

# United States Air Force

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Presentation

Before the House Appropriations  
Committee, Subcommittee on Defense

## ***Air Force Posture***

Witness Statement of

The Honorable Dr. Heather Wilson  
Secretary of the Air Force  
General David L. Goldfein  
Chief of Staff, U.S. Air Force

March 14, 2018



# BIOGRAPHY



## **UNITED STATES AIR FORCE**

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### DR. HEATHER WILSON

Dr. Heather Wilson is the 24th Secretary of the Air Force and is responsible for the affairs of the Department of the Air Force, including the organizing, training and equipping and providing for the welfare of 660,000 active-duty, Guard, Reserve, and civilian forces as well as their families. She oversees the Air Force's annual budget of more than \$132 billion and directs strategy and policy development, risk management, weapons acquisition, technology investments and human resource management across a global enterprise.



Dr. Wilson has more than 35 years of professional experience in a range of leadership and management roles in the military, higher education, government and private industry. Before assuming her current position, Dr. Wilson was president of the South Dakota School of Mines & Technology, an engineering and science research university.

From 1998 to 2009, Dr. Wilson was a member of the U.S. House of Representatives, where she served on the House Armed Services Committee, the House Permanent Select Committee on Intelligence and the House Energy and Commerce Committee.

Before being elected to Congress, Dr. Wilson was a cabinet secretary in New Mexico's state government responsible for foster care, adoption, juvenile delinquency, children's mental health and early childhood education.

From 1989 to 1991, Dr. Wilson served on the National Security Council staff as director for defense policy and arms control for President George H.W. Bush during the fall of the Berlin Wall and the collapse of the Warsaw Pact.

From 1991 to 1995, and again from 2009 to 2013, Dr. Wilson was in the private sector. In 1991 she founded Keystone International, Inc., a company that did business development and program planning work for defense and scientific industry. She served as a senior advisor to several national laboratories on matters related to nuclear weapons, non-proliferation, arms control verification, intelligence and the defense industrial base. Dr. Wilson also served on the boards of two publicly traded corporations as well as numerous advisory and non-profit boards.

## Air Force Posture

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Dr. Wilson was an Air Force officer from 1982 to 1989. She graduated from the U.S. Air Force Academy in the third class to include women, and earned her master's and doctorate degrees as a Rhodes Scholar at Oxford University in England.

Dr. Wilson was a collegiate rower at Oxford and is an instrument-rated private pilot.

### **EDUCATION**

1982 Bachelor of Science, United States Air Force Academy, Colorado Springs, Colo.

1984 Master of Philosophy, International Relations, Oxford University, England

1985 Doctorate of Philosophy, International Relations, Oxford University, England

### **CAREER CHRONOLOGY**

1985 - 1987, Plans and Negotiations, Headquarters, 3rd Air Force, RAF Mildenhall, England

1987 - 1989, Office of Defense Plans, U.S. Mission to NATO, Brussels, Belgium

1989 - 1991, Director, Defense Policy and Arms Control, NSC Staff, Washington, D.C.

1991 - 1995, President, Keystone International, Inc., Albuquerque, N.M.

1995 - 1998, Secretary, New Mexico Children, Youth and Families Department, Santa Fe, N.M.

1998 - 2009, Member of Congress, First District, New Mexico, Washington, D.C.

2009 - 2013, President, Heather Wilson & Company, LLC, Albuquerque, N.M.

2011 - 2012, Candidate, U.S. Senate, N.M.

2013 - 2017, President, South Dakota School of Mines & Technology, Rapid City, S.D.

2017 - present, Secretary of the Air Force, Washington, D.C.

(Current as of May 2017)



# BIOGRAPHY



## UNITED STATES AIR FORCE

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### GENERAL DAVID L. GOLDFEIN

Gen. David L. Goldfein is Chief of Staff of the U.S. Air Force, Washington, D.C. As Chief, he serves as the senior uniformed Air Force officer responsible for the organization, training and equipping of 660,000 active-duty, Guard, Reserve and civilian forces serving in the United States and overseas. As a member of the Joint Chiefs of Staff, the general and other service chiefs function as military advisers to the Secretary of Defense, National Security Council and the President.

Prior to assuming his current position, General Goldfein was the Vice Chief of Staff of the U.S. Air Force, where he presided over the Air Staff and served as a member of the Joint Chiefs of Staff Requirements Oversight Council and Deputy Advisory Working Group. Before serving as the Vice Chief, General Goldfein was the Director, Joint Staff, the Pentagon, Washington, D.C.



General Goldfein received his commission from the U.S. Air Force Academy in 1983. He is a graduate of the U.S. Air Force Weapons School and is a command pilot with more than 4,200 flying hours in the T-37, T-38, F-16C/D, F-117A, MQ-9 and MC-12W. He has flown combat missions in operations Desert Shield, Desert Storm, Allied Force and Enduring Freedom.

#### **EDUCATION**

1983 Bachelor of Science degree in philosophy, U.S. Air Force Academy, Colorado Springs, Colo.

1986 Squadron Officer School, by correspondence

1987 Master's degree in business administration, Oklahoma City University, Okla.

1992 Fighter Weapons Instructor Course, Nellis AFB, Nev.

1995 Air Command and Staff College, Maxwell AFB, Ala.

1998 Air War College, by correspondence

2001 National Defense Fellowship, State Department Senior Seminar, Arlington, Va.

#### **ASSIGNMENTS**

1. October 1983 - October 1984, student, undergraduate pilot training, Sheppard AFB, Texas

2. October 1984 - February 1988, T-38 instructor pilot, 90th Flying Training Sq, Sheppard AFB, Texas

## Air Force Posture

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3. February 1988 - January 1992, F-16 instructor pilot and flight commander, 17th Tactical Fighter Squadron, Shaw AFB, S.C.
4. January 1992 - June 1992, student, USAF Fighter Weapons Instructor Course, Nellis AFB, Nev.
5. June 1992 - July 1994, squadron weapons officer and Chief, Wing Weapons and Tactics, 366th Composite Wing, Mountain Home AFB, Idaho
6. July 1994 - June 1995, student, Air Command and Staff College, Maxwell AFB, Ala.
7. June 1995 - May 1996, special assistant to the Commander, Allied Air Forces Southern Europe and 16th Air Force, Naples, Italy
8. May 1996 - August 1997, executive officer to the Commander, U.S. Air Forces in Europe, Ramstein Air Base, Germany
9. August 1997 - June 1998, operations officer, 555th Fighter Squadron, Aviano AB, Italy
10. June 1998 - July 2000, Commander, 555th Fighter Squadron, Aviano AB, Italy
11. July 2000 - June 2001, student, National Defense Fellow, State Department Senior Seminar, Arlington, Va.
12. July 2001 - July 2002, Deputy Division Chief, Combat Forces, Headquarters U.S. Air Force, Washington, D.C.
13. August 2002 - July 2004, Commander, 366th Operations Group, Mountain Home AFB, Idaho
14. July 2004 - June 2006, Commander, 52nd Fighter Wing, Spangdahlem AB, Germany
15. June 2006 - January 2008, Commander, 49th Fighter Wing, Holloman AFB, N.M.
16. January 2008 - August 2009, Deputy Director of Programs, Office of the Deputy Chief of Staff for Strategic Plans and Programs, Headquarters U.S. Air Force, Washington D.C.
17. August 2009 - August 2011, Director of Operations, Air Combat Command, Joint Base Langley-Eustis, Va.
18. August 2011 - July 2013, Commander, U.S. Air Forces Central Command, Southwest Asia
19. August 2013 - August 2015, Director, Joint Staff, the Pentagon, Washington, D.C.
20. August 2015 - July 2016, Vice Chief of Staff of the U.S. Air Force, Washington, D.C.
21. July 2016 - present, Chief of Staff of the U.S. Air Force, Washington, D.C.

### **SUMMARY OF JOINT ASSIGNMENTS**

1. June 1995 - May 1996, special assistant to the Commander, Allied Air Forces Southern Europe and 16th Air Force, Naples, Italy, as a major
2. May 1996 - August 1997, executive officer to the Commander, Allied Air Forces Europe, Ramstein Air Base, Germany, as a major
3. August 2013 - August 2015, Director, Joint Staff, the Pentagon, Washington, D.C., as a lieutenant general

### **FLIGHT INFORMATION**

Rating: command pilot

Flight hours: more than 4,200

Aircraft flown: T-37, T-38, F-16C/D, F-117A, MQ-9, and MC-12W

### **MAJOR AWARDS AND DECORATIONS**

Defense Distinguished Service Medal with oak leaf cluster  
Legion of Merit with two oak leaf clusters  
Distinguished Flying Cross with Valor device and oak leaf cluster  
Meritorious Service Medal with two oak leaf clusters  
Air Medal with silver and bronze oak leaf clusters  
Aerial Achievement Medal with oak leaf cluster  
Joint Service Commendation Medal  
Air Force Commendation Medal with oak leaf cluster  
Air Force Achievement Medal

### **PUBLICATIONS**

*"Sharing Success, Owning Failure: Preparing to Command in the Twenty-First Century Air Force,"* Air University Press, October 2001

### **EFFECTIVE DATES OF PROMOTION**

Second Lieutenant June 1, 1983  
First Lieutenant June 1, 1985  
Captain June 1, 1987  
Major Nov. 1, 1994  
Lieutenant Colonel Jan. 1, 1998  
Colonel April 1, 2001  
Brigadier General Oct. 1, 2007  
Major General July 3, 2010  
Lieutenant General Aug. 3, 2011  
General Aug. 17, 2015

(Current as of July 2016)

## AIR FORCE POSTURE STATEMENT FISCAL YEAR 2019 PRESIDENT'S BUDGET REQUEST

### STRATEGIC ENVIRONMENT

The United States now faces a more competitive and dangerous international security environment than we have seen in generations.

Great power competition has reemerged as the central challenge to U.S. prosperity and security. China is rapidly modernizing its military and seeks regional preeminence. Russia aims to restore its national prestige and has shown its willingness to use military force and coercion in Europe and the Middle East. North Korea uses the threat of nuclear weapons to secure the survival of the regime. Iran has been a source of instability in the Middle East through the sponsorship of terrorism and exploitation of internal conflict in the region. Violent extremist organizations rooted in the Middle East, North Africa, and South Asia create instability and threaten the U.S. homeland and our allies and partners.

With global trends and intensifying pressure from major challengers, our relative advantage in air and space is eroding in a number of critical areas. The projected mismatch between demand and available resources has widened. Any American weakness emboldens competitors to subvert the rules-based international order and challenge the alliance and partnership network that underpins it.

In accordance with the National Defense Strategy, the Air Force must build a more lethal and ready force, strengthen alliances and partnerships, and deliver greater, more affordable performance. The Air Force requires the right size and mix of agile capabilities to *compete, deter, and win* in this environment, brought to bear by Airmen steeped in the business of joint and combined warfare.

### AIR AND SPACE POWER IN DEMAND

Air and space power is indispensable to every joint force operation. The Air Force's first responsibility is to integrate air and space capabilities across the domains—delivering unmatched global advantage as an equal member of the joint team. We must be ready to design and lead joint and combined operations in support of national objectives.

We have five core missions:

**AIR AND SPACE SUPERIORITY ... *freedom from attack and freedom to attack.*** Air and space superiority gives our military and coalition forces the freedom to operate. Accelerating the campaign to defeat ISIS, Airmen conducted more than 172,000 sorties and 98,000 precision air strikes last year—over 70% of the total in the campaign—to support Iraqi and partner forces in Syria and Iraq. In the NATO-led mission in Afghanistan, the Air Force executed a sustained air interdiction campaign of over 4,000 sorties to support Afghan partners, targeting Taliban so-called safe zones, command and control nodes, illicit revenue-generating ventures, and

logistical networks. In space, the Air Force operates 6 constellations and 12 satellite systems vital to national security that provide communications, command and control, missile warning, nuclear detonation detection, weather, and GPS for the world. In 2017, the Air Force supported 28 space launches from our facilities at Vandenberg and Cape Canaveral, a 40% increase from 2016. We are planning 45 launches in 2018, sending both national security payloads and an increasing number of commercial payloads into orbit.

**GLOBAL STRIKE ... *any target, any time.*** Airmen maintain the continuous alert of our missile forces. Last year, Airmen conducted 16,425 intercontinental ballistic missile alert tours and 248 missile convoys across 3 missile wings and 5 states. Our bombers flew 580 missions in the Indo-Pacific, strengthening security and stability in the region and reassuring our partners. Reinforcing NATO's eastern flank, American bombers flew 70 assurance and deterrence missions.

**RAPID GLOBAL MOBILITY ... *delivery on demand.*** In 2017, Airmen transported nearly 1 million personnel, the equivalent of moving the population of Montana, and delivered over 738 million pounds of warfighting equipment and humanitarian supplies, the weight of 82 U.S. Capitol Domes. Our tanker force extended joint power projection at intercontinental distances by passing more than 1 billion pounds of fuel in-flight, which could fill the Rose Bowl to the top, while aeromedical evacuation Airmen airlifted more than 5,000 patients to safety. Closer to home, Airmen delivered 13,600 short tons of relief supplies following the string of record-setting hurricanes, and helped combat multiple wild fires in the western United States.

**INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE (ISR) ... *global eyes and ears on adversaries.*** Last year, the Air Force was tasked with nearly 25,000 ISR missions, collected 340,000 hours of full motion video, and produced 2.55 million intelligence products—which averages almost 5 products every minute that close intelligence gaps and support target analysis and development. Persistent ISR closely tied to precision weapons from the ground and air has been a linchpin element in the destruction of ISIS.

**COMMAND AND CONTROL ... *right info, right person, right time.*** Last year, our E4-B National Airborne Operations Center—the survivable mobile command center—conducted 53 alert tours and provided travel support to the Secretary of Defense. Our E-8C Joint Surveillance Target Attack Radar System flew over 5,000 hours, enabling a range of support for Combatant Commanders from command and control in the ISIS campaign to the interdiction of over 12,500 kilograms of illicit drugs before they entered our Nation's borders. The E-3 Airborne Warning and Control System was integral to coordinating search and rescue efforts during the 2017 hurricane season.

Increasingly, we are conducting these missions with allies and partners. The Air Force engaged in more than 85 exercises with international partners last year, including five focused on high-end combat. We furthered the international role of the F-35, training with partners in both Europe and South Korea, and began delivery of F-35s to Israel, Norway, and Italy. We concluded 42 International Arms Cooperation agreements worth \$2.95 billion, including a cost-sharing agreement that launched the ninth Wideband Global SATCOM satellite which enables



international partners access to shared high-capacity global communications. In 2017, Foreign Military Sales expanded nearly three-fold from the year prior to \$22.7 billion. These sales strengthen the United States' position as the security cooperation partner of choice, and expand interoperable airpower.

### STRATEGIC DIRECTION

The Air Force budget request of \$156.3 billion for Fiscal Year 2019 builds on the progress made in 2018 to restore the readiness of the force, increase lethality, and cost-effectively modernize. Sustaining these efforts requires predictable budgets at the requested funding levels.

In alignment with the National Defense Strategy, this budget prioritizes long-term competition with China and Russia.

This budget moves the Air Force in the direction of multi-domain operations. Future wars will be won by those who observe, orient, decide, and act faster than adversaries in an integrated way across domains—land, sea, air, space, and cyberspace.

The squadron remains the foundational fighting unit of the Air Force. The Air Force currently has 301 front line operational squadrons<sup>1</sup> to execute our core missions, supported by squadrons that directly enable the fight and provide reachback capability. Based on the new National Security Strategy, National Defense Strategy, and Nuclear Posture Review, the Air Force is in the process of determining how many squadrons we need to deliver the combat capability required to execute the new defense strategy.

### CONTINUING EFFORTS

Some elements of this budget *continue* programs and strategies that are well established:

**READINESS:** Restoring readiness to win any fight, any time remains a primary objective. The budget funds 1.5 million flying hours—1.2 million executable peacetime training flying hours and 300,000 flying hours supporting overseas contingency operations—at a cost of \$8.7 billion. We propose to buy 54,443 preferred munitions to reverse previous declining inventories at a cost of \$1.8 billion. This budget also funds training ranges, simulators, instructors, and key infrastructure required to improve the quality of our training in alignment with the National Defense Strategy prioritization of peer competition.

**PEOPLE:** The FY19 budget proposal represents an increase in the size of the Air Force by 4,700 Airmen.<sup>2</sup> Our five-year plan calls for achievable, steady growth to approximately 339,000 active duty Airmen while we simultaneously review existing manning across the active duty, guard, and reserve components. In addition, this budget submission funds important support to Airmen and families with a 2.6% military pay raise, increased housing and subsistence

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<sup>1</sup> Fighters, bombers, airlift, intelligence/surveillance/reconnaissance, command and control, special operations, space, cyber, missile, and personnel recovery squadrons are counted here.

<sup>2</sup> Total Force number including active duty, guard, and reserve.

allowances, and family support programs. We will invest in purposeful development of Airmen to strengthen our joint warfighting excellence—integrating education, training, and experience for our leaders and teams.

**NUCLEAR DETERRENCE:** Our budget proposal supports the Defense Department’s principal priority to maintain a safe, secure, and effective nuclear deterrent that safeguards the homeland, assures allies, and deters adversaries. The budget improves our nuclear command, control, and communication systems as directed in the Nuclear Posture Review. It initiates development of B-52 replacement engines, continues development of the Long Range Stand Off missile, and continues development of the replacement for the Minuteman III intercontinental ballistic missile.

**MODERNIZATION:** The budget funds our priority modernization initiatives with the purchase of 48 F-35 fighters, 15 KC-46 tankers, and continued development of the B-21 bomber. This year, we will decide the new T-X advanced trainer aircraft and the replacement for the UH-1 helicopter. Critical to mission success is continued investment in our classified portfolio, which will be briefed in a closed session.

### CHANGES TO IMPLEMENT NATIONAL DEFENSE STRATEGY

Some elements of this budget reflect a *change* to confront the reemergence of great power competition:

**SPACE SUPERIORITY:** The FY19 budget represents a 33% increase from last year in the research, development, test, and experimentation budget for Air Force Space to meet the threat from China and Russia. We will build more jam-resistant GPS satellites, improve missile warning, improve space situational awareness, and increase our ability to defend our Nation’s most vital assets on orbit. We are taking advantage of changes in legislative authorities to return program decision authorities back to the Air Force, including 14 of the 19 Major Defense Acquisition Programs within the space portfolio. Using tools such as the Defense Acquisition Workforce Development Fund, we are investing in our people, ensuring they have the right skills and training to succeed.

**MULTI-DOMAIN COMMAND AND CONTROL:** Technological advances are changing the character of warfare. The budget proposes to change the way we execute battlefield management command and control in the multi-domain environment. We propose to modernize 7 E-3 Airborne Warning and Control aircraft (AWACS) and keep the current E-8C Joint Surveillance Target Attack Radar System (JSTARS) operational through the mid-2020s, as we develop and transition to an advanced battle management system. This approach will integrate space, air, and ground based sensors on manned and unmanned platforms and satellites to meet more combatant commander requirements in both contested and non-contested environments.

**AIR SUPERIORITY:** Central to lethality is our ability to gain and maintain air superiority when and where needed against potential adversaries in 2030 and beyond. Over the next five years, we will develop an integrated family of systems that can establish and maintain air superiority in a

contested environment. The FY19 budget includes \$11.0 billion as part of a \$63.8 billion effort over the five-year plan. This will be a multi-domain effort with a renewed emphasis on electronic warfare, networked capabilities, and control of the electromagnetic spectrum.

**LIGHT ATTACK:** Retaining irregular warfare as a core competency at a lower cost, and strengthening our alliances are key elements of our National Defense Strategy. The Air Force proposes to continue the light attack experiment, developing concepts of operation and further defining requirements in preparation for fielding a force of U.S. light attack aircraft during this five-year plan. We are focusing on rapid fielding and rapid procurement strategies that leverage existing capabilities with little or no development. Designed to be coalition at the core, we will invite and lead allies and partners to train in the U.S., buy common equipment for their own affordable light attack squadrons, and build those international squadrons on a network that shares information.

**SCIENCE AND TECHNOLOGY:** The Air Force launched a review of our science and technology strategy that will be complete later this year. This budget increases emphasis on basic and applied research to drive long-term innovation and dominance in air and space power.

### BUDGET PRIORITIES

**IMPROVING WARFIGHTING READINESS:** Readiness is first and foremost about having enough trained people. We continue to address the aircrew shortage through a multi-pronged approach. This budget boosts pipeline capacity, expands pilot training and addresses experience shortfalls, continues incentive pay and bonuses, improves administrative support at the squadron level, and funds flying hours to executable levels. It also addresses gaps in space, nuclear, cyber, and intelligence career fields, and supports Battlefield Airmen, our air-to-ground integration force.

The budget proposal funds aircraft depot maintenance, parts, logistics support, and invests \$2.8 billion in operational training infrastructure needed for relevant, realistic training for the multi-domain environment. It fully funds preferred munitions to industry capacity. This includes Hellfire missiles, Joint Direct Attack Munition bombs, the Small Diameter Bomb, and the Advanced Precision Kill Weapon System.

The Air Force recruits Airmen, but we retain families. To improve family support, the budget funds expanded childcare hours, increases off-base child care support, and funds more respite care and support coordinators for special needs families. We are improving the assignment system so families can better plan for future assignments, sustaining our morale and resilience programs, and implementing initiatives that support unit cohesion in our squadrons.

The Air Force is also significantly changing the way we collect operational tempo metrics. Prior methods underreport how much time Airmen are away. By now accounting for temporary duties away from home station for training exercises or mission-related requirements in addition to deployment time, we more accurately capture the true impact of service demands on Airmen, families, and home units.

**SAFE, SECURE, AND EFFECTIVE NUCLEAR DETERRENT:** Deterrence works if our adversaries know that we can hold at risk things they value. We must concurrently modernize the entire nuclear triad and the command and control systems that enable its effectiveness. The Air Force stewards two legs of the triad and operates 75% of the Defense Department's nuclear command, control, and communication (NC3) capabilities.

Modernizing the air-based leg of the nuclear triad, the budget continues development of the replacement air-launched cruise missile, which is 25 years past its design life and faces improving adversary air defense systems. This weapon will equip the B-52, B-2, and forthcoming B-21 bombers to maintain flexible and effective stand-off capability that can penetrate and survive the most challenging environments.

This budget continues to update the B-52 bomber fleet and funds development of replacement engines. With adequate sustainment and modernization, including new engines, the B-52 will remain a key part of the bomber enterprise well into the future. Additionally, the budget proposal begins to replace our Vietnam-era UH-1N helicopter.

The budget moves forward modernization of the ground-based leg of the nuclear triad. The Ground-Based Strategic Deterrent program will replace the retiring Minuteman III, which has remained viable four decades past its design life through a series of costly service life extensions, but cannot be extended further beyond 2030.

Today's nuclear command, control, and communications system was last comprehensively updated almost three decades ago. The budget targets investments to modernize the integrated land, air, and space-based systems to ensure secure, survivable connectivity with the President and national command leadership.

**COST-EFFECTIVE MODERNIZATION:** Underfunded in modernization for over a decade, the Air Force must manage a bow wave in modernization over the next ten years.

The budget proposes to upgrade F-16 and F-15 C/D aircraft to retain affordable capacity. We propose to buy 48 F-35A aircraft in FY19 and 258 F-35A aircraft over the next five years. The F-35A fighter brings unparalleled global precision attack capability. The Air Force will integrate the F-35 with fourth-generation aircraft as well as space and unmanned aircraft, to maintain air superiority in highly contested environments.

Tanker recapitalization remains a top acquisition priority. The multi-role KC-46 is capable of refueling joint and coalition aircraft with both boom and drogue in the same sortie, and augments the airlift fleet with improved cargo, passenger, and aeromedical evacuation capabilities. This budget proposes to buy 15 more KC-46 tankers in FY19.

Our budget proposal continues to develop the B-21 bomber as a key component to the joint portfolio of conventional and nuclear deep-strike capabilities. The B-21 will be able to deliver both gravity bombs and the Long Range Stand Off missile, ensuring options for our Nation's leaders to hold targets at risk around the world.

**MOVING FASTER TO DEFENDABLE SPACE:** The FY19 budget accelerates our efforts to deter, defend, and prevail against anyone who seeks to deny our ability to freely operate in space. The budget recognizes that adversaries are developing the ability to deny our free use of space and includes capabilities to confront that threat. The development of these capabilities will continue over the future years defense plan and beyond.

Foregoing the continued buy of today's Space Based Infrared System satellites 7 and 8, the Air Force will develop the next-generation Overhead Persistent Infrared system. This system will detect and report on current, emerging, and anticipated threats, and will be designed for survivability.

The budget adds resilience features and user protection to the Advanced Extremely High Frequency and Wideband Global Satellite Communications systems, and continues to fund development of next-generation protected satellite communications services for both strategic and operational military users. We continue to explore more affordable and innovative ways to acquire satellite communications services with investment in both commercial industry and international partner capabilities.

The budget proposal increases funding for anti-jam, anti-spoof, and anti-tamper military GPS development and integration into multiple joint platforms, and continues to grow Space Situational Awareness and Space Control capabilities to enhance our ability to identify, characterize, and attribute threatening actions. The budget also funds a Weather Satellite Follow-on program using rapid acquisition authorities.

Building upon the foundational architecture for space warfighting, we will deliver highly responsive capabilities to connect tactical and operational systems to strategic-level decision makers. The recent stand-up of the National Space Defense Center supports this mission. The budget also funds the Standard Space Trainer that provides realistic, live, virtual, constructive training to prepare our Space Mission Force Airmen to prevail in a contested space domain.

**NETWORKED BATTLE MANAGEMENT:** Integrating capabilities that span all domains of warfare will be required for success in future combat. With the other Services, we are shifting from a model of interdependence to one of integration, which includes better integrated communications systems, development of tailorable units, and policies in key areas that enable adaptability and innovation. Concurrently, we will advance our command and control systems to reflect the changing character of warfare.

The Air Force capability that delivers persistent battle management command and control and ground moving target indications to joint warfighters is in high global demand that far exceeds supply. We currently conduct battlefield command and control from JSTARS, AWACS, Combined Air Operations Centers, Tactical Operations Centers, and mobile Command and Reporting Centers, and monitor many targets on the ground from JSTARS, Global Hawk, and other unmanned aerial systems. We had planned to recapitalize our aging fleet of E-8C JSTARS on a newer aircraft, however, we believe that system will not be viable in future contested environments and the recapitalization plan brought no additional capability or capacity to meet

future demands despite over \$15 billion in total lifecycle costs. In developing an alternative approach that will meet more warfighter needs, we propose to keep the current E-8C JSTARS operational through mid-2020s and replace the recapitalization program as we transition to an advanced battle management system for the future. This approach, as directed in the National Defense Strategy, will network sensors from space, air, land, and sea, and fuse information to create a more comprehensive picture to support the joint fight, even in a contested environment.

**STRENGTHENING ALLIANCES:** The National Defense Strategy emphasizes the importance of alliances and partnerships. The FY19 budget reinforces the Air Force commitment to our allies and international partners through programs such as the European Deterrence Initiative and Indo-Pacific security initiatives.

### REFORMING THE DEPARTMENT

While this budget proposes additional resources for the Air Force, we have to gain full value from every taxpayer dollar we spend. We will drive innovation, reinforce budget discipline and affordability, and deliver performance with the funds entrusted to us.

**ZERO-BASED REVIEW:** For the first time in more than two decades, we are conducting a zero-based review of all Air Force programs, budget accounts, and manpower authorizations to prepare for FY20 and the future years defense plan. We will examine the relevance of every requirement and program to align with the new defense strategy. Everything we do is “on the table” during this review.

**HEADQUARTERS AIR FORCE STAFF REVIEW:** Simultaneously, we are reviewing the structure and manning of the Headquarters Air Force staff. We are the smallest and most integrated of the service staffs and intend to stay that way. We will ensure each position is used efficiently and effectively to support the warfighter.

**ACQUISITION:** Enabled by the FY16 and FY17 National Defense Authorization Acts, we are streamlining Air Force acquisition. We have milestone decision authority for more programs and we are pushing authority to run programs down to lower levels and using new techniques to innovate, including rapid prototyping and experimentation. We appreciate Congress’ continued support of the Acquisition Workforce Development fund and expedited hiring authorities to attract, recruit, hire, develop, and retain a high-quality workforce.

**STREAMLINING:** We are systematically reviewing, reducing, and clarifying onerous internal instructions, additional duties, and computer-based training. There are over 1,300 Air Force instructions that levy 85,000 requirements on our wings and squadrons. Every one of them will be reviewed, rescinded, or rewritten over a 24 month period. We will significantly reduce the number of Air Force publications and ensure the remaining ones are concise, current, and relevant. We have already rescinded over 100 Air Force Instructions. While this review reduces stifling bureaucracy and associated cost, the more important impact is on our ability to fight. This supports the culture of centralized intent and decentralized execution we need for

competent and entrusted Airmen to make decisions in future highly contested environments, where we cannot expect continuous centralized control.

**AIR FORCE WARFIGHTING INTEGRATION CAPABILITY (AFWIC):** The Air Force is implementing changes to program development that will better integrate the budget across the force and allow for more rapid change to meet emerging threats. This will improve force design analysis to support national defense priorities and improve our ability to engage in multi-domain operations.

**REVITALIZING SQUADRONS:** Squadrons are the warfighting core of our Air Force. We organize, train, and equip to deploy from the squadron up. By revitalizing our squadrons, we are reinforcing cohesive, ready, and agile fighting forces to defend our Nation's interests in the complex security environment. We depend on exceptional leaders to lead the world's most powerful Air Force and joint teams. We will develop future leaders, address cultural shifts to embrace 21st century talent management, and unlock the true potential of our Airmen.