

**OFFICE OF THE UNDER SECRETARY OF DEFENSE
(COMPTROLLER)/CHIEF FINANCIAL OFFICER
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Defense Budget Overview

**UNITED STATES DEPARTMENT OF DEFENSE
FISCAL YEAR 2020 BUDGET REQUEST**



Preface

The Overview Book has been published as part of the President's Annual Defense Budget for the past few years. From FY 1969 to FY 2005, OSD published the "Annual Defense Report" (ADR) to meet 10 USC section 113 requirements. Subsequently, the Overview began to fill this role.

The Overview is one part of an extensive set of materials that constitute the presentation and justification of the President's Budget for FY 2020. This document and all other publications for this and previous DoD budgets are available from the public web site of the Under Secretary of Defense (Comptroller): <http://comptroller.defense.gov>.

The Press Release and Budget Briefing, often referred to as the "Budget Rollout," and the Program Acquisition Costs by Weapons System book, which includes summary details on major DoD acquisition programs (i.e., aircraft, ground forces programs, shipbuilding, space systems, etc.) are especially relevant.

The website for Performance Improvement tables and charts is <http://dcmo.defense.gov/Publications/AnnualPerformancePlanandPerformanceReport.aspx>.

Other background information can be accessed at www.defense.gov.

The estimated cost of this report or study for the Department of Defense is approximately \$27,000 for the 2019 Fiscal Year. This includes \$13,000 in expenses and \$14,000 in DoD labor. Generated on 2019Mar05
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1. FY 2020 BUDGET SUMMARY – A STRATEGY DRIVEN BUDGET

Long-term strategic competitions with China and Russia are the principal priorities for the Department, and require both increased and sustained investment, because of the magnitude of the threats they pose to U.S. security and prosperity today, and the potential for those threats to increase in the future.

– 2018 National Defense Strategy

INTRODUCTION

With the collapse of the Soviet Union at the end of the Cold War, the U.S. emerged as the world's only remaining superpower and enjoyed a period of military dominance. Operation Desert Storm in 1991, when the U.S. was at the height of its conventional military overmatch and was able to project power with minimal interference, remains a lasting reference point for how many Americans view conventional conflict. In the aftermath of these events, lacking great power rivals, the U.S. got a substantial peace dividend and the Department dramatically reduced the force structure and investment in research and development for cutting-edge capabilities. The U.S. also shifted to confront new challenges, particularly insurgent warfare and the threat posed by the rise of violent extremist organizations. Further, budget instability in the aftermath of the 2008 financial crisis and the Budget Control Act of 2011 blunted our strategic vision. Taken together, these events led the U.S. military to experience damaging trends in readiness and competitiveness.

During this period, China and Russia did not remain idle. They studied the competitive advantage that the U.S. enjoyed during Operation Desert Storm in 1991 and Operation Iraqi Freedom in 2003 and developed military capabilities and a force structure specifically designed to challenge U.S. influence and increase their own international stature. They have continued to improve their warfighting craft and power projection capabilities and are aiming for military parity with the U.S. in a potential future, high-end conflict. Deterring or defeating great power aggression is a fundamentally different challenge than the regional conflicts against rogue states and violent extremist organizations that were our day-to-day challenges for much of the last 25 years. In fact, the U.S. has not fought a prolonged conventional conflict against major powers since the Korean War after the intervention of China, and no longer has the same degree of dominance that the American public remembers from more recent conflicts.

Sections

- Introduction
- 2018 National Defense Strategy
- FY 2020 Budget Request Overview
- Build a More Lethal Force
- Strengthen Alliances and Attract New Partners
- Reform for Greater Performance and Affordability
- Conclusion

Deterring or defeating great power aggression is a fundamentally different challenge than the regional conflicts against rogue states and violent extremist organizations we faced over the last 25 years.

2018 NATIONAL DEFENSE STRATEGY

These challenges, as recognized in the *2017 National Security Strategy*, required a clear-eyed appraisal of the threats the United States faces, acknowledgement of the changing character of warfare, and a transformation of how the Department conducts business. As such, in 2017 the Department of Defense (DoD) began developing the *National Defense Strategy* (NDS) to change course and ensure our success in this new era of great power competition. It is increasingly clear that China and Russia want to shape a world consistent with their authoritarian models—gaining veto authority over other nations' economic, diplomatic, and security decisions. The NDS drives all of the Department's major decisions, from resource allocation to operations. With the release of the NDS, the Department has a single document capturing the strategic vision needed to rise to the challenge posed by great power competition.

The *National Defense Strategy* sustains American security and influence through three lines of effort:

- **Build a more lethal, resilient, agile, and ready Joint Force**
- **Strengthen alliances and attract new partners**
- **Reform for greater performance and affordability**

The Summary of the *2018 National Defense Strategy* of the United States of America can be found at the following link: <https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf>

The NDS Commission, a bipartisan external review group directed by Congress, recently completed an assessment of the NDS and provided valuable feedback for measuring our strategic approach and our efforts to reinforce that approach. On most critical matters, we found alignment with the NDS Commission, including the need for consistent and predictable funding. We also agree on the characterization of our security environment and the necessity for clear prioritization of great power competition. The few areas where we did not agree reflect our recognition that resources are finite. As such, a good strategy enables tough choices. While we respect the Commission's criticism of force reductions in the Middle East and our departure from the two-war construct, we stand by these choices as necessary components of our strategic approach.

Additionally, we recently completed an internal assessment of the NDS to provide a "state of our strategy" and an objective evaluation of our progress in achieving our objectives. We found that the NDS remains valid. The NDS Assessment also found that, while we have made meaningful progress over the last year to meet our strategic goals, there is much work yet to be done. We are well on our way, but we have not yet reached the finish line.

The *National Defense Strategy* requires adequate resources to position the United States for great power competition.

FY 2020 BUDGET REQUEST OVERVIEW

Future wars will be waged not just in the air, on the land, and at sea, but also in space and cyberspace, increasing the complexity of warfare.

The DoD Fiscal Year (FY) 2020 defense budget executes the NDS by reprioritizing resources and shifting investments to prepare for a potential future, high-end fight. This budget resources the following four focus areas to **build a more lethal, agile, and innovative joint force**:

1. **Investing in the emerging space and cyber warfighting domains to prepare for a complex security environment.**
2. **Modernizing capabilities in the air, maritime, and land domains to enhance lethality.**
3. **Innovating more rapidly to strengthen our competitive advantage.**
4. **Sustaining our forces and building on our readiness gains to prepare for current operational commitments and future threats.**

Figure 1. Department of Defense Budget

<i>\$ in billions</i>	FY 2017 Actuals	FY 2018 Actuals	FY 2019 Enacted	FY 2020 Request
Base	523.5	599.6	616.1	544.5
Overseas Contingency Operations	82.5	65.2	68.8	66.7
OCO for Base	--	--	--	97.9
Emergency	--	5.8	--	9.2
Total	606.0	670.6	685.0	718.3

The FY 2020 budget request is a major milestone to a more lethal, agile, and innovative Joint Force and operationalizes the NDS to provide the combat-credible military forces needed for the U.S. to deter or defeat great power adversaries. This budget builds on progress from the sustained funding increases Congress provided in the FY 2017, FY 2018, and FY 2019 budgets to repair damaged readiness and marks a key next step in how we develop, posture and employ the joint force to deter or defeat great power adversaries well into the future. The FY 2020 budget will strengthen our competitive advantage and shape our military to succeed in this new era of great power competition by supporting continued implementation of the NDS.

Operationalizing the National Defense Strategy

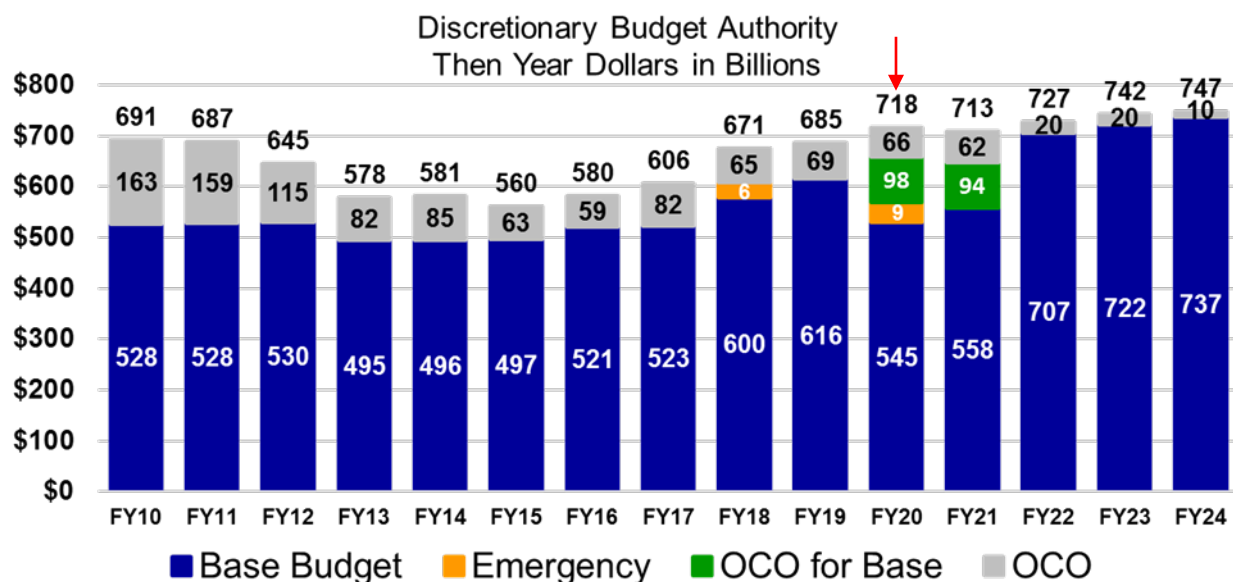
- FY 2017 – Requested additional resources to arrest near-term readiness atrophy
- FY 2018 – Began to restore readiness and filled holes in the military forces resulting from sustained operational commitments and budgetary instability
- FY 2019 – Making key down-payments on a more lethal force to support Europe and Asia while improving full-spectrum readiness and competitive capabilities
- FY 2020 – Prioritizes innovation and modernization to strengthen our competitive advantage in all warfighting domains for decades to come

Overview – FY 2020 Defense Budget

The President’s FY 2020 budget request for defense is for \$718 billion. This budget represents 4.9 percent nominal growth (2.8 percent real growth) over the current FY 2019 enacted appropriation. Total DoD five-year program settles at \$747 billion in FY 2024.

Increasing the lethality of our military goes beyond the capabilities we buy, to include **strengthening our alliances and attracting new partners** to generate decisive and sustained military advantages. Swift progress in this area is allowing for complementary capabilities that assist in prioritizing and balancing DoD capability investments. Lastly, building lethality also demands **reforming the Department to achieve greater performance and affordability.** Through enterprise-wide reforms we are changing the way DoD does business to deliver performance at the speed of relevance, organize for innovation, and drive budget discipline and affordability.

Figure 2. DoD Topline Funding FY 2010 – 2024



The FY 2020 budget represents a 4.9 percent nominal growth (2.8 percent real growth) over the current FY 2019 enacted appropriation.

BUILDING A MORE LETHAL FORCE

The FY 2020 budget request resources the following four focus areas to build a more lethal, agile, and innovative joint force.¹

1. Investing in the emerging space and cyber warfighting domains to prepare for a complex security environment.

Future wars will be waged not just in the air, on the land, and at sea, but also in space and cyberspace, increasing the complexity of warfare. In 2018, we elevated U.S. Cyber Command to become our newest combatant command and announced the reactivation of U.S. Space Command as a unified combatant command. We also released the 2018 DoD Cyber Strategy and first-ever DoD Cyber Posture Review. The FY 2020 budget request reinforces these actions by recognizing the increased importance of space and cyber warfighting with additional resources.

Space (\$14.1 billion)

- Resources the new U.S. Space Force HQ (FY 2020 \$72.4 million)
- Reduces risk to satellite communications jamming (FY 2020 \$1.1 billion)
- Increases Global Positioning System Follow-on satellites and Operational Control System (FY 2020 \$1.8 billion)
- Improves space-based missile warning capabilities (FY 2020 \$1.6 billion)
- Continues investment in space launch capacity (4 boosters, FY 2020 \$1.7 billion)

“Now we must generate increased performance in the three key areas: missiles, space and cyber. Doing so will lay the groundwork for 2020, the year we fully integrate the NDS across all echelons and ensure dominance across all domains.”

*- Acting Secretary of Defense
Patrick Shanahan, December 2018*

Cyber (\$9.6 billion)

- Supports offensive and defensive cyberspace operations (FY 2020 \$3.7 billion)
- Reduces risk to DoD networks, systems, and information by investing in more cybersecurity capabilities (FY 2020 \$5.4 billion)
- Modernizes DoD's multi-cloud environment (FY 2020 \$61.9 million)



¹ Referenced dollar amounts are for procurement and RTD&E in most cases; where applicable, additional funding categories are included. See following chapters for a detailed breakdown by type of funding for each item.

Overview – FY 2020 Defense Budget

2. Modernizing capabilities in the air, maritime, and land domains to enhance lethality.

Technological advances are changing the character of war and the air and maritime domains are increasingly contested. The FY 2020 budget includes modernization efforts to ensure long-term competitive advantage against near-peer adversaries.

Air (\$57.7 billion)

- With the FY 2018 and FY 2019 budgets, the Department increased Air Force maintainers, invested in ISR capabilities, and procured advanced fighter jets.
- The FY 2020 budget request:
 - Increases capability and capacity with 4th and 5th Generation Aircraft (FY 2020 \$13.9 billion; 110 quantity)
 - KC-46 tanker (FY 2020 \$2.3 billion; 12 quantity)
 - Advanced Medium-Range Air-to-Air Missile (AMRAAM) (FY 2020 \$651 million; 389 quantity)
 - Joint Air-Surface Missile – Extended Range (JASM-ER) (FY 2020 \$582 million; 430 quantity)



Maritime (\$34.7 billion)

- With the FY 2018 and FY 2019 budgets, the Department hired shipyard personnel, invested in ship maintenance, and invested in critical shipbuilding programs to begin increasing the fleet size.
- The FY 2020 budget request:
 - Increases and diversifies strike options, including offensive-armed unmanned surface and underwater vessels, and advanced long-range missiles
 - Large Unmanned Surface Vehicles (USVs) (FY 2020 \$447 million, 2 quantity)
 - Long Range Anti-Ship Missiles (LRASM) (FY 2020 \$209 million, 48 quantity)
 - Maritime Strike Tactical Tomahawk (TACTOM) (FY 2020 \$707 million, 90 quantity)
 - Continues progress towards growing the Battle Force fleet from 296 in FY 2019 to 301 in FY 2020 to 314 in FY 2024, with a focus on more capable ships to enable distributed maritime capability (FY 2020 \$23.8 billion)
 - 3 Virginia Class Submarines (FY 2020 \$10.2 billion)
 - 3 DDG-51 destroyers (FY 2020 \$5.8 billion)
 - 1 FFG(X) frigate (FY 2020 \$1.3 billion)

The FY 2020 budget request is the largest ship building request in 20 years.

Overview – FY 2020 Defense Budget

Land (\$14.6 billion)

- With the FY 2018 and FY 2019 budgets, the Department expanded Army warfighting capabilities, accelerated stand-up of Army Security Force Assistance Brigades, enhanced ground combat capabilities, established the Close Combat Lethality Task Force, and increased tank lethality.
- With the FY 2020 budget, the Department is focused on expanding ground combat capabilities and capacities.
 - Includes 6,402 combat and tactical motorized vehicles. (FY 2020 \$7.2 billion)
 - Includes 4,090 Joint Light Tactical Vehicles to provide unsurpassed mobile and protected firepower for battlefield superiority against opposing forces (FY 2020 \$1.6 billion)
 - Includes 56 Amphibious Combat Vehicles, an armored personnel carrier for employment across the range of Marine Corps operations, including a swim capability. (FY 2020 \$395 million)
 - Close Combat investments in multiple systems continue to provide combat overmatch in the last 200 meters of contact. Investments include Multi-role Anti-Armor Weapon System, Binocular Night Vision Devices, Squad Common Optics, and the Squad Thermal System.



Multi-Domain

- Missile Defeat and Defense (\$13.6 billion)
 - The 2019 Missile Defense Review will guide us to increase the capability of our missile defense enterprise and prevent and defeat adversary missile attacks.
 - With the FY 2018 and FY 2019 budgets, the Department funded a 20-silo missile field in Fort Greely, Alaska, full operational capability for allies, partners, and U.S. forces in Europe, and Navy missile defense-capable destroyers.
 - The FY 2020 budget request:
 - Invests in increased capability and capacity of Ground-Based Missile Defenses (FY 2020 \$1.7 billion)
 - Expands capability/capacity for Terminal High Altitude Area Defense (THAAD) (\$753.8 million; 37 quantity) and Aegis Ballistic Missile Defense (SM-3) (FY 2020 \$1.7 billion 37 missiles and 36 installs) for regional missile defense
 - Enhances space-based missile warning and defense demonstrations and ground control enhancements to address hypersonic threats (FY 2020 \$174 million)
 - Develops boost-phase and advanced technology missile defense systems, including directed energy and air-launched kinetic interceptors (FY 2020 \$331 million)
 - Enhances options to destroy adversary ground-based missiles prior to launch (FY 2020 \$844 million)

Overview – FY 2020 Defense Budget

- Nuclear Enterprise (\$14.0 billion)
 - The 2018 Nuclear Posture Review affirmed the need for the nuclear triad, validating DoD's long-overdue recapitalization of the nation's nuclear armed missiles, submarines, bombers, dual-capable aircraft, and related infrastructure to keep U.S. nuclear deterrent credible and modernized for decades.
 - The FY 2018 and FY 2019 budgets invested in Columbia class ballistic missile submarine, Long Range Standoff Weapon, Ground-Based Strategic Deterrent, and B-52 modernization.
 - The FY 2020 budget request:
 - Recapitalizes capability with Ground Based Strategic Deterrent (FY 2020 \$570 million), B-21 Bomber (FY 2020 \$3 billion), and Long-Range Stand Off Weapon (FY 2020 \$712 million)
 - Enhances strategic deterrence with Columbia class submarine (FY 2020 \$2.2 billion)
 - Enhances Missile Warning capabilities
 - Enhances Nuclear Command, Control and Communications (NC3) capabilities across the spectrum of military operations. (FY 2020 \$2.5 billion)

- Special Operations Forces (SOF) (\$3.4 billion)
 - With the FY 2018 and FY 2019 budgets, we began to increase SOF end-strength and grow additional capabilities. The FY 2020 budget for SOF investments reflects the National Defense Strategy focus on competition with great-power adversaries by increasing funding for research and development, modernization, and expanded capabilities for high-end warfighting while sustaining Counter Terrorism (CT) operations, coordinating the Countering Weapons of Mass Destruction (CWMD) mission, and maintaining Irregular Warfare (IW) as a core competency.
 - The FY 2020 budget sustains SOF growth, increasing readiness and lethality through modernization and recapitalization, and investing in new technologies. This includes investments in:
 - Directed Energy (FY 2020 \$27.2 million)
 - AC/MC-130J aircraft/gunships (FY 2020 \$342.8 million)
 - CV-22 tiltrotor aircraft (FY 2020 \$45.3 million)
 - Additional surface and sub-surface maritime craft systems (FY 2020 \$105.7 million)



The FY 2020 budget modernizes capabilities across all warfighting domains.

Overview – FY 2020 Defense Budget

3. Innovating more rapidly in key operational areas to strengthen our competitive advantage.

The FY 2018 and FY 2019 budgets began DoD's refocus on science and technology to regain our competitive advantage, to include establishing the Army Futures Command, accelerating hypersonic weapon development, and unlocking Artificial Intelligence potential (to include the 2018 DoD AI Strategy).

The FY 2020 budget invests in technologies focused on a high-end fight. Selected new efforts include:

- Unmanned / Autonomous - Enhances freedom of maneuver and lethality in contested environments through development of offensive-armed Unmanned Surface Vessel, Unmanned Undersea Vehicle, and Autonomous Logistics Platforms (FY 2020 \$3.7 billion)
- Artificial Intelligence - Expands military advantage with the Joint Artificial Intelligence Center (JAIC) and Advanced Image Recognition (Project Maven) (FY 2020 \$927 million)
- Hypersonics - Enables Air Force prototyping, Navy Sea-Launched Conventional Prompt Strike, and Army Land-Launched Limited Operational Capability (FY 2020 \$2.6 billion)
- Directed Energy (DE) - Continues development of offensive and defensive DE capabilities. Supports implementation of directed energy for base defense; enables testing and procurement of multiple types of lasers; and increases research and development for scalable high-power density applications (FY 2020 \$235 million)

While any investment in innovation runs the risk of an uncertain outcome, these select efforts are necessary to increase our competitive advantage against near-peer adversaries.



The FY 2020 budget constitutes the largest research and development request in 70 years, focusing on technologies needed for a high-end fight.

Overview – FY 2020 Defense Budget

4. Sustaining our forces and building on our readiness gains to prepare for current operational commitments and future threats.

The FY 2018 and FY 2019 budgets reversed damaging trends in readiness, specifically in the areas of training and munitions to combat potential near-peer competitors.

The FY 2020 budget request builds upon this progress:

- Includes funds for a 3.1 percent military pay raise
- Increases end strength by approximately 7,700 over currently projected FY 2019 levels
- Modernizes and transforms the Military Health System
- Sustains family support initiatives (e.g., child care, schools, commissary operations, etc.) (FY 2020 \$8.0 billion)
- Invests in key operational and training facilities and improves Quality-of-Life for Service Members and their families
- Funds readiness and depot maintenance to executable levels across services (FY 2020 \$124.8 billion)
- Continues processes to improve tactical aviation mission capable readiness to 80% (FY 2020 \$41.2 billion)
- Resources advanced training facilities and ranges (Joint Pacific Alaska Range Complex, close combat aircraft) (FY 2020 \$1.5 billion)
- Increases training funding for cyber operations (FY 2020 \$2.6 billion)



The FY 2020 budget funds a 3.1 percent military pay raise, the largest in a decade.

STRENGTHEN ALLIANCES AND ATTRACT NEW PARTNERS

We are strengthening our alliances and attracting new partners to generate decisive and sustained military advantages. Swift progress in this area is allowing for complementary capabilities that assist in prioritizing and balancing DoD capability investments.

- **Indo-Pacific:** the Department is enhancing cooperation with allies such as Australia, Japan, and the Republic of Korea through ongoing engagements, their procurement of high-end U.S. platforms, and working with each to build missile defense systems that are increasingly interoperable with U.S. capabilities. New agreements such as the 2018 Communications, Compatibility, and Security Agreement with India and engagements such as the historic 2018 U.S. aircraft carrier visit to Vietnam along with more than 200 bilateral activities annually with Indonesia are expanding regional partnerships.
- **Europe:** The U.S. commitment to NATO remains ironclad. The U.S. continues to work with NATO nations to improve burden sharing to meet our common security commitments. Our NATO Allies have increased their defense spending by \$41 billion under the Trump administration. That is a nine percent increase from 2016 to 2018, the largest in a quarter century. By 2020, our NATO allies are projected to increase defense spending by approximately \$100 billion in total. We are moving forward on our pursuit of the “four 30s” by 2020: from within the overall force pool, Allies will offer an additional 30 mechanized battalions, 30 air squadrons, and 30 combat vessels ready to use within 30 days or less.
- **Iraq and Syria:** The U.S., working with our allies and partners, has liberated ISIS-controlled territory while reducing the burden on U.S. forces.
- **Afghanistan:** Continue to increase the capability and lethality of the Afghan National Defense and Security Forces with the goal of achieving a lasting political reconciliation in Afghanistan.
- **Growing Partners' Defense Capabilities:** In the last three years, foreign military sales have increased 62 percent. UAE and Qatar made a combined \$18 billion investment in defensive missile systems, while Saudi Arabia and Kuwait are upgrading their existing Patriot missile systems.
- **Leveraged combined purchasing power:** Worked with allies and partners to place larger aircraft orders. These economies of scale resulted in savings of approximately \$11 billion when procuring more than 2,000 fighter jets.



NATO Allies have increased defense spending by \$41 billion under the Trump administration, the largest increase in a quarter century. By 2020, they are projected to increase defense spending by approximately \$100 billion in total.

REFORM FOR GREATER PERFORMANCE AND AFFORDABILITY

Reform is an improvement to purchasing, processes, systems, policies, or acquisitions that increases effectiveness, efficiency, or reliability to best align the Department's resources in support of the National Defense Strategy. We have united reform efforts throughout the Office of the Secretary of Defense, the Military Departments, Defense Agencies and Field Activities, and Combatant Commands.

In FY 2017 and FY 2018, DoD programmed and executed reform efforts in the management of contracts, IT, healthcare, personnel, acquisitions, financial operations, and other areas to save more than \$4.7 billion. In FY 2019, DoD is committed to reaching the \$6 billion savings we re-allocated to higher priority needs in the FY 2019 President's Budget. In addition, we completed the first ever DoD financial statement audit, which covered roughly \$2.7 trillion in DoD assets and reviewed key missions and lines of business in the Department. We are developing corrective action plans and remediating issues identified by the auditors at an aggressive pace.

The FY 2020 budget is indicative of a transition to a culture of performance where results and accountability matter. The FY 2020 budget includes \$7.7 billion in new savings across the Department, which allows us to further resource a more lethal Joint Force. The Department is shifting levers of business operations to achieve reform at the enterprise level. These levers, their definitions, and the total FY 2020 savings or investment associated with each lever include:

- Business Process Improvement – Refining actions, personnel, and timelines to increase effectiveness, efficiency, and reliability of the Department's delivery of goods and services. (FY 2020 \$2.3 billion)
- Business System Improvement – Modernizing and eliminating legacy business systems and processes to increase the effectiveness and reduce duplication of the Department's IT business systems and deliver information at the speed of relevance. (FY 2020 \$250.5 million)
- Policy Reform – Changing the Department's procedures to best empower the warfighter with the knowledge, equipment, and support systems to fight and win. (FY 2020 \$177.9 million)
- Weapon System Acquisition – Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. (FY 2020 \$100.6 million investment)
- Divestments – Selling equipment or weapon systems, or strategically discontinuing legacy acquisition programs to fund purchases in support of the Department's highest priorities. (FY 2020 \$3.0 billion)
- Better Alignment of Resources – Reprioritizing or moving finances and personnel to realign from legacy capability in support of the National Defense Strategy. (FY 2020 \$2.1 billion)

DoD is actively institutionalizing reform and is committed to reinvesting the savings in the Military Departments in support of readiness and lethality priorities.

We are changing the way DoD does business to deliver performance at the speed of relevance, organize for innovation, and drive budget discipline and affordability – resulting in programmed savings of \$7.7 billion in FY 2020.

CONCLUSION

Military superiority is not a birthright and must be actively sustained by each generation to meet our defense objectives and maximize U.S. global influence and security. The FY 2020 budget request builds on our success with the FY 2018 and FY 2019 budgets to repair damaged readiness and marks a key shift in preparing to deter or defeat great power adversaries well into the future. Congressional approval of the FY 2020 budget will help us outpace the threats posed by China and Russia and maintain our competitive advantage, while holding DoD spending near historical lows as a share of the U.S. economy.

Figure 3. DoD Outlays as a Percent of Gross Domestic Product (GDP) FY 1953 – FY 2024



Source: DoD spending as a percent of GDP compares DoD outlays, both discretionary and mandatory, from the National Defense Budget Estimates for FY 2019 (Table 6-13) to the historical and projected GDP from both the FY 2019 and FY 2020 Budget of the United States Government, issued by the Office of Management and Budget (OMB).

The FY 2020 budget is near a record post-World War II low as a percent of our economy.

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2. SUSTAINING OUR FORCES

Recruiting, developing, and retaining a high-quality military and civilian workforce is essential for warfighting success.... The creativity and talent of the American warfighter is our greatest enduring strength, and one we do not take for granted.

National Defense Strategy

The DoD Workforce: Military — Active, Reserve, and National Guard — and Civilian personnel are the foundation of the Department of Defense and constitute its most valued asset. As such, DoD personnel must have the full support of the Nation to ensure the DoD successfully accomplishes the foundational mission of defending the United States of America. As the Department maximizes lethality, improves and sustain readiness, grows the force, and increases capability and capacity, it must efficiently manage its Total Force of active and reserve military personnel, government civilian personnel, and contracted services. That means the DoD must have the right manpower and human capital resources in the right places, at the right time, at the right levels, and with the right skills to provide for the Nation's defense, while simultaneously being good stewards of taxpayers' dollars.

Sections

- Military Compensation
- Blended Retirement System
- Managing the Military Health System
- Strengthening Military Families
- DoD Civilians

The Department's commitment to a generous compensation package for those individuals willing to voluntarily serve their country is built into the Fiscal Year (FY) 2020 budget request and demonstrated by the number of initiatives and programs to support their professional development and their personal and family lives.

The FY 2020 budget request continues to advance the objectives of the *National Defense Strategy* by sustaining the gains in FY 2017, FY 2018, and FY 2019 and continuing to build a bigger more lethal and ready force. Military pay and benefits funding grows by more than \$3.4 billion over the FY 2019 request. This increase includes funding for a 3.1 percent military pay raise, the largest in a decade, and an end strength increase of approximately 7,700 over the currently projected FY 2019 levels, which is designed to increase overall capacity and improve readiness through reduced operational and personnel tempo. In addition, these end strength increases will allow the Services to better support advanced capabilities like cyber, electronic warfare, and special operations needed to contend with our most capable, potential adversaries and fulfill the *National Security Strategy* charter to preserve peace through strength.

3.1% Military Pay Raise – Largest increase in 10 years

MILITARY COMPENSATION

Comprising roughly one-third of the DoD budget, military pay and benefits to include healthcare, housing, DoD schools, commissaries, and a myriad of military family support programs are, and will likely continue to be, the single largest expense category for the Department. People are the Department's most valuable asset, but DoD must continually balance these requirements with

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other investments that are critical to achieving the Department's strategic goals. Providing a robust pay and benefits package is essential and must be sustained to ensure the best warfighters are available to execute the Nation's defense strategy.

To ensure the Department remains appropriately positioned to compete with the private-sector marketplace for new recruits and to retain a well-trained and quality force, the Department expects moderate and manageable increases in basic pay will continue in the near term and will match the growth in private-sector wages. In support of the Department's effort to continue to build a bigger more lethal and ready force, the FY 2020 President's budget proposes a 3.1 percent increase in military basic pay. **This builds on last year's 2.6 percent increase and is the largest military pay raise in a decade.**

In addition to the annual basic pay raise proposal, the FY 2020 budget requests funding for a full range of compensation programs, from monthly special and incentive pays to recently modernized retirement benefits.

BLENDING RETIREMENT SYSTEM

The National Defense Authorization Act for Fiscal Year 2016 (P.L. 114-92) and for Fiscal Year 2017 (P.L. 114-328) enacted substantial changes to the military retirement system. For decades, military members have had to serve 20 years before becoming eligible for a defined benefit retirement. Since roughly 80 percent of Service members depart before serving 20 years, most left without any government-provided retirement benefit. Under the new system, the Blended Retirement System (BRS), a member who serves for 20 years will still have the opportunity to achieve a retirement that is the equivalent of or better than retirement under the legacy system, and the vast majority of members who do not make the military a career will also leave with government-provided retirement savings.

The enactment and implementation of the BRS is an important and historic change to the military compensation package - providing a flexible, modern, and relevant compensation tool to continue to recruit and retain the high-quality men and women needed to protect and defend our Nation into the future.

The legacy military retirement plan consists entirely of a defined benefit (retired pay). The retired pay is based upon a formula of 2.5 percent times the number of years served times the average of the member's highest 36 months of basic pay. Retired pay for a Reserve Component (RC) member uses the same formula and translates the member's retirement points into years served. The BRS is a blend of several components, which include:

- a defined benefit (retired pay) using a 2.0 percent per year multiplier in lieu of 2.5 percent;
- an automatic 1 percent government contribution to the member's account with the Thrift Savings Plan (TSP) after the member serves 60 days;
- government matching contributions to the member's TSP account using the same matching plan as is used for Federal government civilians under the Federal Employee Retirement System;

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- an option to receive a partial lump-sum distribution upon becoming eligible to receive retired pay; and
- a retention bonus (continuation pay) paid to the member between the 8th and 12th year of service.

The BRS covers all members who joined on or after January 1, 2018, as well as those who had fewer than 12 years of service or 4,320 RC retirement points on December 31, 2017, and who elected to opt-in. All others remain grandfathered under their legacy retirement plan.

During the 1-year opt-in election period, which closed on December 31, 2018, over 400,000 eligible members opted into the BRS, including roughly 320,000 active-duty and 80,000 RC members. To assist members in making a decision during the 1 year opt-in election period, the Department focused on ensuring that eligible members were fully informed, fully educated and had all the tools, resources, and information at their disposal to make this highly personal decision. The Department successfully achieved this goal by providing training to more than 1.6 million eligible members along with access to financial counselors, online calculators, and by conducting a social media outreach campaign that won First Place for the National Association of Government Communicators (NAGC) Social Media Award for Excellence.

Over 550,000 BRS participants (the more than 400,000 who opted into BRS plus over 150,000 who entered the military during 2018) **have already contributed over \$500 million to their own TSP accounts, and the Department has contributed another \$300 million**, with the majority of BRS participants contributing at or above 5 percent of their own pay in order to receive the maximum government benefit.

MANAGING THE MILITARY HEALTH SYSTEM

The Military Health System (MHS) is a comprehensive, integrated system with a dual responsibility to deliver operational medicine to enhance the lethality of our forces and to provide peace time care to active duty and retired U.S. military personnel and their families.

The system leverages a \$49.5 billion budget to support more than 125 thousand medical professionals delivering services in 49 hospitals, 427 clinics, and 246 dental clinics as well as in contingency and combat-theater operations to 9.6 million beneficiaries globally.

From an operational perspective, the Department uses the MHS to deliver medical capabilities in support of the Nation's Security Strategy and the defense of our nation. **On the battlefield, every element of the MHS comes together to maximize survivability for our forces.** Army, Navy, and Air Force medical professionals help ensure those in uniform are medically ready to deploy anywhere around the globe on a moment's notice. Complementing the MHS's operational role is the organization's global benefit mission.

This complex operation integrates health care delivery, public health and medical education, private sector partnerships along with cutting edge medical research and development. The MHS purchases more than 65 percent of the total care provided for beneficiaries through tailored contracts, such as the Managed Care Support Contracts responsible for the administration of the TRICARE benefit. Its readiness mission spans a broad portfolio of operational requirements,

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such as combat casualty care, disaster relief, global health engagement, and humanitarian assistance. Key enablers of the system include the Department of Defense medical school, the Uniformed Services University of the Health Sciences (USUHS), plus a full spectrum of graduate medical education programs, training platforms for all members of the health care team, and robust research capabilities.

The Cost of Military Health Care

The MHS offers a rich health care benefit to 9.6 million eligible beneficiaries, which includes active military members and their families, military retirees and their families, dependent survivors, and certain eligible Reserve Component members and their families. The Unified Medical Budget (UMB), which comprises the funding and personnel needed to support the MHS' mission, consumes a significant portion of the Department's topline budget authority and is a stand-alone line item in the Department's financial portfolio.

FY 2020 Budget Request

The FY 2020 UMB request is \$49.5 billion, down 2.3 percent from the enacted FY 2019 level. The decline is driven predominantly by the unrequested congressionally directed research and development additions in FY 2019, a decline in procurement based on the re-phasing of the MHS GENESIS electronic health record deployment schedule, and a reduction in the number of military personnel assigned to the Defense Health Agency. For a number of years, the UMB has been relatively flat, the result of slower growth in health care costs coupled with both meaningful benefit reform legislation and pursuit of internal efficiencies.

Due to the substantial reforms to the health benefit enacted in FY 2017 and FY 2018 and the slowing growth of the UMB, **the Department is not pursuing any further cost share reforms in FY 2020.** Instead, the Department will continue to pursue efforts focused on internal business process improvements and structural changes to find greater efficiencies, such as further modernizing the military health care system to form a more integrated delivery system; continuing the deployment of the MHS Genesis electronic health record; implementing the health benefit reforms authorized by Congress; reforming cumbersome processes; and, streamlining internal operations. Ensuring the success of these major efforts will generate savings to be reinvested in lethality, improve our beneficiaries' health care experience, and improve our medical force readiness posture.

Figure 2.1. Military Health Care Funding
(\$ in billions, Base and OCO)

Program	FY 2019 Enacted	FY 2020 Request
Defense Health (DHP)	34.4	33.3
Military Personnel ^{1/}	8.4	8.1
Military Construction ^{1/}	0.4	0.3
Health Care Accrual ^{2/}	7.5	7.8
Unified Medical Budget	50.7	49.5
Treasury Receipts for Current Medicare-Eligible Retirees ^{3/}	10.8	11.2

Numbers may not add due to rounding

^{1/} Funded in Military Personnel & Construction accounts.

^{2/} Includes health care accrual contributions into the Medicare-Eligible Retiree Health Care Fund to provide for the future health care costs of personnel currently serving on active duty – and their family members – when they retire.

^{3/} Transfer receipts in the year of execution to support 2.5 million Medicare-eligible retirees and family members.

The Department’s internal efficiencies are a direct result of comprehensive assessments and expansive reviews of all facets of the MHS health care model -- emphasizing the need to balance the missions of ensuring a ready medical force and a medically ready force while providing the highest quality care to all eligible beneficiaries.

Our intent is to achieve these end-states in the most fiscally responsible manner possible to ensure long-term sustainment of the benefit. Over the past several years, program efficiencies have been extremely successful in constraining health care costs. Initiatives have included the implementation of Federal Ceiling Pricing (a discount drug program), the Outpatient Prospective Payment System (a transition to more favorable Medicare rates for private hospitals), Patient-Centered Medical Homes, Modifications to Long-term Care Reimbursements, Managed Care Support Contract Administrative Fee reductions and the Defense Health Agency’s Shared Services (reducing redundancy and improving coordination among the Services). As a result, the estimated annual savings totals approximately \$5.0 billion.

Continued Transformation of the MHS

The National Defense Authorization Act for Fiscal Year (FY) 2017 and FY 2019 directed significant reforms to the benefit structure as well as the management structure of the MHS. These adjustments to the management structure shaped the environment to further transform the MHS into an integrated system of readiness and health.

In early 2017, the DHA began preparing to assume responsibility for the administration and management of MTFs worldwide. The assumption of these responsibilities commenced on October 1, 2018 with the transition of 31 facilities scattered throughout the south eastern portion of the United States. The remaining MTFs will transition in three subsequent phases. The second phase, executing in FY 2020, will transition an additional 241 MTFs, essentially all treatment facilities in the eastern portion of the United States, and result in 53 percent of facilities under the management control of the DHA. The third phase will execute in FY 2021 and will transition the remaining CONUS based MTFs to the DHA representing a total of 83 percent of the MHS. The final phase will execute FY 2022 and consist of the remaining 17 percent of the MHS.

In addition to the substantial realignment of management control, the FY 2020 President’s Budget also represents the Department’s most significant review of the Military Medical End Strength portfolio since FY 2003. The manner in which we ensure both a medically ready force and a ready medical force has evolved significantly over the past decade. As such, the Department is driving a corresponding comprehensive effort to evolve its approach to how it allocates and clinically diversifies the medical military end strength. The Military Departments, the Joint Staff, and the Office of the Secretary of Defense (OSD) have partnered to develop methodologies to more adequately determine the wartime requirements for the medical force. The resulting reduction in active duty military medical providers will ultimately provide a medical force appropriately sized and shaped to meet National Defense Strategy requirements and will allow the MHS to optimize operational training and beneficiary care delivery.

The FY 2020 budget continues the deployment of MHS GENESIS, the Department’s Electronic Health Record. The FY 2020 expansion to Naval Medical San Diego, Naval Hospital Camp Pendleton, Elmendorf Air Force Base, Fort Wainwright, Fort Carson, Fort Leavenworth, Fort Leonard Wood and Fort Riley Hospitals is based on the Department of Defense (DoD)

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Healthcare Management System Modernization Program (DHMSM) Program Executive Office's (PEO) updated deployment schedule and incorporates lessons learned from initial deployments in the Pacific Northwest. Additional enhancements to MHS GENESIS will provide expanded analytics and data modeling; decision-support, integrated patient level accounting and billing functionality, and advanced prognostic competencies.

As directed by Congress, DoD and the Department of Veteran's Affairs have continued to progress in the establishment of the unified Electronic Health Record. In FY 2020, DoD has funded the clinical application, HealthIntent, which provides a platform for population health and analytic tools, and offers a seamless longitudinal record between the DoD and VA that will grant providers and beneficiaries access to the detailed medical history.

The centralized administration of the Military Treatment Facilities (MTFs) under the authority of the Defense Health Agency (DHA) provides a unique opportunity to more closely integrate the Department's focus on Readiness and elimination of redundancies while creating a common high-quality experience for patients.

STRENGTHENING MILITARY FAMILIES

The Department will keep faith with military members and their families, who have borne the burden of over a decade of war, by continuing to provide military family assistance through programs that include child care, youth development, support for family members with special needs, relocation assistance, non-medical counseling, Morale, Welfare, and Recreation (MWR), and other military family support programs.

The Military Departments plan to continue vital assistance to military members and their families on more than 300 installations worldwide.

The major initiatives to improve the quality-of-life of military members and their families are designed to mitigate the demands of military life — especially the challenges of deployments and frequent relocations. The Spouse Education and Career Opportunities program supports spouse educational and career development, recognizing that spouses' lives are disrupted when they relocate every few years with their service member. Military OneSource, a 24/7 information and assistance service, links military members and their families to resources and support, and provides non-medical counseling to preemptively address stressful situations. The MWR program provides much needed recreational and fitness resources for all members of the family to promote overall well-being. These are just a few examples of the network of support designed to ensure that military members can confidently attend to the larger Defense mission, as the Department recognizes that family readiness is a key enabler to mission readiness.

The FY 2020 budget request includes nearly \$8.0 billion (Figure 2.2) for military family support programs. The \$0.4 billion net decrease from the FY 2019 enacted funding level for military family support programs is driven by the Commissary's use of prior-year unobligated funds and military construction phasing of DoD school projects.

Figure 2.2 displays a summary of the Department's FY 2018 — FY 2020 budget request for these programs. Key programs are:

- **Child Care and Youth Programs:** Includes funding for child development programs, which serve over 180,000 children, and youth and teen programs, which serve over 1 million children.
- **Morale, Welfare, and Recreation programs:** Includes funding for mission--sustaining programs such as fitness centers, libraries, and single service member programs; voluntary education; and recreation programs such as outdoor recreation and auto skills centers.
- **Warfighter and Family Services:** Includes funding for family support centers, and non-medical counseling support services for Active Duty, National Guard, and Reserve members and their families. Key programs in this category include:
- **Commissary:** Includes funding for the Defense Commissary Agency to operate 236 commissary stores on military installations worldwide, employing a workforce of over 12,500 civilian full-time equivalents.
- **Department of Defense Education Activity (DoDEA) Schools:** Includes funding to support the education of students.

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Figure 2.2. Military Family Support Programs
(*\$ in billions, Base and OCO*)

Program	FY 2018 Actual	FY 2019 Enacted	FY 2020 PB Request
Child Care and Youth Programs	1.2	1.4	1.4
Morale, Welfare and Recreation	1.5	1.6	1.6
Warfighter and Family Services	1.6	1.7	1.8
Commissary	1.4	1.3	1.0
DoDEA Schools	2.2	2.4	2.2
Total	8.1	8.4	8.0

Numbers may not add due to rounding

As the Department continues to reshape its forces for current and future missions, it is committed to sustaining a balanced portfolio of family assistance programs that are fiscally sustainable and continue to promote service member and family readiness. The overall funding for family assistance programs was determined strategically, based on the number of military members and families served, but without degradation in the quality of the programs provided.

DOD CIVILIANS

The FY 2020 budget request supports a properly sized and highly capable civilian workforce that is aligned to mission and workload, and is shaped to reflect changes commensurate with the Department's military force structure. Civilian personnel within the Department of Defense (DoD) are key to warfighter readiness, essential enablers to DoD's mission capabilities and operational readiness, and critical to supporting our All-Volunteer Force and their families. The Department's civilians perform critical functions in intelligence, equipment maintenance, medical care, family support, base operating services, and other activities that directly support the military forces and readiness. The Department's civilian workforce brings to bear capabilities, expertise, and skills directly impacting DoD's operational warfighting capabilities. From depots and shipyards; to child care centers and schools around the world; to our airfields, ranges, and armories; to the backbone of installation family programs and support – whether operating shoulder-to-shoulder in theater with their uniformed counterparts or stateside in support of our military families – DoD's civilians are an essential part of our National Defense Strategy.

The FY 2020 budget request continues the Department's ongoing efforts to ensure that its civilian workforce is appropriately sized to complement our military. For DoD, "right sizing" will necessitate targeted civilian growth to both restore readiness and increase the lethality, capability, and capacity of our military work force. As part of a broader agency reform effort, the Department continues to follow its Workforce Recruitment Program (WRP) that provides a strategic roadmap for how the DoD will work to optimize its Total Force, maximize lethality, restore readiness, grow the force, and increase capability and capacity. The size and composition of the civilian workforce reflects and recognizes evolving critical demands such as emerging cyber technologies and threats, and guards against the erosion of organic skills and an overreliance on contracted services.

The DoD civilian workforce presented in the FY 2020 budget request is sized to preserve mission essential skills and capabilities, regenerate and sustain readiness, and enhance lethality. While making investments in the civilian workforce, the FY 2020 budget also recognizes the continued need for agency reform, increased efficiencies, and ensuring Defense resources are aligned to

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mission priorities. As such, the FY 2020 budget request continues previous efforts with respect to reducing the Major DoD Headquarters Activities (MHA).

The Department estimates the number of civilian Full-Time Equivalents (FTEs) (excluding Classified Activities, Cemeteries, and Foreign National Indirect Hire) will increase 0.7 percent, from 752,6000 in FY 2019 to 758,000 in FY 2020. The Department continues to improve business practices by eliminating unintended redundancies within the workforce and by consolidating and improving our Human Resources Information Technology (IT) systems. Projected civilian increases are tied to skillsets directly related to the operational requirements, such as depot maintenance supporting shipyards and logistics depots, operational requirements in the cyberspace and intelligence domains, science, technology, engineering, and mathematics (STEM) occupations that support lethality, readiness regeneration and force structure sustainment functions, and ensuring that our military members and their families receive unparalleled support.

Figure 2.3. Civilian FTEs (Base and OCO)^{1/}

Program	FY 2019 ^{2/} Enacted	FY 2020 ^{2/} Request	Percent Change
Army	184.6	182.9	-.9%
Navy	202.9	205.6	1.3%
Air Force	172.1	174.6	1.5%
Defense Wide	193.0	194.8	0.3%
Total DoD	752.6	757.8	0.7%
U.S. Direct Hires	737.8	743.1	0.7%
Foreign Direct Hires	14.8	14.8	-

Numbers may not add due to rounding

^{1/} Excludes Classified Activity, Cemetery Expense, and Foreign National Indirect Hire (FNIH) FTEs

^{2/} Excludes 31,936 of Foreign National Indirect Hire (FNIH) FTEs in FY 2019 and 32,493 in FY 2020

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3. RESTORING READINESS

The FY 2020 budget continues to build Military readiness to address the threats defined in the National Defense Strategy (NDS). To guide and inform readiness investments, the Department developed the Readiness Recovery Framework (R2F), a transparent, measurable, and repeatable process that identifies readiness shortfalls, establishes milestones, and measures incremental progress. The R2F also includes projected timelines for readiness recovery and identifies specific actions and relevant metrics to achieve recovery goals.

Major Themes
<ul style="list-style-type: none">• Aligning FY 2020 Military readiness to the National Defense Strategy• Establishing metrics to target readiness investments• Sustaining readiness gains since FY 2017

Using the analytical methodology defined in the R2F, the Department is able to provide a quantitative assessment of the readiness of the Military Services and U.S. Special Operations Command to address the threats in the NDS. Further, the R2F improves the Department's ability to link resources to readiness outcomes. For example, since FY 2017, the Department has received additional funds that have contributed to an increase in the number of ready ships, aircraft, and ground equipment, the details of which are described in the following service sections. However, these improvements will only continue if the Department remains funded at sufficient levels and is unaffected by the inefficient and damaging continuing resolution funding process. The Department needs consistent, stable, and predictable funding to continue building readiness and implementing the NDS.

The Services have taken significant steps to identify and address the critical drivers of readiness. For example, the Navy is leveraging advances in data analytics to develop a model from troves of historical data to address challenges in ship and aviation readiness. The Air Force is leveraging its internal March 2018 Readiness Review, which generated a comprehensive list of improvements to build readiness across the Service. These new approaches will allow the Department to refine its knowledge of readiness drivers and predict the effect of resourcing changes, operational tempo or other factors on future readiness. As data-driven results become available, the Department will incorporate new information and analysis into the R2F to improve the metrics and adjust milestones.

The Department is prepared to fight today if called upon; however, more work needs to be done to enhance readiness and set the conditions to recover core competencies within ground, ship, and aviation forces.

Specifically, the FY 2020 budget request funds improvements in the following areas:

- Army is investing \$27.7 billion in all readiness accounts, including \$4.3 billion for home station training for ground maneuver forces and \$2.7 billion for aviation readiness.
- The Navy continues to implement the Optimized Fleet Response Plan and reduce its long term maintenance backlog by investing \$10.4 billion in ship depot maintenance and hiring additional shipyard workers. Further, Navy is investing \$7.5 billion in aviation readiness to improve mission capable rates across the fleet.

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- The Marine Corps is investing a combined \$7.5 billion in ground and aviation readiness accounts to sustain critical maintenance and training programs.
- The Air Force is investing \$27.2 billion in core readiness accounts and focusing on operational training infrastructure, improved manning, flying hours, and weapons system sustainment.

The following provides a more detailed breakdown of FY 2020 readiness investments, by Service.

ARMY READINESS

Although the Army continues to focus on modernization, the FY 2020 budget invests in building Army ground and aviation readiness to meet the demands in the NDS. In addition, the Army is addressing the capacity requirements for near-peer competition by converting Infantry Brigade Combat Teams (IBCT) to Armored Brigade Combat Teams (ABCTs), which will increase the number of ABCTs in the Total Force from 14 in FY 2018 to 16 by FY 2022.

The Army is leveraging the R2F to track progress and guide readiness investments. For example, the Army Corps Headquarters is a critical force element that provides essential command and control capability to ground and aviation forces during combat operations. Annual Mission Command Training Programs are critical for generating Corps Headquarters readiness, and Army has allocated \$45 million in FY 2020 to complete three training exercises. Preliminary analysis suggests that current operational demands may inhibit the ability of some force elements, such as Combat Aviation Brigades (CABs), Corps Headquarters, and Patriot Battalions, to build and sustain readiness. To address this issue, the Army is working with the Combatant Commanders to reduce the operational demand for these particular force elements and has requested \$13.7 billion in FY 2020 to support Ground Readiness accounts.

As shown in Figure 3-1, the Army invested additional funding over the past three years to improve readiness, which has contributed to an increase in readiness for certain force elements, including ABCTs, Patriot Battalions, and Sustainment Brigades. Overall, 6 of the 9 Major Force Elements (MFEs) tracked in the R2F have seen improvements in availability since FY 2017.

Figure 3-1. FY 2020 Key Army Readiness Investments

ARMY	FY17	FY18	FY19	FY20
End Strength ¹	1,014,166	1,000,194	1,002,750	1,005,500
Ground Readiness ²	\$11.4B	\$12.7B	\$13.4B	\$13.7B
Aviation Readiness ³	\$2.5B	\$2.6B	\$2.5B	\$2.7B
Infrastructure ⁴	\$5.0B	\$7.2B	\$6.4B	\$8.8B

¹ Total Active, Reserve, and National Guard end strength; FY 2019 currently projected end strength

² Ground Readiness Sub Activity Groups (SAGs) 111, 112, 113, 114, 115, 123

³ Aviation Readiness SAGs: 116

⁴ Infrastructure SAGs: 132, Military Construction (MILCON)

FY 2020 budget builds on readiness gains to prepare for future threats

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The Department of the Army set a goal to increase its overall end strength by almost 3 thousand from FY 2019 to FY 2020 to generate the following force structure: 480 thousand active component (AC); 336 thousand Army National Guard (ARNG); and 189.5 thousand Army Reserve component (RC). External factors such as a strong economy, competition from the private sector, and a decreasing number of youth eligible for Service may inhibit the Army's ability to recruit young people. However, the Army is overhauling its recruitment practices and engaging potential recruits via social media and other online forums. Further, the Army is offering new recruits bonuses of up to \$40,000, 2-year enlistments, and student loan repayments.

Ground readiness continues to improve due to investment in the primary accounts such as maneuver units, modular support brigades, echelons above brigade, theater level assets, land forces operations support, and land forces depot maintenance. The ABCTs are crucial to the NDS, as they provide ground maneuvering and combat power. Since FY 2017, the availability of ABCTs has improved due to investments in home station training and combat training centers. In the R2F, the Army identified that increasing the number of Combat Training Center (CTC) rotations to five per year is critical to building ABCT readiness, and the FY 2020 budget requests \$1.7 billion to achieve this goal. Another key enabler, Patriot Battalions, has improved since FY 2017, due to aggressive investments in munitions, equipment maintenance, and training.

Over the past two years, Army investments have also contributed to an increase in the availability of Multi Role Bridge Companies for operational theater demands. These force elements provide critical logistics capabilities to the warfight, and the Army is further improving the readiness of these force elements by effectively balancing the use of AC and RC forces.

Army aviation remains a concern due to many factors, including pilot production and retention. The Army is addressing these concerns through two lines of effort, one in the Generating (e.g., training) Force and one in the Operating Force. The Army has increased Fort Rucker's priority for aircraft repair parts and has increased the number of aircraft (UH-60, CH-47 and AH-64) available for training. These changes will allow the Army to train 475 active duty warrant officers in FY 2020, up from 425 in FY 2018. In order to retain aviators within the Operating Force, the Army has increased aviation bonuses, staffed a proposed increase to the Active Duty Service Obligation for pilots, and increased promotion rates for warrant officers.

Army has also invested in facilities and other key construction projects, such as a guided missile repair center, the Cyber Center of Excellence, and housing facilities in Italy, Korea, and Germany. Army enhanced its overseas posture in support of the NDS by adding to construction projects in various locations.

The current strategic environment requires the Army to focus on joint operations against a broad range of threats. To counter these threats, the Army will use its most demanding challenge as a measure of readiness, i.e., the Decisive Action in support of Unified Land Operations (DA/ULO). CTCs play a critical role in building DA/ULO readiness and are critical to prepare for missions against peer competitors for all echelons of command. This capability cannot be duplicated at home station. Figure 3-2 shows planned rotations for the critical joint training exercises funded in the FY 2020 budget.

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Figure 3-2. Required, Planned, and Executed Army (Regular, Reserve, Guard) rotations through Maneuver CTCs DA/ULO, and Warfighter Exercises (WFX)

CTC Training	FY 2018 Actual	FY 2019 Planned	FY 2020 Planned	FY 2020-2023 Planned
Combat Training Center (CTC) Capacity – Brigade Combat Teams (BCTs)	19	19	20	20
Security Force Assistance Brigade (SFAB) Cumulative Training Exercise Culminating Training Event	2 CTE	2 CTE	2 CTE	2 CTE
Warfighter Exercises (WFX)*	16 WFX	15 WFX	16 WFX	15 WFX
Emergency Deployment Readiness (EDRE) (CONUS)	4	4	4	4

*Note: Warfighter exercises alternate between 15 and 16 annually, odd and even numbered years respectively

NAVY READINESS

In the FY 2020 budget, the Navy continues to focus on improving the materiel condition of its afloat fleet. To this end, the Navy is increasing public shipyard capacity and more effectively balancing the workload between the shipyards in line with the metrics established in the R2F. Specifically, the Navy grows by an additional 511 shipyard workers by FY 2020 to get to a total of 36,198 workers and shifts some attack submarine maintenance to the private shipyards. In FY 2020, the Navy plans to complete 44 maintenance periods for surface ships and 7 maintenance periods for attack submarines.

The Navy is also making directed improvements to aviation readiness. Recently, the Secretary of Defense directed the Navy to achieve 80 percent mission capable rates for 4th and 5th generation strike fighter aircraft in operational squadrons, including the F/A-18, EA-18, and F-35C. To address these challenges, the Navy requests \$8.1 billion in FY 2020 for aviation depot maintenance, Spare Parts, and the Flying Hour Program. Further, the Navy is taking steps to fix systemic issues and processes throughout the aviation community that will help to improve the readiness of the entire aviation fleet.

In addition to investments, the Navy is also conducting a comprehensive assessment of the ship and aviation enterprises to identify efficiencies, improve cost overruns and minimize maintenance delays by analyzing large amounts of historical maintenance and operational data. The findings of this assessment will provide more insight into current issues, such as ship and aircraft spare parts inventory and cannibalization rates for aircraft and attack submarines. The results of this effort will be incorporated as new metrics in the R2F.

Despite the challenges described above, the Navy has increased the availability of surface ships, attack submarines, amphibious assault ships, and fighter aircraft for combat operations since FY 2017. These gains are due, in part, to the additional readiness funding provided in the FY 2017- FY 2019 appropriations. For example, the additional funding in FY 2017 restored 13 surface ship maintenance periods and contributed to all four 2017 CVN maintenance periods

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completing on time, a reduction in total delays by 38 percent relative to 2016. In FY 2018, the USS RONALD REAGAN delivered on time and seven of the public shipyard ship and submarine pre-planned maintenance periods were on schedule to be completed (2 CVN, 5 SSN). Additional funding for ship depot maintenance has enabled ships to begin deployment training on time, with improved materiel condition and modernized combat, communications, and engineering systems. The FY 2017 Request for Additional Appropriations and the FY 2018 and FY 2019 budgets began to fill urgent readiness gaps and rebuild core readiness. Navy's FY 2020 request continues to build upon these readiness gains.

Figure 3-3. FY 2020 Key Navy Readiness Investments

NAVY	FY17	FY18	FY19	FY20
End Strength ¹	381,768	388,063	397,951	399,500
Ship Readiness ²	\$ 13.5B	\$ 15.3B	\$ 15.0B	\$ 15.8B
Aviation Readiness ³	\$ 6.4B	\$ 7.2B	\$ 7.3B	\$ 7.5B
Infrastructure ⁴	\$ 3.0B	\$ 3.9B	\$ 4.5B	\$ 4.8B

1. Total Active and Reserve end strength; FY 2019 currently projected end strength

2. Ship Readiness SAGs: 1B1B, 1B4B

3. Aviation Readiness SAGs: 1A1A, 1A2A, 1A5A, 1A9A

4. Infrastructure SAGs: BSM1, BSMR, Military Construction (MILCON)

In addition to the increase in Navy shipyard civilian personnel (discussed above), by the end of FY 2020 the Navy will have grown military end strength by 16,600 active duty personnel since FY 2017. This growth will eliminate shortfalls in critical warfighting specialties, align manpower to force structure as the Navy grows the Fleet, reduces manpower gaps at sea, and addresses Comprehensive Review/Strategic Readiness Review (CR/SRR) recommendations such as adjusting ship manning levels to allow for adequate crew rest, account for extraneous collateral duties and training while aboard ship, as well as a mariner skills training program to improve seamanship and navigation skills and operational risk management education and training.

Since FY 2017, the Navy has made key improvements in the availability of forces crucial to meeting NDS demands. For example, Maritime Patrol Aircraft availability almost doubled, increasing the Department's ability to conduct anti-submarine missions. Also, the availability of critical aviation platforms required to conduct strike missions has increased, due in part to continued focus on improving depot maintenance efficiency and improving the inventory of spare parts. The Navy is building on this progress in the FY 2020 budget by investing an additional \$432 million in aviation spare parts. This will ensure the Navy reaches the R2F goal to increase the Ready For Issue (RFI) spare part inventory from 54 percent in FY 2018 to 75 percent by FY 2024.

The availability of attack submarines and surface ships has also increased since FY 2017 due to significant investments in ship depot maintenance and an increased number of workers in the public shipyards. Further, in an effort to increase shipyard efficiency and even out the workload across the industrial base, the Navy moved certain maintenance periods to private shipyards. For example, the Navy moved the planned USS HARTFORD and USS MONTPELIER maintenance periods scheduled in FY 2020 and FY 2021 to the private sector. This action will result in increased operational availability by returning these submarines earlier to the Fleet and freeing up space at the public shipyard.

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The Navy has developed an infrastructure investment plan to address substantial deficiencies in shipyard facilities. Although it will take years of consistent funding to repair all of the shipyards, the Navy is taking important steps to complete these projects as quickly as possible. For example, the Navy requests \$200 million in FY 2020 for the Capital Improvement Program, which procures modern repair equipment and tools for shipyards. Navy also requests \$300 million in FY 2020 for shipyard infrastructure to enable maintenance on the new Virginia Class attack submarines.

In the FY 2020 budget, the Navy includes 70 integrated training exercises for Carrier Strike Groups (CSGs), Amphibious Readiness Groups (ARGs) and attack submarines. These training exercises are critical to address 4th and 5th generation adversary threats and ensure the Carrier Strike Groups operate seamlessly in a combat environment.

Figure 3-4. Programmed Navy Training Throughput

	FY 2018 Executed		FY 2019 Planned		FY 2020 Planned	
	BASIC	INT*	BASIC	INT*	BASIC	INT*
Carriers	3	2	4	3	2	3
Carrier Air Wings	4	2	4	3	5	3
CG/DDG/LCS	32	17	37	21	43	21
LHA/LHD/LPD/LSD	12	10	15	9	17	10
Attack Submarines	13	31	15	34	9	33

**Integrated refers to aggregated training of all units in a CSG /ARG*

MARINE CORPS READINESS

The FY 2020 budget increases the Marine Corps' readiness to meet the NDS by requesting \$3.7 billion in ground readiness accounts, including Depot Maintenance, Maritime Prepositioning, Field Logistics, and Operating Forces. For aviation readiness accounts, the Marine Corps requests \$3.8 billion, supporting the Flying Hour Program, Depot Maintenance, Aviation Support, and Performance-Based Logistics.

Similar to the Navy, the Marine Corps was directed by the Secretary of Defense to have 80 percent of its F-35B and F/A-18 aircraft 80 percent mission capable by the end of FY 2019. To address this challenge, the Marine Corps increased aviation readiness investments by 13 percent from FY 2017 to FY 2019 (\$3.0 billion vs. \$3.4 billion, respectively). The Marine Corps plans to sustain and improve upon its gains in aviation readiness by investing \$3.8 billion in these accounts in FY 2020.

The additional readiness funding in FY 2017-FY 2019 has enabled the Marine Corps to build and sustain its role as a ready, agile, expeditionary and forward deployed force. Unit readiness remains high for deployed and next-to-deploy forces, and the Service is seeing continued improvement in other readiness areas.

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Figure 3-5. FY 2020 Key Marine Corps Readiness Investments

Marine Corps	FY17	FY18	FY19	FY20
End Strength ¹	223,196	223,851	224,469	224,700
Ground Readiness ²	\$3.3B	\$3.6B	\$3.4B	\$3.7B
Aviation Readiness ³	\$3.0B	\$3.3B	\$3.4B	\$3.8B
Infrastructure ⁴	\$1.3B	\$1.7B	\$1.7B	\$2.6B

1. Total Active and Reserve end strength; FY 2019 currently projected end strength

2. Ground Readiness SAGs - 1A1A, 1A2A, 1A3A, 1B1B

3. Aviation Readiness SAGs - 1A1A, 1A2A, 1A5A, 1A9A

4. Infrastructure SAGs – BSM1, BSMR, Military Construction (MILCON)

The Marine Corps intends to increase active duty end strength to 186,200 Marines by FY 2020 while maintaining reserve end strength at 38,500. This growth will help augment capabilities for the future operating environment.

Overall, ground forces continue to achieve high levels of readiness, with infantry battalions and other major force elements immediately available for combat operations. With resources provided in FY 2017-2019, the Marine Corps increased Ground Combat Element and Logistics Combat Element readiness. Moreover, the readiness of mission essential ground equipment, such as AAVP7, M1A1 Tank, M777 Howitzer and LAV-25, remains high at 92 percent and 95 percent for the Active Component and Marine Prepositioning Force, respectively.

Shortfalls within the aviation combat element remain a critical readiness challenge; thus, the Marine Corps' readiness recovery effort has been heavily focused on aviation. Recent funding increases and budget stability have enabled the Marine Corps to accelerate aviation readiness recovery efforts and achieve positive results. In FY 2018, the Marine Corps increased mission capable rates versus the prior year by 12 percent for F/A-18A-D, 7 percent for MV-22B, and 8 percent for KC-130J. Over the same time period, the Marine Corps significantly increased the number of flying hours per crew per month by 16 percent and enabled a quantifiable increase in training readiness levels.

As the R2F identifies, aviation readiness continues to improve across four lines of effort: 1) depot throughput, including the depot readiness initiative; 2) aircraft in a non-mission capable status awaiting maintenance (NMCM); 3) aircraft in non-mission capable status awaiting supply (NMCS); and 4) in-service repair – depot maintenance at the operational level. Documented gains along these lines of effort include:

- Depot throughput met Service goals in FY 2018 and is on plan for FY 2019.
- Non-mission capable aircraft awaiting maintenance dropped to 13.1 percent of the Service's in-reporting aircraft at the end of FY 2018, down from 14.1 percent at the end of FY 2017.
- Non-mission capable aircraft awaiting supply dropped to 22.5 percent of the Service's in-reporting aircraft at FY 2018 year-end, down from 24.4 percent at the end of FY 2017.
- In-service depot-level repairs being conducted on the flight line achieved the Service goal of under 5 percent non-mission capable (NMC), with the exception of F/A-18 (13 percent).

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These gains are the direct result of the additional readiness funding received over the FY 2017-FY 2019 period and the corresponding investments to boost readiness enabler accounts to maximum executable levels. The Service is committed to continuing the acceleration of these readiness recovery efforts in FY 2020.

The Marine Corps requests \$2.6 billion in FY 2020 for infrastructure projects and continues to implement its Infrastructure Reset Strategy to optimize installation support of ready forces. This strategy ensures every dollar is targeted and spent on the highest Marine Corps priorities at the lowest total lifecycle cost, optimizing investment over the long-term to support Marine Corps missions and align investment with strategic priorities. These infrastructure investments focuses on increasing lethality by resourcing projects that support new capabilities/platforms and modernizing inadequate and obsolete facilities, supporting the warfighting mission and contributing directly to current and future Force readiness.

Annual training exercises provide critical opportunities to conduct missions in different environments, simulating realistic combat situations. The Marine Corps invests \$742 million in FY 2020 in support of its Service-Level Training Installations to ensure Marines are properly trained to address all warfighting domains across the range of military operations. The two premier Service-Level Training Exercises are the Integrated Training Exercise (ITX) and Mountain Exercise (MTX). ITX, conducted at the Marine Corps Air Ground Combat Center at Twentynine Palms, California, prepares all elements of the Marine Corps Air Ground Task Force (MAGTF) for combat, with particular emphasis on live fire and maneuver. MTX, conducted at the Marine Corps Mountain Warfare Training Center in Bridgeport, California, prepares units for combat in high altitude, cold weather, and/or mountainous operations. In FY 2020, the Marine Corps plans to conduct the same number of these exercises as scheduled for the previous fiscal year.

Figure 3-6. FY 2020 Marine Corps Planned Large Training Exercises

	FY18		FY19		FY20	
	ITX	MTX	ITX	MTX	ITX	MTX
MAGTF CE	5	0	5	0	5	0
Infantry Bn	10	2	10	6	10	6
Artillery Bn (-)	4.5	0	5	0	5	0
Logistics Bn	5	0	5	0	5	0
Squadrons	30	0	25	0	25	0

AIR FORCE READINESS

The Air Force is committed to building and sustaining readiness to meet the challenges described in the NDS. In the FY 2020 budget, the Air Force focuses manpower and resources on “pacing units,” which are squadrons critical to the early response for combat operations. Today, over 75 percent of the Air Force pacing force is combat ready with their lead force packages. In addition, the Air Force is leveraging its internal March 2018 Readiness Review Team Report, which generated a comprehensive list of readiness improvements, to build readiness across the Service.

Recently, the Secretary of Defense directed the Air Force to achieve 80 percent mission capability rates by the end of FY 2019 for the F-35, F-22, and F-16. To achieve this goal, the Air Force took

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aggressive action by implementing improvements across four distinct lines of effort in line with the R2F: supply inventory recovery, increased maintenance capacity, enhanced training and

proficiency, and moderated operational tempo decreases. To track progress, the Department collects data on industrial performance and cost metrics including flight hour execution, spare parts inventory, and maintenance costs.

Additional funding for readiness in FY 2017-FY 2019, contributed to the increased availability of air superiority, global precision attack, and rapid global mobility platforms, such as the F-22, F-16, C-5, and KC-135. These improvements are due in part to focused investments in pilot training and production, flying hours, depot maintenance, and aviation spare parts. The FY 2020 budget continues to support readiness recovery for pacing unit platforms by sustaining investment levels in Flying Hours & Operations while increasing investments in Maintenance.

Figure 3-7. FY 2020 Key Air Force Readiness Investments

Air Force	FY17	FY18	FY19	FY20
End Strength ¹	497,255	502,052	507,408	510,600
Maintenance ²	\$11.2B	\$15.0B	\$15.0B	\$16.4B
Flying Hours & Operations ³	\$9.2B	\$9.6B	\$10.8B	\$10.8B
Infrastructure ⁴	\$5.0B	\$6.8B	\$5.7B	\$7.4B

1. Total Active, Reserve, and National Guard end strength; FY 2019 currently projected end strength

2. Maintenance SAGs: 011M, 011W, 011V

3. Flying Hours & Operations SAGs: 011A, 011F, 011Y

4. Infrastructure SAGs: 011R, Military Construction (MILCON)

Total Air Force end strength is funded to grow in FY 2020 to meet global requirements. This increase will focus on producing critical skills and generating personnel to fill shortages in aircraft maintenance, intelligence surveillance and reconnaissance, remotely piloted aircraft, and cyber in order to build military readiness and enhance lethality.

Maintenance accounts (Weapons System Sustainment, WSS) fund the depot maintenance, engineering improvements, and technical order management that keep Air Force aircraft fleets viable and healthy. Stable funding has allowed the Service to achieve predictable workloads and be as cost-effective as possible while delivering the sustainment element of readiness. In FY 2020, the Air Force funded 90 percent of all WSS requirements; this includes an increase of \$200 million to aggressively tackle pacing platform readiness. For example, the C-5 received an increase of \$53 million for additional heavy maintenance. From 2011-2017, the Air Force reversed the rate of growth “per tail” in Operation and Sustainment (O&S) costs, with a 2 percent cost decrease during those years. The Air Force attacked costs in the WSS portfolio to bring cost growth below the rate of inflation (1 percent real growth). Additionally, the Air Force continues to find efficiencies to further drive down costs through cutting edge and innovative technologies in its depot maintenance activities.

The Air Force is also concentrating on sustaining gains in air mobility. Continued investments in flying hours and operations contributed to increased availability of KC-135 and the C-5 since FY 2017. The Air Force is reducing training shortfalls by optimizing deployments for these critical platforms. Also, the Air Force and U.S. Transportation Command (USTRANSCOM) are focused on increasing KC-135 unit training opportunities to improve aircrew quality of life and proficiency

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to meet the challenges in the NDS. As a result of these and other investments in aviation readiness, the availability of the KC-135 for combat operations doubled since FY 2017.

The Service invested in operational training infrastructure (OTI) shortfalls through targeted near-term investment and a long-term funding strategy to upgrade both its live and synthetic training infrastructure. In FY 2018, the Service funded upgrades to five Joint Threat Emitters, fixed four Command and Control units, funded development of a Master Exercise Calendar to organize training opportunities, and increased research and development funding to mature advanced radar threat systems. The Service also developed a consolidated, long-term, OTI investment plan that guides prioritized live and synthetic OTI investments. In the FY 2020 budget, the Air Force will develop the infrastructure necessary to train for the challenges of future combat operations. This funding will upgrade critical items to replicate realistic threat environments and improve training integration of 4th and 5th generation aircraft.

Red Flag is the Air Force’s premiere air-to-air combat training exercise, and participants often include both United States and allied nations’ combat air forces. The exercise provides aircrews the experience of multiple, intensive air combat sorties in the safety of a training environment. Green Flag is a joint and coalition exercise consisting of close air support that measures readiness and interoperability. It comprises Air Force integration with the Army and Navy during a large scale “war”. In FY 2020, the Air Force plans to conduct the same number of Red Flag exercises while adding an additional 3 Green Flag exercises compared to FY 2019.

Figure 3-8. Historical and Planned Full-Spectrum Air Force Training Exercises

Exercise	FY18 Executed	FY19 Planned	FY20 Planned
Red Flag Nellis	3	3	3
Red Flag Rescue	2	3	3
Green Flag West	9	9	9
Green Flag East	1	1	4

UNITED STATES SPECIAL OPERATIONS COMMAND (USSOCOM) READINESS

The FY 2020 budget request invests in USSOCOM readiness to support the multiple demands of the National Defense Strategy by ensuring U.S. Special Operations Forces (SOF) readiness to execute major contingency operations with the Joint Force, conduct counterterrorism operations, compete with strategic adversaries below the level of armed conflict, and conduct global crisis response missions.

Overall, USSOCOM remains a high-readiness force with relatively limited readiness deficiencies to accomplishing its assigned missions. In the FY 2020 budget, the SOF Enterprise focused on addressing three core challenges: (1) supporting simultaneous demands on SOF readiness for day-to-day operations, major contingency operations, and crisis response missions; (2) closing gaps and sustaining Service support to SOF readiness; and (3) balancing risks between investments in SOF’s near-term and long-term readiness. The FY 2020 budget request provides USSOCOM with sufficient funding to address these challenges.

The FY 2020 budget provides USSOCOM with the resources to pursue readiness gains in areas with existing or emerging readiness concerns. Specific investments include funding that: continues the accelerated SOF fixed-wing aircraft conversion to an entirely A/MC-130J fleet to improve readiness and availability; closes manning gaps for combat service/combat service

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support (CS/CSS) personnel to alleviate operational tempo stress on certain enablers; modernizes SOF training ranges and simulators; enables full-spectrum SOF-specific training events and exercises; expands training integration with the conventional forces; sustains flying-hours for SOF fixed-wing and rotary-wing aircraft; and invests in artificial intelligence to increase the speed of processing, exploitation, and dissemination (PED) for ISR.

Figure 3-9. FY 2020 Key USSOCOM Readiness Investments¹

USSOCOM	FY17	FY18	FY19	FY20
Personnel ²	67,301	68,069	71,612	73,203
Flying Hours	\$0.65B	\$0.65B	\$0.73B	\$0.76B
Formal Training	\$0.33B	\$0.35B	\$0.34B	\$0.34B
Exercises	\$0.07B	\$0.06B	\$0.07B	\$0.08B

1. Funding reflects only a portion of what the Department considers core readiness spending in USSOCOM's annual budget

2. Total Personnel includes Active, Reserve, and National Guard end strength and Civilian Full-Time Equivalents

The FY 2020 budget sustains the relatively small and targeted growth in USSOCOM's personnel levels -- approximately 853 military and civilian personnel and a realignment of 738 Army Reserve billets (Drill Status) at the Theater Special Operations Commands (TSOCs) and HQ USSOCOM from MFP-5 (Service Support to SOCOM) to MFP-11. This growth in personnel will reduce stress on critical enablers for day-to-day operations and address readiness concerns by providing capacity to improve dwell time. Through the Services, the FY 2020 budget also addresses current and projected SOF readiness concerns in terms of recruitment and retention by offering special pays and incentives for high-demand skillsets and seeks to improve recruitment marketing.

USSOCOM's most pressing near-term readiness challenge is the readiness and availability of SOF fixed-wing aircraft for precision strike (AC-130s) and specialized air mobility (MC-130s). Current challenges are a combination of the relatively small inventory of these aircraft, high day-to-day demand for current operations, and the ongoing recapitalization to transition legacy AC-130 and MC-130 aircraft to an all J-model baseline fleet, on a one-for-one basis. The recapitalization effort is vital to improving aircraft capabilities and availability. Since FY 2018, USSOCOM has accelerated the J-model transition from four to five aircraft per year. The FY 2020 budget request enables USSOCOM to continue this accelerated pace of model conversions that is critical to improving the readiness of these aircraft and mitigating second order impacts on aircrew readiness.

The FY 2020 budget invests in recapitalization efforts crucial to rebuilding SOF platform readiness and enhancing the capacity of certain low-density, high-demand (LD/HD) forces to improve readiness. These relatively small but crucial capacity enhancements include expanded CS/CSS capabilities to reduce stress on SOF enablers as well as support Intelligence, Surveillance, and Reconnaissance (ISR), force protection, direct action, cyber, and classified units.

The FY 2020 budget request supports full rate production for SOF-specific munitions. The FY 2020 budget will fund \$298 million for the Special Operations Precision Guided Munitions (SOPGM) critical to readiness to conduct ongoing and anticipated operations and ensures preparedness for major contingency operations.

The FY 2020 budget provides funding for SOF training and exercises, including participation in major geographic combatant commander (GCC) exercises and SOF-specific exercises as well as USSOCOM component funding for both. These exercises are crucial to sustaining SOF readiness across NDS demands to include high-end warfighting. Additionally, the FY 2020

budget continues to sustain USSOCOM's Joint Combined Exchange Training (JCET) program. JCETs are crucial to SOF readiness by allowing a small SOF unit to train in partnership with host nation forces.

JOINT CAPABILITIES

Combatant Command Exercise and Engagement and Training Transformation

The Combatant Command Exercise and Engagement (CE2) and Training Transformation (T2) program, collectively referred to as “CE2T2,” is the only DoD Joint training program that ensures the Combatant Command (CCMDs) and Services are able to train fully capable Joint/coalition forces to restore readiness, improve lethality, strengthen alliances and attract new partners. In addition to training and readiness benefits, these exercises provide a realistic environment to support the rigorous validation of innovative concepts and capabilities to accelerate the fielding of capabilities to enhance our competitive advantage.

The FY 2020 budget requests \$622.4 million to support the exercise and engagement requirements of the ten CCMDs. These events improve the readiness of the force to conduct joint operations, highlight U.S. capabilities, deter potential adversaries, and build partner capacity. For the CCMDs, exercise and engagement events are a cost-effective way to provide United States presence, reassure allies, and hedge against destabilization in high-risk areas. This funding enables over 120 major exercises annually that prepare U.S. forces to execute operational plans, train the combatant command staffs in demanding and realistic environments, provide presence and regional expertise for U.S. allies and partners, and build relationships and trust. A combination of performance measures and qualitative evidence are used to support decisions about CE2T2 and to reduce uncertainty around those decisions. Stakeholders report quarterly results and align their efforts to a risk framework published by the Office of the Secretary of Defense in the CE2T2 Program Goals and Objectives.

The exercise portion of the program budgets for the planning and execution of exercises, transportation of personnel and equipment, and incremental costs incurred by the Services to participate in CCMD exercises. Selected major CCMD exercises for FY 2020 include:

- U.S. Africa Command (USAFRICOM): FLINTLOCK 20 — An annual exercise conducted on the African continent including a multi-national Command Post Exercise (CPX) and field training exercise (FTX) focusing on combating violent extremists (C-VEO) through engagements, domain awareness, information sharing and interoperability.
- U.S. Central Command (USCENTCOM): BRIGHT STAR 20 — A biennial, joint/combined ground, air and naval multilateral FTX/CPX hosted by Egypt. Provides an opportunity for USCENTCOM to designate a Combined Joint Task Force (CJTF) and deploy a Battle Staff to Egypt to exercise combined command and control and form an integrated Coalition Coordination Center.
- U.S. Cyber Command (USCYBERCOM): CYBER FLAG 20 — A tactically-focused joint exercise fusing offensive and defensive cyberspace operations with DoD full-spectrum combined arms operations against capable and advanced adversaries in a realistic virtual environment.
- U.S. European Command (USEUCOM): COLD RESPONSE 20 — a US Marine Forces Europe (MARFOREUR)-led joint CPX/FTX focused on joint and combined maritime, land and air operations. This exercise will provide sustainment and facilitation of US operational access and global freedom of action, improved US joint capabilities, NATO interoperability capacity and capability, and multinational training with NATO allies.

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- U.S. Northern Command (USNORTHCOM)/North American Aerospace Defense Command (NORAD): VIGILANT SHIELD 20 — A Tier 1 CPX, designed to train USNORTHCOM and NORAD HQ Battle Staff in Homeland Defense (HD) missions and staff processes. VS20 includes the Canadian Joint Operations Command (CJOC) as a fully integrated, Tri-Command exercise partner and is linked to Joint Staff's POSITIVE RESPONSE 20-1 and USSTRATCOM's GLOBAL THUNDER 20.
- U.S. Indo-Pacific Command (USINDOPACOM): COBRA GOLD 20 — A joint exercise focused on USINDOPACOM and Theater Security Cooperation. COBRA GOLD is conducted yearly with the Royal Thai, Japanese, Indonesian, Singapore, Republic of Korea, and Malaysian Armed Forces) and other invited limited participating and observer nations. CG18 successfully exercised multinational military interoperability among the seven fully participating nations
- U.S. Southern Command (USSOUTHCOM): NEW HORIZONS 20 — An annual field training exercise training joint and combined combat engineer, medical and combat service support forces in an austere environment within the USSOUTHCOM AOR to enable collective regional security including response to natural disasters.
- U.S. Strategic Command (USSTRATCOM): GLOBAL THUNDER 20 — A strategic battle staff readiness training event designed to maintain battle staff critical task proficiency as the exercise scenario begins with a conventional attack and evolves toward nuclear deterrence. Designed to exercise all the mission areas assigned to USSTRATCOM.
- U.S. Transportation Command (USTRANSCOM): TURBO CHALLENGE 20 — A primary battle staff command post exercise, linked annually to a supported geographic combatant command joint exercise to train and assess the USTRANSCOM HQ, the Transportation Component Commands, the Joint Enabling Capabilities Command (JECC), and Distribution Process Owners (DPO). This exercise is designed to train and evaluate the Command's ability to conduct integrated operations in support of the national security strategy and defense of the US homeland.

CE2T2 also funds joint training enablers that build on Military Department-specific training and readiness capabilities and helps close Service training deficiencies that exist in the seams between the tactical and joint operational levels of war. The program supports the Services by providing additional joint context to their force generation training programs. This enables the Services to provide joint capable units to the CCMDs aligned within their readiness recovery models. The major enablers that the program funds are:

- The Joint Training Enterprise Network (JTEN) is a system that links the geographically separated live, virtual, and constructive training capabilities of the CCMDs and the Departments, and integrates them into a realistic joint training environment. The JTEN bridges the gap between tactical and operational level training and mission rehearsal activities by providing real-time connectivity and simulations of higher headquarter authorities.
- The Joint Training Coordination Program (JTCP) enables the participation of one Military Department's assets in the tactical-level exercises of another Military Department. Specific exercises receiving JTCP funding in FY 2020 include: the Air Force's RED FLAG exercises held at Nellis Air Force Base, NV; the Navy's Fleet Readiness exercises held at Air Wing Fallon, NV; the Marine Corps' Tactical Operations Group Exercise held at Twenty Nine Palms, CA; the Army's National Training Center Program events in Fort Irwin, CA, and USSOCOM/Navy Special Warfare Command's TRIDENT series of exercises. These

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joint training venues prepare the Military Departments for the tactics used in ongoing operations in theaters across the globe.

- Other critical efforts include joint individual training that prepares service members to operate in a joint environment and service-unique training simulations allowing personnel to operate in a realistic joint environment and with U.S. international partners. The program also provides replication of robust opposing forces (OPFOR) that optimize training on Departmental tactical ranges for both the host Military Department and other Military Department participants and development of a virtual training environment that facilitates 24/7 online joint training from the individual to the joint task force level.

BUSINESS REFORM

The Defense Readiness Reporting System (DRRS) collects and presents valuable insight into unit-level readiness of Military Services and Combatant Commands. However, the current system does not fully incorporate findings from the R2F and the reporting policies must evolve so that readiness assessments accurately reflect how military forces are structured and employed. In the FY 2019 National Defense Authorization Act (NDAA), Congress enacted legislation that requires the Department to consolidate its readiness reporting systems into one enterprise-wide system. This legislation has led to an ambitious effort to not only consolidate readiness data, but conduct a detailed assessment of what readiness data should be collected and reported. In early FY 2019, the Department will deliver a plan to Congress on how it will consolidate systems and improve the reporting in the final enterprise-wide system. The Department will work closely with Congress on the implementation.

The Department is also working to reform safety management practices. The Defense Safety Oversight Council (DSOC) met in July for the first time in eight years, bringing Service senior leaders together to focus on Operational Safety and Occupational Safety & Health concerns within the Department. The DSOC will provide analysis and track trends within the Department so that resources may be targeted to prevent mishaps and injuries and save lives throughout the operational enterprise. For example, the Army is investing in safety management systems to include the Army Safety and Occupational Health Enterprise Information System, and the Joint Risk Assessment Tool. The Marine Corps is focused on improvements to their aviation safety awareness program, risk management information system, ground/aviation survey support and command climate, and automatic collision avoidance systems (AGCAS) on the F-35. The Navy is resourcing safety training, mentorship programs and other efforts to improve safety culture such as an afloat cultural workshop, as well as their risk management information system. The Air Force is continuing to resource AGCAS, military flight operation quality assurance recorders on aircraft, and expanding their Air Force Safety Automated System for mishap data collection and analysis.

The Department also developed new performance indicators for the Combatant Command Exercise Engagement (CE2) and Training Transformation (T2) program, collectively referred to as CE2T2. Through a collaborative effort, fifteen unique performance indicators were created within a framework defined by the three NDS lines-of-effort. The performance indicator results are reported quarterly and will be combined with qualitative information that the Department uses to assess the value of Combatant Command joint exercises and the joint context provided to Service training events provided through CE2T2 funding.

The Department continues to reform readiness and safety management practices

4. ENHANCING LETHALITY

The re-emergence of long-term strategic competition, rapid dispersion of technologies, and new concepts of warfare and competition that span the entire spectrum of conflict require a Joint Force structured to match this reality.

National Defense Strategy

The Fiscal Year (FY) 2020 budget request for the Department of Defense (DoD) focuses on the Secretary of Defense’s vision to build a lethal, resilient, agile and ready force. The budget requests from President Trump’s Administration since FY 2017 initiated the rebuilding process by making additional investments in near-term readiness, filling programmatic holes caused by years of budget cuts, and setting the stage for future capability and capacity increases. The FY 2020 investments request fully implements the National Defense Strategy (NDS) concept and strategy to continue to develop a more lethal, and efficient force that can project power globally against a full spectrum- of threats.

Sections
<ul style="list-style-type: none">• The Growing Threat• Power Projection• Munitions• Nuclear Modernization/Nuclear Deterrence• Missile Defeat & Defense• Science and Technology• Space and Spaced Based-Systems• Cyberspace Operations

The United States military force, aligned under the NDS construct optimized to prevent aggression and combat violent extremist threats, requires thoughtful decisions that exploit the competitors’ weaknesses and leverage U.S. strengths -- the foundation of this budget submission.

THE GROWING THREAT

Competitor states, especially China and Russia, have narrowed DoD’s military technological advantages through increased spending in warfighting capability. Only by increasing the investment in technologically advanced weapon systems can the United States field innovative capabilities to overmatch the potential threats from China and Russia in the future. Because of the increased funding for military capability, China is a strategic competitor state, using predatory economics to intimidate its neighboring nations while militarizing features in the South China Sea. Russia has violated the borders of nearby nations and pursues veto power over the economic, diplomatic, and security decisions of its neighbors.

While North Korea has suggested a possible willingness to consider a less aggressive stance to its neighbors, their overall actions and rhetoric continue despite the United Nation’s censure and sanctions. Iran continues to threaten violence and remains the most significant challenge to Middle East stability. Despite the defeat of the Islamic State of Iraq and Syria’s (ISIS) physical caliphate, threats to stability remain as terrorist groups with long reach continue to murder innocent people and threaten peace.

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This increasingly complex security environment the United States faces requires immediate technological change in order to mitigate the challenges from adversaries in every operating domain, and the impact on current readiness from the longest continuous stretch of armed conflict in United States history.

The Department of Defense has the responsibility for safeguarding the national security of the United States from external forces. This task is accomplished by ensuring that the Joint Force remains able to simultaneously protect the United States homeland, be able to respond to and defeat adversary aggression abroad, and wage a global counter-terrorism campaign in cooperation with United States allies and partners, all while still improving its ability to respond to emerging threats. Therefore, the defense Research, Development, Test & Evaluation (RDT&E) and Procurement programs budgeted in this request must be able to address both near-term requirements of these strategic imperatives while ensuring that the Armed Forces of the United States will be able to prevail against future challenges in these mission areas. This Administration recognizes that the Department must rebuild the strength of the military capability as outlined in the National Defense Strategy. The FY 2020 request builds upon investments made since FY 2017, and continues to quantitatively advance the ability of the Department of Defense to execute its prime mission - to defend the United States from hostile forces that aim to subvert our democracy.

Building a more lethal force requires predictable and timely funding needed to execute a multiyear plan that rapidly rebuilds the Joint Force warfighter construct. This effort will require filling the gaps in capacity and lethality while preparing for sustained future investments. This endeavor includes a renewed focus on a safe and secure nuclear deterrent, fielding decisive and dynamic conventional forces, and retaining irregular warfare as a core competency.

This budget continues the Administration's Missile Defeat and Defense Enhancement effort to increase the capability and capacity of the United States to detect, disrupt, defeat and defend against any ballistic missile attack on the homeland, U.S. deployed forces, and U.S. allies.

Figure 4.1 summarizes the top DoD weapon programs in the FY 2020 budget. Further details can be found in the Department's "Program Acquisition Costs by Weapon Systems" book.

The FY 2020 budget uses innovative technologies to increase the lethality of future and existing weapon systems. The FY 2020 request makes significant investment in Artificial Intelligence (AI), Hypersonics (offensive / defensive), Directed Energy (DE), Quantum Science and Microelectronics. With an overall objective of operationalizing leap-ahead systems to enable the Joint Force to defeat future aggression.

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Figure 4.1. Major Weapons Programs

(\$ in billions)

Weapon Systems		FY 2019*		FY 2020*	
		Qty	Enacted	Qty	PB Request
Aircraft					
F-35	Joint Strike Fighter	93	11.6	78	11.2
F-15EX	Advanced Eagle	-	-	8	1.1
NGAD	Next Generation Air Dominance	-	0.4	-	1.0
KC-46A	Tanker	15	2.4	12	2.3
P-8A	Poseidon	10	2.2	6	1.5
F/A-18E/F	Super Hornet	24	2.1	24	2.0
CH-53K	King Stallion Helicopter	8	1.5	6	1.5
E-2D AHE	Advanced Hawkeye	6	1.6	4	1.3
AH-64E	Apache Helicopter	66	1.5	48	1.0
UH-60	Black Hawk Helicopter	76	1.4	98	1.7
VH-92A	Executive Helicopter	6	0.9	6	0.8
V-22	Osprey	13	1.4	10	1.2
MQ-4	Triton Unmanned Aerial Vehicle	3	1.3	2	1.0
MQ-25	Stingray Unmanned Aerial Vehicle	0	0.5	0	0.7
Missile Defense/Nuclear Deterrent					
MDD	Missile Defeat and Defense	-	13.9	-	13.6
B-21	Raider	-	2.3	-	3.0
SSBN	COLUMBIA Class Submarine	-	3.9	-	2.2
Trident II	Trident II Missile Mods	-	1.1	-	1.2
LRSO	Long Range Standoff Weapon	-	0.7	-	0.7
GBSD	Ground Based Strategic Deterrent	-	0.4	-	0.6
B61 Tail Kit	B61 Mod 12 Life Extension Program	250	0.2	533	0.1
Ships					
SSN 774	VIRGINIA Class Submarine	2	7.4	3	10.2
DDG 51	ARLEIGH BURKE Destroyer	3	6.2	3	5.8
CVN 80/81	FORD Aircraft Carrier	-	1.7	1	2.6
LCS/FFG	Littoral Combat Ship/Frigate	3	1.9	1	1.3
T-AO	Fleet Replenishment Oiler	2	1.1	2	1.1
USV	Unmanned Surface Vessels	-	<0.1	2	0.4
T-ATS	Towing, Salvage, and Rescue Ship	1	0.1	2	0.2
Space					
NSSL	National Security Space Launch	5	2.1	4	1.7
GPS	Global Positioning System	2*	1.4	1	1.8
SBIRS	Space Based Infrared System	5*	0.8	--	1.6

*Includes RDT&E quantities

POWER PROJECTION

The FY 2020 President's Budget prioritizes the Department's power projection capabilities to include enhancements to offensive air and sea power through the development and procurement of long range strike weapons, combatant ships, and strike aircraft and the modernization of existing weapons, ships, aircraft, and electronic warfare capabilities.

The security environment is also affected by rapid technological advancements and the changing character of war.

National Defense Strategy

AIR POWER

The FY 2020 budget request continues procurement of the Joint Strike Fighter aircraft and modernization programs for existing Navy and Air Force strike fighter aircraft and bombers. Development of the B-21 Raider long range strike bomber is also funded with initial capabilities projected to be fielded in the mid-2020s. Technology Maturation and Risk Reduction for the next generation of air dominance systems is also included.



The major tactical air power investment is the F-35 Lightning II Joint Strike Fighter (pictured here), which will form the backbone of the U.S. inventory. The F-35 program is developing, producing, and fielding three variants of a 5th Generation strike fighter: 1) Air Force F-35A Conventional Take-Off and Landing variant; 2) Marine Corps F35B Short –Take Off- and Vertical Landing (STOVL) variant; and 3) Navy F-35C Carrier variant. The F-35's interoperability allows seamless information exchanges making all of our warfighters in the battlespace smarter, more lethal, and more survivable. As the F-35 program continues to

field increasing numbers of the three variants of the aircraft across the globe, the Defense Department remains committed to cost effectively delivering improved capabilities to achieve more affordable outcomes benefiting all stakeholders.

The FY 2020 budget also includes procurement of 4th generation fighter aircraft by procuring additional F/A-18E/F Super Hornets and capitalizing on existing Foreign Military Sales (FMS) production lines to procure a modernized F-15 Eagle to increase readiness of the Navy and Air Force fighter fleet and relieve pressure on the aging legacy F/A-18A-D and F-15C/D inventory. The budget continues to fund the Navy's MQ-25 unmanned aircraft system, which will provide the Department with an unmanned tanker capability that will extend the striking power of the carrier air wing while providing maritime surveillance for the carrier strike group. Given the anticipated evolution of strategic competitor state Tactical Aviation (TACAIR) capabilities, the Department continues to develop a 6th generation combat aircraft within the Next Generation Air Dominance program, with \$1.0 billion being requested for FY 2020, an increase of \$586 million over the amount in FY 2019. The FY 2020 budget also continues procurement of the KC-46A aerial refueling tanker, which will replace aging legacy tankers. The aircraft provides increased refueling capability for Navy and Air Force aircraft.

Overview – FY 2020 Defense Budget

The FY 2020 budget funds the continued Air Force and Navy procurement of both the AIM-120D Advanced Medium Range Air-to-Air Missile (AMRAAM) and the AIM-9X Block II Sidewinder short-range air-to-air missile. Both programs are in Full-Rate Production and are integral to the preservation of air superiority for U.S. Armed Forces in future combat operations.

The Navy, Marine Corps, and Air Force are investing in modernization programs that improve the capability and extend the utility of existing aircraft. Adding advanced Infra-Red Search and Track (IRST) sensors will significantly improve detection and targeting of threat aircraft despite complex enemy Electronic Attack, while the development and fielding of an Active Electronically Scanned Array radar will enable the F-16 aircraft to maintain relevance throughout their service life.

The FY 2020 budget funds the development of the B-21 Raider, the next generation long range strike bomber, and modernization of the existing bomber fleet of B-52s, B-1s and the B-2s. Major modification efforts on the B-2 aircraft include an updated defensive management system. The budget funds B-52 avionics and weapons upgrades as well as replacement for the B-52's inefficient and aging engines.

The FY 2020 budget funds multiple electronic warfare capabilities to improve platform survivability and enable power projection. Additional manning to Navy EA-18G aircraft squadron size is budgeted as well as EA-18G aircraft survivability improvements with the Next Generation Jammer (NGJ). The NGJ will provide significantly improved Airborne Electronic Attack (AEA) capabilities against advanced integrated air defense radars, communications, and data links. The FY 2020 budget also funds survivability improvements in the F-15 Eagle Passive Active Warning and Survivability System (EPASWSS) and the Integrated Defensive Electronic Countermeasures System. These will autonomously detect, identify, and locate radio frequency (RF) threats as well as deny, degrade, disrupt, and defeat RF threat systems.

SEA POWER

Nuclear aircraft carriers (CVNs) provide forward presence for air power projection. The FY 2020 budget continues incremental funding for the GERALD R. FORD Class nuclear aircraft carriers:

ENTERPRISE (CVN 80) and the unnamed CVN 81. Amphibious warships, along with their connector craft, are versatile, interoperable warfighting platforms and are critical enablers to projection of power by sea-based forces in theater. The FY 2020 budget request includes continued recapitalization of the Landing Craft, Utility (LCU) 1700 to support amphibious assault capability. Surface Combatant Ships are multi-mission warships designed and built to execute Sea Control and Power



Projection missions. The FY 2020 budget continues procurement of the DDG 51 Flight III variant (pictured here), which, with the addition of the AN/SPY-6(V) Air and Missile Defense Radar (AMDR), provides improved sensitivity for long-range detection and engagement of advanced Air, Surface, and Ballistic Missile threats. The FY 2020 budget request supports procurement of the new Frigate to address the Navy's Small Surface Combatant requirements for a more lethal and capable follow-on to the Littoral Combat Ship. The FY 2020 budget request diversifies and expands sea power strike capacity through procurement of offensively armed Unmanned Surface

Overview – FY 2020 Defense Budget

Vessels (USVs). The USV investment, paired with increased investment in long-range maritime munitions, represents a paradigm shift towards a more balanced, distributed, lethal, survivable, and cost-imposing naval force that will better exploit adversary weaknesses and project power into contested environments. The FY 2020 budget request continues funding for T-AO 205 Fleet Oilers, which provide fuel and logistical support to deployed ships, ensuring continued presence and power projection.

Submarines provide the Navy with unprecedented strike and special operation mission capabilities from a stealthy, clandestine platform. Armed with tactical missiles, the Navy's four OHIO class guided-missile submarines carry up to 154 Tomahawk land-attack cruise missiles (TLAMs) and have the capacity to host up to 66 Special Operation Forces (SOF) personnel; however, they begin to decommission in the 2020's. The FY 2020 budget request continues the development of the VIRGINIA Payload Module (VPM) in Block V VIRGINIA Class submarines (VCS), which will replace much of this critical capability by adding 28 additional TLAMs and space for SOF operations over Block I-IV VCS.

The FY 2020 budget request also funds programs that implement survivability improvements to the U.S. maritime defensive capabilities, which consist of the Surface Electronic Warfare Improvement Program Block 3 electronic attack capability (pacing the advanced threats) and the Advanced Off-board Electronic Warfare Program, consisting of long duration, off-board decoys to address identified electronic warfare gaps.

The FY 2020 budget continues funding for 125 Standard Missile-6 (SM-6) missiles, providing the most capable long range anti-air missiles for Fleet defense.

LAND POWER

Ground forces provide combat power to assure allies, deter aggression, and win the Nation's wars. The FY 2020 budget improves the lethality and survivability of the Army's Brigade Combat Teams by modernizing 349 combat vehicles in the Armored Brigade Combat Teams to include upgrading 165 Abrams tanks (pictured here), producing 53 M109A7 Paladin Integrated Management Self-Propelled Howitzers, and building 131 Armored Multi-Purpose Vehicles. The budget also upgrades 152 Stryker vehicles for the Stryker Brigade Combat Teams. Beyond these efforts, the FY 2020 budget makes notable investments in research, development, test and evaluation to include \$98.4 million for Future Vehicle Lift Technology, \$35.1 million for Survivability/Lethality Analysis, \$106.1 million for Infantry Support Weapons, and \$4.3 million for Military Ground-Based CREW Technology. Another key combat vehicle investment was the purchase of 56 Amphibious Combat Vehicles for the Marine Corps. These systems replace aging Amphibious Assault Vehicles and provide an armored personnel carrier with an appropriate balance in performance, protection, and payload to support Marines across the range of military operations that they could be expected to operate.



The FY 2020 budget also makes great strides in Close Combat by investing in key recommendations provided by the Close Combat Lethality Task Force (CCLTF) that improve and

Overview – FY 2020 Defense Budget

enhance the lethality, survivability, and performance of the infantry in both the Army and the United States Marine Corps (USMC). The FY 2020 budget accelerated the procurement of the Integrated Visual Augmentation System (IVAS) to support the fielding of capability sets 3 and 4. Further enhancements and improvements included additional funding for the Tailored Adaptive Assessment System (TAPAS), the Monitoring and Assessing Soldier Tactical Readiness and Effectiveness (MASTR-E) program, and accelerating the delivery of lighter weight helmets, torso plates, and rations. In addition, the FY 2020 funded 635 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS), 18,142 Squad Common Optics (SCO), and 1,463 Squad Thermal Sights (STS) for the USMC.

SPECIAL OPERATIONS

The FY2020 budget for Special Operations Forces (SOF) reflects the National Defense Strategy focus on competition with great-power competitors by increasing funding for research and development, modernization, and expanded capabilities for high-end warfighting while sustaining Counter Terrorism (CT) operations, coordinating the Countering Weapons of Mass Destruction (CWMD) mission, and maintaining Irregular Warfare (IW) as a core competency. The FY 2020 budget sustains SOF growth, increasing readiness and lethality through modernization and recapitalization, and investing in new technologies. This includes investments in Directed Energy (air / ground), AC-130J, CV-22, and MC-130J aircraft; and additional surface and sub-surface maritime craft.

MUNITIONS

The Department has continuously responded to multiple small conflicts over the past 15-20 years, all supported by coalition partners. Successful execution of these operations, varying in scope, length and intensity, requires proactive munition forecasting and timely procurement actions. These procurement activities are vital to not only reducing the risk to near-term munition stockpiles that support these efforts, but also in ensuring that strategic inventories are sustained and ready in support of worldwide Operational Plans. Accurately calculating the number of munitions required is challenging given the domain spectrum (ground, sea, and air) the Department is operating from, coupled with the range of combat effects demanded by different operational theaters. The need to support concurrent munitions forecasting and procurements for multiple coalition partners and integrating these with Department actions is essential in ensuring cooperative combat operations can be conducted and sustained over any given conflict.

Many preferred munitions are precision-guided, low-collateral damage, high-demand munitions employed by more than one Service and by U.S. allies. Recent elevated requirements from all Services, coupled with that of coalition partners, collectively drive demand at all levels of this critical industry. Unfortunately, a prior trend in reduced munitions purchases resulted in the consolidation of many sub-tier suppliers that subsequently limited surge capacity and capability when production upturned. Since munitions are unique military items, sub-tier suppliers do not have the commercial base to sustain their business during funding downturns. Recent Department procurement increases across a range of critical munitions have strengthened industrial capacity among primary supply contractors for these select lines, resulting in quality products, high production rates, on-time deliveries, and competitive pricing.

While the Department expended more munitions than planned over the last several years, primarily to defeat Islamic State of Iraq and Syria (ISIS), the demand signal has started to recede given the sustained success of combat operations against the adversary. The Department's current challenge then is twofold. First, to ensure these preferred munition worldwide inventories

Overview – FY 2020 Defense Budget

are sufficiently stocked by adjusting future procurement ramps accordingly. This is being accomplished while continuing the Department’s commitment to procure at economic rates with the health of the industrial base in mind. Second, to ensure sufficient procurement of more advanced, high-end weapon systems, which provide increased standoff, enhanced lethality, and autonomous targeting for employment against near-peer threats in more contested environments. This family of weapon systems, which includes advanced cruise missiles, is essential to our national security and the Department has accordingly ramped up procurements to ensure healthier inventory levels are achieved as soon as possible. The FY 2020 budget has invested in both of these paths, which equally contribute to strengthening the Department’s lethal posture by increasing production capacities and procurement of both preferred and advanced munitions.

The Department continues to invest in the munitions industrial base to ensure production capacity is economically exercised. The FY 2020 request continues to invest in organic and commercial industrial base capabilities; for example, explosives for warheads, propellants for solid rocket motors and ammunition, inertial navigation units, and many other components. The table below reflects quantities and funding for several critical munitions.

Figure 4.2. FY 2020 Funding for Munitions (Base and OCO) (\$ in millions)

Weapon System	FY 2018		FY 2019		FY 2020		FY18–FY20 Quantity Change
	Actual Qty	Actuals	Qty	Enacted	PB Qty	PB Request	
Guided Multiple Launch Rocket System	6,936	\$1,180.9	8,101	\$1,124.0	10,193	\$1,413.4	+3,257
Joint Direct Attack Munition	42,864	\$1,149.3	43,594	\$1,119.3	40,388	\$1,148.9	-2,476
Joint Air-to-Surface Standoff Missile	360	\$462.5	360	\$645.3	430	\$581.9	+70
Long Range Anti-Ship Missile (LRASM)	50	\$333.2	50	\$304.9	48	\$208.6	-2
Tomahawk	100	\$403.0	-	\$351.0	90	\$706.8	-10
Small Diameter Bomb I	6,964	\$301.4	5,744	\$209.3	7,078	\$275.4	+114
Hellfire	10,501	\$821.2	6,066	\$484.0	9,000	\$730.8	-1,501
Standard Missile-6	125	\$581.8	125	\$696.7	125	\$650.5	-

Amounts include both RDT&E and Procurement Funding

NUCLEAR MODERNIZATION/NUCLEAR DETERRENCE

Modernizing the nation’s nuclear delivery systems is the Department’s number one priority, and these programs are fully funded in the FY 2020 budget request. The Department has steadily received strong, bipartisan congressional support for the nuclear deterrence modernization mission. Recapitalizing the nuclear platforms and delivery systems and associated support systems will require an increase in spending over the next 20 years. Notwithstanding, the amount expended in the nuclear enterprise continues to be cost effective and affordable, not anticipated to exceed 3 percent of the Department’s budget. Most of the nation’s nuclear deterrence delivery systems, built in the 1980s and prior, are reaching the end-of-service life in the 2025 to 2035 timeframe, with all currently-fielded systems having been extended well beyond their original service lives. Replacement programs are underway to ensure that there are no gaps in capability when the legacy systems age-out. There is little schedule margin between legacy system age-out and fielding of the replacement systems. The table below reflects the funding for seven critical weapons systems.

The Department will modernize the nuclear triad.

National Defense Strategy

Figure 4.3. Nuclear Modernization FY 2020 Funding (DoD Funding only) (\$ in billions)

Weapon System	FY 2018 Actual	FY 2019 Enacted	FY 2020 Request	FY18 – FY20 \$ Change
Ground Based Strategic Deterrent	\$0.2	\$0.4	\$0.6	+\$0.4
Long Range Stand Off cruise missile	\$0.4	\$0.7	\$0.7	+\$0.3
COLUMBIA class submarines	\$1.9	\$3.9	\$2.2	+\$0.3
Trident II Life Extension	\$1.3	\$1.1	\$1.2	-\$0.1
B-21 Bomber	\$2.0	\$2.3	\$3.0	+\$1.0
F-35 Dual Capable Aircraft	\$0.03	\$0.07	\$0.07	+\$0.04
B61 Tail Kit	\$0.2	\$0.2	\$0.1	-\$0.1

R&D and Procurement Funding

Ground Based Strategic Deterrent (GBSD). The GBSD system will replace the Minuteman III Intercontinental Ballistic Missile Weapon System (WS), including new flight, WS Command and Control, and ground systems; and conversion, modernization, and replacement of the MM III infrastructure, beginning in 2028. The program is in the Technology Maturation and Risk Reduction (TMRR) phase and is planning for a Milestone B decision and entry into the Engineering and Manufacturing Development (EMD) phase in FY 2020.

Long-Range Stand Off (LRSO) cruise missile. The LRSO effort will develop a weapon system to replace the AGM-86B Air Launched Cruise Missile, which has been operational since 1986. The LRSO weapon system will be capable of penetrating and surviving advanced Integrated Air Defense Systems from significant stand-off ranges to hold strategic targets at risk in support of the Air Force’s nuclear deterrence operations core function. The LRSO is also critical for serving as a hedge against risks in the more complex nuclear deterrence system development programs and enhancing the credibility of the DoD deterrent to assure U.S. allies. The program is in the TMRR phase and is planning for a Milestone B decision and entry into the EMD phase in FY 2022.

COLUMBIA class Ballistic Missile Submarine (SSBN). The COLUMBIA class SSBN is being developed to replace the OHIO-class SSBNs starting in October 2030. The Navy will sustain the OHIO class to ensure a smooth transition for the sea-based leg of the Triad with the COLUMBIA class SSBN. The COLUMBIA class program successfully completed Milestone B in January 2017 and has entered the Engineering and Manufacturing Development (EMD) phase. Lead ship construction is planned to begin in 2021.

Trident II (D5) Submarine-Launched Ballistic Missile (SLBM) Life Extension (D5LE). The D5LE program extends the service life of the D5 SLBM and will be deployed on both OHIO-class and COLUMBIA-class SSBNs. The D5LE is in production and achieved Initial Fleet Introduction in February 2017. The Navy will initiate development efforts for a follow-on system to the D5LE in FY 2020

B-21 Raider Strategic Bomber. The B-21 Raider is being developed to acquire an affordable, long range, penetrating aircraft that incorporates proven, mature technologies. This bomber represents a key component to the joint portfolio of conventional and nuclear deep-strike capabilities.

F-35A Dual-Capable Aircraft (DCA). The F-35A DCA will replace the Air Force’s F-15 DCA to support extended deterrence. The F-35A DCA is scheduled to achieve nuclear certification in FY 2024.

B61 Mod 12 Life Extension Program (LEP) Tail Kit Assembly (TKA). The nuclear gravity bomb B61 Mod 12 LEP will consolidate four legacy B61 variants into a single variant for carriage on heavy bombers and DCA. The Air Force funded TKA will be coupled with the Department of Energy/National Nuclear Security Administration (DOE/NNSA) Bomb Assembly to extend the lifespan of the B61 gravity bomb while making it safer, more secure, and more reliable. The TKA program achieved Milestone C in October 2018 and is currently in Low Rate Initial Production.

MISSILE DEFEAT & DEFENSE

The FY 2020 budget funds enhancements to U.S. missile defense capabilities to defend the homeland, deployed forces, allies, and partners against an increasingly complex adversarial missile threat. In accordance with direction from the 2019 Missile Defense Review (MDR), this budget request increases missile defense capacity and capability to keep pace with advancing threats, while investing in advanced technologies that go beyond traditional missile defense activities, to include, initiating multiple space-based interceptors/discrimination studies to develop a government reference architecture for a space-based kinetic interceptor layer for a boost-phase defense. The FY 2020 budget request includes \$13.6 billion for missile defense, which includes \$9.4 billion for the Missile Defense Agency (MDA).

Investments will focus on layered missile defenses and disruptive capabilities for both theater missile threats and North Korean ballistic missile threats.

National Defense Strategy

The Department will develop an additional missile field in Alaska and increase the number of operational, deployed Ground-Based Interceptors (GBI) to 64 missiles as early as FY 2025. The Department is also investing in the infrastructure required to maintain an operational fleet of 64 GBIs into the future. The FY 2020 request would continue development of the Redesigned Kill Vehicle (RKV) to address the evolving threat and improve kill vehicle reliability, continue development of a 2-/3-stage booster selectable capability to expand battlespace for GBI engagements for homeland defense. The budget also uses available technology to improve existing sensors, battle management, fire control, and kill vehicle capabilities. The budget supports development and deployment of new sensors to improve Missile Defense System (MDS) discrimination capability and allow for more efficient use of the GBI inventory, to include a Long-Range Discrimination Radar in Alaska, a Homeland Defense Radar in Hawaii, and an additional Medium Range Discrimination Radar in the Pacific. The MDA will deliver an experimental space-based kill assessment capability for defense of the homeland as part of an integrated post intercept assessment solution.

The budget reflects the Department's commitment to building integrated regional missile defenses that are interoperable with systems deployed by international partners to protect deployed forces, allies and international partners against Short Range Ballistic Missiles (SRBM), Medium Range Ballistic Missiles (MRBM), and Intermediate Range Ballistic Missiles (IRBM).

For U.S. missile defense capabilities, the FY 2020 budget request:

- Supports the U.S. Forces Korea (USFK) to improve missile defense capability on the Korean peninsula.
- Provides the funding for the development of advanced missile defense technologies to counter future threats, including discrimination improvements, hypersonic threat missile defeat, and high-powered lasers.

Overview – FY 2020 Defense Budget

- Continues, in alignment with the United States Navy, to support and operate the Aegis Ashore site in Romania and deployment of a second site in Poland, as an integral part of NATO’s Ballistic Missile Defense (BMD) architecture.
- Continues increasing BMD capability and capacity of the Aegis Fleet and procures 30 Standard Missile (SM-3) Block IB missiles to be deployed on Aegis BMD ships and at Aegis Ashore Sites as part of a Multiyear Procurement; continues the integration of the SM-3 Block IIA into the Aegis BMD Weapon Systems; procures 7 SM-3 Block IIA missiles to contribute to defense against longer-range and more complex threats; ensures the maturation of the manufacturing process; and continues development of the Sea Based Terminal capability to protect the Fleet and forces ashore.
- Provides funding for Terminal High Altitude Area Defense (THAAD) development efforts and software upgrades such as implementation of flexible threat packages and defense planning, improved capability to engage SRBM, MRBM and limited IRBM threats and integration of the THAAD Battery capability into the Army’s Integrated Air and Missile Defense Battle Command System (IBCS) planning process. The THAAD budget request also includes funding for the procurement of 37 THAAD Interceptors in FY 2020 as well as for operating support to maintain and upkeep BMD System-unique items of fielded THAAD Batteries and for training devices.
- Provides funding to perform the systems engineering required to design, build, test, assess and field the integrated MDS.
- Provides funding to execute a comprehensive, highly integrated, complex, cost-effective series of flight tests, ground tests, wargames and exercises to ensure that MDS capabilities are credibly demonstrated and validated prior to delivery to the Warfighter.
- Continues support for Israeli Cooperative BMD Programs, to include United States funding for the Iron Dome system to defeat short-range missiles and rockets and co-development and co-production of the David’s Sling Weapon System and Arrow-3 System.
- Begins exploratory studies and technology feasibility assessments towards the possible future deployment of a space based sensor layer and interceptor capability.

SCIENCE AND TECHNOLOGY

The Department relies upon the science and technology (S&T) enterprise to research, develop, and demonstrate high pay-off technology solutions to the hard problems faced by our Warfighters in ever-changing, complex environments against an increasingly diverse set of threats. The FY 2020 budget for S&T is \$ 14.1 billion, which is 2.6 percent of the Department’s (\$544.5 billion) budget. The FY 2020 request is 3 percent more than the FY 2019 requested amount of \$13.7 billion for continued S&T focus on pursuing solutions that are innovative, affordable, and versatile to ensure that our military remains the most capable in the world. The FY 2019 enacted amount includes 230 congressional S&T adds, totaling \$2.6 billion (offset by \$600 million in S&T marks). See Figure 4.4.

A growing and innovative economy allows the United States to maintain the world’s most powerful military and protect our homeland

National Security Strategy

Highlights of the FY 2020 budget request for S&T:

- Maintains a robust Basic Research program of \$2.3 billion

Overview – FY 2020 Defense Budget

- Funds the Defense Advanced Research Projects Agency budget of \$3.5 billion to develop technologies for revolutionary, high-payoff military capabilities
- Continues to push the envelope with innovative and cutting edge research coupled with new approaches to solving problems such as leveraging non-traditional partners and mechanisms to engage a broader community, in order to ensure U.S. technical dominance.

Figure 4.4. Science & Technology Program Base and OCO budget (\$ in billions)

Program	FY 2018 Actuals*	FY 2019 Enacted**	FY 2020 Request***	FY19–FY20 Change
Basic Research (6.1)	2.3	2.5	2.3	-0.2
Applied Research (6.2)	5.5	6.0	5.3	-0.7
Adv Tech Dev (6.3)	6.8	7.1	6.5	-0.6
Total S&T	14.6	15.7	14.1	-1.5

*FY 2018 actuals include Base plus OCO

numbers don't add due to rounding

**FY 2019 enacted includes \$14.0 million OCO funds

***FY 2020 reflects the President's Budget request, includes \$76.0 million OCO funds

SPACE AND SPACE-BASED SYSTEMS

The FY 2020 budget request for space and space-based systems addresses Satellite Communications (SATCOM); Overhead Persistent Infrared (OPIR) capabilities; Positioning, Navigation, and Timing (PNT); and Space Launch systems. The Department continues to sustain existing systems, while moving out on development

The Department will prioritize investments in resilience, reconstitution, and operations to assure our space capabilities.

National Defense Strategy

of follow-on capabilities supporting operations in a contested space environment. The simultaneous actions of sustaining and modernizing these critical space capabilities reflect the Department's emphasis on increasing the capacity and lethality of the Joint Force.

The Air Force will continue the production of Space Based Infrared Systems (SBIRS) Space Vehicles 5 and 6 to address OPIR requirements, and Advanced Extremely High Frequency (AEHF) Space Vehicles 5 and 6 to meet military SATCOM (MILSATCOM) needs in the FY 2020 budget. Resiliency improvements are being incorporated into the production line for SBIRS Space Vehicles 5 and 6 and AEHF Space Vehicles 5 and 6. Additional resilience initiatives will continue to be investigated and implemented where possible.

The FY 2020 budget request continues the Air Force's Next-Generation Strategic Missile Warning system as part of a transition to the future OPIR architecture. The Next-Generation system accelerates implementation of mature resiliency features to increase strategic survivability in a contested environment. The Air Force will incorporate a technology refresh of the sensor to assure missile warning capabilities equal to or greater than today's SBIRS, taking advantage of sensor technology improvements.

Overview – FY 2020 Defense Budget

The FY 2020 budget request continues resiliency improvements in the PNT mission, incorporating Regional Military Protection capability into the next generation Global Positioning System (GPS) III constellation. This enhancement assures PNT capabilities in contested environments and for disadvantaged users. The request also funds improvements to the GPS ground segment to enable implementation of advanced Military code (M-Code), which improves the anti-jamming and secure access of the military GPS signals in contested environments.

The National Security Space Launch (NSSL), formerly the EELV, program has been aligned with satellite launch schedules in FY 2019 and FY 2020 and continues to pursue a public private partnership approach for future launch service acquisitions. The Air Force strategy is to ensure the existence of two commercially-viable, domestically sourced space launch service providers with the requirement of also eliminating the use of foreign-made propulsion systems.



CYBERSPACE OPERATIONS

The Department of Defense (DoD) Cyber Strategy identifies five objectives that must be met to implement the NDS:

1. Ensuring the Joint Force can achieve its missions in a contested cyberspace domain.
2. Enhancing Joint Force military advantages through the integration of cyber capabilities into planning and operations.
3. Deterring, preempting, or defeating malicious cyber activity targeting U.S. critical infrastructure that is likely to cause a significant cyber incident.
4. Securing DoD information and systems, including on non-DoD-owned networks, against cyber espionage and malicious cyber activity.
5. Expanding DoD cyber cooperation with allies, partners, and private sector entities.

We will also invest in cyber defense, resilience, and the continued integration of cyber capabilities into the full spectrum of military operations.

National Defense Strategy

The FY 2020 Cyberspace Activities budget (\$9.6 billion) focuses on implementing the DoD Cyber Strategy with renewed emphasis on:

- Reducing risk to DoD networks, systems, and information by investing in more cybersecurity capabilities (FY 2020, \$5.4 billion).
- Supporting Combatant Commander cyber operations by providing integrated cyber capabilities to support military operations and contingencies (FY 2020, \$3.7 billion).
- Focusing on research and development to support Defensive Cyber Effects Operations (DCEO), Offensive Cyber Effects Operations (OCEO), and Defense of the DoD Information Network (DODIN) (FY 2020, \$0.5 billion).

Overview – FY 2020 Defense Budget

The \$3.7 billion cyber operations budget includes \$2.0 billion to continue support for Cyber Mission Forces (CMF). The Department is simultaneously enhancing the ability of its cyber forces to carry out missions in cyberspace and fielding 133 CMF teams composed of:

- 13 National Mission Teams to defend the United States and its interests against cyberattacks of significant consequence
- 68 Cyber Protection Teams to defend priority DoD networks and systems against priority threats
- 27 Combat Mission Teams to provide support to Combatant Commands by generating integrated cyberspace effects in support of operational plans and contingency operations
- 25 Support Teams to provide analytic and planning support to National Mission and Combat Mission teams

U.S. Cyber Command and the Services share the responsibility for training and equipping the CMF. Specific activities aligned with training the CMF include the acquisition of a Persistent Cyber Training Environment (PCTE) and the effective leveraging of existing Joint and Service cyber training capabilities. The U.S. Army is the DoD Executive Agent for the Cyber Training Ranges and the acquisition lead for PCTE. The process of equipping the CMF is supported through materiel solution analyses, prototyping, and the acquisition of cyber capabilities. The Air Force is the DoD Executive Agent for the Unified Platform and Joint Cyber Command and Control. The acquisition activities conducted by the Services are complemented by the acquisition activities conducted by U.S. Cyber Command. The U.S. Cyber Command's acquisition efforts are focused on the four capability areas of Joint Access Platforms, Joint Tools, Joint Analytics, and Joint Common Services.

Military operations in cyberspace continue to provide U.S. forces with operational experience as well as insights into the command and control capabilities required to effectively conduct integrated cyber operations. In addition, the Department has made and continues to make significant investments in dual-use cyber ranges. These ranges have the flexibility to support CMF training and the evaluation of Information Technology, control systems, and weapons systems in a realistic cyber environment.

Furthermore, DoD's ability to operate in a cyber-contested environment is being strengthened by ongoing cyber vulnerability assessments of major weapon systems and critical infrastructure and the initiation of vulnerability mitigation. These reviews consist of both system-level and mission-level evaluations and are being conducted in accordance with section 1647 of the National Defense Authorization Act (NDAA) for Fiscal Year 2016 (Public Law 114-92) and section 1650 of the NDAA for Fiscal Year 2017 (Public Law 114-328). Mission level assessments are enhanced through the effective use of Combatant Command exercises and wargames. The results of these cyber vulnerability assessments, exercises, and wargames will help make informed, risk-based decisions on the most effective way to improve the capability of DoD forces to operate in a cyber-contested environment.

Modernizes the joint force to strengthen our competitive advantage

5. ESTABLISHING THE SPACE FORCE

I'm hereby directing the Department of Defense and Pentagon to immediately begin the process necessary to establish a space force as the sixth branch of the armed forces.

President Donald J. Trump

Space is fundamental to U.S. prosperity and national security. The United States has harnessed the potential of space-based capabilities, enabling the American way of life and greatly expanding the capability and capacity of the U.S. military to anticipate threats, to respond rapidly to crises, and to project power globally. Unfettered access to and freedom to operate in space is a vital national interest.

Potential adversaries have recognized the joint force's dependency on space for modern military operations and are developing strategies, organizations, and capabilities to exploit real U.S. vulnerabilities in space.

This new security environment highlights the role of space in changing the character of warfare. No longer do space systems simply enable terrestrial forces to fight and win wars; actions in space also will directly contribute to the outcome of future crises or conflicts. In order to preserve peace and deter aggression, the Department of Defense (DoD) must strategically adapt to posture itself for the wars of the future. The DoD must be prepared to assure freedom of operation in space, to deter attacks, and, when necessary, to defeat space and counterspace threats to the national security interests of the United States and its allies and partners.

Reforming the organization of our military space enterprise is a fundamental step in transforming our approach to space from a combat support function to a warfighting domain. The current organization of space within the DoD has enabled the United States to maintain its position as the most lethal force in the world. These structures, however, must evolve with the changing environment.

Sections

- United States Space Force
- Fiscal Year 2020 Budget
- Transitional Budget and Resource Plan
- Associated Elements

Long-term strategic competition is the central challenge to U.S. prosperity and national security. Space is a key arena of this competition.

Overview – FY 2020 Defense Budget

United States Space Force

The DoD proposes establishing a United States Space Force (USSF) as the sixth branch of the Armed Forces. No branch of the Armed Forces has been created since the United States Air Force (USAF) was established in 1947 – over 70 years ago. The world has changed significantly in that time.

Establishing a Space Force is a strategic priority to facilitate the DoD's preparation for the changing character of warfare in the twenty-first century. Establishing a Military Service with dedicated military leadership would unify, focus, and accelerate development of space doctrine, capabilities, and expertise to outpace future threats; institutionalize advocacy for space priorities to provide for the common defense in all domains; and further build a space warfighting culture.

The DoD proposes establishing the USSF as a separate branch of the Armed Forces within the Department of the Air Force, with the long-term vision of creating a new, independent Military Department for space. This proposed approach would allow the Space Force to mature before proposing a new Department of the Space Force and would set the conditions for a smooth transition in the future.

Under the proposed construct, the Secretary of the Air Force will be responsible for organizing, training, and equipping two separate and distinct Military Services: the USSF and the USAF. A uniformed 4-star Chief of Staff of the Space Force (CSSF) would be granted equal membership on the Joint Chiefs of Staff (JCS) and would serve as the JCS expert on and advocate for space power. A new Under Secretary of the Air Force for Space, to be known as the Under Secretary for Space, would provide dedicated civilian supervision of the Space Force, under the authority, direction, and control of the Secretary of the Air Force.

The USSF would organize, train, and equip military space forces of the United States: to provide for freedom of operation in, from, and to the space domain; to provide independent military options for joint and national leadership; and to enable the lethality and effectiveness of the joint force. The Space Force would include both combat and combat-support functions to enable prompt and sustained offensive and defensive space operations and joint operations in all domains.

The stand-up of the Space Force would be phased over five years – beginning with the Fiscal Year (FY) 2020 President's Budget that establishes the initial elements of the ceSpace For headquarters in order to posture the USSF to receive and execute its missions beginning in FY 2021. In FY 2020, the Space Force headquarters initially would be authorized 160 manpower billets plus additional contractor and detailee support.

Overview – FY 2020 Defense Budget

Fiscal Year 2020 Budget

The focus in the FY 2020 budget is establishing the USSF headquarters in order to posture the Space Force to receive and execute its missions as effectively and efficiently as possible in subsequent years. In FY 2020, the attention of the USSF headquarters staff will be to standup the organization, enabling it to seamlessly accept responsibilities for acquisition programs and operational missions beginning as soon as FY 2021.

What was once peaceful and uncontested is now crowded and adversarial, today other nations are seeking to disrupt our space based systems and challenge American supremacy in space

Vice President Mike Pence

In the FY 2020 budget, the DoD has identified 120 military and civilian authorizations for transfer to the Space Force and is requesting 40 additional permanent authorizations be assigned to stand up the USSF. The 120 transferring authorizations consist of authorizations from across the Department. In addition, the DoD requests funds for 40 new authorizations for subject matter experts that will build an effective and efficient organization. Lastly, the Department plans to detail another 40 personnel to assist with standing up the USSF Headquarters.

Figure 5.1. FY 2020 Budget Overview

	FY 2020 Costs	Estimated New Annual Costs at Full Operational Capability (projected for FY24)
Total FY 2020 Funding (\$Ms)	\$72.4	\$300
Other Recurring Costs	-	\$200
Total (\$ in M)	\$72.4	\$500
<i>Percentage of DoD Budget</i>	0.01%	0.07%

Transitional Budget and Resource Plan

The Secretary of Defense, in consultation with each Military Department Secretary and Military Service Chief, will determine which existing space forces would transfer into the Space Force after creation. Units, personnel, capabilities, and budget will be transferred in a manner that avoids disrupting current missions and acquisition programs or adversely impacting military and civilian personnel.

Forces will transition into the Space Force organizational structure developed by the Secretary of the Air Force and Chief of Staff of the Space Force in FY 2020. Transferring units may be realigned, established, or re-designated to ensure existing and future forces are effectively arranged to execute the missions.

The standup of the USSF will be phased primarily over five years – FY 2020 to FY 2024. Initially, the Space Force will be composed of approximately 15,000 personnel, most of which will transfer from the existing Military Services. Following the transition period, there would be growth in Space Force manpower and resources to build out the force structure for a warfighting domain and to support USSPACECOM requirements. Notably, there will be additional detailed planning

Overview – FY 2020 Defense Budget

regarding the Space Force as part of the development process, including the FY 2021 Program Budget Review.

To allow the USSF time to establish the necessary policies, procedures, and systems to operate; the transfer of missions, forces, and programs will start one year after its establishment. The transfer of associated resources will be included in the Department's FY 2021 budget proposal, allowing the new USSF leadership to shape resource allocation and funding transfers. To avoid disrupting critical space capabilities, the DoD will phase the transfer of operations and resources to the new Military Service. The approach will be modified over time to ensure the successful operations of the Space Force with minimal risk to ongoing space missions. A broad outline for the timeline to transfer resources is as follows:

FY 2020: Establish HQ USSF (160 billets). The focus for the USSF in FY 2020 will be to ensure acquisition programs and missions can be accepted without disruption.

FY 2021 – FY 2022: Beginning in FY 2021 the DoD will initiate the transfer of select missions and units to the USSF organization.

FY 2023 – FY 2024: With a strong foundation, the USSF will continue assessing its missions and develop innovative ways to organize, train, and equip its forces to meet operational requirements. This could include activating additional operational, acquisition, or training elements.

ASSOCIATED ELEMENTS:

In addition to requesting the resources necessary to establish the USSF headquarters, the President's Budget for FY 2020 requests authorizations and funding to continue maintaining the SDA and USSPACECOM, which are being established in FY19. The majority of resources for the USSPACECOM in the FY 2020 budget would be transferred from existing DoD budgets. Additional funding is also included to grow the staff of USSPACECOM and fund the SDA.

SPACE DEVELOPMENT AGENCY

The DoD has undertaken a series of space acquisition reforms to ensure the joint force has the capabilities necessary to deter and defeat threats to U.S. interests. These acquisition reforms will continue with the establishment of a joint Space Development Agency (SDA) dedicated to rapidly developing, acquiring, and fielding next-generation space capabilities. This organization will have a development mindset and will be focused on experimentation, prototyping, and accelerated fielding, as well as leveraging commercial technologies and services. The SDA, along with other existing space acquisition organizations, would transition into the Space Force, when established.

United States Space Command

Complementing a Military Service focused on developing space forces is a space warfighting command dedicated to employing the joint force. Consistent with U.S. law, the DoD is taking the steps to establish U.S. Space Command (USSPACECOM) as a unified combatant command focused on planning and executing space warfighting operations to protect U.S. national interests, and those of our allies and partners. With forces provided by the U.S. Space Force and other

Overview – FY 2020 Defense Budget

U.S. Armed Forces, USSPACECOM will ensure unfettered access to and freedom to operate in space and will integrate space operations with joint and coalition forces during peacetime and across the spectrum of conflict. Establishing USSPACECOM will bring full-time operational focus to securing the space domain.

The FY 2020 submission includes \$72.4 million for 160 personnel required to stand up the USSF Headquarters; \$149.8 million in new resources for the SDA; and \$83.8 million for USSPACECOM as shown in Figure 5.1.

Long-term strategic competition is the central challenge to U.S. prosperity and national security. Space is a key arena of this competition.

In the FY 2020 budget, the Department will transfer 587 military and civilian authorizations and funding from the National Space Defense Center (NSDC), Joint Force Space Component Command (JFSCC), Joint Navigation Warfare Center (JNWC), as well as other organizations to USSPACECOM. The transfer will consist of these organizations changing their reporting channel from USSTRATCOM to USSPACECOM.

	USSF	SDA	SPACECOM	Total
Total FY 2020 Manpower	160*	50	617	827
Transfer	120	20	587	727
Growth	40	30	30	100
<i>Detailees</i>	40			40
Total FY 2020 Funding (\$M)	\$72.4	\$149.8	\$83.8	\$306.0
Transfer	\$8.7	\$0.0	\$75.6	\$84.3
Growth	\$63.7	\$149.8	\$8.2	\$221.8

CONCLUSION

The Department of Defense has a path to reform space organization and management in order to address challenges to our national security space enterprise. The DoD has analyzed current military resources and has developed a plan to transfer these resources to the USSF over the next five years. Variations in the transfer phasing of some programs may occur in execution as USSF missions and Service-specific missions are defined with more specificity. Finally, as the USSF matures, the Department anticipates that there will be further growth in the manpower and resources devoted to space operations and programs as new missions and capabilities are developed. This growth will be reflected in future budget submissions as appropriate. The Department looks forward to working with all stakeholders to strengthen our space enterprise.

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6. OVERSEAS CONTINGENCY OPERATIONS (OCO) AND EMERGENCY

The Fiscal Year (FY) 2020 Budget requests \$173.8 billion for Overseas Contingency Operations (OCO) and Emergency spending. This request focuses on continued military operations in the Middle East and South Asia, efforts to deter Russian aggression, and global counterterrorism operations. It also includes OCO funding for base requirements, in support of the National Defense Strategy, given the limits on base budget resources under the base budget defense caps in current law. Figure 6.1 displays requested OCO and Emergency funding by Operation and Activity.

Sections
<ul style="list-style-type: none"> • OCO Categories • Current Operations • OCO Funding and Troop Trends • OCO Functional/Mission Activities • Emergency Requirements

The request supports the following activities:

- Executing DoD’s counterterrorism and train, advise, assist missions in Afghanistan to support the President’s South Asia strategy as leaders work to negotiate a settlement that safeguards national interests
- Sustaining personnel forward deployed to the Middle East to continue operations to ensure an enduring defeat of the Islamic State of Iraq and Syria (ISIS) and allow flexibility for a deliberate, coordinated, disciplined withdrawal from Syria
- Building the capacity of the Iraqi Security Forces and Syrian opposition forces to counter ISIS in support of the United States’ comprehensive regional strategy
- Conducting U.S. Central Command in-country and in-theater support activities, including intelligence support to military operations
- Enhancing U.S. deterrence activities in Eastern Europe to assure North Atlantic Treaty Organization (NATO) allies and partners and deter aggressive actors

Figure 6.1. Overseas Contingency Operations (OCO) and Emergency Funding by Operation/Activity (\$ in billions)

Operation/Activity	FY 2019 Enacted	FY 2020 Request ^{2/}	Delta FY 2019 – FY 2020
Operation FREEDOM’S SENTINEL (OFS) Direct War Costs	18.5	18.6	+0.1
Operation INHERENT RESOLVE (OIR) Direct War Costs	8.9	6.9	-2.0
Enduring Theater Requirements and Related Missions	33.7	35.3	+1.6
European Deterrence Initiative (EDI) and the Ukraine Security Assistance Initiative (USAI)	6.5	5.9	-0.6
Subtotal	67.6	66.7	-0.9
Prior-Year Rescissions	-1.3	-	+1.3
OCO for Base Requirements ^{1/}	2.5	97.9	+95.4
Emergency Requirements	-	9.2	+9.2
Grand Total	68.8	173.8	+105.0

Numbers may not add due to rounding

1/ The FY 2019 Enacted “OCO for Base Requirements” reflects congressional adds, including the ISR Transfer Fund (\$500 million). The FY 2020 “OCO for Base Requirements” reflects the DoD base budget requirements requested in the OCO budget in order to comply with the base defense caps in current law. Congress does not appropriate by operation, therefore the FY 2019 Enacted column is a DoD estimate by operation.

2/ The “Direct War” and “Enduring Requirements” were developed for FY 2020 and have been applied as an estimate to the FY 2019 appropriation.

Overview – FY 2020 Defense Budget

- Replenishing and replacing munitions used in combat and equipment destroyed, damaged, or worn out due to use in contingency operations
- Supporting National Defense Strategy priorities, with full transparency, by shifting funding from the base budget to OCO

OCO CATEGORIES

The FY 2020 OCO request is divided into three requirement categories – direct war, enduring, and OCO for base.

Direct War Requirements (\$25.4 billion) – Reflects combat or combat support costs that are not expected to continue once combat operations end at major contingency locations. Includes in-country war support for Operation FREEDOM'S SENTINEL (OFS) in Afghanistan and Operation INHERENT RESOLVE (OIR) in Iraq and Syria. Funds partnership programs such as the Afghanistan Security Forces Fund (ASFF), the Counter-ISIS Train and Equip Fund (CTEF), the Coalition Support Fund (CSF), and Middle East border security.

OCO for Enduring Requirements (\$41.3 billion) – Reflects enduring in-theater and CONUS costs that will remain after combat operations end. These costs, historically funded in OCO, include overseas basing, depot maintenance, ship operations, and weapons system sustainment. It also includes the European Deterrence Initiative (EDI), the Ukraine Security Assistance Initiative (USAI), and Security Cooperation. Combined, enduring requirements and direct war requirements comprise “traditional” OCO.

OCO for Base Requirements (\$97.9 billion) – Reflects funding for base budget requirements, which support the National Defense Strategy, such as defense readiness, readiness enablers, and munitions, financed in the OCO budget to comply with the base budget defense caps included in current law.

CURRENT OPERATIONS

The FY 2020 OCO budget request funds military presence in Afghanistan in support of Operation FREEDOM'S SENTINEL (OFS) and in Iraq and Syria in support of Operation INHERENT RESOLVE (OIR). The OCO budget also funds in-theater presence supporting both operations and additional support in the Continental United States (CONUS).

In Afghanistan, the Department continues to execute its dual counterterrorism (CT) and Train, Advise, Assist (TAA) missions supporting the Afghan National Defense and Security Forces (ANDSF) while senior leaders work to negotiate a settlement that safeguards national interests.

In Iraq and Syria, the liberation of territory from ISIS shifts the Department's focus on consolidating gains and setting the conditions for an enduring defeat of ISIS and a more stable region. Working by, with, and through Iraqi and Syrian partners, the Department is helping to provide wide-area security in liberated areas, address ongoing ISIS threat, prevent ISIS reemergence, and set conditions for long-term stability.

The budget request provides flexibility for the Secretary of Defense and Combatant Commanders to continue military operations while future plans are developed and implemented. The President has said that changes to direct war funding requirements based on operational changes, if any, will be notified to the congressional defense committees in a timely manner.

Overview – FY 2020 Defense Budget

For budgeting purposes, the Department identifies 15,000 troops in Afghanistan and 7,200 in Iraq and Syria. As noted in the FY 2019 Budget Request Overview Book, the Department announced a change from the previous accounting methodology to capture additional forces in various stages of deployment and supporting roles, which was not captured in the FY 2019 PB Request. Those accounting changes are reflected in the FY 2020 PB Request, shifting troops from in-theater support into the OFS and OIR figures. Operational decisions on the presence of U.S. troops in Afghanistan and Syria may change these figures.

In-theater forces provide support for OFS and OIR, and also include Combined Joint Task Force-Horn of Africa (CJTF-HOA), counterterrorism (CT) operations in northwest Africa, and the European Deterrence Initiative (EDI).

Figure 6.2 displays the force levels assumed in the Department's FY 2020 OCO budget, expressed as annual average troop strength.

Figure 6.2. U.S. Force Level Assumptions in DoD OCO Budget
(Average Annual Troop Strength)

	FY 2019 PB Request	FY 2020 PB Request ³
Afghanistan (OFS)	11,958	15,000
Iraq/Syria (OIR)	5,765	7,200
In-Theater Support ¹	59,463	46,473
In-CONUS ² /Other Mobilization	16,610	19,149
Total Force Levels	93,796	87,822

¹ In-Theater support includes support for Afghanistan/Iraq/Syria, Combined Joint Task Force (CJTF) HOA / NW Africa CT, and EDI (including approximately 10,500 afloat forces).

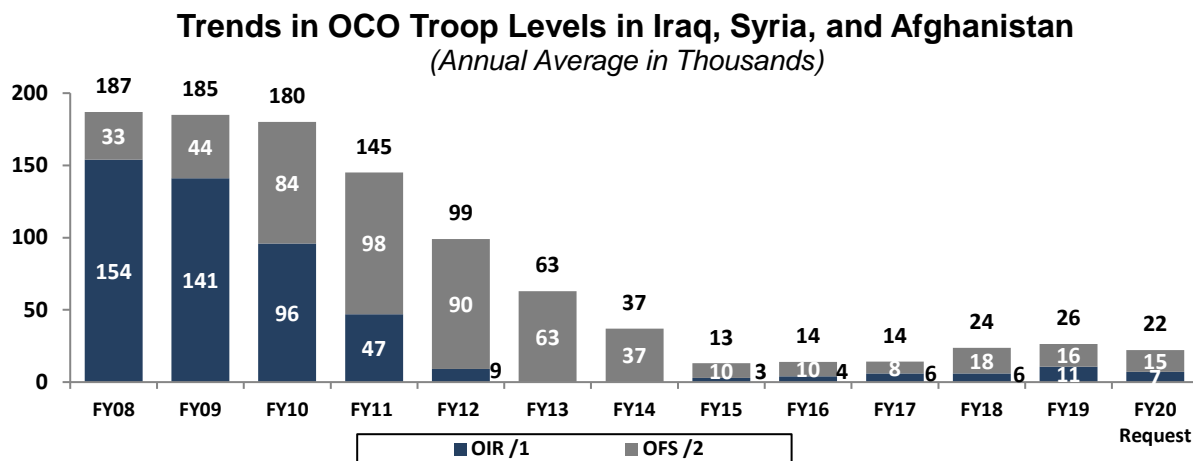
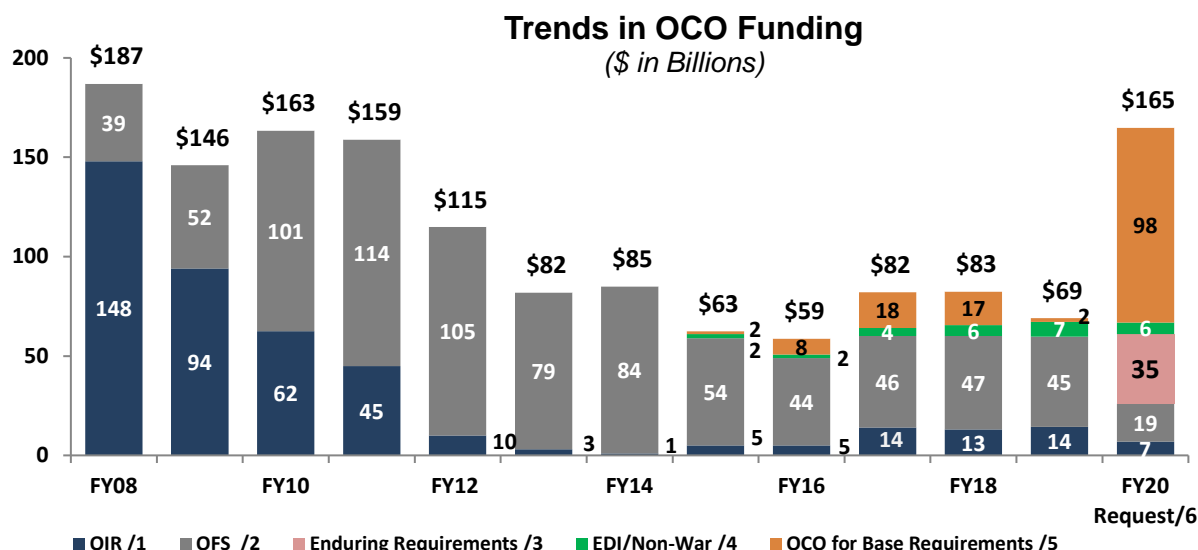
² In-CONUS = In the Continental United States

³ FY 2020 includes Temporary Enabling Force (TEF) support for Afghanistan/Iraq/Syria. This is a change from FY 2019 in which the TEF support was counted as part of In-Theater Support.

The FY 2020 OCO and Emergency budget request reflects a \$104.9 billion increase from the FY 2019 OCO enacted level of \$68.8 billion largely due to the realignment of base budget requirements into the OCO budget and addition of \$9.2 billion in emergency requirements. Figure 6.3 shows the trends in OCO funding and in-country troop levels by area of operation.

OVERSEAS CONTINGENCY OPERATIONS TRENDS

Figure 6.3. OCO Funding and Troop Level Trends



^{1/} OIR data is for Operation IRAQI FREEDOM (OIF), Operation NEW DAWN (OND), Operation INHERENT RESOLVE (OIR), and follow-on Iraq activities Operations in Iraq and Syria.

^{2/} OFS data is for Operation ENDURING FREEDOM (OEF) and Operation FREEDOM'S SENTINEL (OFS) operations occurring in Afghanistan.

^{3/} Enduring requirements reflect in-theater and in-CONUS costs that are likely to remain after combat operations end. These costs were previously attributed to the individual operations they supported.

^{4/} Data is for the European Deterrence Initiative (formerly European Reassurance Initiative) and non-war funding, which includes Security Cooperation in FY 2017-2019, and the former Counterterrorism Partnerships Fund in FY 2015 and FY 2016. In FY 2020, Security Cooperation funding is reflected in the Enduring Requirements.

^{5/} Base budget requirements funded in OCO. In FY 2019, this includes congressional base-to-OCO (Title II to Title IX transfers). In FY 2020, this includes OCO for Base Requirements for the Department's compliance with Budget Control Act of 2011.

^{6/} Excludes funding associated with border security and for reconstruction efforts related to Hurricanes Florence and Michael.

Note: Funding levels displayed are enacted amounts and do not reflect budget execution. The FY 2013 level includes a \$5 billion downward adjustment from the enacted appropriation due to sequestration.

Overview – FY 2020 Defense Budget

The total OCO funding has not declined at the same rate as the in-country troop strength shown in Figure 6.3 due to the fixed, and often inelastic, costs of infrastructure, support requirements, and in-theater presence to support contingency operations. While Figure 6.3 includes the costs of these functions, it only reflects in-country troop levels and does not capture the forces associated with those in-theater and in-CONUS support requirements. These support costs, further categorized in Figure 6.4, include:

- In-theater support, which includes infrastructure costs like command, control, communications, computers, and intelligence (C4I) and base operations for U.S. Central Command (USCENTCOM) locations.
- Combat support such as intelligence, surveillance, and reconnaissance (ISR) assets which remains high as these systems are used to enhance force protection.
- Equipment reset, which significantly lags troop level changes and procurement of contingency-focused assets like munitions, unmanned aerial vehicles and force protection capabilities supports operations that may not be linked directly to in-country boots on the ground.
- International programs and deterrence activities, which are linked to U.S. engagement in contingency operations and support U.S. interests but are not directly proportional to U.S. troop presence.

OCO FUNCTIONAL/MISSION ACTIVITIES

Funding in the FY 2020 OCO budget request is captured by operational support category in Figure 6.4, followed by brief explanations of select activities.

Figure 6.4. OCO Functional/Mission Category

(\$ in billions)

OCO and Emergency Budget	FY 2019 Enacted	FY 2020 Request	Delta FY 2019 to FY 2020
Operations/Force Protection	14.5	14.2	-0.3
In-Theater Support	19.5	20.0	+0.5
Defense Threat Reduction Agency / Joint Improvised-Threat Defeat	0.5	0.5	-
Equipment Reset and Readiness	8.6	8.1	-0.5
Classified Programs	9.9	10.5	+0.6
Afghanistan Security Forces Fund (ASFF)	4.9	4.8	-0.1
Support for Coalition Forces	1.0	0.6	-0.4
Counter-ISIS Train and Equip Fund (CTEF)	1.4	1.0	-0.4
Security Cooperation	0.8	1.1	+0.3
European Deterrence Initiative (EDI)	6.5	5.9	-0.6
Subtotal	67.6	66.7	-0.9
ISR Transfer Fund	0.5	-	-0.5
OCO for Base Requirements	2.0	97.9	+95.9
Emergency Requirements	-	9.2	+9.2
Prior-Year Rescissions	-1.3	-	+1.3
Total	68.8	173.8	+105.0

Numbers may not add due to rounding

Overview – FY 2020 Defense Budget

Operations/Force Protection (\$14.2 billion): This category of incremental cost includes the full spectrum of military operations requirements for U.S. personnel operating in Afghanistan, Iraq, and Syria such as:

- Personnel special pays and subsistence for deployed forces;
- Personnel pay for mobilized forces;
- Operating tempo (ground vehicles/equipment, combat aviation, Special Operations Forces);
- Communications;
- Pre-deployment training;
- Transportation cost to sustain and support the forces, including the retrograde of U.S. equipment from Afghanistan;
- Various classes of supplies;
- Deployment and redeployment of combat and support forces;
- Life support and sustainment;
- Additional body armor and personal protective gear; and
- *Commanders' Emergency Response Program (CERP) (\$5 million).* The CERP is used exclusively by commanders in Afghanistan to fund small-scale projects within their respective areas of responsibility to address urgent humanitarian relief or reconstruction requirements that provide a direct and immediate benefit to the Afghan population.

In-Theater Support (\$20.0 billion): Funds requested in this category provide for critical combat and other support for personnel in Afghanistan, Iraq, and Syria that comes from units and forces operating outside Afghanistan, Iraq and Syria. This category also includes funding to support other operations conducted outside Afghanistan, Iraq, and Syria.

The types of cost incurred for in-theater operations are similar to those outlined in the “Operations/Force Protection” category. However, this category also includes incremental costs for afloat and air expeditionary forces, engineers, fire support, and other capabilities located elsewhere that support operations in Afghanistan, Iraq, Syria, and other important missions. It also includes support for some activities operating from the United States (such as remotely piloted aircraft and reach back intelligence, surveillance, and reconnaissance (ISR) capabilities). Additional in-theater programs include:

- *Office of Security Cooperation — Iraq (OSC-I) (\$45 million):* This program is DoD’s cornerstone for achieving the long-term U.S. goal of building partnership capacity in the Iraqi Security Forces (ISF). The OSC-I conducts the full range of traditional security cooperation activities such as joint exercise planning, combined arms training, conflict resolution, multilateral peace operations, senior level visits, and other forms of bilateral engagement. This is a unique and separate mission from ISIS-focused train and equip operations.

Joint Improvised-Threat Defeat (\$0.5 billion): The Congress eliminated the Joint Improvised-Threat Defeat Fund (JITDF) in the Consolidated Appropriations Act, 2018 (P.L. 115-141), and moved funds for the Joint Improvised-Threat Defeat Mission to regular Defense-wide OCO appropriation accounts (i.e. O&M, RDT&E, and Procurement) under control of the Defense Threat Reduction Agency (DTRA). These funds help close the gap between the enemy's innovation cycle and effective countermeasures by continuously monitoring improvised

Overview – FY 2020 Defense Budget

threat weapon capabilities, anticipating changes to enemy use of technology and tactics, and rapidly developing and delivering capabilities for use by Joint and Coalition Forces.

Equipment Reset and Readiness (\$8.1 billion): The request funds the replenishment, replacement, and repair of equipment and munitions expended, destroyed, damaged, or worn out due to prolonged use in combat operations. The major items that will be repaired or replaced include unmanned aerial vehicles, helicopters, fixed wing aircraft, trucks, other tactical vehicles, radios, and various combat support equipment. The FY 2020 OCO budget funds the replenishment and forecast of Hellfire, Guided Multiple Launch Rocket System, Small Diameter Bomb (SDB), Joint Direct Attack Munition (JDAM), rockets, missiles and conventional ammunition. Upon returning from war zones, units restore their equipment to a condition that enables them to conduct training exercises, achieve required readiness levels, and prepare for future deployments. As personnel and equipment return from theater to their home stations, the need for equipment reset will continue.

Classified Programs (\$10.5 billion): The request funds \$10.5 billion for classified programs.

Afghanistan Security Forces Fund (ASFF) (\$4.8 billion): This request funds the sustainment, infrastructure, equipment, and training requirements for up to 352,000 members of the Afghan National Army and National Police as well as up to 30,000 Afghan Local Police. The request supports further development of the ANDSF as an effective and sustainable force to combat a resilient insurgency and as a reliable counterterrorism partner with the United States. A key element of the request is funding for the final year of the President of Afghanistan's four-year ANDSF Roadmap to increase the capacity and combat effectiveness of the AAF and the ASSF and seize the initiative in the fight against insurgent and terrorist forces, strengthen and restructure Afghan Security Institutions, and facilitate a political settlement to the war.

Support for Coalition Forces (\$0.6 billion): Amounts requested to finance coalition, friendly forces, and a variety of support requirements for key foreign partners who wish to participate in U.S. military operations but lack financial means. Such support reduces the burden on U.S. forces and is critical to overall mission success. The FY 2020 budget request for support for coalition forces includes \$450 million for the Coalition Support Fund (CSF) and \$150 million for the Lift and Sustain program. The FY 2020 CSF request of \$450 million reflects a \$450 million (50 percent) decrease from the FY 2019 enacted level of \$900 million due to the continuing suspension of U.S. security assistance to Pakistan based on the President's January 4, 2018, guidance.

Counter-ISIS Train and Equip Fund (CTEF) (\$1.0 billion): The United States Government's strategy to counter ISIS directed DoD to conduct a campaign to degrade, dismantle, and ultimately defeat ISIS. The focus of DoD's efforts is to work by, with, and through the Government of Iraq's Security Forces and Vetted Syrian Opposition (VSO) forces to build key security force capabilities and promote longer term regional stability.

The FY 2020 CTEF budget request strengthens the security capabilities of DOD partners countering ISIS to secure territory liberated from ISIS and counter future ISIS threats by training and equipping partner security forces. The training, equipment, and operational support in this request will facilitate the consolidation of gains achieved against ISIS and prevent its reemergence. The \$1,045 million request includes \$745 million to assist the Iraqi Security Forces and \$300 million to assist the Vetted Syrian Opposition. The FY 2020 budget also realigns

Overview – FY 2020 Defense Budget

\$250 million from the Counter-ISIS Train and Equip Fund to Operation and Maintenance, Defense-wide, for implementation by the Defense Security Cooperation Agency in order to align DoD authorities and funding to support border security requirements for partner nations fighting ISIS.

Security Cooperation (\$1.1 billion): The FY 2020 budget request maintains the existing security cooperation account at \$811 million, which funds counterterrorism, crisis response, and other security cooperation support to partner nations. The FY 2020 budget also realigns \$250 million from the Counter-ISIS Train and Equip Fund to the Operation and Maintenance, Defense-wide appropriation for implementation by the Defense Security Cooperation Agency in order to align DoD authorities and funding to support border security requirements for partner nations fighting ISIS.

Security Cooperation funds support programs to enable partner nations to deter and defeat existing and evolving terrorist and other transnational threats. Training and equipping partner nations allows U.S. forces to be more readily available for other contingency operations, build better relationships with partners, and promote global security in a more cost-effective manner.

European Deterrence Initiative (\$5.9 billion): The FY 2020 budget request continues to enhance the European Deterrence Initiative (EDI) by positioning the right capabilities in key locations throughout Europe in order to respond to adversarial threats in a timely manner. The FY 2020 budget request of \$5.9 billion for EDI supports rotational force deployments and the phased implementation of the multi-year activities funded in previous budgets.

The FY 2020 budget request for EDI includes \$250 million to provide assistance and support to the military and national security forces of Ukraine, and for replacement of any weapons or defensive articles provided to the Government of Ukraine from the inventory of the United States.

The DoD will continue several lines of effort to accomplish the purposes of the EDI, including: (1) increased U.S. military presence in Europe; (2) additional exercises and training with allies and partners; (3) enhanced prepositioning of U.S. equipment in Europe; (4) improved infrastructure for greater readiness; and (5) building allied and partner capacity. Funding for EDI is requested in the applicable Component accounts.

OCO for Base Requirements (\$97.9 billion): The FY 2020 OCO budget request includes \$97.9 billion to pay for base budget requirements, in support of the National Defense Strategy, for defense readiness, readiness enablers, and munitions. These base budget requirements are funded in the OCO budget due to limits on budget defense caps enacted in the Budget Control Act of 2011. As base budget funding at the Budget Control Act level is insufficient to execute the National Defense Strategy, additional resources are being requested in the OCO budget.

These activities include ground, air, and ship operations, base support, maintenance, weapons system sustainment, munitions, and other readiness activities, which are needed to prepare warfighters for their next deployment. This OCO request for base requirements includes additional resources for non-DoD activities, which are described in detail under separate (classified) cover.

EMERGENCY REQUIREMENTS

Emergency Requirements (\$9.2 billion): The FY 2020 budget request includes \$9.2 billion of emergency funding for unspecified military construction to build border barriers, backfill funding reallocated in FY 2019 to build border barriers and rebuild facilities damaged by Hurricanes Florence and Michael. This funding and the required transfer authority would be provided through a general provision.

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7. THE DEPARTMENT OF DEFENSE AUDIT

The first full financial statement audit was an important achievement by the Department. The Department is establishing realistic and aggressive goals to make good on promises to the American taxpayer. We are prioritizing corrective actions that will provide the greatest value to our operations and support the warfighter.

FY 2019 Financial Statement Audit Priorities Memorandum

The Department of Defense Audit

In fiscal year (FY) 2018, the Department of Defense (DoD) completed its first consolidated DoD-wide financial statement audit. This audit fulfilled a promise of the President and underscores the Department’s commitment to business reform and improved readiness. Results were as to be expected for a first year audit covering a massive enterprise—a disclaimer of opinion, meaning auditors were unable to obtain sufficient information to reach an opinion.

With that said, this disclaimer provides the Department with a comprehensive baseline of problems and a meaningful roadmap for improvement. The new annual audit regimen will also be used measure progress and enforce leadership accountability in the current year and beyond.

The DoD-wide financial statement audit involved approximately 1,200 auditors, more than 900 site visits (at 600 locations) and the review of hundreds of thousands of items. Five entities received unmodified (clean) opinions and two entities received modified opinions. The audit resulted in the issuance of more than 2,300 audit notices of findings and recommendations (NFRs). These findings are being addressed through corrective actions that are monitored and tracked by the Department.

A financial statement audit is comprehensive, occurs annually, and covers more than just financial management. During a financial statement audit, an independent public accounting (IPA) firm or the DoD Office of Inspector General (DoD OIG) examines the Department’s books and records. Financial statement audits give management independent validation and feedback on the effectiveness of each reporting entity’s ability to capture, record, and report financial activity. The DoD-wide financial statement audit helps drive enterprise-wide improvements to our business processes, internal controls, and quality of our data. Audits also ensure Department leaders have visibility over the counts, locations, and conditions of DoD assets (i.e., property, inventory, munitions, etc.). This relates directly to readiness and making better programming, budgeting, and investment decisions.

Sections
<ul style="list-style-type: none">• The DoD Consolidated Audit Strategy• Audit Remediation• Budget

“Knowing what we have, and where, is fundamental to military readiness while precise financial records are fundamental to reform. More importantly, annual audits will enforce the extraordinary discipline we demonstrate in our military operations throughout the Department, strengthening our ability to protect our nation.” ”

*Patrick M. Shanahan
November 30, 2018
Message to the DoD*

For years, the Department has received a disclaimer of opinion on the DoD-wide financial statements from the DoD OIG. These disclaimers were based on management’s assertions, not independent audit testing. Results of the FY 2018 DoD-wide financial statement audit and all future audit opinions are based on independent audit testing. The DoD consolidated audit will continue year after year. The audit process will become more efficient and the auditors will continue to provide business process improvements. This will improve the quality of data used to support strategic decision making and operate our programs.

The DoD owes accountability and transparency to the American people. The taxpayers deserve

a level of confidence that DoD’s financial statements present a true and accurate picture of its financial condition and operations. Transparency, accountability, and insights to inform business process reform are some of the benefits the Department will receive from the financial statement audit even before achieving a positive opinion.

THE DEPARTMENT OF DEFENSE CONSOLIDATED AUDIT STRATEGY

The DoD consolidated audit assesses all four financial statements and includes activity for both General Funds and Working Capital Funds. The DoD consolidated audit covers \$2.7 trillion in assets on the balance sheet, \$1.2 trillion in budgetary resources, and \$661 billion in net cost of operations. This audit is one of, if not the, largest audits ever undertaken, comprised of more than 24 stand-alone audits and an overarching consolidated audit as shown in Figure 7.1. The IPA firms conduct the stand-alone audits while the DoD OIG serves as the DoD-Wide Consolidated Auditor.

There are several DoD reporting entities already under annual audit and sustaining positive opinions. Those reporting entities are the Military Retirement Trust and Payment Funds; the U.S. Army Corps of Engineers; the Defense Health Agency – Contract Resource Management; the Medicare-Eligible Retiree Health Care Trust and Payment Funds; the Defense Commissary Agency; the Defense Finance and Accounting Service; the Defense Contract Audit Agency; and the National Reconnaissance Office.

Overview – FY 2020 Defense Budget

Figure 7.1. DoD Consolidated Audit Structure

DoD-Wide Consolidated Audit Performed by DoD Office of Inspector General (DoD OIG)									
Stand-Alone Audits 95% Budget, 97% Assets				Included in the Consolidated Audit 5% Budget, 3% Assets					
DoD OIG (as the Consolidated Auditor) assumed responsibility for or made reference to the audit opinions of each Component auditor (performed by an independent public accounting firm).				Those DoD components not undergoing stand-alone audits were included in the consolidated audit. DoD OIG performed internal controls and substantive testing over activities and balances.					
Army General Fund	Navy General Fund	Air Force General Fund	U.S. Army Corps of Engineers – Civil Works	WHS	MDA	DSCA	DoDEA	DARPA	
Army Working Capital Fund	Navy Working Capital Fund	Air Force Working Capital Fund	Military Retirement Fund	DCMA	DTRA	CBDP	JCS (incl. NDU)	DHRA	
DoD Classified	U.S. Marine Corps General Fund	Medicare-Eligible Retiree Health Care Fund	Defense Commissary Agency	DAU	DSS	DTIC	OEA	DMA	
DLA General Fund	DHP	DISA General Fund*	DHA-CRM	DOTe	DPAA	D TSA	DFAS GF	MHPI	
DLA Working Capital Fund	USSOCOM	DISA Working Capital Fund*	DCAA	Other TI-97 Funds Provided to Army by OSD	Other TI-97 Funds Provided to Navy by OSD	Other TI-97 Funds Provided to Air Force by OSD			
DLA Strategic Materials	USTRANSCOM	DoD OIG	DFAS Working Capital Fund	Burden Sharing Account by Foreign Allies, Defense	Support for U.S. Relocation to Guam Activities, Defense	Host Nation Support for U.S. Relocation Activities, Defense			
				DoD Education Benefits Fund	Emergency Resp. Fund, Defense	Homeowners Assistance Fund, Defense	Defense Gift Fund		
				Voluntary Separation Incentive Trust Fund	Mutually Beneficial Activities	Defense Cooperation Account	National Security Education Trust Fund		
Disclaimer		Modified		Unmodified		Audit Ongoing			

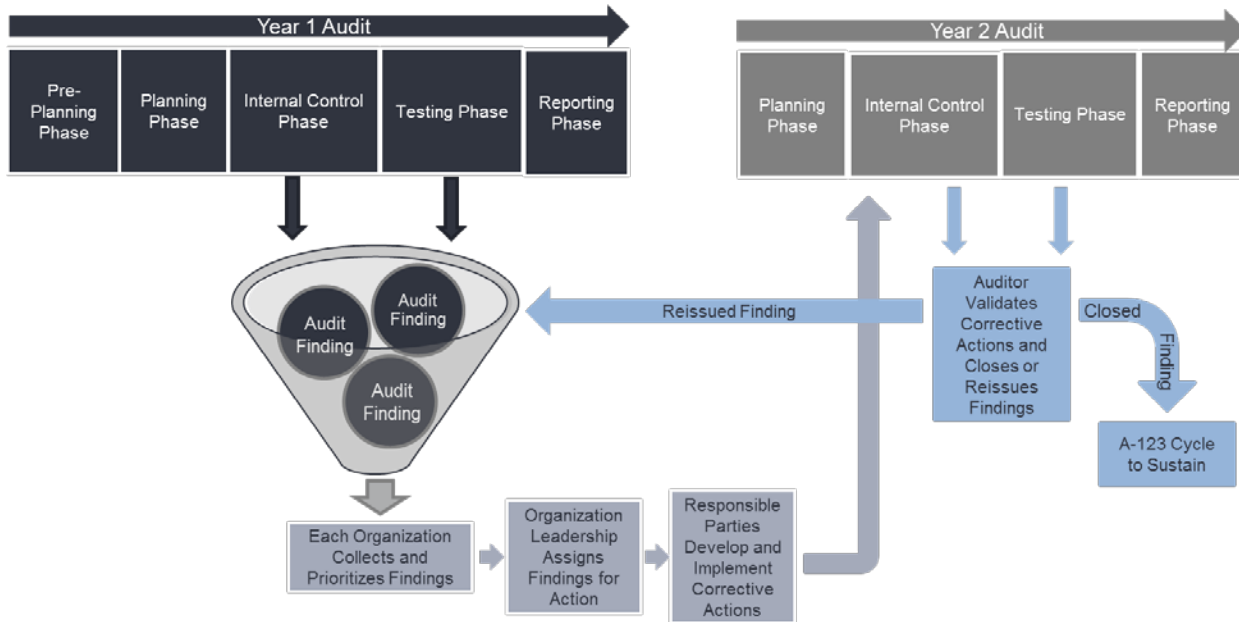
*DISA auditors have provided their intent to disclaim, however the audit is not fully completed yet

AUDIT REMEDIATION

Remediating audit findings is at the center of our financial improvement strategy. Using the FY 2018 audit findings, we have begun prioritizing and developing corrective action plans (CAPs). Remediating past audit findings has already resulted in benefits, including discovery of equipment that was not recorded in our system of record or findings indicating that the condition of that property in storage being incorrectly labelled as not being ready for issue. In either case timely and accurate visibility of our property is critical to warfighting readiness and helps prevent unnecessary purchases. Progress of remediation will be closely tracked by management with the ultimate closure through the annual audit process when auditor's confirm that an audit finding/condition is closed by NOR re-issuing the finding. Figure 7.2 provides a visual of how the annual audit feedback cycle works.

Overview – FY 2020 Defense Budget

Figure 7.2. DoD's Audit Feedback Cycle



Since the completion of our FY 2018 audits, we have been aggressively working to complete implementation of as many CAPs as possible so that when the auditors revisit FY 2018 findings during our FY 2019 audit, they will be able to validate closure of the NFRs. Using the results of the FY 2018 audits, we assigned a priority to audit findings in three functional areas: information technology, financial reporting and property management. These areas account for 84 percent of our NFRs.

Leadership has been actively engaged in overseeing the progress of corrective action plans. The Department has established 3 functional councils that meet regularly to share best practices and collaborate on solution development for NFRs that are Department-Wide issues. The Deputy Secretary of Defense meets bi-weekly with Military Department Under Secretaries and Management to review audit NFR and corrective action plan metrics using our NFR database. The NFR database uses near real-time data, providing leadership with visibility into the current status of all NFRs and corrective action plans across the Department.

BUDGET

For the initial years of audit, we anticipate that we will spend nearly \$1 billion annually with approximately 20 percent of these costs comprised of paying the independent auditors themselves; 40 percent representing the cost of supporting this process to include responding to auditors' request for information, and 40 percent of total costs directed at remediating findings. While the cost of the audit is substantial, it represents a small percentage (1/7th of 1 percent) of our total budgetary authority. The cost of supporting the audit and those of remediation will decline as controls improve and as sustainable solutions (to include systems changes) are put in place.

Overview – FY 2020 Defense Budget

The benefits of this annual regimen cannot always be quantified but they will result in significant long term savings expressed in terms of three specific areas:

- Increased enterprise visibility of property and financial information. Both directly support improved readiness through better informed resource allocation decisions.
- Increased efficiency in terms of sustained pressure to reduce the number of automated systems and ensure that the systems and processes comply with standards.
- A regular annual regimen that will ensure that things that are fixed—stay fixed.

The final benefit is that which will come in the form of increased public confidence that will ultimately result from a positive audit opinion.

CONCLUSION

The Department's annual audit regimen directly supports the National Defense Strategy as we are focused on implementing cost-effective, sustainable solutions that will improve the efficiency of our operations. Leadership believes the pursuit of unmodified audit opinions is worthwhile as our efforts already have and will continue to result in more accurate financial reporting and greater transparency.

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8. REFORMING DEFENSE

The National Defense Strategy (NDS) directed the Department to reform business operations for performance and affordability, gaining full value out of every taxpayer dollar spent on defense. The Department has defined reform as an improvement of processes, systems, policies, and procurement that increases effectiveness, efficiency, or reliability to best align the Department’s resources with the NDS.

As noted by the NDS, the Department’s culture and processes must change if we are to prevail in strategic competition. Previous approaches, centered on exacting thoroughness and minimizing risk above all else, proved unresponsive and cost prohibitive.

The Secretary of Defense charged the Chief Management Officer (CMO) with leading enterprise business reform and delivering optimized enterprise business operations to assure the success of the NDS. The business functions of the Department are inextricably linked to warfighting capability, and the goal of reform is to establish a culture of continuous improvement focused on results and accountability throughout the Department.

To achieve this mandate, the CMO established the Reform Management Group (RMG) in 2017 to manage and oversee all business reform efforts. The five major lines of business reform efforts are: contract management; healthcare management; acquisition; IT and business systems; and logistics and supply chain management. The RMG manages enterprise-wide reform efforts and explores opportunities for future savings and efficiencies working as a cohesive body to implement the reform.

In conjunction with CMO’s enterprise wide business reform efforts, the Army, the Department of the Navy, and the Air Force have driven program reforms to recognize significant savings and to realign spending towards NDS priority requirements.

Through these collective efforts, the Department saved \$4.7 billion in Fiscal Years 2017 and 2018 combined. The Department is committed to achieving the \$6 billion in savings we budgeted for in FY 2019.

The FY 2020 request includes new savings of \$7.7 billion for reinvestment in NDS priorities. Through the FY 2020 budget submission, the Department now has a more formalized process to account for savings in support of the Department’s third line of effort. The Department continues to refine the identification, validation, and reporting processes for financial benefits in Working Capital Funds and reforms with less tangible savings.

Figure 8.1. FY 2020 Defense Reforms

Reform Levers	FY 2020 (\$ billions)
Business Process Improvement	2.3
Business System Improvement	0.25
Policy Reform	0.18
Weapon System Acquisition	0.1
Divestments	2.9
Better Alignment of Resources	2.1
TOTAL	7.7

Numbers may not add due to rounding

Overview – FY 2020 Defense Budget

The CMO and the Services are using the following levers (with examples) to achieve these savings:

- **Business Process Improvement** – Refining actions, personnel, and timelines to increase effectiveness, efficiency, and reliability of the Department’s delivery of goods and services.
 - DoD continued its close review of the disbursement rates for Active Military permanent charge of station (PCS) funding and reduced the FY 2020 request for Active Military Accounts. In FY 2020, DoD requests a two-year availability for PCS funding, allowing DoD to accurately fund PCS requirements. (FY 2020 \$217.9 million)
- **Business System Improvement** – Modernizing and eliminating legacy business systems and processes to increase the effectiveness and reduce duplication of the Department’s IT business systems and deliver information at the speed of relevance.
 - The Air Force refined the Military Personnel Cost Model to reduce lost buying power. A completed analysis on how each account expends funds over time to rebaseline historical obligations and rates. (FY 2020 \$227.9 million)
- **Policy Reform** – Changing the Department’s procedures to best empower the warfighter with the knowledge, equipment, and support systems to fight and win.
 - The Army established policy that reshaped the civilian workforce. The civilian workforce was internally realigned to establish the Futures Command, to focus on rapidly acquiring and modernizing systems to support the Army’s role in implementing the National Defense Strategy priorities. (FY 2020 \$177.9 million)
- **Weapon System Acquisition** – Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades.
 - The Navy has achieved savings and gained multiple efficiencies through contracting improvements. Achieved saving by contracting for CVNs 80 and 81 together versus CVN 80 procurement in FY 2018 and CVN 81 procurement in FY 2019. (FY 2020 \$200 million)
- **Divestments** – Selling equipment or weapon systems, or strategically discontinuing legacy acquisition programs to fund purchases in support of the Department’s highest priorities.
 - The Army terminated or reduced nearly 200 previously planned equipment procurement or modernization programs to reinvest in modernization programs better aligned to the National Defense Strategy. (FY 2020 \$2.5 billion)
- **Better Alignment of Resources** – Reprioritizing or moving finances and personnel to realign from legacy capability in support of the National Defense Strategy.
 - The Defense Health Agency achieved savings through the Military Health System by pacing beyond normal program development utilizing mid FY 2018 execution data and incorporated complete FY 2018 execution into the budget development process. Analysis of the execution data resulted in a significant reduction to the Operation and Maintenance request. (FY 2020 \$493.5 million)

Overview – FY 2020 Defense Budget

As the Department moves from early investments to enable reform to institutionalized savings, we are committed to reinvesting and tracking savings gained to ensure it supports lethality and readiness. The Department is relentlessly pursuing opportunities to reduce cost and time across programs and contracts, leveraging the Department's monopsony power to achieve greater savings in both.

Reviews of the Defense Agencies and Department of Defense Field Activities

The Department is also conducting reviews of the efficiency and effectiveness of each Defense Agency and Department of Defense Field Activity as directed by the National Defense Authorization Act of FY 2019. These reviews will drive reform throughout the Defense Agencies and Field Activities as well as financial decisions for FY 2021.

These reviews will identify and implement productivity improvements and savings, improve performance and readiness, and improve the customer experience for the Military Services. The Department is committed to reducing duplication in the Department of Defense Agencies and Field Activities while establishing centers of excellence for enterprise-wide shared services within the Department.

We have a responsibility to gain full value from every taxpayer dollar spent on defense. Through this budget submission we aim to maintain the trust of Congress and the American people.

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9. MILITARY DEPARTMENTS

The Department of Defense’s enduring mission is to provide combat-credible military forces needed to deter war and protect the security of our nation. Should deterrence fail, the Joint Force is prepared to win. Reinforcing America’s traditional tools of diplomacy, the Department provides military options to ensure the President and our diplomats negotiate from a position of strength.

National Defense Strategy

The Military Departments generally use several means to report to the Congress on their activities. Consistent with Title 10 Section 113 (c)(1)(A), each of the Military Departments is providing a summary of their Fiscal Year (FY) 2020 Budget submission for inclusion in the DoD Budget Overview. Additional data are contained in Appendix A, Resource Exhibits.

DEPARTMENT OF THE ARMY OVERVIEW

<i>Discretionary Budget Authority in Thousands Army Base + OCO</i>	FY 2019 Enacted	FY 2020 Request	Δ FY19-20
Military Personnel	62,503,455	63,385,290	+881,835
Operation and Maintenance	69,046,819	71,772,336	+2,725,517
Procurement	26,522,952	25,218,726	-1,304,226
RDT&E	11,184,040	12,396,895	+1,212,855
Military Construction	1,628,159	1,914,464	+286,305
Family Housing Construction	330,660	141,372	-189,288
Family Housing Operations	376,509	357,907	-18,602
Revolving and Management Funds	264,365	109,697	-154,668
Pass Thru (ASFF, CTEF, and CHEM DEMIL)	6,966,016	6,834,477	-131,539
Base Realignment & Closure	62,796	66,111	+3,315
Subtotal Department of the Army	178,885,771	182,197,275	3,311,504
Arlington National Cemetery	114,400	70,800	-43,600
Total Department of the Army	179,000,171	182,268,075	3,267,904

*Afghanistan Security Forces Fund (ASFF)
Counter-Islamic State of Iraq and Syria Train and Equip Fund
(CTEF)
Chemical Agents & Munitions Destruction (CHEM DEMIL)*

Numbers may not add due to rounding.

NOTE: Includes \$872.0 million in congressional rescissions from the FY19 enactment (P.L. 115-245). The Military Construction, Army account does not include a \$9,200 billion Emergency funding request in FY 2020. The Arlington National Cemetery account is not a part of OMB's Dept. of Defense budget subfunction.

Introduction

America’s Army stands ready to deploy, fight, and win our Nation’s wars by providing ready, prompt, and sustained land dominance. The key to the Army’s success is the skill and grit of the American Soldier, the quality of its Leaders, the superiority of its equipment, and the ability of the Regular Army, National Guard, and Reserve to adapt to and dominate a complex and

Overview – FY 2020 Defense Budget

continuously changing multi-domain environment as a critical member of the Joint Force. The Army is ready and will remain ready as it modernizes to ensure it meets the National Defense Strategy (NDS) requirements now and into the future.

The FY 2020 budget is a major milestone in the Army's implementation of the NDS and recovery from depleted levels of readiness brought about by nearly 18 years of sustained conflict and 9 years of constrained budgets. Our adversaries capitalized on this period of strategic atrophy by modernizing their militaries and closing the overmatch we held for decades. Guided by the NDS, the FY 2020 budget places the Army on a clear path to remain ready, modernize and increase the Army's lethality to stay ahead of its competitors both now and well into the future. The first priority is readiness and this budget puts us on track to reach the required NDS readiness level by FY 2022. The next priority is modernization and this budget positions the Army to reach the NDS driven modernization goals by 2028.



The FY 2020 budget is a critical, but not the only, factor in achieving NDS driven readiness and modernization goals. Also important is Army reform, reforming business and policy systems and processes to improve efficiency, effectiveness, and reliability as well as internally achieving a better alignment of resources against the Army's highest readiness and modernization priorities. Doing so ensures every dollar entrusted to the Army achieves the highest possible impact on behalf of the taxpayer.

Fiscal Environment

The 2018 National Defense Strategy (NDS) described the 2016 State of Defense as "...five years of operating under destructive spending caps, leaving The Department of Defense (DOD) with a significant funding shortfall. Congress reversed the 2016 trends and restored funding to pre-spending cap levels with the FY 2018 and FY 2019 budgets, facilitating implementation of the National Defense Strategy."

The FY 2020 budget continues that reversal by requesting resources to build readiness for high-intensity conflict, and to modernize our formations, equipment, and doctrine. It will provide critical dollars to reform the Army to maximize our time, money, and manpower.

The current fiscal environment mandates the Army maximize the full benefit from every dollar appropriated to the Army. It required a review of nearly every program to ensure its alignment to the NDS and if a program did not align with the NDS or did so marginally, the Army took action to adjust the program's funding profile.

The Army is focused on reforming the Department's practices resulting in greater financial performance and affordability. The Army remains committed to optimizing the money it receives, by stretching the full value out of every dollar we spend and efficiently and effectively executing our budget. Service members and Army Civilians take their responsibility to be "Peerless Stewards of Taxpayers' Dollars" seriously.

Readiness

Readiness is the cornerstone of the Army's ability to fight a multi-domain high intensity conflict and is the Service's highest priority in developing the FY 2020 budget. Ready forces must be organized, trained, and equipped for prompt and sustained ground combat, capable to deploy, fight, and win decisively against any enemy anywhere in the



world. The NDS directs a re-focus on high-intensity conflict to compete against Great Powers. Future battles will be fought in a highly contested, complex, multi-domain environment. Today, 26 of our Brigade Combat Teams (BCTs) and 6 of our Combat Aviation Brigades are at the highest state of readiness, as compared to just 19 and 3, respectively, in 2017. Our FY 2020 budget sustains the path to have two-thirds of all Regular Army units and one-third of all Reserve Components units trained, equipped, manned and ready by 2022.

We are increasing combat readiness by filling our operational units to 100 percent of authorized strength by FY19 and 105 percent of strength by 2020. Furthermore, we reduced the non-deployable rates of Soldiers from 15 percent in 2015 to 6 percent today. We anticipate achieving our goal of 5 percent non-deployable by the end of FY19. This equates to thousands of Soldiers back in our formations, ready to deploy in support of global contingency operations. The FY 2020 budget funds a growth in active duty end strength of 2,000 with associated growth in the Army National Guard and the Army Reserve.

A critical element of readiness is training. The increased complexity and lethality of near-peer threats on the multi-domain battlefield requires more highly trained close-combat Soldiers. The Army has several measures to meet the requirement of delivering a more ready force including:

- Modernizing the Army Accessions Enterprise
- Adopting the Occupational Physical Assessment Test
- Field testing the Army Combat Fitness Test
- Extending One Station Unit Training 14 to 22 weeks
- Continuing to Grow Security Forces Assistance Brigades (SFABS)

These actions will increase Soldier readiness through more realistic training and by providing additional time to prepare Soldiers for the demands of Army operational units.

Army collective training focuses on high-intensity conflict, with an emphasis on operating in dense urban terrain, electronically degraded environments, and under constant surveillance. In the

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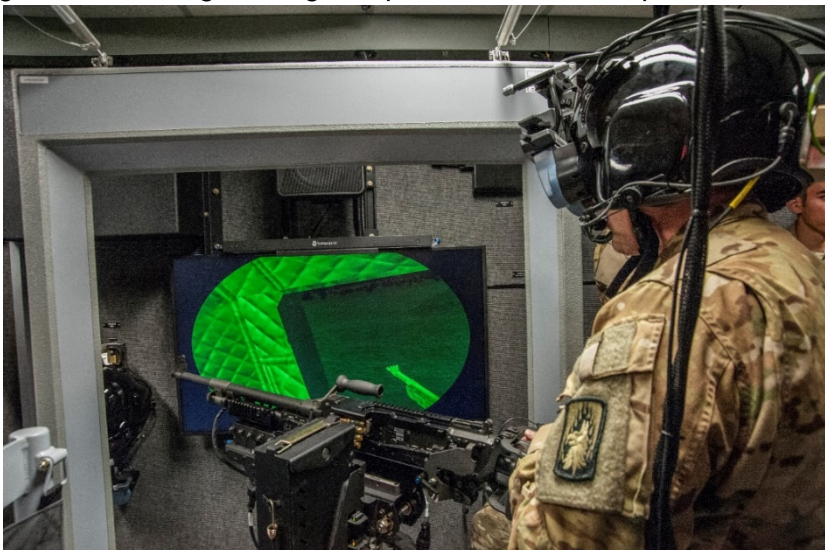
Army National Guard and the Army Reserve, we increased the training days for select units to improve their proficiency and increased the number of BCTs going through our Combat Training Centers (CTCs). CTCs are scheduled to their maximum capacity to ensure Army remains ready. In FY 2020 the Army will conduct 25 BCT decisive action CTC rotations: 10 Decisive Action Training Environment (DATE) rotations at the National Training Center; 9 rotations at the Joint Readiness Training Center; and 6 rotations at the Joint Multinational Readiness Center. CTC Collective training will emphasize operating in a highly contested and complex environment of multi-domain operations. Examples of increased complexity units will experience during a CTC rotation include the use of enemy drones, degraded/denied cyber electromagnetic activities environment, chemical attacks, repositioning Command Posts every 24-36 hours, indirect fire, and realistic Live Fire Exercises. The Army continue to develop a Synthetic Training Environment to integrate live and virtual, training environments into a single platform to increase training repetitions in a variety of scenarios.

The Army is ready now to answer the call. With Congressional support, we will continue to build readiness in support of the NDS. The Army's FY 2020 budget allows it to continue to increase readiness and build lethality after nearly two decades of continuous combat operations and 9 years of fiscal constraint. Continued consistent, timely and sufficient funding ensures the Army is ready now and is ready for any contingency.

Modernization

Army modernization is essential to build a more lethal force foundational for the Joint Force. The Army unified modernization of its acquisition, development and capabilities under one command – Army Future Command (AFC) – to enable more efficient, effective, bold, and innovative development and acquisition. AFC is a combat multiplier focusing efforts on delivering the weapons, combat vehicles, sustainment systems, and equipment Soldiers require. AFC promotes the delivery of new warfighting capabilities faster and more cost effectively. The command emphasizes learning and evolving through rapid innovation, experimentation, demonstration and rapid prototyping to deliver the next generation of weapons, vehicles and equipment essential to conduct Multi-Domain Operations.

AFC and modernization are guided by the U.S. Army Modernization Strategy. The strategy addresses the challenges of the future operational environment and directly supports the 2018 National Defense Strategy's (NDS) line of effort, "Build a More Lethal Force." The Army



vision unveiled in June 2018 presents a 10 year plan for a larger, highly trained and better equipped Army in line with the NDS. To meet the Army's vision for 2028, the Army must quickly adapt, and innovate to modernize formations and capabilities for future wars. The Army is increasing its lethality by reducing requirements, acquisition cycles, and testing; and, prototyping more extensively in its six modernizations efforts. The Army's eight Cross-Functional Teams

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(CFTs), see table 1 page 9-8, integrate warfighters with concept validation and requirements determination. The 31 modernization lines of efforts, see table 1, will reduce the time to deliver new weapons systems by integrating representatives from program management, finance, testing, science and technology, and other critical functions upfront in the process. Most importantly, the user is involved early and often to ensure these efforts are “Soldier-informed” from the onset. The 6 modernization priorities are:

Long-Range Precision Fires (LRPF): Improves the range and lethality of cannon artillery, and increase missile capabilities to ensure overmatch at each echelon. The LRPF in the FY 2020 President’s Budget allows the Army to accelerate prototyping and evaluations.

Next Generation Combat Vehicle (NGCV): Develops a fleet of vehicles with enhanced capabilities and a greater commonality of parts and components to simplify logistics and maintenance. Through technology development, experimentation, and prototyping, the NGCV will have greater mobility, firepower, protection and increased strategic mobility.

Future Vertical Lift: These platforms will provide our competitive aviation advantage with next generation assets with greater range, lift capacity, lethality, protection, and flexibility. The Army’s budget provides the opportunity to evaluate multiple vendor solution for down-select of Future Attack Reconnaissance Aircraft.

Army Network: Delivers a tactical communications network that enables the Army to fight cohesively in any environment where the electromagnetic spectrum is denied or degraded. The network includes electronic warfare; information technology; and assured position, navigation, and timing systems and software with a low signature.

Air and Missile Defense: Protects our forces from adversary rocket, missile, and drone-delivered fires to enable joint operations. This includes both theater systems and short-range air defense, like the Maneuver Short-Range Air Defense with directed energy technologies.

Soldier Lethality: Spanning all fundamentals, Soldier Lethality will equip and train Soldiers to augment their capabilities and increase their individual lethality, mobility, and survivability against emerging threats. This includes experimentation and procurement of initial prototypes for the Next Generation Squad Weapon-Automatic Rifle, Enhanced Night Vision Goggles, the Integrated Visual Augmentation System which consist of (HUD 3.0), and the initial technology capability for the Synthetic Training Environment.

Finally, as the Army modernizes, there remains the need to fund legacy equipment for the current fight, while simultaneously funding modernization for the future fight. The FY 2020 budget funds continuation of legacy systems that are needed for today’s readiness and continuing our readiness improvement.

Reform

“Seventeen consecutive years of irregular war, extended periods of budget uncertainty and an increasingly complex security environment have eroded our competitive edge. Our adversaries meanwhile have taken advantage of this to better their positions. We are in a renaissance [meaning] we look at everything differently...we look for efficiencies and for better ways to be effective” (Secretary of the Army, Dr. Esper at the 2018 association of the United States Army annual meeting). When developing the FY 2020 budget request, the Army aggressively pursued reforms to free time, money, and manpower for our highest priorities and to empower subordinate

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commanders to make more effective and timely decisions. The Army Senior Leaders completed a comprehensive internal review of the Army's budget, programs and projects aligning them to the NDS and Army priorities. Additionally, Army Reform Initiatives encompassed instituting acquisition reform, consolidating contract management and contract services, and divesting and consolidating legacy information technology systems. The end results validated Army programs, synchronized resourcing, reinvested savings in priority programs which will increase readiness, improve lethality, and inspire innovation while emphasizing financial stewardship.

Through this in-depth, time intensive process, the Army redistributed over ~\$57 billion across the Future Years Defense Program (FYDP) for its 6 modernization priorities. This program review of the Research Development and Acquisition (RDA) appropriations resulted in the cancellation of 93 programs and delayed or reduced the acquisition of an additional 93 programs to align resources to Army's six modernization priorities. These divestments and reductions totaled \$2.5 billion in FY 2020.

The Army eliminated redundant contracts and improved command visibility to ensure efficient practices. The contract review refined existing processes or introduced new ones to increase effectiveness, efficiency, or reliability producing quick savings of \$1.5 billion across the FYDP.

Another reform business process is the Command Accountability & Execution Review (CAER) program. CAER optimizes the purchasing power of the Army's operating budget by emphasizing fiscal stewardship, updating policies to increase purchasing power, and providing a scorecard of key performance indicators by each Major Command from which Army Senior Leaders measure progress. CAER is contributing to the momentum to deliver better capability for our Soldiers, by helping Commands better optimize every dollar provided by US taxpayers.

The Army's personnel policy reform efforts reshaped the civilian workforce through restructuring and reductions. The Army realigned personnel and reduced the civilian workforce by 2,161 across the Army. In doing so, the Army created a more efficient and effective workforce by moving Civilians from programs with low priority or marginal return on investment (ROI) to higher priority or greater ROI (\$178 million in FY 2020).

A critical element of reform is the Army's continued emphasis and progress to achieving auditability. The Army conducted its first full financial statement audit in FY 2018. Tremendous progress was realized, but there still remains a range of financial management reforms now being implemented in FY 2019.

People

The Army's greatest asset is our people. We remain committed to taking care of our Soldiers, Civilians and their Families by providing high-quality services and programs, as well as opportunities for growth and advancement. We are constantly working to improve the quality of life for our people.

The Army establishes policies and provides resources necessary to ensure quality support to its Soldiers, Civilians, and their families. The Army continues to support and resource essential programs that protect the force; Sexual Harassment and Assault Response, Suicide Prevention, Wounded Warrior, Housing, and Insider Threat. Similarly, other priority programs are resourced, like Strong Bonds which; strengthen resilience, improve cohesion, and reinforce values.

Overview – FY 2020 Defense Budget

The Army's housing policies encourages Soldiers, Family members, and Civilians to report any concerns no matter how big or small with absolutely no reprisal. Anyone living in on post housing is encourage to use existing reporting systems to request maintenance of their quarters and to provide candid feedback to their installation leadership so the Army can ensure the reports are appropriately addressed. Soldiers, Families and Civilians have a choice to live on Army installations; most importantly, the Army is dedicated to provide a safe, clean, and healthy home. The Army's enduring obligation is to take care of our people; their health and welfare is of the utmost importance to our Army's readiness.

The Army remains committed to recruiting, developing, retaining, and sustaining a diverse, ready, and capable All-Volunteer Force that remains the preeminent land force in the world. Army Values – Loyalty, Duty, Respect, Selfless Service, Honor, Integrity, and Personal Courage, are integral to the institution and the strength of our Soldiers and leaders. The Army will not sacrifice quality as the Army grows. It is imperative we retain Soldiers and Civilians with the best skills, knowledge, and behaviors.

As part of the Total Force, the Civilian workforce partners with uniformed personnel in many areas including, but not limited to, medical, family care, and Soldier support; maintaining the Army's infrastructure; providing essential training; and executing key roles in cyber and intelligence.

Every Soldier, Family member, and Civilian is a valued member of the Army team and critical to its readiness and mission accomplishment.

Conclusion

The Army's FY 2020 Budget is a strategy-based, threat-informed, requirements-driven request, aimed at building readiness to train and fight as a member of the Joint and Multi-National team. The budget allows the Army to modernize doctrine, equipment, and formations, ensuring the future Army can compete against great power competitors, such as China and Russia. The Army's FY 2020 budget request aligns with the National Defense Strategy, Army priorities, and the Army's Vision of Army 2028.

The Army's budget builds readiness capacity for decisive action, providing the Nation with a more capable and lethal ground force. It improves interoperability with our Allies, the Reserve Components and our Sister Services. Further, this budget demonstrates the Army's stewardship and accountability to the American tax payer as it increases readiness, improves lethality and accelerates innovation both affordably and efficiently.

Outlined by the National Defense Strategy, the Army's FY 2020 Budget leverages prior successes afforded by Congressional fiscal support and sustains the momentum required to achieve readiness objectives by 2022. This request aggressively pursues reform initiatives to achieve the Army vision of 2028 and position the Army to deter global competitors; prevent conflict, and protect the national security interest of our country. The Army stands ready to Deploy, Fight, and Win our Nation's Wars.

Table 1 – CFT Major Modernization Efforts

Cross-Functional Team	Major Modernization Efforts	CFT Location
Long Range Precision Fires	Strategic Fires: Strategic Long Range Cannon (SLRC)	Ft Sill Lawton, OK
	Operational Fires: Precision Strike Missile (PrSM)	
	Tactical Fires: Extended Range Cannon Artillery (ERCA)	
Next Generation Combat Vehicle	Optionally Manned Fighting Vehicle (OMFV)	Detroit Arsenal Warren, MI
	Robotic Combat Vehicle (RCV)	
	Armored Multi-Purpose Vehicle (AMPV)	
	Mobile Protective Firepower (MPF)	
Future Vertical Lift	Future Attack Reconnaissance Aircraft (FARA-CS1)	Redstone Arsenal Huntsville, AL
	Future Unmanned Aircraft Systems (FUAS)	
	Future Long Range Assault Aircraft (FLRAA-CS3)	
	Modular Open Systems Architecture (MOSA)	
Network	Unified Network	Aberdeen Proving Ground Aberdeen, MD
	Common Operating Environment	
	Interoperability	
	Command Post Mobility/Survivability	
Assured Positioning, Navigation, and Timing	User Equipment (APNT)	Redstone Arsenal Huntsville, AL
	Enterprise Enablers (SPACE)	
	Situational Awareness (NAVWAR)	
Air and Missile Defense	Maneuver - Short Range Air Defense (M-SHORAD)	Ft Sill Lawton, OK
	Indirect Fire Protection Capability (IFPC)	
	Lower-Tier Air and Missile Defense Sensor (LTAMDS)	
	Army Integrated Air and Missile Defense (AIAMD)	
Solider Lethality	Next Gen Squad Weapon-Automatic Rifle (NGSW-AR)	Ft Benning Columbus, GA
	Next Gen Squad Weapon-Rifle (NGSW-R)	
	Integrated Visual Augmentation System (IVAS [HUD 3.0])	
	Enhanced Night Vision Goggle-Binocular (ENVG-B)	
Synthetic Training Environment	One World Terrain	Orlando, FL
	Virtual Collective (Air/Ground) Trainers	
	Squad Immersive Trainer	
	Training Management Tools	
	Training Simulation Software (TSS)	

DEPARTMENT OF THE NAVY

<i>Discretionary Budget Authority in Thousands</i> Navy Base + OCO	FY 2019 Enacted	FY 2020 Request	Δ FY19-20
Military Personnel	49,784,436	52,068,443	+2,284,007
Operation and Maintenance	62,917,422	68,523,783	+5,606,361
Procurement	61,001,712	61,065,391	+63,679
RDT&E	18,657,814	20,434,909	+1,777,095
Military Construction	2,848,155	3,113,617	+265,462
Family Housing	416,979	365,531	-51,448
Revolving and Management Funds	--	--	--
Total Department of the Navy	195,626,518	205,571,674	9,945,156

Numbers may not add due to rounding.

Overview



The Department of the Navy provides America's primary forward deployed forces. The Marine Corps is an integral part of both the naval force and the combined/joint force that must be a tailorable, flexible, and versatile force capable of responding to any crisis across the full range of military operations. By enhancing lethality and investing in capabilities, the Navy and Marine Corps team will remain the most effective global maneuver force in the world. As great competitors attempt to remake the rules and disrupt the global

commons, we will rise to deter and defeat those challenges, protect the American homeland, and protect our economic prosperity by keeping the arteries of commerce open on the world's interconnected oceans.

The FY 2020 President's Budget aligns people, capabilities, and processes to implement Navy and Marine Corps contributions to the National Defense Strategy. Further, it prioritizes a strategy-driven and balanced approach by building on prior investments, sustains the industrial base, maintains a competitive advantage, transitions to an affordable future force, and leverages process reform. To increase America's naval power, we will build a bigger fleet -- more platforms like ships, aircraft, and weapons; we'll build a better fleet -- more capability across all our naval platforms by fielding state-of-the-art systems and continually modernizing legacy ones; and we'll build a ready fleet -- more at-sea time, more flying, more parts and maintenance improvements.

A fundamental tenet of our budget request is about maintaining balance across these dimensions of naval power. Naval power is not a choice between increased capacity or better capability -- it is a combination of both. Naval power is not a choice between readiness and modernization -- it requires a balance of both. Naval power is not a choice between more complex stand-alone technologies or networked systems -- it is achieved through both. The talent to operate and sustain a larger and more lethal force is not a choice between more people or better training -- it

Overview – FY 2020 Defense Budget

must draw on components from both. Optimizing this balance ensures the naval forces can maneuver as desired, respond when directed, and win in a short or prolonged fight.

STRATEGIC GUIDANCE AND THEMES

The FY 2020 President’s Budget was informed by strategic guidance issued by the White House, Secretary of Defense, Secretary of the Navy, and the two Service Chiefs. Specifically, the National Security Strategy, the National Defense Strategy, the Secretary of the Navy’s guidance on “People, Capabilities and Processes,” the Chief of Naval Operations (CNO) “A Design for Maintaining Maritime Superiority” and “Navy Strategy,” and the Commandant of the Marine Corps’ (CMC) “Marine Corps Operating Concept” positions our naval forces to compete, deter, and win – and that we are ready to conduct prompt and sustained combat operations, to protect America from attack, and to preserve America’s strategic influence in key regions around the world.

The priorities of the Secretary of the Navy which are foundational to this budget include: develop and retain our greatest resources the military and civilian workforce; deliver combat ready forces to win conflicts; and continuously improve the affordability and speed at which we deliver performance. The CNO guidance states the Navy will become more agile; will compete in ways that are sustainable; and, fighting with the Joint force, our allies and partners, will control the high end of maritime conflict. The CMC direction is to operate to fight and win in 2025 and beyond; shape our actions as we design and develop the capabilities and capacity of the future force; and employ sea-based and land-based Marine Corps capabilities to support the sea control fight.

OPERATIONAL ENVIRONMENT AND CONTEX

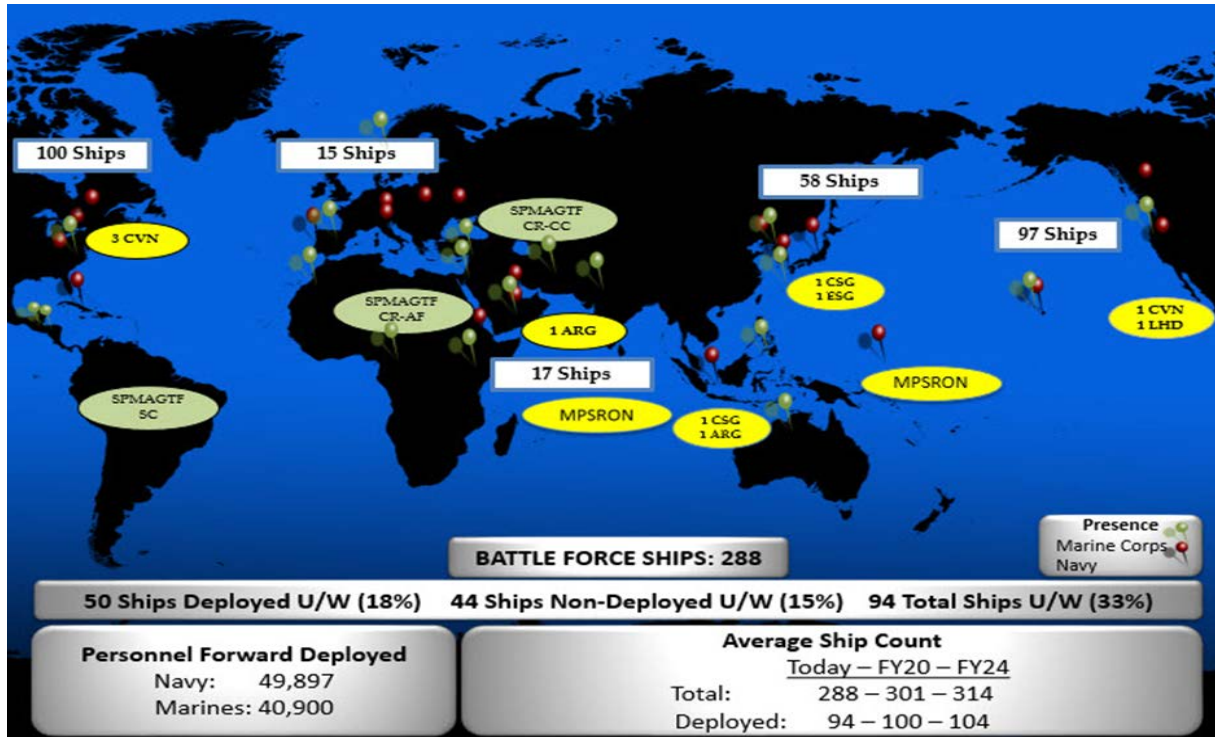
Today’s execution of the guidance is the result of the resources and hard choices made in prior years to field today’s Navy and Marine Corps. At the same time, this budget adapts the force to reflect key changes in the security environment.

There is increased reliance on the maritime systems with shipping traffic, arctic trade routes, and new technologies making undersea resources more accessible. U.S. and allied interests are being challenged more often. Competitors are bringing high-end military capabilities and aggressive actions in multiple domains.

Overview – FY 2020 Defense Budget

In meeting these challenges, the Navy and Marine Corps provide forward postured sea-based forces (Figure 1). This includes over 49,000 Sailors and over 40,000 Marines deployed or forward ashore on 94 ships, 2 Carrier Strike Groups, and 2 Amphibious Ready Groups around the world.

Figure 1 – Operational Context (as of 6 February 2019)



Overall, the Navy and Marine Corps today remain deeply engaged, at high tempo and in harm's way providing immediate options, assuring allies and deterring our adversaries.

FY 2020 PRESIDENT'S BUDGET

The total FY 2020 President's Budget request for the DON is \$205.6 billion. This is an increase of 4.6 percent from the FY 2019 enacted budget and since FY 2018, the DON has been averaging a 3.8 percent annual budget growth. The increased funding is reversing the erosion of the military advantage from prior years. These increases and stability support our readiness and increase our overall combat capabilities while we grow our capacity where it makes sense. All resources are required to deliver a bigger, better, and more ready force.

Overview – FY 2020 Defense Budget

The FY 2020 President's Budget request represents a strategy-driven, balanced approach to fielding a ready force, maximizing our naval power with increased lethality, and that grows capable capacity - all through targeted investments in our people, capabilities, and processes. The budget denotes a responsible plan to spend hard-earned taxpayer dollars to maintain our strategic advantages across the spectrum of conflict. The budget funds the critical programs that will enable our Sailors and Marines to go into battle with the best training bringing to bear superior technology and overwhelming firepower such that any aggressor we face will be soundly defeated.



The hard choices required to achieve this balance include trade-offs in legacy force structure allowing the trade space to accelerate investments in future force capabilities for the future fight. The Department is developing and fielding new capabilities in the areas of unmanned vehicles, directed energy, artificial intelligence, hypersonics, and other advanced weapons technology.

To provide the required ability to deter aggression and respond to emerging security threats—including extremist organizations, pandemic diseases and natural disasters—we must maintain a ready force. Maintaining a ready force empowered to execute the mission of the Navy and the Marine Corps depends completely on the Navy and Marine Corps Active, Reserve, and civilian team.

The active military manpower is aligned to support force structure changes as the fleet size grows from 288 in FY 2018 to 314 in FY 2024, which is an increase of 8.3 percent. Over the same period, the Navy active duty strength grows by 7.3 percent. The active strength is 340,500 in FY 2020 and increases to 354,000 in FY 2024. This personnel growth also supports the introduction of new platforms and capabilities, addresses lessons learned from our comprehensive and strategic readiness reviews and reduces gaps in fleet manning. The FY 2020 Navy Reserve Personnel budget supports both Selected Reservists and Full Time Support personnel to deliver relevant operational capability and preserve strategic depth. The Navy Reserve continues to be an integrated force



Overview – FY 2020 Defense Budget

multiplier to the active component, leveraging prior active duty experience and training, as well as critical civilian skill sets not resident in the active component.

The active Marine Corps duty force is increasing to 186,200 in FY 2020. This increase supports the Marine Corps Operating Concept that focuses on the changes necessary to operate successfully in an increasingly complex global environment, as we focus on building a more experienced, better trained, and more capable force. The Marine Corps Selected reserve force remains at 38,500. The Marine Corps Reserve maintains a “Ready-Relevant-Responsive Force” capable of seamlessly augmenting, reinforcing, and operating as part of the total force to fulfill Combatant Command and Service rotational and emergent requirements.

The FY 2020 budget requests funding for 217,476 civilians recognizing the key role the civilian workforce has in the Department. This modest 1.5 percent increase from FY 2019 represents sustained and targeted growth. Our additional civilians are crucial to our ability to sustain our equipment, from shipyard workers to aviation mechanics; engineers to develop and test enhancements to communications, radar, and weapons, and scientists to design the weapons and platforms of the future. All of this is geared toward improving our readiness and building a more capable force in a balanced manner.

In addition to investing in our people who will successfully execute the mission, the Department remains committed to ensuring our critical programs, capabilities, and platforms are ready for combat today and in the future. Ship Depot Maintenance funding increases by 6 percent over FY 2019, as the Department continues to improve material readiness. This level of funding grows the public and private shipyards to beyond the current effective capacities and builds the workforce and sustains the industrial base. Ship Operations funding increases by 5.9 percent over FY 2019, providing consumables, repair parts, administration, and ship operation training costs. This solidifies the department’s ability to conduct worldwide ship operations, enabling us



to fulfill our maritime role in support of the NDS. The operations tempo is funded at 58 deployed days and 24 non-deployed days underway per quarter. The Navy continues to fund aviation maintenance to our maximum capacity, with funding realigned to key performance drivers such as aviation logistics, equipment readiness, and engineering support. The Flying Hour Program grows slightly to align with increasing mission capable rates.

The Marine Corps Ground and Logistics Combat Elements are ready to meet current operational requirements. The FY 2020 budget continues to invest in modernizing key capabilities. The Marine Corps Ground Equipment depot maintenance decreases by 21 percent from FY 2019 as funds are realigned to readiness and capability investments.

To support Shore Readiness, the Navy grows 8.3 percent in FY 2020. This increase is driven by a decision to fund 85 percent of the facilities’ requirement, up from 80 percent. Major projects include modernization projects for shipyards, air operations production, maintenance

Overview – FY 2020 Defense Budget

infrastructure, and the transition of Naval Facilities Command from the Working Capital Fund. Funding for Marine Corps increases 16 percent in FY 2020. This increase supports recapitalization and repair requirements as part of the Commandant's Infrastructure Reset Strategy, which reduces infrastructure footprint to ensure investments are optimized to better contribute to Force readiness and lethality. The budget also requests 40 new military construction projects to support new platforms, replace aging infrastructure, and training facilities.

In addition to focusing on increased readiness support, for research and development, the Department is also investing in capabilities and capacity to help build the Future Force as described in the NDS. Research and development funding increased 9.9 percent in FY 2020 for engineering manufacturing development efforts. This funds ship, aircraft, and weapons developments that transition the force to better deter and defeat future threats. In addition, the FY 2020 budget is targeting development of long-range hypersonic strike, unmanned aircraft and vessels, ship-based lasers, rapid prototyping, big data analytics, artificial intelligence, and cyber capabilities.

The Department continues to support a strong Shipbuilding program, which is fundamental to the Navy and the Nation and provides the capable capacity needed for the future fight. Ship construction includes 55 battle force ships and 10 large unmanned surface vessels across the FYDP. The 12 battle force ships funded in FY 2020 include the CVN 81 Ford-class carrier, 3 Virginia class submarines, 3 Arleigh Burke-class destroyers, 2 John Lewis-class fleet oilers, 1 small surface combatant, and 2 T-ATS. There are also 2 large unmanned surface vessels in FY 2020, which brings the total to 14. The aircraft procurement of 619 aircraft across the FYDP supported in the FY 2020 budget will provide sustainability to the fleet. Aircraft quantity increases from 134 to 148 in FY 2020. Along with some high-end aircraft, the Department's plan to purchase relatively



low-cost aircraft, and this change in mix drives a budget decrease. The weapons procurement plan is balanced to maximize lethality.

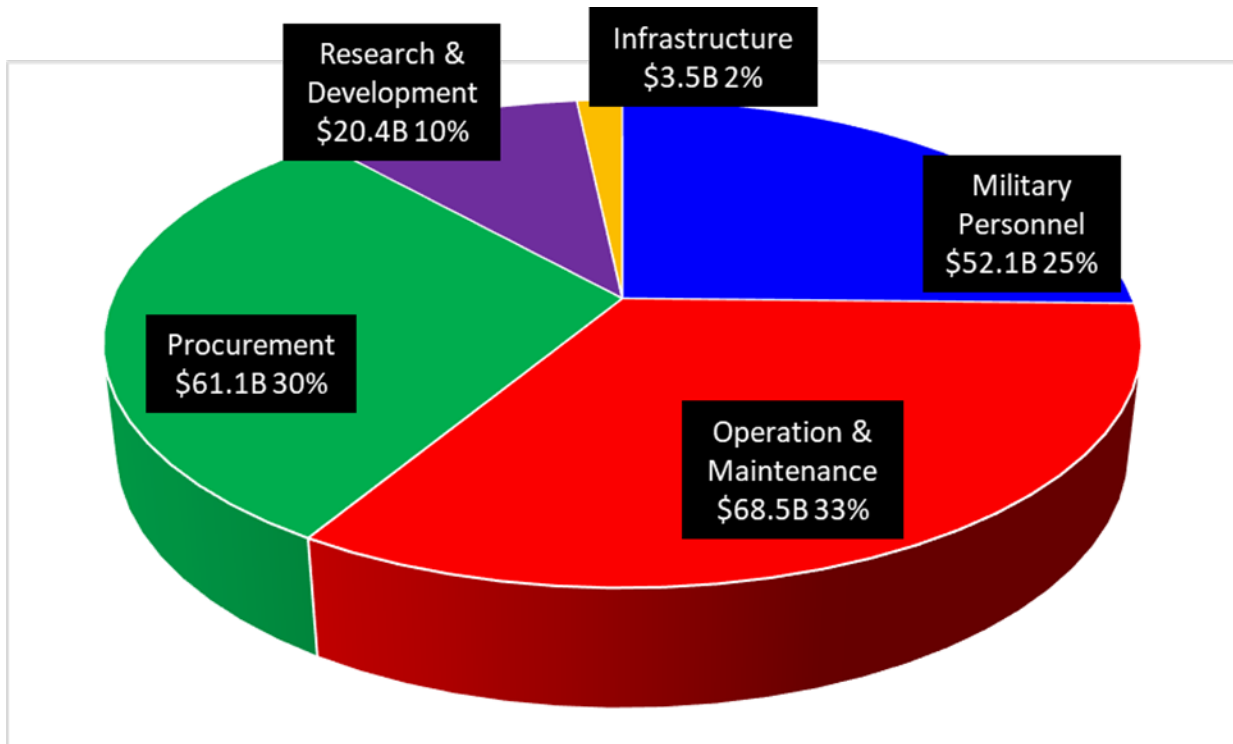
Lastly, consistent with the Department's recent Business Operations Plan, one of our lines of effort is to reform the Department's practices for greater performance and affordability. This approach resulted in the identification of savings over \$1.9 billion in FY 2020. For the first time in FY 2018, the Department completed an enterprise-wide audit of all of our processes, systems, and resources, and learned a great deal from it. The Department will continue to use the audit process as a tool to improve our financial management systems, processes, and controls. The continual pursuit of ongoing reform and audit initiatives will allow the DON to greater leverage the assets and processes we have, enabling us to deliver more warfighting capability for every dollar spent.

Overall, the Department's investments in readiness and infrastructure improve upon efforts in the FY 2020 President's Budget and are essential for generating trained, properly equipped combat ready forces, and supporting the National Security Strategy spanning all corners of the globe. This budget request fields a ready and formidable force in all domains of naval operations – a force to deter, and when conflict is necessary, to soundly defeat any threat to the U.S., its interests, or its allies.

RESOURCE SUMMARY

The combined base and overseas contingency operations DON FY 2020 President’s Budget request is \$205.6 billion. Figure 2 displays the total DON FY 2020 President’s Budget request by Appropriation Title. All resources shown are required to deliver a bigger, better, and ready force. The need for stable and predictable funding remains.

Figure 2 – FY 2020 DON Total Budget by Appropriation Title \$205.6 Billion (Dollars in Billions)



Overview – FY 2020 Defense Budget

DEPARTMENT OF THE AIR FORCE

<i>Discretionary Budget Authority in Thousands</i> Air Force Base + OCO	FY 2019 Enacted	FY 2020 Request	Δ FY19-20
Military Personnel	38,442,808	40,325,393	+1,882,585
Operation and Maintenance	60,618,829	65,013,105	+4,394,276
Procurement	50,021,174	50,086,979	+65,805
RDT&E	40,998,029	46,066,370	+5,068,341
Military Construction	2,365,307	2,773,755	+408,448
Family Housing	395,720	398,647	+2,927
Revolving and Management Funds	77,644	92,499	+14,855
Total Department of the Air Force	192,919,511	204,756,748	11,837,237

Includes pass-through funding.

Numbers may not add due to rounding.

Introduction

A rapidly growing China and resurgent Russia aim to coerce their regional neighbors, undermine long-standing alliances, and displace American influence from critical regions around the globe. These great power competitors are challenging U.S. dominance in all warfighting domains: air, land, sea, space, and cyberspace. To face these challenges, the Air Force must compete, deter, and win across the five priority missions of the National Defense Strategy. These priorities include defending the homeland, providing a safe, secure and effective nuclear deterrent, defeating a powerful conventional enemy, deterring opportunistic aggression and disrupting violent extremists in a cost-effective manner. In fiscal year (FY) 2020, the Air Force will continue to build a more lethal and ready force, while fielding tomorrow's Air Force faster and smarter.

The Air Force We Need

As we prepare for near-peer conflict, the Air Force continues to be in high demand. Our Airmen perform strategic and vital missions in all domains, across the spectrum of conflict, in defense of the homeland and in support of our international allies and partners. The Air Force currently has 312 operational squadrons. We cannot credibly face our future with the Air Force of today; we must grow and meet our adversaries from a position of strength. To implement the National Defense Strategy and prevail over our highest priority competitors, our Air Force needs 386 operational squadrons. It must meet the current demands of Combatant Commands, build on our recent gains in readiness, and evolve to incorporate advanced technology and wield cutting-edge capabilities. The Air Force is developing, together with our joint partners, Multi-Domain Operations as our new warfighting framework which includes our supporting squadrons to ensure a balanced "boxer's stance" of military readiness. Posturing for future growth, the FY 2020 President's Budget (PB) maximizes future capability development and multi-domain modernization while pursuing smart reforms.

America is Building a More Lethal and Ready Air Force

Increasing lethality and improving readiness to prepare for the high-end fight are primary objectives of the FY 2020 PB. Our National Defense Strategy directs a more lethal and ready force, prepared to defeat our adversaries in rapidly evolving, high-end combat. This past year, we focused additional resources provided by Congress on our pacing squadrons, the 204 operational squadrons required in the opening days of a peer fight. With these resources, we are more ready for major combat operations today than we were two years ago. This

Overview – FY 2020 Defense Budget

accelerates readiness recovery by about six years, with 80 percent of our pacing units being combat ready by the end of 2020. In 2020, we continue to build on progress made to restore readiness, increase lethality, and cost-effectively modernize the force.

People and Training

Readiness recovery is first and foremost about people. Our FY 2020 budget continues end-strength growth by adding approximately 4,400 Total Force Military Airmen. To address our aircrew shortage, we are implementing initiatives to increase the number of pilots we train, season them in operational units and retain experienced aircrews. This budget builds on our progress to produce 1,480 pilots in 2020. Additionally, as our Airmen shift their focus to great power competition, the Air Force must train and equip them for the high-end fight. This budget proposal includes funds to modernize our live and virtual ranges and infrastructure to provide a relevant and realistic training against our most advanced threats.

Cost-Effective Maintenance and Logistics

The Air Force is focusing on innovative ways to maintain and supply our aging fleet. Pursuant to that, this budget increases readiness through its focus on core flying hour and Weapons System Sustainment (WSS) programs – the parts, supply, and equipment – to keep our aircraft ready, while further building our munitions stockpiles and investing in infrastructure. The budget funds Air Force peacetime flying hours to maximum executable levels and continues to fund maintenance at a high level to achieve desired readiness gains. We continue to focus on supply inventory, increasing our maintenance capacity, enhancing our training and proficiency, and moderating operational tempo to help our maintainers to meet this goal.

Nuclear Deterrence

The FY 2020 budget reflects the Defense Department commitment to maintain a safe, secure, and effective nuclear deterrent. The Air Force provides two-thirds of our nuclear triad and operates 75 percent of our nuclear command, control, and communication (NC3) capabilities. This budget funds modernization of the integrated terrestrial, air, and space-based NC3 systems to ensure secure, survivable connectivity with the President and national command leadership. The Air Force continues development of the Long-Range Standoff weapon to penetrate highly contested environments from multiple approaches and the Ground-Based Strategic Deterrent to replace the aging Minuteman III to improve the constant state of readiness. The FY 2020 PB continues to fund research and development of our next-generation bomber, the B-21 Raider, which provides nuclear deterrence and critical flexibility in a wide range of future military operations.

Modernization

The Air Force needs systems that can penetrate contested environments or remain outside these zones and employ long-range weapons and effects. In FY 2020, the Air Force is investing \$1.5 billion to test and prototype game-changing technologies to cement our warfighting advantage, including hypersonic weapons, directed energy and adaptive jet propulsion. The FY 2020 budget continues the transition to the Advanced Battle Management System, a family of systems that will fuse data from multiple platforms across all warfighting domains. We are upgrading legacy command and control nodes, and have established an architecture to ensure the many programs that must connect and share information will work together. Additionally, we

Overview – FY 2020 Defense Budget

are also upgrading and modernizing our electronic warfare systems, organizations, and analysis capability to dominate the electronic spectrum.

The Air Force remains committed to the F-35 and its game-changing capabilities, and will continue purchasing 48 aircraft each year. Additionally, to maintain our readiness to counter our adversaries, this budget proposes to replace aging F-15C's with a modernized successor by purchasing the F-15EX to complement fifth generation capabilities across a full range of operational challenges. The Air Force also continues to explore Light Attack Aircraft options as a cost-effective replacement for sustaining counterterrorism and irregular warfare missions. Finally, the FY 2020 budget includes funding for 12 KC-46 Pegasus tankers, to increase joint and coalition aircraft refueling capability, and rapid deployment of aircraft.

Cyber Dominance

To meet the challenge of sophisticated and persistent adversaries in cyberspace, the Air Force is producing innovative cyber capabilities to repel these threats, defend our networks, and support Combatant Commanders around the globe. We are investing in new capabilities to identify network threats and vulnerabilities, and are designing countermeasures to mitigate risks to our weapon systems. This budget continues funding the joint effort to supply Airmen with a Unified Platform, and the Joint Cyber Command and Control system to provide Combatant Commanders cyber situational awareness and battle management of these forces.

Accelerating Defendable Space

Our adversaries are developing weapons to blind or jam satellites with directed energy or electronic warfare, target ground sites, and infrastructure through cyber-attacks, or physically destroy our satellites and on-orbit spacecraft. We will deter and defeat these threats in order to secure the satellite constellations that power our military forces and civil societies. The FY 2020 budget continues our acceleration of defendable space by funding several important space-based programs essential to the future fight; including a more survivable next-generation Overhead Persistent Infrared System, Evolved Strategic Satellite Communications, a satellite collision avoidance Space Fence, and anti-jam, anti-spoof, and anti-tamper Global Positioning System satellites.

We are Fielding Tomorrow's Air Force Faster and Smarter

The Air Force must move fast to stay competitive, and we are fundamentally transforming what we buy, how we buy it, and who we buy it from. With new authorities to accelerate prototyping and fielding, granted in the 2016 and 2017 National Defense Authorization Acts, we are changing the way we buy things to get capability from the lab bench to the warfighter faster. Three contributing factors are making us faster: prototyping, tailored acquisition strategies, and agile software development. Additionally, in line with the Defense Department reform efforts, the Air Force is maximizing available funding in FY 2020 by better alignment of resources and a business process improvement. In FY 2020, Air Force reform efforts enable the reprioritization of \$1.1 billion for the development of the most promising capabilities required for the high-end fight.

The FY 2020 PB accelerates air-launched hypersonic technologies, including a hypersonic Conventional Strike Capability and the Air-Launched Rapid Response Weapon. For example, in hypersonics, we are leveraging available technology from across the Department of Defense to build, fly, and buy our nation's first operational boost-glide weapon five years earlier than anticipated. This budget also funds research and development in various technologies associated

Overview – FY 2020 Defense Budget

with machine intelligence across the Intelligence, Surveillance, and Reconnaissance enterprise. Additionally, in FY 2020 the Air Force is funding the Kessel Run Experimentation Lab comprising teams of innovative coders who are revamping major software systems for use in Air Operations Centers.

Conclusion

In alignment with the National Defense Strategy, this budget prioritizes long-term competition and delivers a more lethal and ready Air Force through smarter and faster acquisition practices and a laser focus on readiness improvements for Multi-Domain Operations. To counter the threats we face today, the Air Force must accelerate modernization, continue to advance our readiness posture and implement smart reforms. To do this, requires predictable and consistent budgets. The FY 2020 PB provides the nation a more lethal and ready force to meet current demands by delivering greater, more affordable capabilities to succeed in an increasingly contested battlespace.

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10. PERFORMANCE PLAN AND ANNUAL PERFORMANCE REPORT

DEPARTMENT MISSION OVERVIEW

Introduction and Executive Summary

The National Defense Strategy (NDS) articulates the Department's strategy to compete, deter, and win in an increasingly complex security environment. The Fiscal Year (FY) 2018 – FY 2022 National Defense Business Operations Plan (NDBOP) published earlier this year supplements the NDS, and directly contributes to NDS implementation. Similar to the NDS, the NDBOP focuses on the Secretary's three major lines of effort for the Department from a business operations and support perspective:

1. Rebuilding military readiness as we build a more lethal Joint Force;
2. Strengthening alliances as we attract new partners; and,
3. Reforming the Department's business practices for greater performance and affordability.

The office of the Chief Management Officer is responsible for leading the execution of the Secretary's third line of effort: reforming the business operations of the Department for performance and affordability.

The FY 2019 Annual Performance Plan (APP) was included as an appendix to the Business Operations Plan, and the FY 2017 Annual Performance Report (APR) was published separately. This year, the FY 2020 APP and FY 2018 APR are combined. Each year the Department publishes an APP that provides detailed information on strategic goals and objectives, performance goals and measures with targets and/or milestones that support performance goals for the upcoming fiscal year. The FY 2020 APP contains the updated goals and targets for FY 2019 – 2022 to meet the strategic objectives in the Business Operations Plan, and address areas of potential risk. The APR documents component results for the previous fiscal year based on FY 2018 performance targets, and measures implementation progress. The APR and APP are unclassified, with a classified appendix. The report also provides an overview of the future enterprise performance management activities, goals, measures, and targets.

Enterprise Performance Management

The Department is a performance-based organization and is committed to specific, measurable goals derived from a defined mission, using performance data to continually improve business operations and to better drive decision making. However, capturing the breadth and scope of the Department's world-wide responsibilities and management efforts requires far more than the performance measures included in this report. In fact, the Department employs hundreds of performance measures to track and assess progress in key areas such as reform, data analytics, acquisition performance, military readiness, audit readiness, and business process improvement.

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This data is used to ensure the best use of resources and safeguard the overall well-being of the force.

“We have a responsibility to gain full value from every taxpayer dollar spent on defense; thereby earning the trust of Congress and the American people.” NDS

Specific, detailed performance-related information is provided through a wide range of reports to Congress as well as defense budget exhibits. This report represents only a partial picture of DoD's overall management efforts and progress. As we endeavor to improve our enterprise performance management analysis and oversight capability using data analytics, a more comprehensive representation of the dynamic performance monitoring and assessment capability will emerge.

Defense leaders are responsible for creating the performance goals and measures in the Department's Annual Performance Plan. Principal Staff Assistants have the responsibility of developing and reporting unique goals for their respective functional areas. These goals and measures are also used to inform the “Results Driven” critical elements contained in respective senior executive performance plans. This enables executives to focus on measurable outcomes from the Department's NDBOP. Figure 1 is a high level depiction of how performance measure results drive the evaluation of senior executive performance.

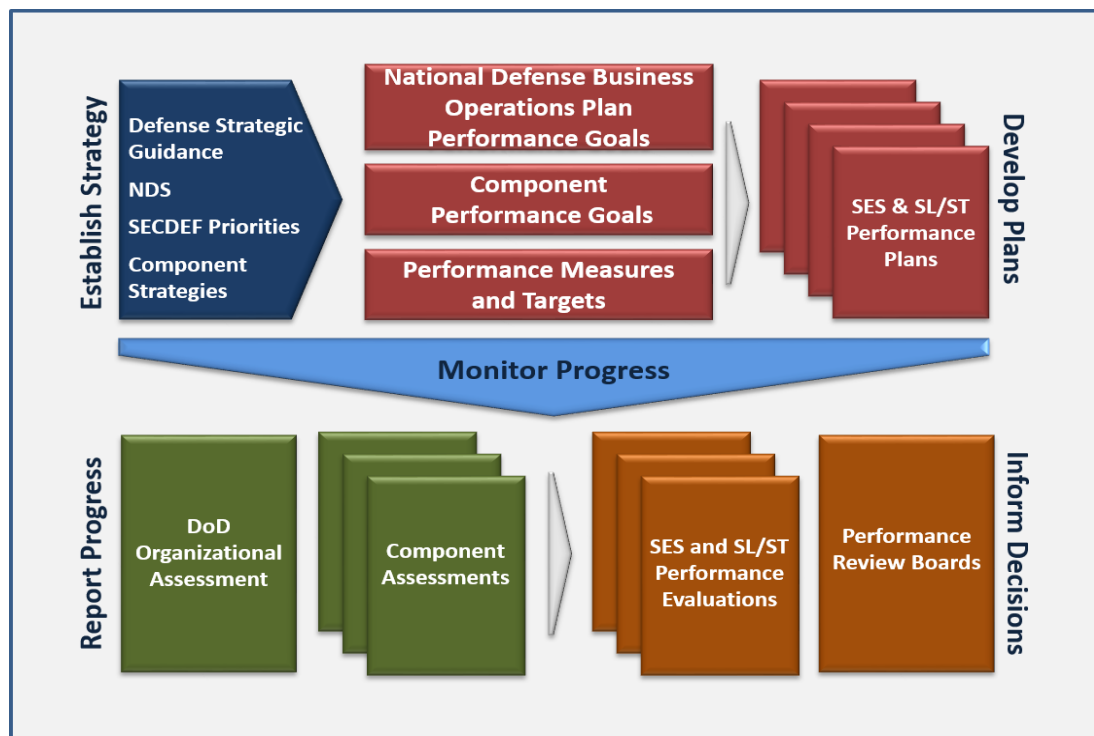


Figure 1 - Alignment of Organizational Goals to Senior Executive and Senior Professional Performance Evaluations

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Reforming the Department's Business Operations

CMO Mission: Deliver optimized Enterprise Business Operations to assure the success of the National Defense Strategy.

The National Defense Strategy has directed the Department of Defense to reform the business operations for performance and affordability, gaining full value out of every taxpayer dollar spent on defense.

As noted by the National Defense Strategy, the Department's culture and processes must change if we are to prevail in strategic competition. Our current approach, centered on exacting thoroughness and minimizing risk above all else, is proving to be increasingly unresponsive.

As such, the Secretary of Defense charged the Chief Management Officer (CMO) with leading enterprise business reform and delivering optimized enterprise business operations to assure the success of the National Defense Strategy. The business functions of the Department are inextricably linked to warfighting capability, and the CMO continues to advance reform by implementing shared performance metrics, innovative processes and services, data driven solutions, and mission focused funding. The goal of reform is to establish a culture of continuous improvement focused on results and accountability throughout the Department.

The CMO, in close coordination with the Under Secretary of Defense for Comptroller (USD(C)), has defined Department-wide reform as an improvement of processes, systems, policies, and procurement that increases effectiveness, efficiency, or reliability to best align the Department's resources with the National Defense Strategy. While the OCMO leads and identifies reform, the implementation is the responsibility of the DoD Component leadership or the military service secretaries.

In 2017, the Reform Management Group (RMG) was established to manage and oversee all business reform efforts through nine lines of business: Contract Management; Healthcare, Logistics and Supply Chain; Information Technology (IT), Financial Management, Human Resources, Real Property, Test and Evaluation, and Community Services. The RMG manages enterprise-wide reform efforts and explores opportunities for future savings and efficiencies working as a cohesive body to best implement reform.

The Department has saved \$4.7 billion through reform efforts in Fiscal Years 2017 and 2018 combined, and is on track to save more than \$6 billion through new and continuing efforts in Fiscal Year 2019. This achievement is a collective effort by key stakeholders in the Department. The CMO and the USD(C) will identify, validate and present savings formally in the Fiscal Year 2020 budget to reinvest in the National Defense priorities as identified by the National Defense Strategy.

For FY 2019, the OCMO is focused on three primary areas: proven high-return initiatives, shared services within the Fourth Estate, and enterprise-wide data management. The reform work of 2018 was instrumental in determining where we could institute reforms that provide the most return on investment. As a result of that work, the OCMO reform scope has a primary focus on areas with the highest return of savings which include Military Health Care, Information Technology, Category & Contract Management and Supply Chain and Logistics.

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Looking Back (APR Overview)

The Department was successful in meeting or exceeding many of the priority measures for FY 2018, including those related to achieving efficiencies, effectiveness and cost savings, audit readiness, and improving the quality of the Department's business operations. Below is a brief overview of some of the Department's reform accomplishments.

DoD Financial Audit

The DoD audit aligns with the strategic goals of the NDS, including reforming the Department for greater performance and accountability. The Department began its first enterprise-wide financial statement audit in December 2017 with 1,200 auditors, more than 900 site visits, and reviewing hundreds of thousands of items.

The audit consists of approximately 24 stand-alone financial statement audits, and an overarching consolidated audit performed by a combination of independent public accounting firms and the DoD Office of Inspector General (OIG). Comptroller, conducted the audit in order to find systemic problems in the management of our financial systems, real property systems, IT systems, personnel systems. Finding and fixing the problems in these areas is central to DoD's commitment to be a good steward of taxpayer dollars. The inaugural audit report was published in November 2018. While we have additional work to do in the management of the Department's business operations, our mission focused necessities are in good standing.

Key Audit Take Aways:

- Auditors did not report any material weaknesses for civilian or military pay.
- Auditors said they found no evidence of fraud.
- Auditors said the Army, Navy, and Air Force could account for the existence and completeness of major military equipment.

Reorganization of AT&L into A&S and R&E

In early 2018, the Department executed its most significant restructure in 30 years, dividing the Under Secretary of Defense (USD) for Acquisition, Technology and Logistics into the USD for Acquisition and Sustainment (A&S) and USD for Research and Engineering (R&E).

USD (A&S) focus is to increase lethality and readiness while enhancing global relationships and security cooperation. An example of the latter this past year was to reform key pieces of the Foreign Military Sales process and accelerating sales through pilot programs with Romania, Japan, Saudi Arabia, and Bahrain.

Meanwhile, USD (R&E) created a new modernization "Road to Dominance" that is pushing advances and increased investment in nine priority technology areas to include hypersonic, artificial intelligence and cyberspace.

IT & Business Systems

The IT & Business Systems RMG team executed multiple savings initiatives throughout FY 2018. To date, the team programmed and budgeted combined savings of over \$250 million in FY 2018 through commercial IT solutions in business travel, department-wide network management, and by working with DISA and the MilDeps to close duplicative data centers. In addition, the team

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submitted a funding realignment issue to reclaim Department-wide underutilized \$96.3 million in software licenses to fund an enterprise wide real-time endpoint monitoring capability.

Other accomplishments include capturing and redirecting seven acquisition RFPs for services that the USALearning contract currently may provide, saving of over \$122 million through the Future Years Defense Program in unnecessary procurement actions. The team facilitated the DoD award of a pilot program that saves more than 10 million labor hours annually on the process of booking travel by more than two million Active Duty, Reserve, and Civilian personnel.

A revised Fourth Estate Information Technology (IT) Optimization Request is also significantly improving efficiency of Fourth Estate IT governance through Category Management. This streamlining effort reduced 27 separate processes into one and still enabled 120 IT purchase requests to process within 24 hours. This initiative highlights the close collaboration between the DoD CIO, DISA and the IT & Business Systems Reform Team to rapidly roll out the streamlined work flow before the end of FY 2018.

Regulations Reform

The OCMO Regulatory Reform Task Force reviewed over 716 rules and regulations, and recommended 243 rules for repeal. To date, 57 repeals are completed and expected cost savings are \$5.1 million with potential additional savings of \$25.2 million to American taxpayers.

Contracting and Category Management

Contracting and Category Management reform team has reviewed up to \$16.5 billion in annual spending, with an expected \$4-8 billion in savings through FY 2019. Contract renegotiations are scheduled to begin as early as January 2019. By taking a 360 degree look at the entire category of spend, the Department is driving efficiency to get more mission capability for the dollars spent.

In the two years since beginning the reviews, the Service Requirements Review Board (SRRB) team has assisted more than 60 organizations in tracking identified efficiencies and reinvestments in the contracting process, resulting in \$492 million over FY 2017 and FY 2018 of programmed savings with an additional \$277 million of identified savings reinvested by the Combatant Commands (CCMD) and Working Capital Fund Organizations in higher priority requirements.

Within the MilDeps, The Navy Program Executive Office (PEO) Command, Control, Communications, Computers, and Intelligence (C4I) deploys the principles of Better Buying Power and Continuous Process Improvement (CPI) to get the most out of every dollar to accelerate the delivery of critical capabilities to our warfighters. PEO C4I maintains a formal process for identification and prioritization of CPI projects, project monitoring, and validation of realized financial benefits. As of June 2108 PEO C4I realized \$184.4 million of net FY18 financial benefits.

The Air Force fully operationalized Category Management (CM) in FY 2018. Under a robust governance structure, CM teams are working initiatives in Information Technology (IT), Professional Services, Security and Protection, Facilities and Construction, Industrial Products and Services, Transportation and Logistics Services, which are 94 percent of Air Force non-weapon system spend. The Air Force has provided CM training to senior leaders across the Department, and was also asked to lead the Federal level Category Intelligence Report effort on Military Working Dogs. Other efforts such as heating, ventilation, and air conditioning (HVAC)

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and IT policy will implement processes and policies expected to have lasting impact across the enterprise. Beyond strategic sourcing, the Air Force critically examines demand management strategies, industry best practices, and policies that drive requirements. As a subset of these efforts, the Air Force has participated in Office of Secretary of Defense (OSD) led Contract Efficiency Assessments (CEAs) by focusing on contracts reaching expiration that are not yet prioritized in the CM process. In cooperation with the OCMO, the Air Force seeks to drive a paradigm shift from budget execution to strategic cost management.

Healthcare

USD (P&R) is working toward achieving a medical ready force while supporting a ready medical force. The Department is improving patient care and medical readiness of the force by consolidating four healthcare enterprises into one, saving more than \$2.5 billion annually by 2023. As of October 1, Military Treatment Facilities (MTFs) at Keesler Air Force Base, Naval Air Station Jacksonville, Fort Bragg and three additional Air Force clinics consolidated under Defense Health Agency direction, authority, and control, in addition to Walter Reed National Military Medical Center and Fort Belvoir in the National Capital Region. Total Headquarters staff requirements are laid out for transfer, as well as centralization of functional capabilities for TRICARE health plan, pharmacy, and performance planning to standardize processes and reduce overhead costs.

Human Resources

The DoD has reversed the years-long trend of annual increases in civilian time-to-hire (TTH) by establishing data-driven action plans with collaborative reviews to share solutions. Average TTH in DoD increased about 40 percent between FY 2013 and FY 2017 (from 70 to 100 days), but started trending downward in FY 2018 (to 99 days).

Defense Logistics Agency

DLA implemented six on-demand printing and mapping facilities strategically placed world-wide in support of the warfighter, saving \$10 million in FY 2018. These Print on Demand (POD) facilities created a 90 percent reduction in print times, 50 percent reduction in print volume, and 140 million physical maps removed from warehouses, with additional reductions in inventory to follow in the out-years.

Looking Forward (APP Overview)

The CMO focuses transformation and reform on three main priorities – people, processes and technology.

After one year of executing reform through the RMG, the CMO refined the focus of reform to prioritize reform initiatives that include: increases to lethality and readiness; short term benefits; financial savings of \$100 million or more; shared metrics between CMO and the home organization; and a sustainable, cultural impact. These priorities have allowed the Department to focus on the reforms with the highest return on resource investment which includes: contract management; healthcare management; acquisition; IT and business systems; and logistics and supply chain management.

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Within these five fields of reform, the Department conducts reform by shifting levers of business operations to achieve enterprise-wide reform. These levers and their definitions include:

- **Business Process Improvement** – Refining actions, personnel, and timelines to increase effectiveness, efficiency, and reliability of the Department's delivery of goods and services.
- **Business System Improvement** – Modernizing and eliminating legacy business systems and processes to increase the effectiveness and reduce duplication of the Department's IT business systems and deliver information at the speed of relevance.
- **Policy Reform** – Changing the Department's procedures to best empower the warfighter with the knowledge, equipment, and support systems to fight and win.
- **Weapon System Acquisition** – Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, frequent modular upgrades, and cost efficiency.
- **Divestments** – Selling equipment or weapon systems, or strategically discontinuing legacy acquisition programs to fund purchases in support of the Department's highest priorities.
- **Better Alignment of Resources** – Reprioritizing or moving finances and personnel to realign from legacy capability in support of the National Defense Strategy.

In addition to the aforementioned reform fields and levers, the CMO is conducting reviews of the efficiency and effectiveness of each Defense Agency and Department of Defense Field Activity as directed by the National Defense Authorization Act of Fiscal Year 2019. These reviews will drive reform throughout the Defense Agencies and Field Activities as well as financial decisions for Fiscal Year 2021.

While these reviews may not produce financial savings in Fiscal Year 2020, these reviews will identify and implement productivity improvements and savings, improve performance and readiness, and improve the customer experience for the military services. The CMO is committed to reducing duplication in the Defense Agencies and Field Activities while establishing centers of excellence for enterprise-wide shared services within Department.

Reform Accountability in the Defense Budget

With this budget, the Department will release the first submission to account for specific reform initiatives and the business levers which effected change and financial benefits. These financial benefits and savings are indicative of a transition to a culture of performance where results and accountability matter.

The Department now has a more formalized process to account for savings in support of the Department's third line of effort, and will work to refine the identification, validation, and reporting processes for financial benefits in Working Capital Funds and reforms with soft savings.

We are relentlessly pursuing opportunities to reduce cost and time across programs and contracts, leveraging the Department's monopsony power to achieve greater savings in both. This budget reflects our accomplishments so far, but our work continues.

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OCMO Restructuring

The OCMO is focused on business transformation and data management to support changes in statutory requirements and the National Defense Strategy. The newly reorganized OCMO is centered on five areas: business transformation, administration and organizational policy, data/metrics, oversight and compliance, and Fourth Estate Reform. OCMO has the responsibility to execute missions that are entirely new, and requires expertise that is inherently non-organic to the Department.

Enterprise Data

In accordance with the FY 2017 NDAA, the CMO recruited the Department's first Chief Data Officer (CDO). The Chief Data Officer manages data and metrics throughout the Department and is establishing data as a full-fledged shared service, allowing data to be the foundation for business decisions. The CDO leads the extraction and analysis of data to support business reform and works hand-in-hand with Comptroller to develop solutions to audit findings. The OCMO is building a repository of common enterprise data, to include audit findings. This will allow all Department leaders to increase analytic and predictive capabilities to better inform future investment and management decisions. The audit will inform our reform in shared services like IT and financial management and specific organizations

The Chief Data Officer also leads the operation of a DoD-wide data governance body to oversee the preparation, extraction, and provision of data throughout the business enterprise. The CDO, working with the Office of the Deputy Chief Financial Officer, establishes policy and governance for Common Enterprise Data related to business operations and management. The CDO also leads pilot programs to extract Common Enterprise Data from relevant systems, and analyze that data to generate operational insights that answer critical business questions from Defense executives and leaders. These pilots will evolve into a Data Management and Analytics Shared Services for the purposes of supporting enhanced oversight and management of the Defense Agencies and DoD Field Activities, by September 30, 2020.

Defense Agencies and Field Activities

The OCMO is responsible for overseeing and reviewing business management of the Office of the Secretary of Defense and the DAFAs for efficiency and effectiveness. These efforts will eliminate duplication of effort, bureaucracy, and redundancy in the Headquarters' operations and generate savings that will be re-prioritized to warfighters and the Department's operational needs.

Review of the DAFAs will occur by individual agency or field activity, by functional areas, in addition to cross functional end-to-end process evaluation. The first two DAFAs undergoing review are Washington Headquarters Services and the Defense Logistics Agency, in addition to the time to hire end-to-end processes affecting these agencies. OCMO will also determine future funding based on results of individual agency efficiency and effectiveness. The order of these reviews will be informed by DoD audit results.

We have a responsibility to gain full value from every taxpayer dollar spent on defense. Through this budget submission we aim to maintain the trust of Congress and the American people.

APPENDIX A: RESOURCE EXHIBITS

Table A-1. DoD Total (Base + OCO + Emergency) Budget by Appropriation Title

Total Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	150,731	155,779	+5,048
Operation and Maintenance	278,803	292,691	+13,888
Procurement	147,288	143,052	-4,236
RDT&E	95,254	104,294	+9,040
Revolving and Management Funds	1,656	1,446	-210
Defense Bill	673,731	697,263	+23,531
Military Construction	9,688	19,762	+10,074
Family Housing	1,565	1,324	-241
Military Construction Bill	11,253	21,086	+9,833
TOTAL	684,985	718,349	+33,364

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Table A-2. DoD Total (Base + OCO + Emergency) Budget by Military Department

Total Budget	FY 2019*	FY 2020	Δ FY19-20
Army	178,886	191,397	+12,512
Navy	195,627	205,572	+9,945
Air Force	192,920	204,757	+11,837
Defense-Wide	117,553	116,623	-930
TOTAL	684,985	718,349	+33,364

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Table A-3. DoD Total (Base + OCO + Emergency) Budget by Military Department and Appropriation Title

Department of the Army Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	62,503	63,385	+882
Operation and Maintenance	75,019	77,621	+2,602
Procurement	27,517	26,204	-1,313
RDT&E	11,184	12,397	+1,213
Military Construction	1,691	11,181	+9,490
Family Housing	707	499	-208
Revolving and Management Funds	264	110	-155
ARMY TOTAL	178,886	191,397	+12,512

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

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Department of the Navy Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	49,784	52,068	+2,284
Operation and Maintenance	62,917	68,524	+5,606
Procurement	61,002	61,065	+64
RDT&E	18,658	20,435	+1,777
Military Construction	2,848	3,114	+265
Family Housing	417	366	-51
Revolving and Management Funds	--	--	--
NAVY TOTAL	195,627	205,572	+9,945

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Department of the Air Force Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	38,443	40,325	+1,883
Operation and Maintenance	60,619	65,013	+4,394
Procurement	50,021	50,087	+66
RDT&E	40,998	46,066	+5,068
Military Construction	2,365	2,774	+408
Family Housing	396	399	+3
Revolving and Management Funds	78	92	+15
AIR FORCE TOTAL	192,920	204,757	+11,837

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Defense-Wide Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	80,248	81,533	+1,286
Procurement	8,748	5,695	-3,053
RDT&E	24,414	25,396	+982
Military Construction	2,784	2,694	-90
Family Housing	45	61	+15
Revolving and Management Funds	1,314	1,244	-70
DEFENSE-WIDE TOTAL	117,553	116,623	-930

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

DoD TOTAL	684,985	718,349	+33,364
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Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Table A-4. Combat Force Structure Overview

Service	FY 2019	FY 2020	Delta FY19- FY20
Army Active			
Brigade Combat Teams (BCT)	31	31	-
Combat Aviation Brigades (CAB)	11	11	-
Army National Guard			
BCT	27	27	-
CAB/Expeditionary CAB (ECAB)	10	10	-
Army Reserve			
CAB/ECAB	2	2	-
Navy			
Number of Ships	296	301	+5
Carrier Strike Groups	10	10	-
Marine Corps Active			
Marine Expeditionary Forces	3	3	-
Infantry Battalions	24	24	-
Marine Corps Reserve			
Marine Expeditionary Forces	-	-	-
Infantry Battalions	8	8	-
Air Force Active			
Combat Coded Squadrons	41	41	-
Aircraft Inventory (TAI)	4,050	4,132	+82
Air Force Reserve			
Combat Coded Squadrons	3	3	-
Aircraft Inventory (TAI)	332	318	-14
Air National Guard			
Combat Coded Squadrons	20	21	+1
Aircraft Inventory (TAI)	1,044	1,050	+6

^{1/} FY 2017 reflects projected force structure in request for additional appropriations.

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Table A-5. Active Component End Strength (in Thousands)

Service	FY 2019*	FY 2020	Delta FY19 – FY20
Army	478.0	480.0	+2.0
Navy	338.9	340.5	+1.6
Marine Corps	186.1	186.2	+0.1
Air Force	330.3	332.8	+2.5
TOTAL	1,333.3	1,339.5	+6.2

*FY 2019 reflects currently projected levels

Table A-6. Reserve Component End Strength (in Thousands)

Service	FY 2019*	FY 2020	Delta FY19 – FY20
Army Reserve	189.2	189.5	+0.3
Navy Reserve	59.1	59.0	-0.1
Marine Corps Reserve	38.4	38.5	+0.1
Air Force Reserve	70.0	70.1	+0.1
Army National Guard	335.5	336.0	+0.5
Air National Guard	107.1	107.7	+0.6
TOTAL	799.3	800.8	+1.5

*FY 2019 reflects currently projected levels

Table A-7. DoD Base Budget by Appropriation Title

Base Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	146,070	151,293	+5,223
Operation and Maintenance	229,295	158,007	-71,288
Procurement	134,751	119,909	-14,843
RDT&E	94,060	102,648	+8,587
Revolving and Management Funds	1,641	1,426	-215
Defense Bill	605,817	533,282	-72,535
Military Construction	8,767	9,918	+1,151
Family Housing	1,565	1,324	-241
Military Construction Bill	10,332	11,242	+910
TOTAL	616,149	544,524	-71,625

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Table A-8. DoD Base Budget by Military Department

Base Budget	FY 2019*	FY 2020	Δ FY19-20
Army	145,709	119,240	-26,470
Navy	187,516	160,836	-26,680
Air Force	174,869	158,135	-16,734
Defense-Wide	108,055	106,313	-1,742
TOTAL	616,149	544,524	-71,625

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Table A-9. DoD OCO Budget by Appropriation Title

OCO Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	4,661	4,486	-175
Operation and Maintenance	49,508	134,685	+85,176
Procurement	12,536	23,143	+10,607
RDT&E	1,193	1,647	+453
Revolving and Management Funds	15	20	+5
Defense Bill	67,914	163,980	+96,066
Military Construction	921	645	-277
Family Housing	--	--	--
Military Construction Bill	921	645	-277
TOTAL	68,835	164,625	+95,790

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Table A-10. DoD OCO Budget by Military Department

OCO Budget	FY 2019*	FY 2020	Δ FY19-20
Army	33,176	62,958	+29,781
Navy	8,110	44,735	+36,625
Air Force	18,051	46,622	+28,571
Defense-Wide	9,498	10,310	+812
TOTAL	68,835	164,625	+95,790

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Table A-11. DoD Emergency Budget by Appropriation Title

Emergency Budget	FY 2019	FY 2020*	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Revolving and Management Funds	--	--	--
Defense Bill	--	--	--
Military Construction	--	9,200	+9,200
Family Housing	--	--	--
Military Construction Bill	--	9,200	+9,200
TOTAL	--	9,200	+9,200

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

Table A-12. DoD Emergency Budget by Military Department

Emergency Budget	FY 2019	FY 2020*	Δ FY19-20
Army	--	9,200	+9,200
Navy	--	--	--
Air Force	--	--	--
Defense-Wide	--	--	--
TOTAL	--	9,200	+9,200

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

Table A-13. DoD Base Budget by Military Department and Appropriation Title

Department of the Army Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	59,342	60,405	+1,063
Operation and Maintenance	50,346	27,421	-22,924
Procurement	22,675	16,841	-5,834
RDT&E	10,883	12,193	+1,309
Military Construction	1,499	1,791	+293
Family Housing	707	499	-208
Revolving and Management Funds	258	90	-168
ARMY TOTAL	145,709	119,240	-26,470

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Department of the Navy Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	49,276	51,593	+2,317
Operation and Maintenance	56,423	30,539	-25,884
Procurement	60,289	55,049	-5,239
RDT&E	18,490	20,270	+1,780
Military Construction	2,621	3,019	+398
Family Housing	417	366	-51
Revolving and Management Funds	--	--	--
NAVY TOTAL	187,516	160,836	-26,680

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Department of the Air Force Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	37,452	39,296	+1,844
Operation and Maintenance	50,714	27,497	-23,217
Procurement	43,612	42,776	-836
RDT&E	40,676	45,616	+4,940
Military Construction	1,951	2,459	+509
Family Housing	396	399	+3
Revolving and Management Funds	69	92	+23
AIR FORCE TOTAL	174,869	158,135	-16,734

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Defense-Wide Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	71,812	72,549	+737
Procurement	8,176	5,243	-2,933
RDT&E	24,011	24,568	+557
Military Construction	2,697	2,648	-49
Family Housing	45	61	+15
Revolving and Management Funds	1,314	1,244	-70
DEFENSE-WIDE TOTAL	108,055	106,313	-1,742

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

DoD TOTAL BASE	616,149	544,524	-71,625
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Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Table A-14. DoD OCO Budget by Military Department and Appropriation Title

Department of the Army Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	3,161	2,981	-181
Operation and Maintenance	24,673	50,200	+25,527
Procurement	4,842	9,364	+4,522
RDT&E	301	204	-96
Military Construction	192	189	-3
Family Housing	--	--	--
Revolving and Management Funds	7	20	+14
ARMY TOTAL	33,176	62,958	+29,781

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Department of the Navy Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	508	476	-33
Operation and Maintenance	6,494	37,985	+31,491
Procurement	713	6,016	+5,303
RDT&E	168	164	-3
Military Construction	227	95	-133
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
NAVY TOTAL	8,110	44,735	+36,625

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Department of the Air Force Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	991	1,030	+39
Operation and Maintenance	9,905	37,516	+27,611
Procurement	6,409	7,311	+902
RDT&E	322	450	+128
Military Construction	415	315	-100
Family Housing	--	--	--
Revolving and Management Funds	9	--	-9
AIR FORCE TOTAL	18,051	46,622	+28,571

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2020 Defense Budget

Defense-Wide Budget	FY 2019*	FY 2020	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	8,436	8,984	+548
Procurement	572	452	-120
RDT&E	403	828	+425
Military Construction	87	46	-41
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
DEFENSE-WIDE TOTAL	9,498	10,310	+812

* FY 2019 reflects enacted.

Numbers may not add due to rounding.

DoD TOTAL OCO	68,835	164,625	+95,790
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Numbers may not add due to rounding.

Table A-15. DoD Emergency Budget by Military Department and Appropriation Title

Department of the Army Budget	FY 2019	FY 2020*	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	--	9,200	+9,200
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
ARMY TOTAL	--	9,200	+9,200

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

Department of the Navy Budget	FY 2019	FY 2020*	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	--	--	--
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
NAVY TOTAL	--	--	--

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

Overview – FY 2020 Defense Budget

Department of the Air Force Budget	FY 2019	FY 2020*	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	--	--	--
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
AIR FORCE TOTAL	--	--	--

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

Defense-Wide Budget	FY 2019	FY 2020*	Δ FY19-20
Military Personnel	--	--	--
Operation and Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	--	--	--
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
DEFENSE-WIDE TOTAL	--	--	--

* Requests funds in Military Construction, Army with transfer authority to address border security and hurricane recovery.

DoD TOTAL EMERG	--	9,200	+9,200
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Numbers may not add due to rounding.

APPENDIX B: Acronym List

NOTE: This is not a comprehensive list of all acronyms used in the Overview.

Acronym	Definition
ABCTs	Armored Brigade Combat Teams
AC	Active Component
AEA	Airborne Electronic Attack
AEHF	Advanced Extremely-High Frequency
AFC	Army Future Command
AGCAS	automatic collision avoidance systems
AH	Apache Helicopter
AHE	Advanced Hawkeye
AI	Artificial Intelligence
AMDR	Air and Missile Defense Radar
AMRAAM	Advanced Medium Range Air-to-Air Missile
ANDSF	Afghan National Defense and Security Forces
APP	Annual Performance Plan
APR	Annual Performance Report
ARGs	Amphibious Readiness Groups
ARNG	Army Reserve/National Guard
A&S	Acquisition and Sustainment
ASFF	Afghanistan Security Forces Fund
AT&L	Acquisition, Technology, and Logistics
BCT	Brigade Combat Team
BMD	Ballistic Missile Defense
BRS	Blended Retirement System
BSRF	Black Sea Rotational Force
CA	California
CABs	Combat Aviation Brigades
CAPs	corrective action plans
CAER	Command Accountability & Execution Review
CCLTF	Close Combat Lethality Task Force
CCMD	Combatant Command
CCP	Cyber Campaign Plan
CDO	Chief Data Officer
CTCs	Combat Training Centers
CE2	Combatant Command Exercise and Engagement
CENTCOM	Central Command
CERP	Commanders Emergency Response Program
CFTs	Cross-Functional Teams
CG	Guided Missile Cruiser
CH	Chinook helicopter
CIO	Chief Information Officer
CJOC	Canadian Joint Operations Command

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CJTF	Combined Joint Task Force
CJTF-HOA	Combined Joint Task Force-Horn of Africa
CNS/ATM	Communications Navigation and Surveillance/Air Traffic Management
CM	Category Management
CMC	Commandant of the Marine Corps'
CMF	Cyber Mission Force
CMO	Chief Management Officer
CNO	Chief of Naval Operations
CONUS	Contiguous United States
CPI	Continuous Process Improvement
CPX	Command Post Exercise
CR/SRR	Comprehensive Review / Strategic Readiness Review
CSF	Coalition Support Fund
CSGs	Carrier Strike Groups
CSS/CSS	combat service/combat service support
CSSF	Chief of Staff of the Space Force
CT	Counterterrorism
CTC	Combat Training Center
CTEF	Counter-ISIS Train and Equip Fund
CV	Carrier Variant
C-VEO	combating violent extremists
CVN	aircraft carrier, fixed wing, nuclear powered
CWMD	Countering Weapons of Mass Destruction
DA/ULO	Decisive Action in support of Unified Land Operations
DATE	Decisive Action Training Environment
DCA	Dual-Capable Aircraft
DE	Directed Energy
DCMO	Defense Chief Management Officer
DDG	Destroyers
DE	Directed Energy
DHA	Defense Health Agency
DHP	Defense Health Program
DHMSM	Defense (DoD) Healthcare Management System Modernization Program
DII	Defense Innovation Initiative
DISA	Defense Information Systems Agency
DIU	Defense Innovation Unit
DLA	Defense Logistics Agency
DoD	Department of Defense
DOE/NNSA	Department of Energy/National Nuclear Security Administration
DHMSM	Department of Defense (DoD) Healthcare Management System Modernization Program
DoDEA	Department of Defense Education Activity
DoD IG	Department of Defense Office of the Inspector General
DoDIN Ops	DoD Information Network Operations
DoN	Department of the Navy

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DPO	Distribution Process Owners
D-RAPCON	Deployable Radar Approach Control
DRRS	Defense Readiness Reporting System
DSOC	Defense Safety Oversight Council
DTRA	Defense Threat Reduction Agency
ECI	Employment Cost Index
EDI	European Deterrence Initiative
EDRE	Emergency Deployment Readiness
EELV	Evolved Expendable Launch Vehicle
EMD	Engineering and Manufacturing Development
EPAWSS	Eagle Passive Active Warning Survivability System
ERP	Enterprise Resource Planning
FMS	Foreign Military Sales
FTEs	Full-Time Equivalents
FTX	field training exercise
FY	Fiscal Year
FYDP	Future Years Defense Program
GBI	Ground-Based Interceptors
GBSD	Ground Based Strategic Deterrent
GCCs	Geographic Combatant Commands
GPS	Global Positioning System
HD	Homeland Defense
HVAC	heating, ventilation, and air conditioning
IBCS	Integrated Air and Missile Defense Battle Command System
IBCT	Infantry Brigade Combat Team
IPA	Independent Public Accountant
IRBM	Intermediate Range Ballistic Missiles
IRST	Infra-Red Search and Track
ISF	Iraqi Security Forces
ISIS	Islamic State of Iraq and Syria
ISR	Intelligence, Surveillance, and Reconnaissance
IT	Information Technology
ITX	Integrated Training Exercise
IVAS	Integrated Visual Augmentation System
IW	Irregular Warfare
JAIC	Joint Artificial Intelligence Center
JASM-ER	Joint Air-Surface Missile – Extended Range
JASSM-ER	Joint Air-to-Surface Standoff Missile-Extended Range
JCET	Joint Combined Exchange Training
JCS	Joint Chiefs of Staff
JDAM	Joint Direct Attack Munition
JECC	Joint Enabling Capabilities Command
JFSCC	Joint Force Space Component Command
JIDA	Joint Improvised-Threat Defeat Agency

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JITDF	Joint Improvised-Threat Defeat Fund
JNWC	Joint Navigation Warfare Center
JTCP	Joint Training Coordination Program
JTEN	Joint Training Enterprise Network
LD/HD	low-density, high-demand
LEP	Life Extension Program
LHD	Landing Helicopter Dock
LPD	Landing Platform Dock
LSD	Landing Ship Dock
LCS	Littoral Combat Ship
LCU	Landing Craft, Utility
LHA	Landing Helicopter Assault
LRASM	Long-Range Anti-Ship Missile
LRPF	Long-Range Precision Fires
LRSO	Long Range Stand-Off
MAAWS	Multi-Role Anti-Armor Anti-Personnel Weapon System
MAGTF	Marine Air Ground Task Forces
MARFOREUR	Marine Forces Europe
MASTR-E	Monitoring and Assessing Soldier Tactical Readiness and Effectiveness
MC&FP	Military Community and Family Policy
MDA	Missile Defense Agency
MDD	Missile Defeat and Defense
MDS	Missile Defense System
MDR	Missile Defense Review
MEB	Marine Expeditionary Brigade
MHA	Major DoD Headquarters Activities
MHS	Military Health System
MILCON	Military Construction
MILSATCOM	Military SATCOM
MRBM	Medium Range Ballistic Missiles
MTF	Military Treatment Facility
MTX	Mountain Exercise
MWR	Morale, Welfare, and Recreation
MyCAA	My Career Advancement Accounts
NATO	North Atlantic Treaty Organization
NC-3	Nuclear Command, Control and Communications
NDAA	National Defense Authorization Act
NDBOP	National Defense Business Operations Plan
NDS	National Defense Strategy
NGAD	Next Generation Air Dominance
NGCV	Next Generation Combat Vehicle
NAGC	National Association of Government Communicators
NGJ	Next Generation Jammer
NNSA	National Nuclear Security Administration

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NMC	non-mission capable
NMCM	non-mission capable status awaiting maintenance
NMCS	non-mission capable supply
NORAD	North American Aerospace Defense Command
NSDC	National Space Defense Center
NSSL	National Security Space Launch
NV	Nevada
OCMO	Office of Chief Management Officer
OCO	Overseas Contingency Operations
OFS	Operation Freedom's Sentinel
OIF	Operation IRAQI FREEDOM
OIG	Office of the Inspector General
OIR	Operation Inherent Resolve
OMB	Office of Management and Budget
O&M	Operation & Maintenance
OND	Operation NEW DAWN
OPFOR	Opposing Forces
OPIR	Overhead Persistent Infrared
O&S	Operation and Sustainment
OSC-I	Office of Security Cooperation - Iraq
OSD	Office of the Secretary of Defense
OTI	Operational Training Infrastructure
PB	President's Budget
PCTE	Persistent Cyber Training Environment
PED	processing, exploitation, and dissemination
PEO	Program Executive Office's
POD	Print on Demand
PNT	Positioning, Navigation, and Timing
R2F	Readiness Recovery Framework
RC	Reserve Components
RDT&E	Research, Development, Test, and Evaluation
R&E	Research and Engineering
RF	radio frequency
RFI	Ready For Issue
RKV	Redesigned Kill Vehicle
RMG	Reform Management Group
ROI	return on investment
SATCOM	Satellite Communication
SBIRS	Space Based Infrared System
SCO	Squad Common Optics
SDA	Space Development Agency
SDB	Small Diameter Bomb
SECO	Spouse Education and Career Opportunities Program
SFAB	Security Force Assistance Brigade

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SLBM	Submarine-Launched Ballistic Missile
SM-3	Standard Missile-3
SM-6	Standard Missile-6
SOF	Special Operations Forces
SOPGM	Special Operations Precision Guided Munitions
SRBM	Short Range Ballistic Missiles
SRRB	Service Requirements Review Board
SSBN	Submersible, Ballistic, Nuclear (submarine)
SSN	Submarine Nuclear
STEM	Science, Technology, Engineering and Mathematics
STOVL	Short Take Off and Vertical Landing
STS	Squad Thermal Sights
T2	Training Transformation
TAA	train, advise, and assist
TACAIR	Tactical Aviation
TACTOM	Tactical Tomahawk
TAPAS	Tailored Adaptive Assessment System
TEF	Temporary Enabling Force
THAAD	Terminal High-Altitude Area Defense
TKA	Tail Kit Assembly
TLAMs	Tomahawk land-attack cruise missiles
TMRR	Technology Maturation and Risk Reduction
TSOCs	Theater Special Operations Commands
TSP	Thrift Savings Plan
TTH	time-to-hire
UAE	United Arab Emirates
UH	Utility Helicopter
UMB	Unified Medical Budget
U.S.	United States
USAFRICOM	United States Africa Command
USAFE	United States Air Forces in Europe
USAR	United States Army Reserve
USAI	Ukraine Security Assistance Initiative
USD	Under Secretary of Defense
USD(C)	Secretary of Defense for Comptroller
USSF	United States Space Force
USUHS	Uniformed Services University of the Health Sciences
USAFRICOM	U.S. Africa Command
USCENTCOM	U.S. Central Command
USCYBERCOM	U.S. Cyber Command
USEUCOM	U.S. European Command
USFK	U.S. Forces Korea
USINDOPACOM	U.S. Indo-Pacific Command
USMC	United States Marine Corps

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USNORTHCOM	U.S. Northern Command
USSPACECOM	U.S. Space Command
USSOCOM	United States Special Operations Command
USSOUTHCOM	United States Southern Command
USSTRATCOM	United States Strategic Command
USTRANSCOM	United States Transportation Command
USUHS	Uniformed Services University of the Health Sciences
USVs	Unmanned Surface Vehicles
VA	Department of Veterans Affairs
VCS	VIRGINIA Class submarines
VPM	VIRGINIA Payload Module
VSO	Vetted Syrian Opposition
WFX	Warfighter Exercises
WRP	Workforce Recruitment Program
WS	Warning System
WSS	Weapons System Sustainment

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