Global Hawk sensor improvements. The Air Force is recapitalizing its fleet of 16 E-8C JSTARS aircraft with a fleet of more affordable, capable, modern aircraft. The Air Force plans to retire the legacy E-8C by the end of FY 2025.
- The Navy is developing a portfolio of manned and unmanned systems to meet a variety of maritime and expeditionary reconnaissance requirements, including the land-based MQ-4C Triton, the carrier-based Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS), and the Littoral Combat Ship-based MQ-8 Fire Scout Vertical Take-off and Landing Unmanned Aerial Vehicle (VTUAV). As this portfolio of aircraft is phased into the force, the EP-3E and P-3 Special Projects Aircraft will be retired. The Marine Corps plans to replace its existing RQ-7B shadow by fielding a multirole, Group 4 or Group 5 Unmanned Aerial System (UAS) while it implements a plan to share digital information (digital interoperability) from all its aircraft to the Marine on the deck, enhancing the ability to sustain the tactical and operational advantage over short and long ranges.
- The Army's aerial ISR strategy will maintain a modernized version of the RC-12 and Airborne Reconnaissance Low (ARL) aircraft while fielding the MQ-1C Gray Eagle and Enhanced Medium Altitude Reconnaissance Surveillance System (EMARSS).

Provide sufficient enabler capability and capacity. A second key priority involves investing in aviation enablers, including assets and capabilities related to air mobility (aircraft performing airlift or aerial-refueling missions, or both), command and control, and electronic warfare.

- Mobility enablers consist of airlift and aerial refueling aircraft. In the near term, the Air Force will continue divestiture of legacy C-5A aircraft to maintain a fleet of 275 strategic airlift aircraft. The Air Force will also reduce excess capacity in its intra-theater airlift fleet by divesting 28 legacy C-130H aircraft, bringing the inventory down to 298 in C-130 H/Js FY 2018. C-130J deliveries will increase the inventory to 300 aircraft by FY 2019. The Air Force will continue procurement of 179 KC-46 aircraft by FY 2027.

Recapitalization of the entire tanker fleet will require additional procurement beyond FY 2027 that is not part of the current contract. The Navy has identified an extended range variant of the V-22 platform to recapitalize the C-2A Carrier Onboard Delivery (COD) aircraft for the inter-theater sea-based air connector capability. Over the next ten years, the Department of the Navy will procure KC-130J aircraft to meet Navy and Marine Corps unique intra-theater logistics support. Capable of employment in intra-theater lift, assault support, persistent ISR, offensive air support, and aerial refueling missions, the KC-130J will replace aging KC-130T models.

- The EA-18G will soon be the only tactical airborne electronic attack platform within DoD. With the last deliveries in FY 2017, the Navy's 16 EA-18G squadrons will provide crucial support to fighters and bombers in multiple theaters. Aiding the electronic attack mission will also be the EC-130 Compass Call, although the Air Force will retire roughly half of its fleet after FY 2015. Legacy upgrades such as the Eagle Passive/Active Warning Survivability System will significantly improve the ability of all F-15s to detect, deny, deceive, disrupt, and destroy threats in most modern tactical environments.
- The Air Force inventory retains a fleet of 24 E-3 AWACS aircraft, while retiring 7 aircraft in FY 2019 due to budget limitations. The Navy is recapitalizing its fleet of E-2C airborne early warning aircraft with the E-2D.
- The Navy is recapitalizing its aged fleet of P-3C maritime patrol aircraft with the modern P-8A, equipped with an improved sensor suite to support anti-submarine, anti-surface warfare and ISR operations.
- The Army completes modernization of the Chinook and Light Utility Helicopter fleets, and continues to modernize and recapitalize their Black Hawk and Apache helicopters. The Navy and Marine Corps are participating in Joint Future Vertical Lift efforts to identify advantage points for future rotorcraft investment. The Marine Corps continues to modernize vertical lift capability and capacity with the procurement of the AH-1Z, CH-53K, UH-1Y and MV-22B. The Navy has completed the procurement of its MH-60S and will complete the procurement of the MH-60R in FY 2016. The Navy is assessing future helicopter requirements and capabilities. The Air Force initiates the procurement of the Combat Rescue Helicopter in FY 2020 in order to recapitalize HH-60G combat search and rescue helicopters.

Acquire fifth-generation fighter/attack aircraft while maintaining sufficient capability and capacity. Procurement of fifth-generation aircraft is approached differently by each service based on the timing required of legacy recapitalization.

- Generally, the Air Force and Marine Corps are flying aircraft with average ages of 25 years or older, thus the Air Force and Marine Corps are introducing the fifth-generation F-35 to their fleets at a quicker pace, reaching an initial operating capability in the early part of the FYDP. While all variants are still in low-rate initial production during the FYDP, production will gradually increase to reach their peak by 2021 and enter full-rate production that is expected to continue through the 2030s.
- During this time, legacy aircraft will continue to provide capacity and capabilities vital to combatant commanders through various service life extensions, modernization efforts, and defensive system upgrades funded for the F-16, F-15C/E and F/A-18A-F.
- In order to afford these important modernization efforts, the Air Force will retire some aircraft earlier than originally planned, such as the A-10.

- The Navy will need to replace its F/A-18E/F/G starting in the 2030 timeframe. The Air Force will need to replace its F-22 in the same time frame. Both will consider replacements that may be a family of systems using mixes of manned and unmanned aircraft with varying levels of stealth, advanced standoff weapons, sensors, and networks.

Modernize long-range strike capabilities. The enduring need for long-range attack capabilities will be met by a combination of current and future aircraft and weapons systems.

- The current fleet of Air Force bombers continues to be modernized so that it can retain long-range strike capabilities through the 2030s. To deter and defeat A2/AD threats, DoD is creating a long-range strike family of systems, including a program to develop a new penetrating, nuclear-capable bomber. The current goal is to achieve an initial capability in the mid-2020s, while holding down the unit cost to ensure sufficient production over the long term.

Balance modernization and readiness. The FY 2016 President's Budget continues emphasis on modernization and readiness, while adjusting to fiscal realities.

- The Air Force program reflects the difficult decisions made to remain aligned with Defense Strategic Guidance and QDR priorities while meeting budgetary goals -- for example, the Air Force divesting all A-10 squadrons to resource future modernization and readiness. The FY 2016 PB works to preserve the Air Force's top three procurement programs, F-35, KC-46, and Long Range Strike Bomber, and gives the Air Force the ability to continue efforts to regain full spectrum readiness and lay the groundwork for future innovation efforts with seed investments. The Air Force is also modernizing its current fighter force through upgrades to threat detection systems, avionics computer hardware and software, communication systems, weapons employment systems, and radar systems to ensure their viability in today's increasingly contested environments. The Navy will modernize its inventory by investing in development of advanced targeting systems and sensors to replace existing infrared and radar systems; positional, navigation and timing systems that operate independently of global positioning systems; systems that synthesize targeting information across multiple platforms to increase lethality and survivability; and propulsion technologies (which is also a particular area of investment by the Air Force). The Marine Corps, as the nation's force in readiness, must maintain a T-2.0 readiness level across its aviation force by balancing future investment and capability with today's readiness.

Aircraft Investment Plan

Force-Wide Perspective. The Department's aviation inventory, broken out by category, is shown in the table below for each fiscal year through FY 2025. Quantified Long-term projections for aviation are considerably less accurate in the later years. Acknowledging this limitation, the report provides quantified estimates through only FY 2025 and then provides broad trends in narrative form for FY 2026-2045 for each of the aircraft categories. Inventory levels are subject to change in response to operational needs, industrial base considerations, and fiscal constraints.

**Aviation Inventory
FY 2016-2025**

Inventory	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Fighter / Attack	3290	3224	3190	3183	3215	3109	3108	3074	3060	2985
Attack Helicopter	859	774	727	715	736	763	801	797	799	810
Airlift / Cargo / Utility	4563	4623	4727	4760	4752	4715	4705	4696	4676	4618
Combat Search and Rescue	152	156	156	160	160	149	147	150	149	149
Air Refueling	542	555	557	560	560	560	559	563	563	563
Long Range Strike	157	157	157	157	157	157	154	150	146	140
Anti-Surface/Submarine Warfare	622	649	666	647	655	658	644	642	640	637
Trainers	2165	2113	2044	1999	1884	1853	1851	1842	1807	1779
ISR / Scout / C4	1063	1037	892	894	850	849	816	812	810	807
Special Operations Forces	494	487	470	473	474	455	457	457	457	457
Total	13907	13775	13586	13548	13443	13268	13242	13183	13107	12945

Fighter/Attack Aircraft

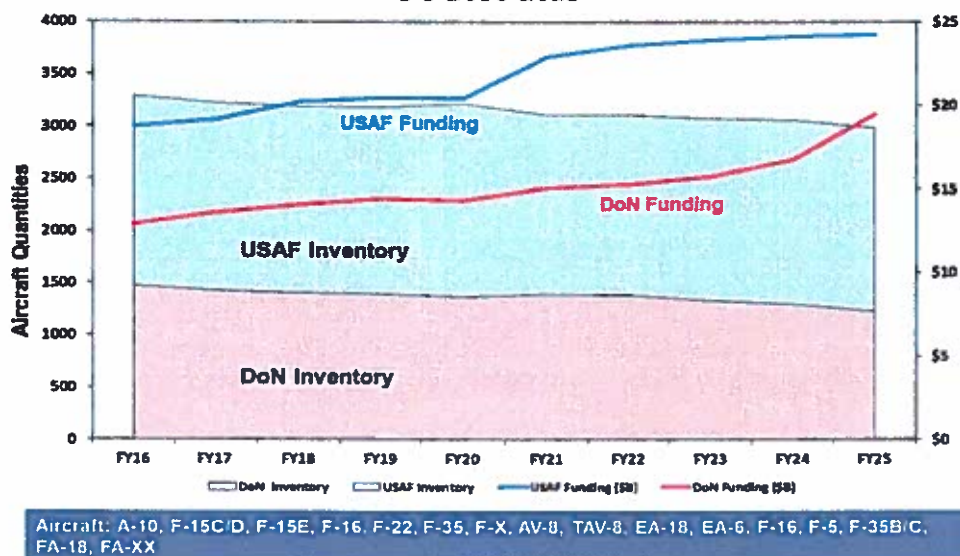
The following tables show Fighter/Attack aviation assets and the FY 2015 inventory by category for all active aircraft consistently tracked by the Department.

Fighter/Attack	Air Force	DoN
	A-10, F-15C/D, F-15E, F-16, F-22, F-35A, F-X	AV-8, EA-18, EA-6B, F-16, F-5, F-35B/C, FA-18, FA-XX

2015 Fighter/Attack Aircraft Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	1965	0	1402
Mission	1141	0	728
Training	436	0	318
RDT&E	116	0	55
Backup, Attrition Reserve and Other Primary Aircraft	272	0	301
Active Component	1274	0	1321
Reserve Component	691	0	81

Fighter/Attack Inventories & Funding FY 2016-2025



The above chart depicts annual fighter/attack inventory and total funding projections over FY 2016-2025 broken out by military department. Details on the USAF and DoN Fighter/Attack aircraft are outlined in the following paragraphs.

Department of the Air Force. With continued FY 2016 PB level funding, the Air Force will retain and maintain the capability and capacity to meet the demands of the new defense strategy. In the next ten years, the Air Force will continue to modernize the F-22 to address advances in threat systems and technologies to ensure the F-22 remains fully effective against the most challenging air-to-air and surface-to-air threats. The Air Force is challenged with upgrades and life extensions of the fourth-generation fighter fleet to bridge the transition to the F-35A. The F-15s and F-16s that comprise the majority of the Air Force fighter fleet require upgrades to both extend their lifespan and provide the combat capability required to prevail in today's increasingly contested environments. Both the aircraft are undergoing Service Life Extension

Programs (SLEP), Operational Flight Program (OFF) updates, display upgrades, and Multifunctional Information Distribution System Joint Tactical Radio System (MIDS JTRS) upgrades throughout the FYDP. The cost of these upgrades combined with current fiscal constraints prevent the Air Force from addressing other advanced capabilities necessary to operate in an Anti-Access/Area Denial environment (e.g., Advanced Counter Integrated Air Defense System). The Air Force will procure 272 F-35As from FY 2016 to FY 2020 as it is the centerpiece of the future precision attack capability with the ability to operate in a contested, high-end threat environment. Given the projected fiscal environment and competing priorities, the Air Force will be challenged to sustain a procurement rate of 80 F-35s per year beyond the FYDP. In order to afford the upgrades to the current and future force structure, the Air Force will divest the A-10 fleet over the next 4 years.

In the far term, the Air Force will need to recapitalize its current 4th and 5th generation air superiority capability. Future research and development efforts beyond the FYDP will focus on improvements to fifth-generation aircraft and initial RDT&E for an F-22 capability replacement. The Air Force is organizing an Air Superiority Enterprise Capability Collaboration Team (ECCT) to shape its activities around the mission effects chains to identify and quantify key capabilities and explore the full range of potential materiel and non-materiel solutions addressing future Air Superiority.

Department of the Navy. The USMC F-35B procurement ramp has remained unchanged from previous years; however, due to fiscal constraints, the Navy F-35C FYDP production ramp was reduced below levels assumed in the 2014 Quadrennial Defense Review (QDR). FY 2016 PB defers the long-term, steady-state acquisition rate of 40 F-35B/Cs per year beyond the FYDP; achieving that rate will present significant fiscal challenges as the program competes with other budgetary requirements beyond 2020. Failing to achieve 40 F-35B/Cs per year will further jeopardize the Department's ability to meet the obligations stated in the QDR.

The Department of the Navy remains challenged with end-of-life planning for F/A-18A-D aircraft that reach the end of their service life before replacement aircraft (F-35B/C) can be fully delivered into service. Strike-fighter inventory management increases risk with FY 2016 PB by further increasing the gap between aircraft supply and Master Aviation Plan (MAP) demand. The Department of the Navy is addressing F-35 procurement delays by pursuing initiatives to extend the life of existing fleets. These initiatives include an F/A-18 A-D Service Life Extension Program (SLEP) and an F/A-18 E/F Service Life Assessment Program (SLAP). The SLEP program is predicted to increase the service life of approximately 150 F/A-18A-D aircraft to 10,000 hours. The SLAP program is evaluating the feasibility and cost of extending the service life of the F/A-18 E/F fleet. Additional supply initiatives and service-life management programs are being implemented that include accelerating the transition of seven USN F/A-18C squadrons to F/A-18 E/F Super Hornets utilizing attrition aircraft and continued reduction in utilization rates of F/A-18 E/F aircraft. The DoN will continue to carefully monitor the projected availability of the strike fighter inventory; however the fleet is currently operating with significant capacity risk and no attrition reserve.

The EA-18G Growler will soon be the DoD's only tactical airborne electronic attack (AEA) platform. Planned procurement of the EA-18G Growler completes in FY 2015. FY 2017

deliveries will complete the Navy requirement of 10 CVW squadrons, 5 expeditionary squadrons, and 1 reserve squadron. FY 2016 PB funds warfighting improvement investments that will improve Growler capability in complex emitter detection and identification as well as passive precision targeting.

In the far term, the Navy will need to replace its F/A-18E/F and EA-18G fleet starting in the 2030 timeframe. The Navy is conducting analyses to inform a decision to include consideration for a family of systems – mixes of manned and unmanned aircraft with advanced propulsion technologies, with varying stealth characteristics, advanced standoff weapons, sensors, and networks.

Attack Helicopter

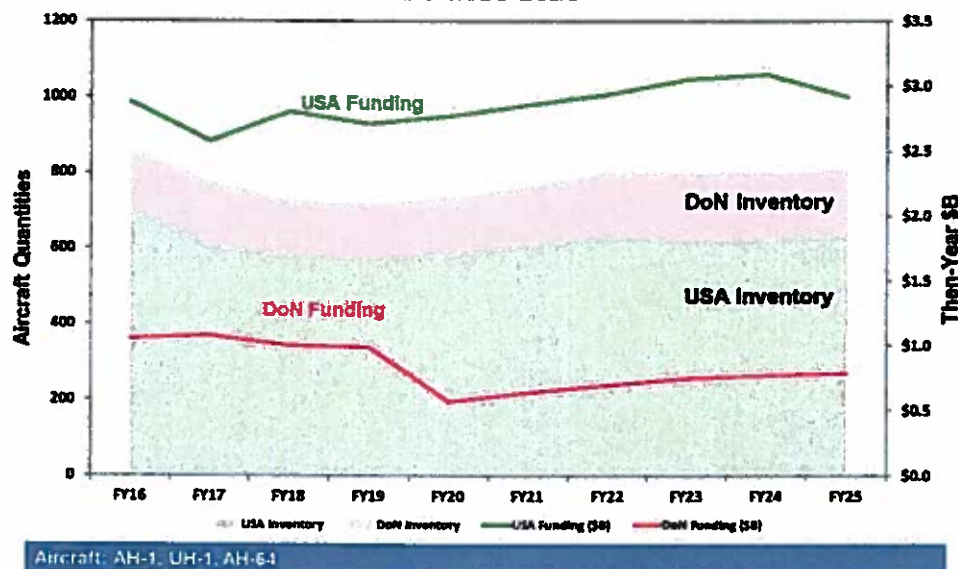
The following tables show the DoD Attack Helicopter aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Department.

Attack Helicopter	Army	DoN
	AH-64	AH-1

2015 Attack Helicopter Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	0	684	170
Mission	0	577	135
Training	0	91	25
RDT&E	0	16	7
Backup, Attrition Reserve and Other Primary Aircraft	0	0	3
Active Component	0	467	157
Reserve Component	0	217	13

Attack Helicopter Inventories & Funding FY 2016-2025



The above chart depicts annual attack helicopter inventory and total funding projections over FY 2016-2025 broken out by military department. Details on the Army and DoN attack helicopter aircraft are outlined in the following paragraphs.

Department of the Army. The Army is fielding the AH-64E which is a modernized variant of the AH-64D, Longbow Apache. The AH-64E will sustain the fleet for 20 or more additional years by introducing new or remanufactured airframes that will increase the aircraft's overall capabilities. The Army's objective is to replace all AH-64D airframes with modernized AH-64E aircraft and field them to units by the end of FY 2026. During this transition period, the Apache using the Gray Eagle Unmanned Aerial System (UAS) via Manned Unmanned Teaming (MUMT) began replacing the aging fleet of OH-58Ds in two of the Army's Attack Reconnaissance Squadrons (ARS) in FY 2014. The transition will continue with a planned conversion of two additional squadrons in FY 2015 and three in FY 2016. As the Army continues to modernize the current Apache fleet incrementally, ongoing investments into the next generation of rotary wing capabilities will inform future decisions about the introduction of a future attack aircraft into the inventory.

Department of the Navy. The H-1 program includes both the Marine Corps attack and utility helicopters (the AH-1Z and UH-1Y respectively). Eighty-five percent of the major components are identical, enhancing deployability and maintainability while reducing training requirements and logistical footprint. In the near term, production has begun on the AH-1Z "Build New" configuration, ending the remanufacture process of the AH-1W and preventing a significant attack helicopter shortfall. The Navy inventory includes the Marine Corps' HH-1N, performing search and rescue for MCAS Yuma.

Intertheater Lift/Intratheater Lift/Operational Support/Executive Lift/Utility

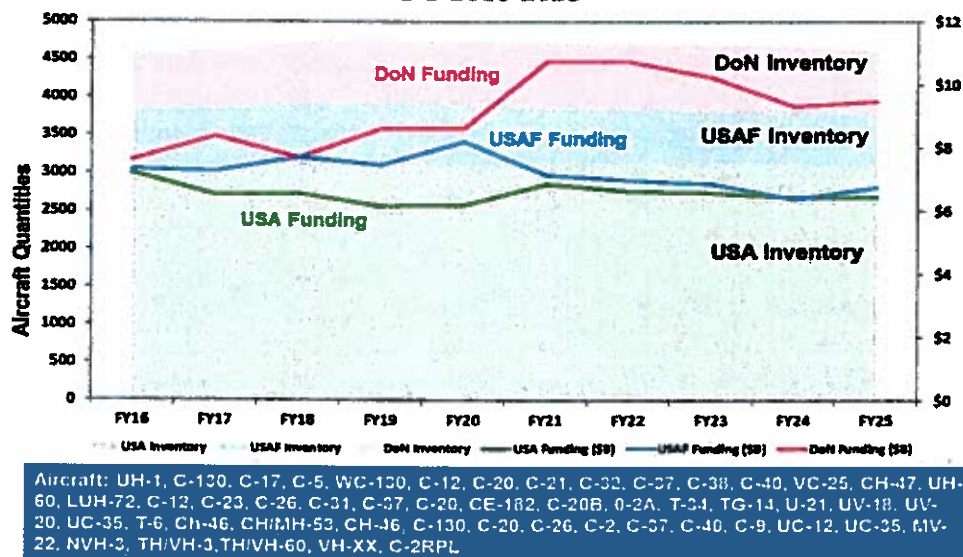
The following tables show DoD Intertheater Lift/Intratheater Lift/Operational Support/Executive Lift/Utility aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Departments. This category includes operational support airlift, tilt rotor assets, helicopters, and fixed wing airlift to include intratheater and intertheater airlift.

	Army	Air Force	DoN
Airlift / Cargo / Utility	CH-47, UH-60, LUH-72, C-12, C-23, C-26, C-31, C-37, C-20, CE-182, C-20B, O-2A, T-34, TG-14, U-21, UV-18, UV-20, UC-35, T-6	UH-1, TH-1, C-130, C-17, C-5, WC-130, C-12, C-20, C-21, C-32, C-37, C-40, VC-25	CH/MH-53, CH-46, C-130, C-20, C-26, C-2, C-37, C-40, C-9, UH/NH-1, UC-12, UC-35, MV-22, VH-3, TH/VH-3, TH/VH-60, VXX, C-2RPL

2015 Airlift / Cargo / Utility Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	793	3025	712
Mission	554	2539	570
Training	71	326	65
RDT&E	7	57	16
Backup, Attrition Reserve and Other Primary Aircraft	161	103	61
Active Component	470	1606	620
Reserve Component	323	1419	92

Airlift/Cargo/Utility Inventories & Funding FY 2016-2025



The above chart depicts annual Intertheater Lift/Intratheater Lift/Operational Support/Executive Lift/Utility aviation inventory and total funding projections over FY 2016 –2025 broken out by military department. Details on the Army, Air Force and DoN Airlift/Cargo/Utility aviation plans are outlined in the following paragraphs.

Department of the Army. The bulk of Army Aviation assets reside in the Army’s utility and cargo aviation fleets. The Army is fielding modernized variants of existing utility and cargo aircraft (UH-60M, UH-60V and CH-47F) that will sustain the fleet by introducing new or remanufactured airframes while increasing the aircraft’s overall capabilities. These new and remanufactured aircraft should be viable for 20 or more additional years of service. The Army will modernize its utility and cargo helicopter fleets by divesting selected legacy aircraft (CH-47D and UH-60A variants), which have reached the end of their economic useful lives. The Army will deliver a portion of the legacy airframes to industry for remanufacture as a measure to offset new airframe costs. The Army will procure the last UH-72A Light Utility Helicopters in FY 2016. Additionally, the Army is fielding a limited number of fixed wing support aircraft and is developing plans to replace the C-12 with a fixed wing utility aircraft beginning in FY 2017 and later as the C-12 nears the end of its economic useful life.

The Army’s current modernization efforts are focused on sustaining and improving the current generation of aircraft through FY 2022 and beyond. Included in the Army’s utility fleet modernization efforts is the development of the Improved Turbine Engine that is being designed to increase power, improve fuel efficiency and streamline maintenance operations. The objective is to begin installing the improved turbine engines in UH-60 aircraft in FY 2026.

In FY 2014, the Army began divesting its oldest UH-60A aircraft that reached the end of their economic useful life. The lifespan of these aircraft has been further accelerated by high operational tempo over the past 13 years in combat and continuation of the ongoing overseas contingency operations until their final conclusion. As a result, the Army foresees the following:

- **UH/HH-60:** The objective UH/HH-60 fleet will consist of 1,375 UH/HH-60M and 760 UH-60V Blackhawk helicopters. To meet this objective fleet, the Army will continue to procure new UH/HH-60M aircraft at or above the minimum economic order quantity through approximately FY 2027. Additionally beginning in FY 2018, the Army will recapitalize and modernize the analog H-60L aircraft into the H-60V aircraft. The V model conversion will extend the economic useful life of the H-60L and address network interoperability, cockpit management/situational awareness and obsolescence issues with the UH-60L. These efforts will continue for the next 20 years with 48 UH-60L undergoing recapitalization (RECAP) and digitization per year. These efforts will allow the Army to divest legacy UH-60A models with the retirement of 83 airframes in FY 2015 and 80 in FY 2016, with the goal of total UH-60A model divestiture in FY 2024. The M model will start reaching its 25 year life in FY 2032; therefore, the Army will begin a RECAP program in FY 2032 to extend its life beyond FY 2050. In FY 2026, the Army's objective is to begin replacing current engines with the future improved turbine engine. Additionally, the outcome of the investments into future rotary wing technologies will help inform the Army's plan for a future replacement rotary wing utility aircraft.

- **CH-47:** CH-47F procurement completion is planned for FY 2018. With no follow on Future Vertical Lift/Joint Multi-Role-Heavy variant in the Army's Aviation Modernization Plan, the Army is planning an Original Equipment Manufacturer (OEM)/depot H-47F/G Block II upgrade/REMAN recapitalization program, for FY 2018 and beyond, to extend the CH-47F's service life beyond FY 2040.

- **Utility/OSA Fixed Wing:** Utility Fixed Wing consists of all Army Operational Support Airlift (OSA) aircraft as well as the Army's training fleet, research and development fleet and special mission aircraft. This fleet consists of older aircraft that require replacement between FY 2025-2027. The OSA fleet will divest of 16 aircraft. The special mission aircraft and Research and Development aircraft will be validated and replaced on a one-for-one basis in FY 2022 and beyond.

- **UH-72A:** This is the newest fleet and will be fully fielded by FY 2018. A replacement or upgraded capability may be procured beyond FY 2027 should operational or sustainability requirements dictate a necessity for airframe sustainment and improvement.

Department of the Air Force. The Air Force continues to focus on balancing aircraft recapitalization with key modernization and sustainment across the airlift fleet. The C-130 fleet provided by the FY 2015 PB had capability in excess of Department of Defense requirements for mission-critical direct airlift support and Homeland Defense. Through a combination of divesting some of the legacy C-130H aircraft and continuing procurement of the C-130J Super Hercules, the Air Force will maintain a fleet of 300 total C-130 aircraft by the end of the FYDP. Additionally, to ensure compatibility with worldwide Communication, Navigation, Surveillance (CNS)/Air Traffic Management (ATM) standards and to maintain global access, the Air Force plans to update, but cannot fully fund, the legacy C-130H fleet to ensure continued compliance with international airspace mandates.

Air Force intertheater airlift, whether transporting humanitarian-relief supplies or wartime materiel, is unrivaled in its ability to project American forces and power around the world. In combination with commercial aircraft available for airlift missions, the Air Force's intertheater airlift aircraft—the C-17 Globemaster III and C-5 Galaxy—form the foundation of the Nation's strategic mobility and global sustainment capabilities. The Air Force will retain a fleet of 275 strategic airlifters in accordance with National Defense Authorization Act for Fiscal Year 2013 NDAA, while the Department reviews its future airlift requirements. Fleet upgrades remain the most cost-effective means of sustaining these capabilities through FY 2040.

The Air Force will continue to fly the UH-1N, with the majority of the fleet focused on critical national security missions: nuclear asset security for Air Force Global Strike Command and National Capital Region mission support. The Air Force will selectively modernize the UH-1N to minimize existing capability gaps and avoid increased sustainment costs brought on by obsolescence. Additionally, the Air Force is considering alternatives to replace the aging UH-1Ns.

Finally, Operational Support Airlift/Executive Airlift (OSA/EA) delivers highly responsive and reliable executive airlift to senior US civil and military officials and foreign dignitaries as well as high priority cargo with time, place or mission sensitive requirements. Special communications equipment allows these passengers to conduct highly sensitive business en route, even globally, without compromising their efficiency or effectiveness. To maintain support of the President into the future, the Air Force plans to begin recapitalizing the VC-25 with a modified commercial aircraft. Current plans support a procurement schedule that would allow modification to begin in FY 2018 and an initial operational capability in FY 2023.

Department of the Navy. The C-2A fleet, which provides long-range logistical support to carrier strike groups (CSGs), will reach the end of its service life in the mid-2020s with continued sustainment investment. The Navy is planning to recapitalize the COD capability with an extended range variant of the V-22. PB-16 investments support an affordable COD recapitalization plan that procures a version of the V-22 Osprey under the existing Program of Record (POR), allowing the navy to recapitalize the C-2 COD capability in an affordable manner and evolve the aerial logistics operations from the CVN centric "Hub and Spoke" model to a flexible sea base support concept.

Over the next ten years, the Department of the Navy will procure KC-130J and C-40 lift aircraft to meet Navy and Marine Corps unique intra-theater logistics support. These aircraft respond to immediate demands for movement of essential fleet personnel and cargo to mobile sea-based forces worldwide. The KC-130J is a multirole platform, serving as an airlift asset; however, for the categorization of this report, the KC-130J inventory numbers are included in the aerial refueling category.

The sundown of the MH-53E Mine Countermeasures (MCM) mission aircraft is dependent upon the Littoral Combat Ship MCM Mission Package reaching full operational capability (forecast to begin in 2024). C-40A aircraft will begin reaching the end of their service lives prior to 2041 and will need to be replaced.

The CH-53K will achieve initial operating capability for the Marine Corps in FY 2019 and begin incrementally replacing the aging CH-53Es. The new CH-53K will have heavy-lift capabilities not possessed by any of today's DoD rotary wing platforms. Maintainability and reliability enhancements of the CH-53K are designed to limit recurring operating costs and improve operational effectiveness.

VH-92A represents the replacement aircraft under development for the 40-year old VH-3D and the 25-year old VH-60N helicopters, currently providing transportation for the President, foreign heads of states, and other dignitaries as directed by the White House Military Office. The Replacement Presidential Helicopter will provide a hardened, mobile command and control transportation capability necessary to meet current and future presidential transport mission requirements. VH-92A will begin operating in the 2020 timeframe.

Combat Search and Rescue

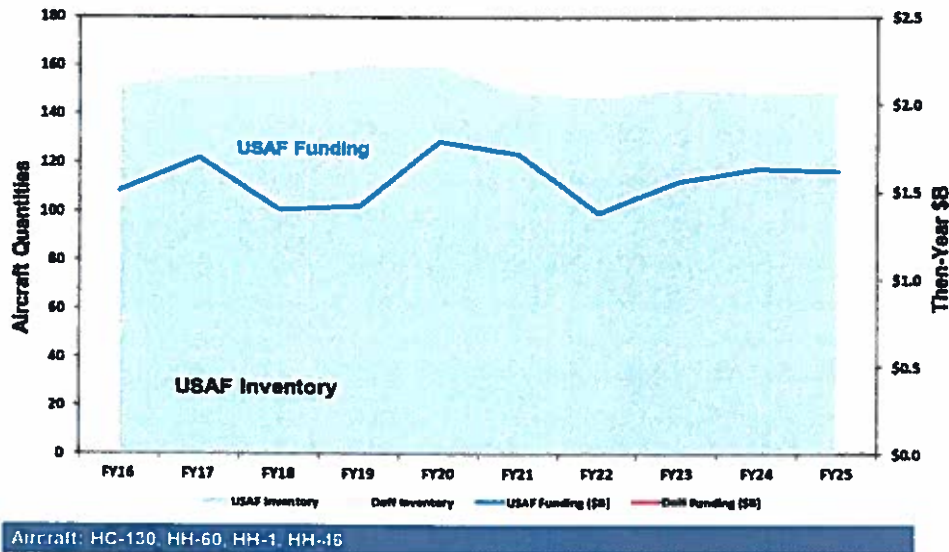
The following tables show the DoD combat search and rescue aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Military Departments.

Combat Search and Rescue	Air Force
	HC-130P/N/J, HH-60

2015 Combat Search and Rescue Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	139	0	0
Mission	97	0	0
Training	19	0	0
RDT&E	7	0	0
Backup, Attrition Reserve and Other Primary Aircraft	16	0	0
Active Component	92	0	0
Reserve Component	47	0	0

Combat Search and Rescue Inventories & Funding FY 2016-2025



The above chart depicts annual Combat Search and Rescue inventory and total expenditure funding projections over FY 2016 –2025 broken out by military department. Details on the Air Force Combat Search and Rescue plans are outlined in the following paragraphs.

Department of the Air Force. The Air Force continued its progress towards recapitalizing legacy HC-130P/N aircraft through the C-130J multiyear procurement program; HC-130 recapitalization is projected to complete by FY 2024.

In June 2014, the Air Force awarded the Combat Rescue Helicopter (CRH) contract to the Sikorsky Aircraft Corporation for the initial Engineering and Manufacturing Development phase of the CRH program. The total contract includes the procurement of 112 aircraft, training systems, and product support elements. The new helicopters will replace the service's aging HH-60G fleet by FY 2029.

The Air Force continues procurement for the Civil Air Patrol to maintain its fleet of 550 aircraft. The Civil Air Patrol conducts 90% of the continental U.S. inland search and rescue missions on behalf of the USAF to minimize stateside demands. This enables USAF CSAR forces to meet the Department of Defense Directive 5100.01 requirement to conduct global personnel recovery operations.

Air Refueling/Tanker Aircraft

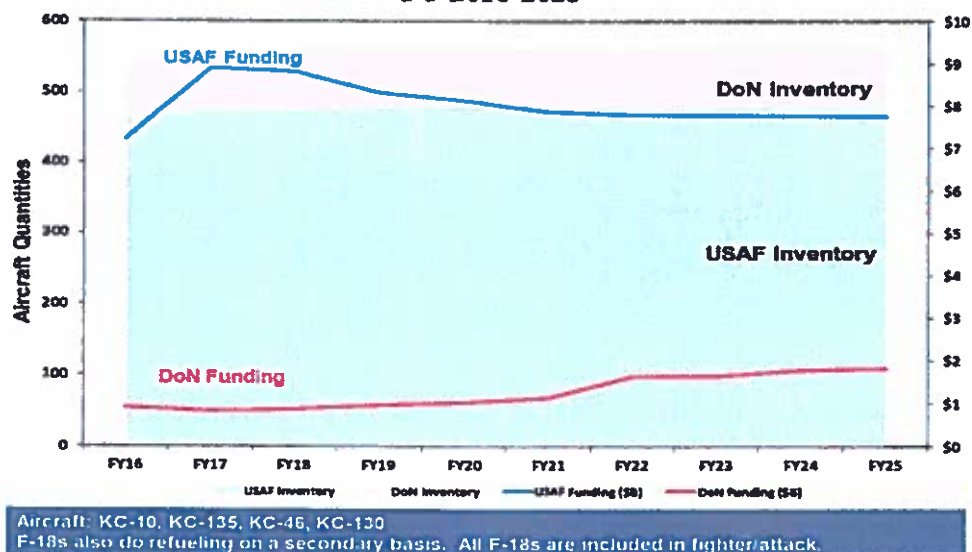
The following tables show the DoD Air Refueling aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Departments.

Air Refueling	Air Force	DoN
	KC-10, KC-135, KC-46	KC-130

2015 Air Refueling Aviation Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	457	0	82
Mission	408	0	71
Training	18	0	0
RDT&E	2	0	9
Backup, Attrition Reserve and Other Primary Aircraft	29	0	2
Active Component	215	0	51
Reserve Component	242	0	31

Air Refueling Aviation Inventories & Funding FY 2016-2025



Air Refueling

The above chart depicts dedicated air refueling/tanker aviation inventory and total funding projections over FY 2016 – 2025 broken out by military department; almost all forces and funding reside in the Air Force. Details on the Air Force and DoN Air Refueling aviation plans are outlined in the following paragraphs.

Department of the Air Force. The Air Force remains committed to recapitalizing the legacy tanker fleets by fully funding the acquisition of the new KC-46A tanker and resourcing critical modernization programs, assuring crucial air refueling capacity and capability in this plan.

The Air Force has begun recapitalizing its aging tanker fleet with fully funded plans to develop and procure a total of 179 KC-46As by FY 2027. The new KC-46A will provide greater operational capability and flexibility than the legacy KC-135s. In addition to being capable of refueling both receptacle and probe-equipped receivers on the same sortie, the KC-46A will be able to receive fuel from other tankers in flight, allowing for continuous and flexible fuel management over the battlespace. Additionally, the KC-46A will have three times the cargo and two times the passenger capability as the KC-135. Recapitalizing the entire tanker fleet will require additional procurement beyond FY 2027.

Department of the Navy. The Marine Corps will continue procuring the KC-130J in order to fulfill the POR of 79 Aircraft in the active and reserve components. The enhancement of the Harvest HAWK (Hercules Airborne Weapons Kit) provides flexible and sustained ISR and air-delivered munitions to the ground element. The KC-130 continues to be used for forward-based tactical transport while also providing responsive global transport to enable the rapid build-up of power, fuel and resupply.

The Super Hornet fills the critical organic tanking missions for carrier air wings. Although the F/A-18E/F performs this mission, it is categorized as a fighter aircraft and included in those inventory numbers. The Navy will incorporate carrier-based organic tanking capability requirements into future aircraft studies to include the possibility of tanking capability with the recapitalization of C-2A, existing strike fighters, and future manned or unmanned aircraft.

Efforts are underway to develop a sea-based refueling capability in MV-22 for Marine Expeditionary Units. This capability will provide greater operational flexibility for Navy sea-based aviation units when land basing issues preclude effective utilization of the KC-130J.

Long-Range Strike/Bomber Aircraft

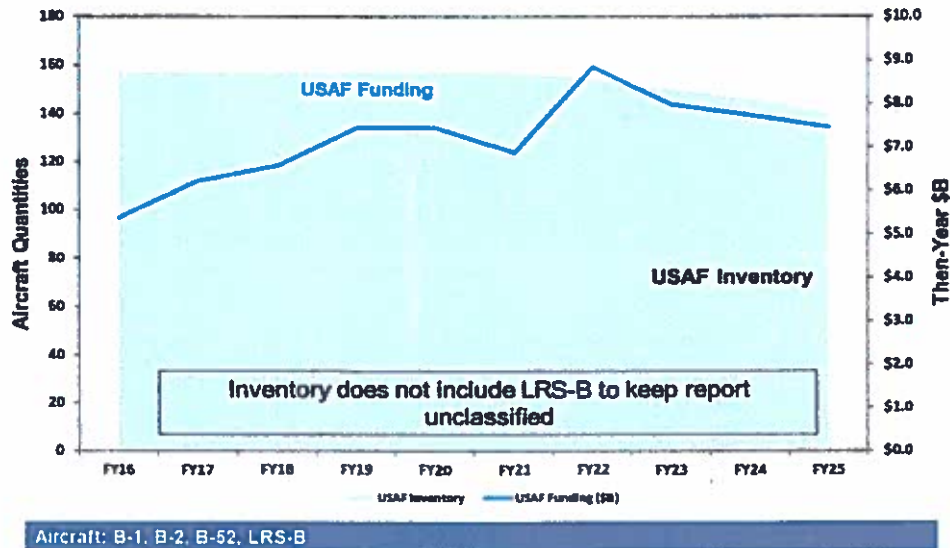
The following tables show the DoD Long-Range Strike/bomber aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Military Departments.

Long-Range Strike	Air Force
	B-1, B-2, B-52, LRS-B

2015 Long-Range Strike Aviation Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	158	0	0
Mission	96	0	0
Training	29	0	0
RDT&E	7	0	0
Backup, Attrition Reserve and Other Primary Aircraft	26	0	0
Active Component	140	0	0
Reserve Component	18	0	0

Long-Range Strike Inventories & Funding FY 2016-2025



The above chart depicts annual Long-Range Strike/Bomber aviation inventory and total funding projections over FY 2016 – 2025. Details on the Air Force Long-Range Strike/Bomber aviation plans are outlined in the following paragraphs.

Department of the Air Force. Long-range strike aircraft recapitalization is supported through the continued funding of the Long-Range Strike-Bomber (LRS-B), one of the Air Force's top three acquisition programs and the number one investment in research, development, test and evaluation in the FY 2016 PB. By continuing the development of LRS-B the Air Force will be able to provide combatant commanders the range, payload, and access to targets required to support our nation's military objectives worldwide. The strategy to develop and field the LRS-B includes minimizing new development and reducing risk through use of mature technologies and existing systems, as well as making informed trades to meet the unit cost target. This target has informed the design effort and helps ensure sufficient production and a sustainable inventory

over the long-term. Furthermore, the Air Force and DoD have streamlined requirements and acquisition oversight to ensure timely decisions are made in the fielding of this critically important new weapon system. This report includes estimated annual funding for LRS-B in the five years beyond the FYDP.

The Air Force is addressing the challenges of maintaining a viable long-range strike capability through sustainment and modernization efforts of the aging B-1, B-52, and B-2 fleets. The B-1 modernization efforts focus on providing enhanced situational awareness and precision engagement, through the Integrated Battle Station upgrade, and maintaining combat-coded B-1 aircraft, ensuring the overall health and continued viability of the platform through a SLEP of B-1 engines. The B-52 has major modifications underway to keep the platform operationally relevant through FY 2040, including the Combat Network Communications Technology (CONNECT) and 1760 Internal Weapons Bay Upgrade (IWBU) programs. These two upgrades combine to give the B-52 significant increases in avionics processing, connectivity, and ability to carry and employ Joint Direct Attack Munitions (JDAM), Laser-JDAM, Joint Air-to-Surface Standoff Missile (JASSM) and its extended range version, and the Miniature Air Launched Decoy (MALD). The B-2 is the nation's only long-range strike aircraft capable of penetrating advanced Integrated Air Defense Systems to deliver weapons against heavily defended targets. In order to ensure the B-2 remains effective in its unique set of capabilities, the Air Force is modernizing the B-2's Defensive Management System, and is re-hosting the Stores Management Operational Flight Program (SMOFP) software via the Flexible Strike program. Re-hosting the SMOFP enables the B-2 to take advantage of advanced weapon interfaces such as those used by the B61-12. Due to current and projected fiscal constraints, the Air Force is not capable of addressing a number of important sustainment and modernization programs for the Long-Range Strike inventory (e.g., Advanced Extremely High Frequency communication system for the B-2 and B-52 and upgraded radar for the B-52).

Anti-Surface/Submarine Warfare

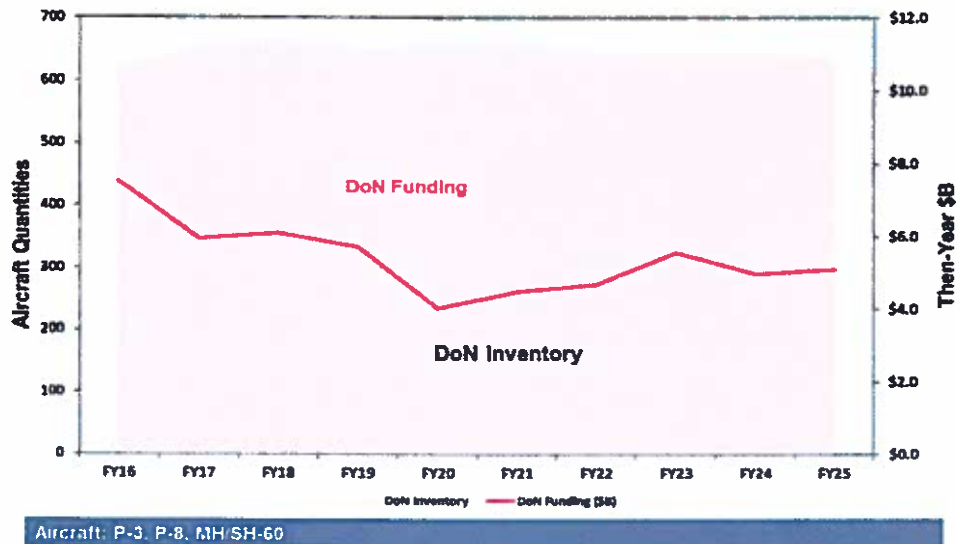
The following tables show the DoD Anti-Surface/Submarine Warfare aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Military Departments.

Anti-Surface/Submarine Warfare	DoN
	P-3, P-8, MH-60

2015 Anti-Surface/Submarine Warfare Aviation Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	0	0	636
Mission	0	0	416
Training	0	0	103
RDT&E	0	0	24
Backup, Attrition Reserve and Other Primary Aircraft	0	0	93
Active Component	0	0	618
Reserve Component	0	0	18

Anti-Surface/Submarine Warfare Aviation Inventories & Funding FY 2016-2025



The above chart depicts annual Anti-Surface/Submarine Warfare aviation inventory and total funding projections over FY 2016 –2025. Details on the DoN Anti-Surface/Submarine Warfare aviation plans are outlined in the following paragraphs.

Department of the Navy. The P-8A Poseidon will replace the P-3C maritime patrol aircraft, first introduced in 1962. With its proven propulsion system and avionics, modern sensors and robust communication suite, the P-8A will provide persistent ASW, ASUW, and ISR capabilities to keep pace with emerging threats. Increment 1 deliveries are currently replacing the aging P-3C fleet with a modern platform and similar ASW mission system capability. Increment 2 to be fielded not later than FY 2017 provides enhanced broad area ASW and weapon capabilities. Increment 3 is expected to be fielded in FY 2021 and will deliver network-enabled ASUW weapon capabilities, ASW sensor and targeting enhancements, and improved communications.

The Department was compelled by fiscal constraints to lower the final P-8A inventory objective from 117 to 109 aircraft. Procurement will be completed within the FYDP.

The MH-60R is the only organic air ASW asset within a CSG, and along with the MH-60S, is critical to ensuring access to the global maritime and air commons through the ASuW and electronic warfare capabilities. The final MH-60R helicopters will be procured in FY 2016. The MH-60R and MH-60S helicopters complement the persistence and lethality of the air wing by providing capability ideally suited to "Hunter Killer" teams in a counter-fast attack/fast inland attack craft role, leveraging MH-60R sensors and MH-60S weapons systems to rapidly neutralize and array of surface and subsurface threats. The MH-XX is envisioned to be a replacement for capabilities inherent to naval rotary-wing aircraft that will begin to retire in the late 2020's. The MH-XX will leverage Joint and US Army Future Vertical Lift rotorcraft development while meeting maritime mission requirements and operating constraints.

Trainers

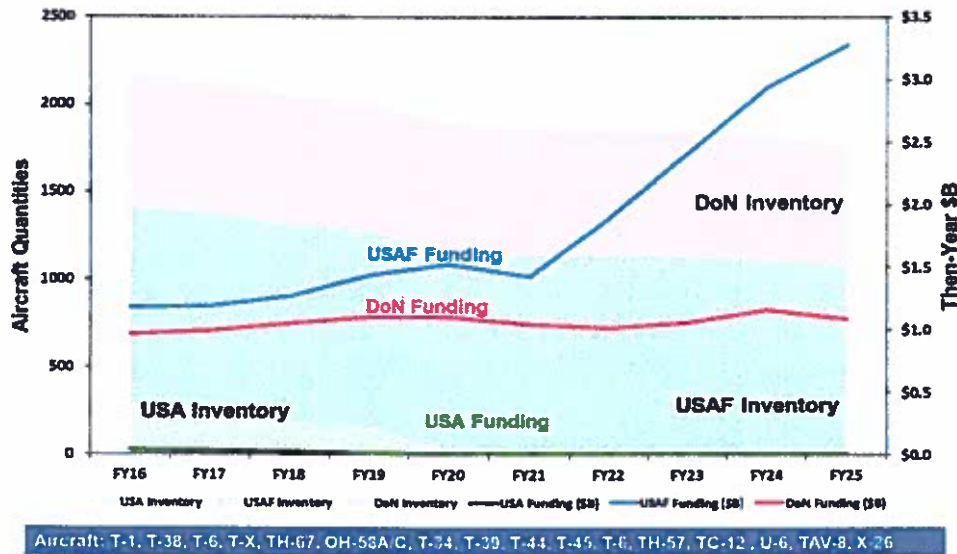
The following tables show the DoD Trainer aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Military Departments.

Trainers	Army	Air Force	DoN
	TH-67, OH-58A/C	T-1, T-38, T-6, T-X	TE-2, T-34, T-38, T-39, T-44, T-45, T-6, TAV-8B, TH-57, TC-12, U-6, X-26, OH-58, UH-60, UH-72

2015 Trainers Aviation Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	1128	396	731
Mission	890	117	668
Training	0	275	0
RDT&E	15	4	6
Backup, Attrition Reserve and Other Primary Aircraft	223	0	87
Active Component	1128	340	731
Reserve Component	0	56	0

Trainer Aviation Inventories & Funding FY 2016-2025



The above chart depicts annual trainer aircraft inventory and funding projections over FY 2016 – 2025 broken out by military departments. Details on the Army, Air Force and DoN Trainer aviation plans are outlined in the following paragraphs.

Department of the Army. As a major effort of the Aviation Restructure Initiative, the Army is replacing its current training helicopter fleet (TH-67 and OH-58A/C) with the Light Utility Helicopter, UH-72A. Consequently, newly assessed aviators will begin training on dual engine aircraft. This will facilitate a more effective transition to training in an advanced aircraft upon a student's graduation from initial rotary-wing training.

Department of the Air Force. Currently, the T-6 forms the backbone of the Air Force primary flight training program and will remain so through the 2040 timeframe. Additionally, the T-1A fleet provides advanced flight training for multi-engine/multi-crew tankers and mobility aircraft. The T-38C is a proven, but aging, advanced combat trainer aircraft originally developed as a trainer for second generation fighters. The T-38C faces increasing sustainment costs and is limited in its ability to fulfill training requirements for fifth-generation fighters such as the F-22 and F-35. The Air Force is defining a replacement program, the T-X, with a planned initial capability in FY 2024.

Department of the Navy. The Navy is transitioning to the T-6B Texan II Joint Primary Trainer as the T-34C Turbo Mentor retires. The T-45C Goshawk has become the single advanced strike trainer for carrier-based pilots and naval flight officers. The T-45C is undergoing a SLAP/SLEP program to extend the airframe and aircraft systems through 2035. The T-45C replacement will need to be identified in the 2020s to meet the projected retirement of the T-45C. The T-44A/C Pegasus and TC-12B Huron serve as the multiengine trainers for the DoN. The TC-12 will be retired by 2016 and a T-44 replacement will need to be identified in order to begin service in the mid to late 2020s. The TH-57B/C continues to be used as a training aircraft for both the rotary-wing and tilt-rotor pipelines. A replacement for the training contributions of the TH-57B/C will

need to be identified in the near future as rising maintenance costs make the TH-57B/C more expensive to operate. A Capability-Based Assessment for future DoN training needs is nearing completion.

ISR/Scout/C4

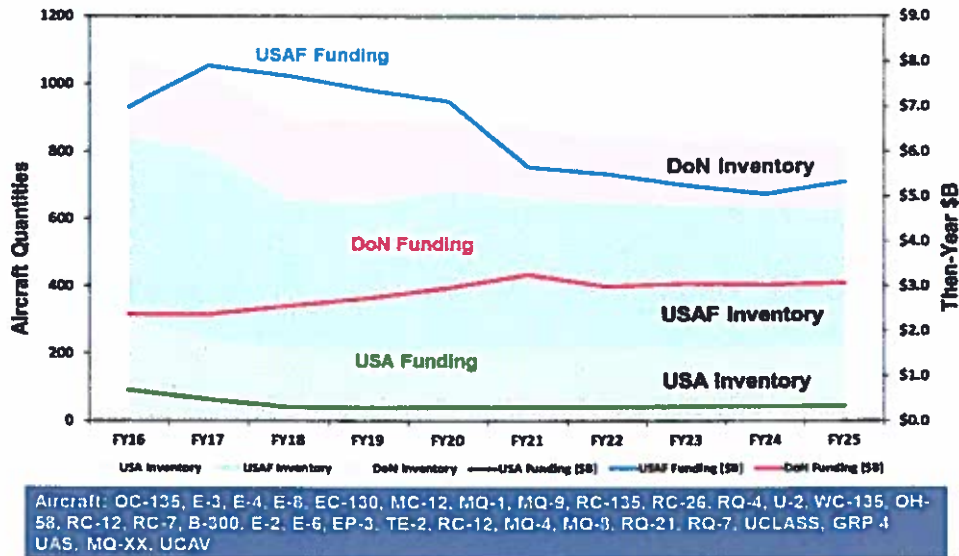
The following tables list DoD ISR/Scout/C4 aviation assets and the 2015 current inventory by category for all active manned and remotely piloted aircraft (RPA) consistently tracked by the Military Departments.

	Army	Air Force	DoN
ISR/Scout/C4	OH-58, RC-12, RC-7, B-300, C-12, MQ-1	OC-135, E-3, E-4, E-8, EC-130, MQ-1, MQ-9, RC-135, RC-26, RQ-4, U-2, TU-2 WC-135	E-2, E-6, EP-3, MQ-4, MQ-8, UCLASS

2015 ISR/Scout/C4 Aviation Inventory

Category	Inventory		
	Air Force	Army	DoN
Total Aircraft	559	1012	132
Mission	426	863	91
Training	60	86	15
RDT&E	40	5	12
Backup, Attrition Reserve and Other Primary Aircraft	33	3	14
Active Component	478	787	132
Reserve Component	81	176	0

ISR/Scout/C4 Inventories & Funding FY 2016-2025



The above chart depicts annual ISR/Scout/C4 aircraft inventory and funding projections over FY 2016 – 2025 broken out by Military Department. Details on the Army, Air Force and DoN ISR/Scout/C4 aviation plans are outlined in the following paragraphs.

Department of the Army. As part of the Army Aviation Restructure Initiative, the Army has begun divesting the aged fleet of OH-58D Scout helicopters and is beginning to replace them with Manned/Unmanned teams of AH-64E and RQ-7 Shadow Unmanned Aircraft Systems (UAS). Adopting the AH-64E and RQ-7 team as the Army's aerial scout capability leverages existing systems and provides a solution to the Army's requirement for an aerial scout platform. The Army has a UAS fleet that is comprised of small (Raven and Puma), medium (Shadow) and large (Gray Eagle) aircraft. All UAS's are existing programs of record and are under active acquisition programs to meet fleet size objectives over the next five years. The Gray Eagle UAS is being fielded to divisions and the National Training Center to provide direct support capabilities to deployed divisions and the National Training Center. Three Gray Eagle UAS companies will be assigned to Intelligence and Security Command (INSCOM). One Gray Eagle company will also be fielded to support Special Operations Command (SOCOM). Gray Eagle fielding will be complete by the end of FY 2018. Long term, the following changes are planned for the Army's reconnaissance aviation fleet:

- **Military Intelligence (MI) Fixed-Wing.** The MI Fixed-Wing fleet consists of the RC-12 Guardrail Common Sensor (GRCS), the RC-7/EO-5C Airborne Reconnaissance Low (ARL), and the Enhanced Medium Altitude Reconnaissance Surveillance System (EMARRS) programs of record and multiple different Quick Reaction Capabilities (QRCs) forward deployed in support of contingency operations. The Army's Aerial Intelligence, Surveillance, and Reconnaissance (AISR) 2020 strategy is to retain 14 modernized RC-12X GRCS's, as well as to modernize specific QRCs and transition them into the ARL-E and EMARSS programs of record. The Army will ultimately divest 28

legacy GRCS systems and all QRCs not identified for retention. Once fully executed, the Army's Intelligence, Surveillance, and Reconnaissance Fixed Wing fleet will consist of 52 aircraft (14 RC-12X GRCS, 9 ARL-E, 24 EMARSS and 5 training aircraft). The Army's long-range objective is to replace the three manned AISR systems with one, multi-intelligence platform.

- **MQ-1C (Gray Eagle):** Gray Eagle is a dedicated, assured, multi-mission UAS fielded to all 10 Army divisions to support the commander's combat operations. The SOCOM Gray Eagle unit and Aerial Exploitation Battalion (AEB) Gray Eagle units are self-contained Intelligence, Surveillance and Reconnaissance (ISR) capabilities that are globally deployable forces and contribute to the Department of Defense global ISR mission. AEB Gray Eagle units are teamed with organic Processing, Exploitation and Dissemination. The Army will procure all 167 aircraft and associated ground support equipment.

Department of the Air Force. The Air Force is maintaining the right mix of capability and capacity to ensure we meet joint requirements for intelligence, surveillance and reconnaissance (ISR). The Global Hawk Block 30 and U-2 provide ISR to the warfighter in peacetime and war. The Global Hawk offers greater range and endurance for accessing areas far from operating bases. Furthermore, FY 2016 PB provides funding to enhance Block 30 capabilities and improve operations. The U2 divestment and the retirement of 7 E-3 AWACS were rephrased until FY 2019, allowing the Air Force to operate those platforms and meet combatant commanders' urgent needs through FY 2016 PB funding.

The Air Force is committed to continue developing and managing its remotely piloted aircraft (RPA) crews and fleet to provide the right mix of capability to meet CCMD demands now and into the future. The Air Force will divest the MQ-1 and transition to an all MQ-9 medium-altitude RPA fleet. FY 2016 PB maintains sufficient inventory to support 60 Combat Air Patrols (CAPs) of MQ-1/9 UAS's.

The Air Force is modernizing its legacy ISR and C4 fleet and is assessing alternatives with regard to procuring new platforms in the future. In the near term, the Air Force is committed to modernization of E-3B/C Airborne Warning and Control System (AWACS) to the E-3G configuration involving advanced mission computing and avionics that ensure the long-term viability of joint airborne tactical command and control. The Air Force is completing an effort to address obsolescence issues with prime mission equipment onboard the E-8C Joint Surveillance Target Attack Radar System (JSTARS) and has funded a program to recapitalize the E-8C JSTARS fleet. As the recapitalized JSTARS aircraft are added to the Air Force inventory (projected IOC is FY 2022), additional E-8Cs will be retired. The Air Force is also committed to modernization of mission communications on the E-4 National Airborne Operations Center. Far-term efforts will include the potential recapitalization of the Air Force's ISR and C4 fleets. Near term, this year's aviation plan reflects some EC-130 Compass Call recapitalization investment outside the FYDP.

Department of the Navy. In the long term, the Department of the Navy plans to capitalize on unmanned demonstrations and the analysis of future, sea-based unmanned systems in an effort to

identify the appropriate mix of manned and unmanned assets in the future air wing structure. The UCLASS program has been put on hold pending the FY 2016 Departmental analysis to verify the UCLASS requirement and future capability.

Leveraging Global Hawk technology, the Navy will procure the MQ-4C Triton to provide persistent maritime ISR to the fleet and Combatant Commanders to enhance situational awareness and shorten the sensor-to-shooter kill chain, providing intelligence preparation of the environment and a persistent source of information to maintain the common operational and tactical picture of the maritime battle space. MQ-4C will receive upgraded electronics intelligence capabilities and communications intelligence capabilities for fielding in 2020, which are crucial to complying with the National Defense Authorization Act for Fiscal Year 2011.

Future MQ-8 missions will involve modular payloads supporting LCS-class ship deployments. MQ-8C air vehicle procurement is aligned to the LCS schedule and investment continues with subsystems (i.e., tactical ground control station, launch and recovery systems, ancillary equipment and trainers). Various Rapid Deployment Capability initiatives including radar, weapons, and the MQ-8C endurance upgrade will provide persistent ISR capabilities for Joint and Navy requirements.

Pending a new UAS, the Marine Corps will rely on the RQ-21A for enhanced ISR, cyber/electronic warfare and limited strike capability.

The E-2D Advanced Hawkeye will achieve initial operational capability in FY 2015 and will replace the E-2C with the last squadron transition by 2025. The E-2D will provide improved surveillance and integrated air and missile defense capabilities in high clutter environments. Congressional action in FY 2014 approved a 32-aircraft multiyear procurement during FY 2014-2018, but extreme fiscal pressures necessitated a deferral of six aircraft from that procurement.

The E-6B Mercury derived from the Boeing 707 aircraft supports a flexible nuclear-deterrent posture. Programmed mission system upgrades ensure the fleet remains on the cutting edge of full-spectrum communications supporting Nuclear Command, Control and Communications. The E-6B aircraft are expected to reach their 45,000 hours end of life January 2040. A replacement aircraft will be identified to meet anticipated requirements within the 30 years encompassed by this report. The final inventory objective is projected to be 17 aircraft. The Navy is developing a System of Systems construct to recapitalize the Airborne ISR&T capabilities currently resident in the EP-3 and SPA by the end of the decade. The focus is on developing common, scalable sensor payloads that can be delivered by a wide range of manned and unmanned programs including MQ-4C Triton Multi-INT, MQ-8, UCLASS, E-2C/D, H-60 and P-8. All of these programs of record will be able to leverage common sensor developments to avoid expensive "one-off" solutions thereby reducing the Navy's integration and interoperability costs.

Over the long term, the Navy will examine alternatives for recapitalizing the E-2D, P-8A, E-6B and MQ-4C fleets in the mid 2030's.

Special Operations Forces

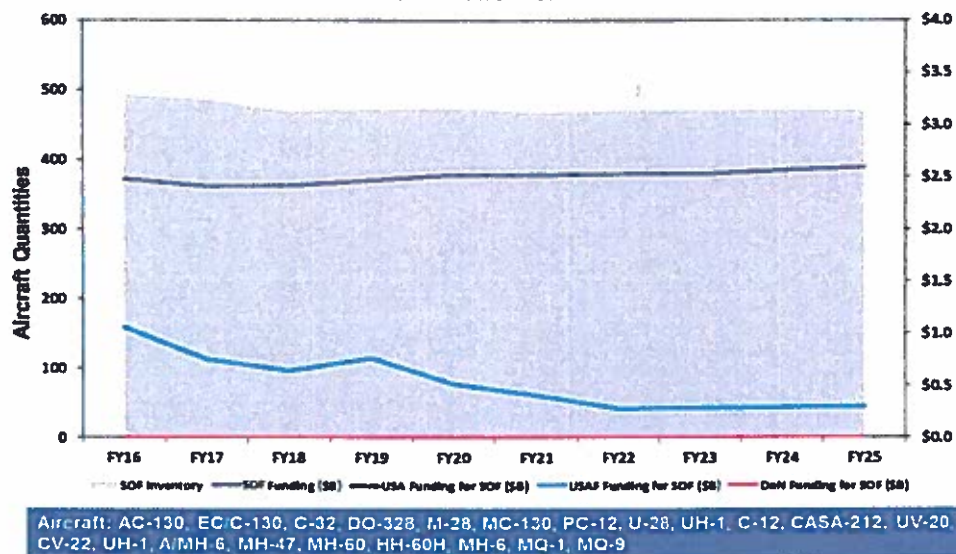
The following tables list DoD Special Operations Forces aviation assets and the 2015 current inventory by category for all active aircraft consistently tracked by the Departments.

Special Operations Forces	SOCOM
	AC-130, EC/C-130, C-32, C-146, C-145, MC-130, PC-12, U-28, MC-12, C-12, C-27, CV-22, A/MH-6, MH-47, M/UH-60, MQ-1, MQ-9

2015 Special Operations Forces Aviation Inventory

Category	Inventory
	SOCOM
Total Aircraft	456
Mission	353
Training	62
RDT&E	0
Backup, Attrition Reserve, and Other Primary aircraft	41
Active Component	456
Reserve Component	9

Special Operations Inventories & Funding FY 2016-2025



The above chart depicts annual Special Operations Forces Aviation inventory and funding projections over FY 2016 – 2025, to include Air Force and DoN contributions. Details on the Special Operations Forces aviation plans are outlined in the following paragraphs.

Special Operations Forces Aviation. Air Force Special Operations is on schedule to replace the legacy AC-130 and MC-130 fleet with MC-130Js by FY 2024. The MC-130J will be modified to SOF-peculiar configurations with USSOCOM funds.

The Air Force's SOF vertical lift capability expansion remains on track for an eventual fleet of 50 CV-22 aircraft. The final CV-22 will be delivered in FY 2017.

Air Force Special Operations will grow its fleet of Non-Standard Aviation platforms to 23 C-146 aircraft by FY 2019. Additionally, SOF will retain 5 C-145 aircraft for Foreign Internal Defense aircrew currency and proficiency training.

Air Force Special Operations manned ISR will maintain 31 U-28A by FY 2018 which will complement MQ-1/MQ-9 RPA CAPs to provide persistent special operations coverage.

SOF rotary-wing aviation platforms include the MH-47, MH-60 and A/MH-6. The inventory of these aircraft will remain constant throughout this reporting period. The MH-47 and MH-60 fleets will receive improvements and upgrades to peripheral systems, and the MH-60 will be replaced with new MH-60M airframes. The MH-47 fleet is reaching an average of over 44-years old. This requires the start of a renewal/renovation/replacement program to extend the life of these aircraft until the Joint Heavy Lift program is initiated in the FY 2040 timeframe. MH-60 will leverage the Future Vertical Lift program to determine the future of medium assault platforms. The A/MH-6 aircraft will begin a block upgrade to aircraft systems and components.

With respect to the Army, the Army's Special Operations Aviation Command (ARSOAC) helicopter fleets are all undergoing modernization efforts focused on countering obsolescence and affordable performance and survivability improvements. However, the ARSOAC multipurpose armed reconnaissance helicopter (A/MH-6), and the Heavy Assault helicopter (MH-47G) are significantly older than the equivalent aircraft in the Army and will pose service life and life-cycle sustainment challenges. Particular attention to service programs will be required during this time period to ensure the service life of these aircraft can align with the larger service's efforts.

Budget Certification

This report certifies that both the budget for fiscal year 2016 and the future-years defense program (FYDP) for fiscal years 2016-2020 provide a sufficient level of funding needed to implement the aviation investment plan through FY 2020 for all programs of record.

Sufficiency of Forces Assessment

The FY 2016-2045 aviation plan meets the national security strategy and the national military strategy of the United States.

Joint Chiefs of Staff

The budget for fiscal year 2016 and the FYDP for fiscal years 2016-2020 support the Department's plan to mitigate the risks identified as significant in the Risk Assessment Report submitted by the Chairman, Joint Chiefs of Staff, in executing the current defense strategy. This includes funding for recapitalization programs such as the F-35 and KC-46 and resourcing the Services' highest priority readiness goals.

Appendix I – Inactive Aircraft

Data for inactive aircraft is available for the Army and Air Force as indicated below. The Army and the Air Force do not have available data to further break down the number of inactive aircraft into the categories listed in the statute. The Navy does not track aircraft once they are stricken from the active inventory.

USAF Inactive Aviation Inventory

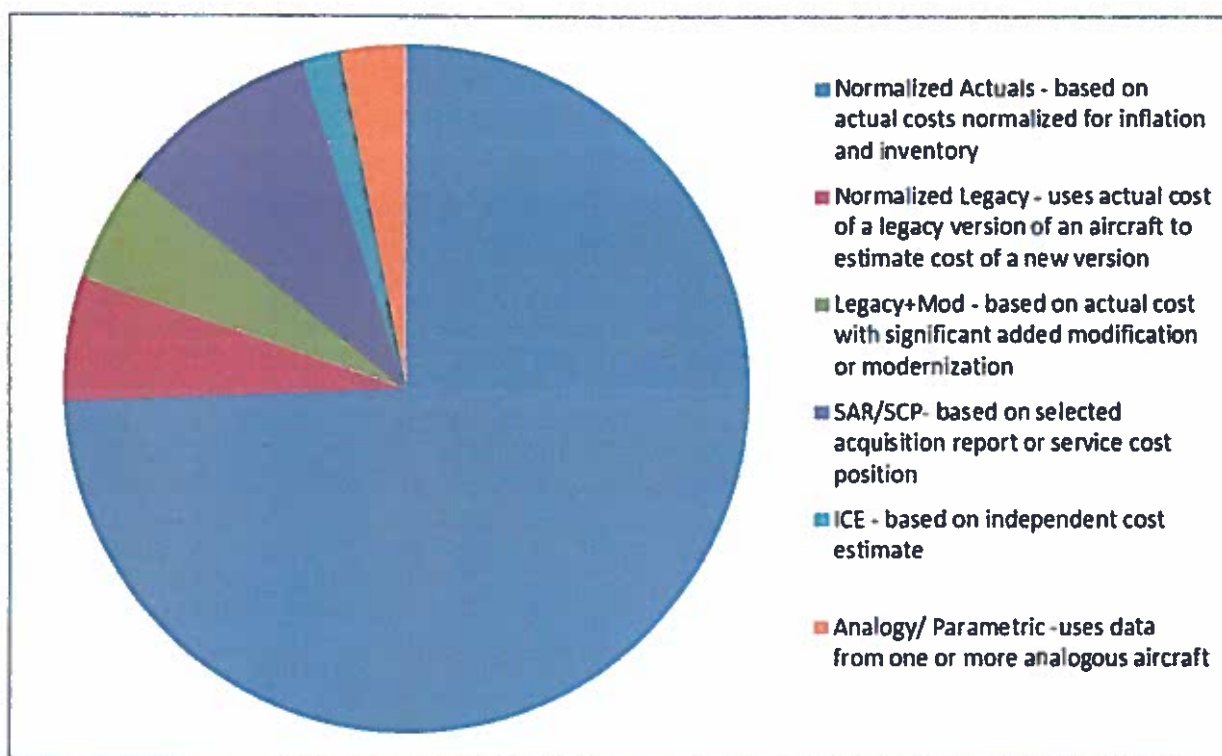
Inactive USAF Inventory	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Fighter / Attack	931	952	1005	1058	655	655	655	655	655	655
Airlift / Cargo / Utility	266	277	281	281	341	357	376	392	397	399
Air Refueling	159	159	174	189	233	247	259	275	293	309
Trainers	59	59	66	66	68	68	68	68	68	68
Total	1415	1447	1526	1594	1297	1327	1358	1390	1413	1431

Army Inactive Aviation Inventory

Inactive Army Inventory	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Attack Helicopter	43	60	76	65	65	56	56	48	48	48
Airlift / Cargo / Utility	69	73	67	64	62	60	57	56	59	59
ISR Scout	82	45	5	1	2	1	1	2	0	0
Trainers	40	65	49	91	20	0	0	0	0	0
Total	234	243	197	221	149	117	114	106	107	107

Appendix II – Sources of Cost/Funding Information

The budget certification above is based on a number of cost sources, including SAR data when applicable, identified in the chart below. Most of the aircraft types dealt with in this report have entered service, and many types are out of production. For these types of aircraft, the funding data is based on actual experience with procuring and operating the aircraft. For types of aircraft that are in development or low-rate initial production, the funding information comes from a CAPE Independent Cost Estimate (ICE) or the Service Cost Position (SCP). Because each aircraft category contains multiple aircraft, it is not possible to accurately articulate whether the data comes from the SCP, the ICE, or both. For programs that do not yet have an ICE or SCP, the funding information is based on historical analogy with similar programs (e.g., future fighters with F-22 and F-35, future bombers with the B-2).



CAPE prepares an ICE for aviation programs at major milestones, in response to Nunn-McCurdy breaches, and when requested to do so by the Under Secretary of Defense for Acquisition, Technology, and Logistics. For most programs, the latest SCP is newer than the CAPE ICE and incorporates the ICE plus developments that occurred after the ICE was prepared. The CAPE ICE almost always differs from the last SCP conducted before the ICE by more than 0.5%.

The table below lists programs currently having both an up-to-date SCP and an up-to-date CAPE ICE and shows the percentage difference between these positions. These are the only cases where the difference between the ICE and the SCP is relevant to the funding data presented in this report. For all other aircraft types, the funding data used in this report is based on historical procurement/sustainment costs, an SCP that is much newer than the ICE, an SCP that has not yet

been followed by an ICE, or analogies with other programs. In each case of relevance to the funding data in this report, the CAPE ICE projects greater costs than the SCP. Each program ICE explains, in detail, the reasons for differences from the SCP. A shorter and simplified explanation for the differences appears below the table.

KC-46 tanker	2%
F-35 Joint Strike Fighter	5%
F-3A Roadblock	2%
AH-64 Apache Block 3A	1%
AH-64 Apache Block 3B	4%
E-2D Advanced Hawkeye	6%
MQ-1C Gray Eagle	6%
F-22A Modernization	8%
Combat Rescue Helicopter	3%
Delta = (ICE - SCP)/SCP	

KC-46 Tanker. The CAPE and SCP cost estimates for the KC-46 are about two percent different in total. The difference is primarily driven by procurement. Procurement differences can be attributed to expectations of the concession rates that can be achieved when procuring the commercial ("green") aircraft to be modified. Differences can also be attributed to the estimated costs of procuring and installing mission systems on this "green" aircraft.

F-35 Joint Strike Fighter. The difference between the CAPE ICE and SCP cost estimates reflected in the above table and summarized in the following is documented in the CAPE ICE memo, dated March 9, 2012, which was accomplished to support Milestone B certification. The difference between the CAPE and SCP cost estimates for the F-35 was primarily attributed to the areas of procurement (2%), MILCON (86%), and O&S (6%). The largest difference between CAPE and SCP estimates of procurement costs was attributable to the assumed future levels of commonality between F-35 variants. The CAPE estimate reflected less commonality among the three F-35 variants than the SCP estimate and, as a result, the CAPE estimates of variant unit costs were higher because of the inherent procurement inefficiencies associated with reduced commonality. The SCP estimate for MILCON used previously generated, narrowly defined service estimates that did not include all MILCON efforts required to support the entire F-35 fleet. The CAPE estimate was based on the facilities and infrastructure required for the joint training center planned for Elgin Air Force Base, and service-specific requirements for the Air Force, the Marine Corps, and the Navy. The SCP estimate for all variants reflected the manning structure outlined in the Manpower Estimate Report (MER). The CAPE estimate adjusted CTOL mission personnel to better reflect the actual staffing levels of the F-16 and F-22, which are on average more senior in grade than those in the MER. Also, the CAPE estimate of unit-level consumption costs was higher than the SCP, primarily because the CAPE estimate used an F-22 analogy for government-provided consumables while the SCP used legacy Navy data. The CAPE estimate also applied cost growth to both the air vehicle and engine, while the SCP applied cost growth only to the air vehicle.

Subsequent to Milestone B and the March 9, 2012 ICE summarized in the preceding, portions of both the ICE and SCP have been updated and the relative percentage differences between the ICE and SCP have evolved as a result. This will continue as the program progresses. The next formal update to the ICE for all facets of the program will be in support of Milestone C (Full Rate Production) and the percentages in the above table will be updated at that time to reflect the latest comprehensive comparison to the SCP.

P-8A Poseidon. The CAPE and SCP cost estimates for the P-8A are nearly identical, with small differences in procurement (2%) and O&S (2%). The CAPE estimate for procurement is higher primarily due to differences in assumed cost escalation for both the base aircraft and P-8A-unique modifications over time. For the base aircraft, the SCP uses a contractor proposed Producer Price Index (PPI) while CAPE uses slightly higher escalation factors based on the historical difference between the aircraft procurement budget escalation indices and the aircraft PPI for the past ten years. For the P-8A-unique modifications, the SCP assumes a contractor estimated level of reasonable changes, while CAPE assumes that modifications costs will grow over time, due to more typical engineering changes in early production. For O&S the largest difference in the estimates is in unit personnel, where CAPE assumes manning numbers as identified in the MER while the SCP adjusts the enlisted military personnel numbers down to reflect predicted authorizations.

AH-64 Apache Block 3A/3B. The differences between the CAPE and SCP cost estimates for the Apache Block 3A and Block 3B programs are primarily attributed to RDT&E for Block 3A (11%) and procurement for Block 3A and 3B (11% and 7% respectively). The difference in RDT&E is driven primarily by software development activities. The CAPE cost estimates for these activities were developed by first estimating the cost of the remaining development based on Phase 1 software productivity, and then constraining program execution over time to the currently available software engineering staff. In contrast, the SCP did not constrain program execution to the available software development staff, so the RDT&E effort requires more resources up front than the CAPE estimate and finishes earlier. This approach would require the contractor to temporarily increase its software engineering staff, an action CAPE maintains is counterproductive and inefficient. The CAPE estimates for both Block 3A and 3B procurement are moderately higher than the SCP due to differing assumptions for labor and material learning curves, material escalation rates, and the production break impact resulting from the transition from the Apache Block 2 production line to the new Block 3 line.

E-2D Advanced Hawkeye (AHE). The difference between the CAPE and SCP cost estimates for the E-2D is primarily attributed to the area of O&S (6%), with the estimates for development and procurement being nearly identical, within 1% for both. The CAPE O&S estimate is higher due to the estimate of resources required for software support. CAPE forecasts that 100 full-time equivalent (FTE) employees are required to support the software maintenance activity, while the Navy assumed 65 FTE employees, based on historical maintenance activity for the E-2C. CAPE forecasts the need for additional employees due to the increase in size and complexity of E-2D software.

MQ-1C Gray Eagle Unmanned Aircraft System (UAS). The difference between the CAPE and SCP cost estimates for the MQ-1C is primarily attributed to the area of O&S (6%), with the estimates for development and procurement being within 1% and 2%, respectively. The CAPE O&S estimate is higher due to assumptions about cost growth above inflation (CGAI) for contractor and material costs. The CAPE estimate is based on negotiated Forward Pricing Rate Agreements (FPRAs) for contract labor resulting in higher labor costs relative to the SCP.

F-22A Modernization Increment 3.2B. The difference between the CAPE and SCP cost estimates for the F-22A modernization is primarily attributed to the area of O&S (7.9%), with the estimates for development and procurement being within 2% and 4%, respectively. The CAPE O&S estimate is higher, because it includes operation and sustainment of the entire fleet of F-22A aircraft, while the SCP includes only the marginal O&S costs of Increment 3.2B, not the full F-22A fleet O&S costs.

Combat Rescue Helicopter. The difference (3%) between the CAPE and SCP cost estimates for life-cycle costs of the Combat Rescue Helicopter is primarily attributed to the areas of EMD (-8%), procurement (-7%), and O&S (6%). A major reason the SCP estimate for EMD is higher than the ICE is that the SCP includes an additional allowance for engineering change orders in the EMD phase, while the CAPE estimate assumes these resources are already reflected in actual historical EMD cost information. The CAPE procurement estimate is lower than the SCP with the SCP risk adjustment accounting for most of the difference. The difference between the CAPE and SCP estimates for O&S costs is mainly attributed to higher CAPE estimates for unit-level manpower, depot-level reparables, and consumable parts, which are consistent with historical experience.

Confidence Levels. CAPE cost estimates are built upon a product-oriented work breakdown structure, based on historical actual cost information to the maximum extent possible, and most importantly, based on conservative assumptions that are consistent with actual demonstrated contractor and government performance for a series of acquisition programs in which the Department has been successful. It is difficult to calculate mathematically the precise confidence levels associated with CAPE life-cycle cost estimates prepared for MDAP programs. Based on the rigor in methods used in building CAPE estimates, the strong adherence to the collection and use of historical cost information, and the review of applied assumptions, it is equally likely that the CAPE estimate will prove too low or too high for execution of the described program.

