

OFFICE OF THE UNDER SECRETARY OF DEFENSE (COMPTROLLER)/CHIEF FINANCIAL OFFICER

FEBRUARY 2020



Defense Budget Overview

Irreversible Implementation of the National Defense Strategy

REVISED MAY 13, 2020

UNITED STATES DEPARTMENT OF DEFENSE
FISCAL YEAR 2021 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 2021. 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 \$29,000 for the 2020 Fiscal Year. This includes \$13,000 in expenses and \$16,000 in DoD labor. Generated on 2020Jan28
RefID: 6-78B6743

Changes/Revisions as of May 13, 2020

PAGE	EXPLANATION OF CHANGE/REVISION	PURPOSE
1-10	Update FY 2021 Defense-Wide Review reform opportunities total	Revision
2-8	Updated Figure 2.3 Civilians FTE	Revision
6-1	Added footnote to OCO for Base Requirements in Figure 6.1	Addition
6-4	Added footnote to OCO for Base Requirements in Figure 6.4	Addition
6-5	Updated the Office of Security Cooperation - Iraq (OSC-I) funding level	Revision
8-1	Updated Fourth Estate reform opportunities	Revision
8-1	Updated FY 2021 Reform totals	Revision
8-1	Updated FY 2021 Defense-Wide Review reform opportunities total	Revision
8-3	Reorganized the bullet on the Air Force is implementing the Pilot Training Next	Revision
8-3	Updated Army lower priority programs	Revision
8-3	Updated the FY 2021 total program eliminations	Revision
A-3	Updated Table A-4 Combat Force Structure Overview	Revision

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1. FY 2021 BUDGET SUMMARY – A STRATEGY DRIVEN BUDGET

“In this new era of great power competition, our warfighting advantages over strategic competitors are being challenged. The international, rules-based order is increasingly under attack. China and Russia, today's revisionist powers, are modernizing their militaries while seeking veto power over the economic and security decisions of other nations.”

- Secretary of Defense Mark T. Esper – December 2019

INTRODUCTION

The Department of Defense’s (DoD) enduring mission is to provide a combat-credible military force to deter war, or should deterrence fail, prevail in war. The 2018 *National Defense Strategy* (NDS) correctly identified a fundamental problem for the Department—the erosion of competitive military advantage with China and Russia in key regions. It is the Department’s responsibility, and the highest imperative of the Strategy, to reverse this erosion, while sustaining efforts to deter and counter threats from Iran and North Korea, and defeating violent extremist threats to the United States. It is critical for DoD to reverse this erosion. Doing so will ensure DoD can continue deterring aggression and coercion from those that would seek to supplant the United States and challenge the free and open international order that forms the foundation of our continued freedom and prosperity.

Sections

- Introduction
- 2018 National Defense Strategy
- FY 2021 Budget Request Overview
- Build a More Lethal Force
- Strengthen Alliances and Attract New Partners
- Reform for Greater Performance and Affordability
- Support Our People/Families
- Conclusion

Great power competition is the pre-eminent challenge facing the nation’s security. China possesses one of the largest militaries in the world and is becoming increasingly comfortable portraying itself as a counter to the United States. China’s spending specifically targets key U.S. military advantages with new capabilities in space, cyber, electronic warfare, undersea warfare, fighter aircraft, bombers equipped with long-range cruise missiles, and other anti-access, area denial (A2/AD) capabilities. Russia too has invested heavily in A2/AD capabilities to prevent an adversary from operating in Eastern Europe, including advances in strategic air operations, integrated air defense systems, surface to-air-missiles, and coastal defense cruise missiles. Russia has also upgraded conventional forces while investing heavily in cyber, space, electronic warfare, and hybrid warfare capabilities. Additionally, Russia is comprehensively improving its strategic nuclear weapons and delivery systems with a projected investment of \$28 billion by 2020. This investment will allow Russia to upgrade its capacity in intercontinental ballistic missiles, ballistic missile submarines, and strategic bombers.

The DoD must balance ongoing activities directed at long term strategic competition while simultaneously addressing regional aggressors and other acute operational demands. Since 2016, DoD has made significant progress on a range of fronts to compete with China and Russia by prioritizing modernization, innovation, and high-end readiness, while also recognizing the immediacy of the challenge posed by regional aggressors. However, competitive defense investments alone will not deter China and Russia. Great power competition also means that DoD must develop new concepts and organizational approaches for force employment and design, posture, and warfighting. The DoD is building increased flexibility and responsiveness into its global force posture, allowing the Department to dynamically flow capabilities to global hotspots on short notice.

2018 NATIONAL DEFENSE STRATEGY

In August 2019, Secretary of Defense Esper reaffirmed the validity of the National Defense Strategy as the Department's guidepost.

The 2018 NDS remains the guidepost for DoD and focuses activities on three major lines of effort: enhancing our military's readiness and lethality, strengthening our alliances and attracting new partners, and reforming DoD to ensure resources are directed toward our highest priorities. In addition, DoD is also placing renewed emphasis on taking care of our service members and their families. The 2018 NDS represented a major shift; one that is not fully achieved in just one year. There is important work ahead to field a more lethal, resilient and ready force that is better prepared to solve tough operational problems.

Since the NDS was released, DoD has invested in new equipment, improved operational readiness, and modernized our nuclear deterrent forces. For example, DoD is developing next generation smart munitions across the services, procuring advanced fighter jets, modernizing all three legs of the nuclear triad, and investing in missile defense to protect the homeland.

The DoD also continues to invest in advanced technologies that will help maintain tactical advantage, such as artificial intelligence, directed energy, and hypersonic weapons. DoD's FY 2021 research and development budget is the largest ever requested and is laser focused on the development of these crucial emerging technologies to expand our warfighting advantages over strategic competitors.

The DoD must preserve battlefield overmatch, and is doing so through activities such as the establishment of the United States Space Force and modernization of space capabilities. The DoD has also increased investments in offensive and defensive cyber operations to boost resiliency against adversaries, as evidenced by standing up the Joint Artificial Intelligence Center to adapt to the pending growth of machine learning, and to capitalize on big data to gain efficiencies across DoD.

Great power competitors will not remain static. They too are developing cutting edge technologies with the aim of surpassing the United States. Competing relies on more than smart investments, it also requires new concepts, and robust international relationships. Competing also requires internal reform; DoD will revisit management structures and processes to achieve new levels of integration between the various functions of the Department. This will result in greater speed to address the threats great power competitors pose to the United States. The Department is fully engaged in these areas, and will continue to seek full and rapid implementation of the 2018 NDS.

The NDS drives our decision-making - focusing our resolve and efforts on enhancing our military's readiness and lethality; strengthening our alliances and attracting new partners; and reforming the Department to make sure our finite resources are directed toward our highest priorities.

FY 2021 BUDGET REQUEST OVERVIEW

“The President and Congress have placed an emphasis on funding the military. Our budgets over the past three years have allowed us to reverse the decline in readiness, while beginning to modernize our air, land, sea, space, and cyber capabilities. However, there is no guarantee that this level of funding will continue into the future. To meet the objectives outlined in the NDS, we must continue to make the most of every resource.”

- Secretary of Defense Mark T. Esper – January 2020

The DoD FY 2021 budget supports the irreversible implementation of the NDS, which drives the Department’s decision-making in 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. Continues to strengthen military readiness and invest in the modernization of a more lethal force
2. Strengthens alliances, deepens interoperability and attracts new partners
3. Reforms the Department for greater performance and accountability
4. Supports service members and their families, recognizing that our people are our most valuable resource

Figure 1. Department of Defense Budget

<i>\$ in billions</i>	FY 2018 Actuals	FY 2019 Actuals	FY 2020 Enacted	FY 2021 Request
Base	599.6	616.4	633.3	636.4
Overseas Contingency Operations	65.2	68.6	66.4	53.0
OCO for Base	--	--	4.9	16.0
Emergency	5.8	2.8	8.0	--
Total	670.6	687.8	712.6	705.4

Irreversible Implementation of the *National Defense Strategy*

- **FY 2017 – FY 2018 – Readiness and Recovery:** Additional appropriations for near-term readiness, “must-pay” bills, and force structure gaps
- **FY 2019 – FY 2020 – Modernization and Lethality:** Key down payments on lethality, turning to great power competition, and continuing full spectrum readiness; priority on innovation and modernization to strengthen competitive advantage across all warfighting domains
- **FY 2021 – All Domain Operations:** Continues to strengthen military readiness and invest in the modernization of a more lethal force; focuses on joint enablers and dominance across all domains: Air, Land, Sea, Space, and Cyber; prioritizes nuclear deterrence recapitalization and strengthens homeland missile defense; and advances development of critical technologies

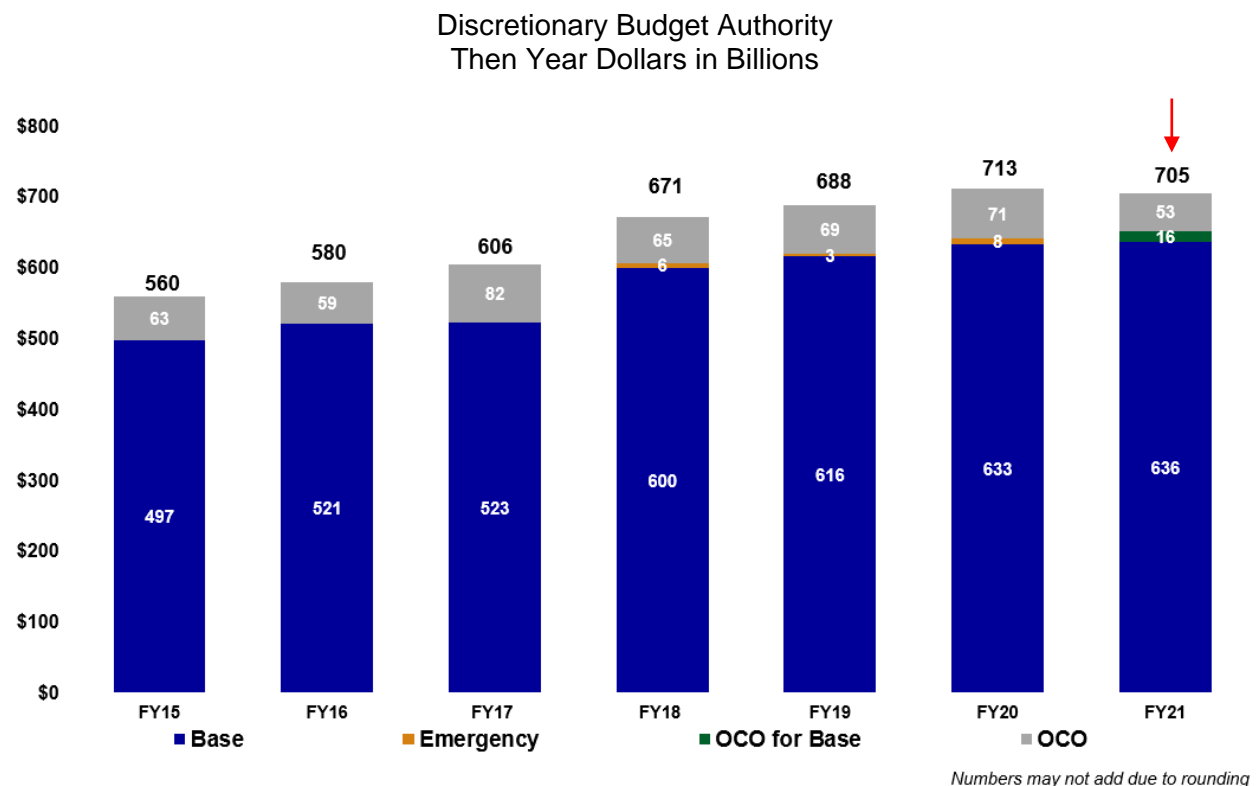
Overview – FY 2021 Defense Budget

Sustainable, predictable, adequate, and timely budgets are required to prevail in long-term great power competition.

Based on the spending limits established in the Bipartisan Budget Act of 2019 (BBA 2019), the President’s FY 2021 budget request for DoD is \$705 billion. This budget represents a \$0.8 billion increase over the FY 2020 enacted appropriation excluding natural disaster relief emergency funding. To live within the BBA 2019 agreement levels, the Department made tough choices and realigned resources to sustain and advance the recent gains in readiness and lethality.

Beyond additional investments in readiness, modernization, and innovation, increasing the lethality of our military requires deep commitment to and from our allies and partners; continual business and organization reforms to ensure our resources are directed towards the highest priorities; and finally, fully supporting our people by ensuring they have the resources they need to thrive. The remainder of this chapter summarizes the key investments and initiatives within each of these four focus areas for the FY 2021 budget request.

Figure 2. DoD Topline Funding FY 2015 – 2021



The FY 2021 budget flattens funding levels with a \$0.8 billion increase over the FY 2020 enacted appropriation for Base and OCO.

CONTINUES TO STRENGTHEN MILITARY READINESS AND INVEST IN THE MODERNIZATION OF A MORE LETHAL FORCE

The FY 2021 budget request continues building a more lethal force by **maximizing force readiness, modernizing capabilities in all warfighting domains, and innovating to expand our competitive advantage.**

Maximizing Force Readiness

- Robustly funds readiness across each of the Services (FY 2021, \$125.1 billion)
 - Army: Adds \$3.4 billion to fund critical training and readiness; increasing scale of Defender Series exercises and resourcing Dynamic Force Employment
 - Navy and Marine Corps: Increasing funding by \$2.7 billion to maintain and expand readiness recovery of the fleet
 - Air Force: Grows funding by \$1.7 billion in core readiness programs such as depot maintenance, contractor logistics support, and flying hours
 - U.S. Special Operations Command (USSOCOM): Funds high levels of readiness to balance demands of day-to-day operations, major contingency operations, and crisis response missions; FY 2021 includes a net increase in key readiness investments of flying hours, formal training, and exercises
- Increases total military end strength by approximately 5,600 over currently projected FY 2020 levels



Modernizing Across All Warfighting Domains¹

Space (\$18.0 billion)

- Expeditiously building U.S. Space Force (USSF)
- Reduces risk to satellite communications jamming (FY 2021, \$858 million)
- Increases Global Positioning System Follow-on satellites and Operational Control System (FY 2021, \$1.8 billion)
- Improves space-based missile warning capabilities (FY 2021, \$2.5 billion)
- Continues investment in space launch capacity (FY 2021, \$1.6 billion; 3 launches)



Cyber (\$9.8 billion)

- Resources cybersecurity capabilities to reduce risk to DoD networks, systems, and information (FY 2021, \$5.4 billion)
- Invests in both offensive and defensive cyberspace operations (FY 2021, \$3.8 billion)

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

Overview – FY 2021 Defense Budget

- Supports Cyber Mission Force Teams that execute the USCYBERCOM operational mission (FY 2021, \$2.2 billion)
- Funds advanced Cyber research and development activities (FY 2021, \$0.6 billion)

“When we put boots on the ground, ships on the sea, or planes in the sky, we must ensure our units are performing the most high-payoff activities in line with our strategic priorities.”

- Secretary of Defense Mark T. Esper, January 2020

Air (\$56.9 billion)

- Increases capability and capacity with procurement of new 4th and 5th Generation aircraft (FY 2021, \$15.1 billion; 115 quantity)
- KC-46 tanker (FY 2021, \$3 billion; 15 quantity)
- AH-64E Apache Attack Helicopter (FY 2021, \$1.2 billion; 52 quantity)
- Continues development test and evaluation of the Advanced Trainer program (FY 2021, \$0.2 billion)
- Initiates Special Operation Forces Armed Overwatch capability (FY 2021, \$0.1 billion; 5 quantity)
- Advanced Medium-Range Air-to-Air Missile (AMRAAM) (FY 2021, \$876 million; 739 quantity)
- Joint Air-Surface Standoff Missile – Extended Range (JASSM-ER) (FY 2021, \$577 million; 400 quantity)



Maritime (\$32.3 billion)

- Continues progress towards growing the Battle Force fleet from 292 in FY 2019 to 306 in FY 2025, with a focus on more capable ships to enable distributed maritime capability (FY 2021, \$18.9 billion)
 - 1 Virginia Class Submarine (FY 2021, \$4.7 billion)
 - 2 DDG-51 destroyers (FY 2021, \$3.5 billion)
 - 1 FFG(X) Frigate (FY 2021, \$1.1 billion)
 - 1 SSBN Columbia Class Submarine (FY 2021, \$4.4 billion)
- Increases and diversifies strike options, including offensive-armed unmanned surface and underwater vessels, and advanced long-range missiles
 - Large Unmanned Surface Vessels (USVs) (FY 2021, \$464 million, 2 quantity)
 - Long Range Anti-Ship Missiles (LRASM) (FY 2021, \$224 million, 53 quantity)
 - Tactical Tomahawk (TACTOM), including some with Maritime Strike Capability (FY 2021, \$603 million, 203 quantity)

Overview – FY 2021 Defense Budget

Land (\$13.0 billion)

- Ground forces provide combat power to assure allies, deter aggression, and win the Nation’s wars.
- The FY 2021 budget funds 5,444 combat and tactical motorized vehicles. (FY 2021, \$6.9 billion)
 - Includes 4,247 Joint Light Tactical Vehicles, a family of vehicles designed to perform multiple mission roles; provide protected, sustained, networked mobility for personnel and payloads across the full Range of Military Operations; and achieve battlefield superiority against opposing forces (FY 2021, \$1.4 billion)
 - Includes 72 Amphibious Combat Vehicles, an armored personnel carrier that provides improved lethality against dismounted enemy troops; more effective land and water tactical mobility, including a swim capability; and increased force protection and survivability from blasts, fragmentation, and kinetic energy threats for employment across the range of Marine Corps operations (FY 2021, \$521 million)
- Close Combat investments in multiple systems continue to provide combat overmatch in the last 200 meters of contact. Modernization investments to increase Soldier lethality include Next Gen Squad Weapons, Integrated Visual Augmentation System, and Enhanced Night Vision Goggle-Binocular



Multi-Domain

- Missile Defeat and Defense (\$20.3 billion)
 - The Department is committed to supporting the 2019 Missile Defense Review, which called for a layered defense, comprehensive missile defense capabilities, flexibility and adaptability, tighter offense-defense integration and interoperability, and the importance of space.
 - The FY 2021 budget request focuses on a diversified set of missile defeat and defense (MDD) capabilities to counter the advancing threat and includes \$9.2 billion for the Missile Defense Agency (MDA), \$7.9 billion in regional and strategic missile defense capabilities outside of MDA, and \$3.2 billion in missile defeat or left-of-launch activities.
 - Expands capability/capacity for Terminal High Altitude Area Defense (THAAD) (FY 2021, \$916 million; 41 interceptors) and Aegis Ballistic Missile Defense (SM-3) (FY 2021, \$619 million 40 missiles) for regional missile defense
 - Pursues layered homeland defense approach to include development of a Next Generation Interceptor (NGI) for Ground-Based Interceptors (GBI) and improvement to regional defense systems to enable limited homeland defense capability
 - Supports completion of additional missile field in Alaska to enable an operational fleet of 44 GBIs and 20 NGIs in the future
- Nuclear Enterprise (\$17.7 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,

Overview – FY 2021 Defense Budget

submarines, bombers, dual-capable aircraft, and related infrastructure to keep U.S. nuclear deterrent credible and modernized for decades.

- The FY 2021 budget request:

- Recapitalizes capability with Ground Based Strategic Deterrent (FY 2021, \$1.5 billion), B-21 Bomber (FY 2021, \$2.8 billion), and Long-Range Stand Off Weapon (FY 2021, \$474 million)
- Enhances strategic deterrence with Columbia class submarine (FY 2021, \$4.4 billion)
- Enhances Missile Warning capabilities
- Enhances Nuclear Command, Control and Communications (NC3) capabilities across the spectrum of military operations. (FY 2021, \$4.2 billion)



- Special Operations Forces (SOF) (\$3.0 billion)

- The FY 2021 budget for SOF investments procures, modernizes, and/or modifies SOF-peculiar aviation, mobility, and maritime platforms, weapons, ordnance, and communications equipment. These programs and their funding directly support the NDS to build a more lethal, resilient, and rapidly innovating Joint Force.
- The FY 2021 budget sustains SOF growth and readiness, and increases lethality through modernization and recapitalization, and investing in new technologies. This includes investments in:
 - Warrior Systems (FY 2021, \$293 million)
 - Precision Strike Package (FY 2021, \$243 million)
 - Rotary Wing Upgrades and Sustainment (FY 2021, \$211 million)
 - AC/MC-130J aircraft/gunships (FY 2021, \$164 million)
 - Armed Overwatch/Targeting (FY 2021, \$106 million)

Innovating to Expand Our Competitive Advantage

The FY 2021 budget continues significant investment in Advanced Capability Enablers (ACEs), technologies focused on a high-end fight. The Department's focus on science and technology and efforts to bring advanced capabilities to the field are rapidly reasserting our competitive advantage.

Selected efforts include:

- Hypersonics – Accelerates development of Army Long Range Hypersonic Weapon (LRHW); increase funding for Navy Conventional Prompt Strike (CPS), and Air Force Advanced Rapid Response Weapon (ARRW) (FY 2021, \$3.2 billion)
- Microelectronics/5G – Funds critical Artificial Intelligence-pacing technology; continues addressing trusted and assured supply of microelectronics. Hastens adoption of “ubiquitous connectivity”, sharing more data at greater network bandwidth (FY 2021, \$1.5 billion)

Overview – FY 2021 Defense Budget

- Autonomy – Enhances speed of maneuver and lethality in contested environments; develops human/machine teaming (FY 2021, \$1.7 billion)
- Artificial Intelligence (AI) – Continues the AI pathfinders, Joint Artificial Intelligence Center (JAIC) and Project Maven (FY 2021, \$0.8 billion)

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.

DoD's FY 2021 research and development budget is the largest ever requested and laser focused on the development of crucial emerging technologies to expand our warfighting advantages over strategic competitors.

STRENGTHENS ALLIANCES, DEEPENS INTEROPERABILITY, AND ATTRACTS NEW PARTNERS

DoD is strengthening and leveraging America's network of allies and partners to compete with China and Russia. This is a foundational pillar of the 2018 NDS and a great strategic advantage over competitors. As competitors seek to advance their own revisionist view of the world, consistent with their authoritarian models, the DoD understands that their strategies involve isolating and trying to gain leverage over countries through predatory approaches and intimidation. The United States believes that a free and open international environment is paramount, and as such continues to pursue capabilities that sustain this reality for all.



To remain competitive in this environment, DoD is pursuing several measures to bolster defense relationships. In some cases, this necessitates hard conversations to ensure appropriate burden-sharing and targeted capability development to address shared challenges.

- **Indo-Pacific:** In the Indo-Pacific, DoD is strengthening and evolving U.S. partnerships into a security architecture that helps uphold a “free and open” order. With Japan, DoD is integrating NDS implementation with Japan’s National Defense Program Guidelines and participating in ongoing defense dialogues to re-evaluate roles, missions and capabilities while increasing operational readiness and training. With India, DoD is expanding military-to-military cooperation and improving interoperability, including by establishing a new tri-service amphibious exercise, TIGER TRIUMPH. Singapore hosted the transit and rotational deployment of more than 1,500 U.S. military aircraft and vessels (2015-2018). For Taiwan, DoD approved over \$10 billion in defense sales such as M1A2 tanks and F-16s to recapitalize its force. More broadly, DoD is investing in programs like the Maritime Security Initiative to build the capacity of our allies and partners in the region, including developing partners’ ability to conduct maritime security and maritime domain awareness operations, and advancing interoperability with U.S. forces.
- **Europe:** The North Atlantic Treaty Organization (NATO) announced that 2019 defense spending across European Allies and Canada increased in real terms by 4.6 percent, the fifth consecutive year of growth. By the end of 2020, these Allies will have increased investment in FY 2020 by \$130 billion cumulatively from FY 2016, and this accumulated increase in defense spending is projected by the NATO Secretary General to rise to \$400 billion by 2024.

Overview – FY 2021 Defense Budget

In addition, NATO announced it has improved readiness through the NATO Readiness Initiative or “4 30’s” in which NATO nations have committed 30 fighter aircraft squadrons, 30 mechanized infantry battalions, 30 naval surface combatants that must be ready to deploy in 30 days.

- **Middle East:** The DoD acknowledges that a stable world requires a stable Middle East, and so the Department is focused on durable progress and investments in this area. Between 2015 and 2019, the United States trained 3,200 military officers throughout the region. Over the last 5 years, U.S. foreign military sales have totaled approximately \$132 billion within the Middle East. The DoD also encourages partners in the region to take responsibility for their own security. There are key examples of allies in the region taking leading roles in providing for their own regional defenses – for example, the Saudi-led Regional Integrated Air and

By the end of 2020, NATO Allies will have increased cumulative defense spending from FY 2016 by \$130 billion under the Trump administration and is projected to rise to \$400 billion by 2024.

REFORMS THE DEPARTMENT FOR GREATER PERFORMANCE AND ACCOUNTABILITY

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 NDS. We have pursued reform efforts throughout the Office of the Secretary of Defense, the Military Departments, Defense Agencies and Field Activities, and Combatant Commands.

In FY 2019, DoD programmed and executed reform efforts in the management of contracts, information technology (IT), healthcare, personnel, acquisitions, financial operations, divestment of equipment and other areas to save \$6.0 billion. In FY 2020, DoD is committed to achieving the \$7.7 billion savings we re-allocated to higher priority needs in the FY 2020 President’s Budget.

The FY 2021 budget is indicative of the Department’s formalized process to account for savings in support of the Department’s third line of effort in the NDS. In August of 2019, the Department launched the Defense-Wide Review (DWR), a comprehensive review and rationalization of all DoD organizations, programs, functions, and activities outside of the Military Departments to identify savings in FY 2021 and in future years. The DWR was a major DoD initiative by the Department to improve the alignment of time, money, and manpower to NDS priorities. Specifically, the Secretary of Defense and the Deputy Secretary of Defense led 21 review sessions examining \$99 billion of appropriated resources across roughly 50 Defense-Wide (DW) organizations and activities.

Over the course of 4 months, the DWR leveraged a risk-based approach to decrease overhead, divest of legacy activities, and reduce the cost of lower priority programs, enabling the Department to increase investment in innovation and enhance lethality to our competitive military advantage in high-end warfare. The DW programs reduced were not wasteful or mismanaged but were generally considered non-core or lower priority activities not tightly aligned to the NDS. Ultimately, the DWR identified aggressive reform opportunities resulting in over \$5.7 billion in FY 2021 savings for reinvestment in lethality and readiness, and an additional \$2.1 billion in activities and functions to realign to the Military Departments.

In addition to the DWR efforts, the FY 2021 budget includes \$3.4 billion in new savings across the Military Departments and the Missile Defense Agency, which allows us to further resource a more lethal Joint Force. The Department is shifting levers of business operations to achieve

Overview – FY 2021 Defense Budget

reform at the enterprise level. These levers, their definitions, and the total FY 2021 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 2021, \$608.9 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. (FY 2021, \$9.3 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 2021, \$129.6 million)
- Weapon System Acquisition Process – Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. (FY 2021, \$166.8 million)
- Divestments – Selling equipment or weapon systems, or strategically discontinuing legacy acquisition programs to fund purchases in support of the Department’s highest priorities. (FY 2021, \$1.0 billion)
- Better Alignment of Resources – Reprioritizing or moving finances and personnel to realign from legacy capability in support of the NDS. (FY 2021, \$1.4 billion)

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

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.

SUPPORT OUR PEOPLE/FAMILIES

DoD recognizes that our people – military and civilian – are both our most valuable resource and the key to accomplishing the objectives provided in the NDS. It is critical that the Department remain committed to ensuring that the service members, families and civilians, which provide the Department’s competitive edge are well compensated. A competitive compensation package must be sustained even as the Department prioritizes funds toward the NDS, as everything we do depends on the dedication and skill of the men and women who sacrifice their own comfort and safety to safeguard the freedom we enjoy every day.



The FY 2021 Budget request strengthens the backbone of America’s national security – Service members, military families and DoD civilians by ensuring they have the resources to thrive through investments in compensation, quality-of-life/family support initiatives (investing over \$8 billion) and commitments to improve their safety.

Overview – FY 2021 Defense Budget

Notable investments include:

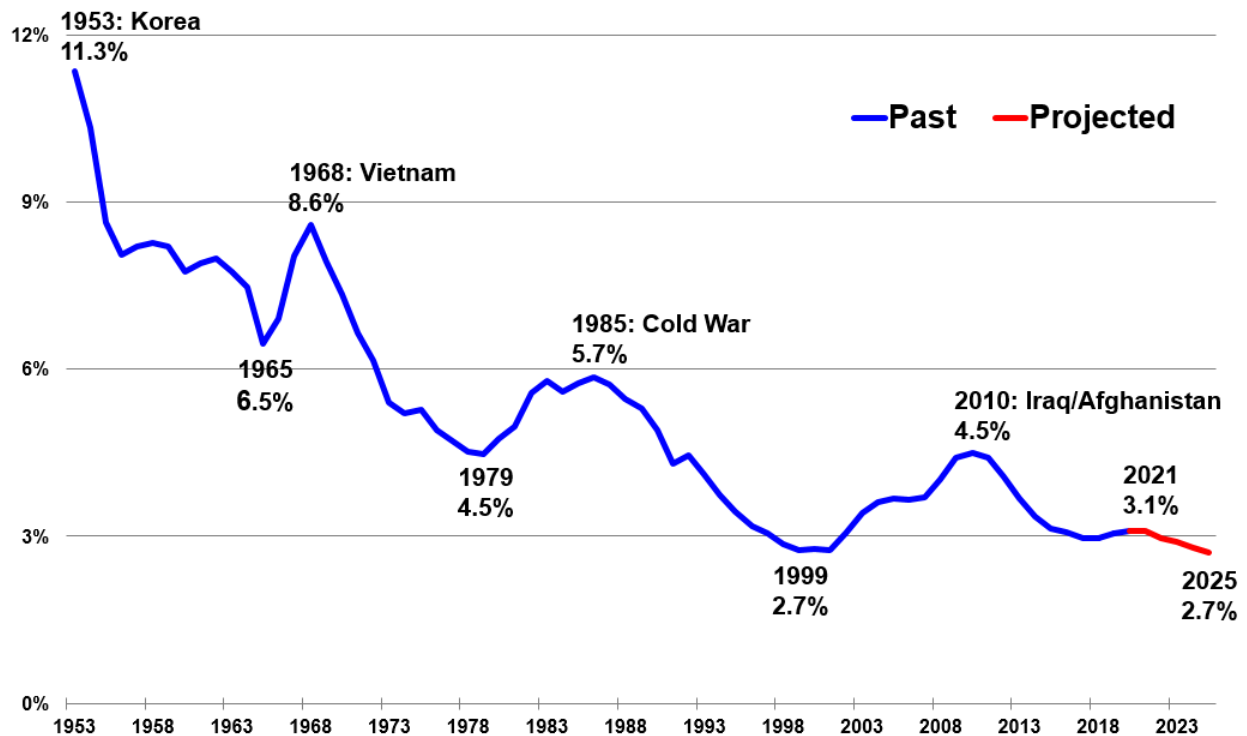
- Supports a 3 percent military pay raise
- Supports expansion of paid parental leave for DoD civilians
- Includes funding for child development programs, which serve over 160,000 children, and youth and teen programs, which serve over 1 million children
- Funds mission sustaining programs such as fitness centers, libraries, and single service member programs; voluntary education; and recreation programs such as outdoor recreation and auto skills centers
- Includes funding for family support centers, and non-medical counseling support services for Active Duty, National Guard, and Reserve members and their families
- Supports the Defense Commissary Agency to operate 236 commissary stores on military installations worldwide, employing a workforce of over 12,000 civilian full-time equivalents
- Funds repeal of Survivor Benefit Plan/Dependency and Indemnity Compensation offset
- Commits to providing safe and quality residences to service members and their families by increasing oversight of military housing operations

The FY 2021 budget funds a 3.0 percent military pay raise.

CONCLUSION

Sustainable, predictable, adequate, and timely budgets are a must if the Nation is to prevail over the long-term in the great power competition. Building on the success of the congressional appropriations of the past 3 years, which have repaired damaged readiness and significantly increased investments in modernization and innovation, the FY 2021 budget request institutionalizes the execution of the NDS concept and strategy for irreversible development of a more lethal and efficient force that can project power globally against a full spectrum of threats. Congressional approval of the FY 2021 budget will solidify and expand our competitive advantage over the coming decades, 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 2025



Source: DoD spending as a percent of GDP compares DoD outlays, both discretionary and mandatory, from the National Defense Budget Estimates for FY 2020 (Table 7-7) and projected GDP from OMB's Economic Assumptions for the FY 2021 Budget.

The FY 2021 budget is near a record post-World War II low as a percent of our economy.

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2. SUSTAINING OUR FORCES

“I understand well the sacrifices our Service Members, Civilians, and their Families make to protect this great country. This is why I am committed to taking care of Families and ensuring they have the resources they need to thrive.”

- Secretary of Defense Mark T. Esper – June 2019

The Department of Defense (DoD) Workforce: Military — Active, Reserve, and National Guard — and Civilian personnel are the foundation of the Department 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. As the Department focuses on long-term structural reform to divest legacy activities and lower priority programs to provide the warfighters more of what they need to deter, fight, and win in today’s complex security environment, 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.

The Secretary of Defense added “line of effort four” to the *National Defense Strategy* (NDS), taking care of service members and their families. The Department is committed to providing a competitive compensation package for those individuals willing to voluntarily serve their country. This commitment is built into the Fiscal Year (FY) 2021 budget request and is demonstrated by the number of initiatives and programs to support their professional development and take care of them and their families.

Sections
<ul style="list-style-type: none">• Military Compensation• Military Housing Privatization Initiative• Managing the Military Health System• Strengthening Military Families• DoD Civilians

3 percent military pay raise – sustains the force and builds on readiness gains.

The FY 2021 budget request continues to advance the objectives of the NDS by sustaining the gains in recent budgets and continuing to build a bigger more lethal and ready force. Military pay and benefits funding grows by more than \$8.7 billion over the FY 2020 enacted level. This increase includes funding for a 3.0 percent military pay raise and will continue to grow the Total Force end strength by approximately 5,600 over the currently projected FY 2020 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.

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.

In support of the Department's effort to continue to build a bigger more lethal and ready force, the FY 2021 President's Budget proposes a 3 percent increase in military basic pay. This builds on last year's 3.1 percent increase and is key to sustaining the force and building on our readiness gains.

In addition to the annual basic pay raise proposal, the FY 2021 budget requests funding for a full range of compensation programs, from monthly special and incentive pays to recently modernized retirement benefits.

MILITARY HOUSING PRIVATIZATION INITIATIVE

The Department has an obligation to provide military families with safe and quality housing, and takes this obligation seriously.

Under the Military Housing Privatization Initiative (MHPI) legislation enacted in 1996, the Department has made dramatic improvement to the quality of on-base housing, rapidly addressing a \$20 billion maintenance backlog and building and renovating \$32 billion in housing by leveraging just \$4 billion in government funding. The Military Departments have privatized 99 percent (more than 200,000 units) of installation family housing in the U.S., with about 80 MHPI projects currently in place across approximately 150 installations.

Under the MHPI, the Military Departments conveyed their existing government housing units to competitively selected privatization entities (i.e., the MHPI projects). The MHPI projects operate under long-term (typically 50-year) ground leases and associated legal agreements with a Military Department, with a 25-year option period. In return, the MHPI projects assumed responsibility for operation, maintenance, construction, renovation and replacement of the housing during the lease term, in accordance with the MHPI authorities as defined in law.

At present, 99 percent of the construction and renovation planned for the initial development phase of the MHPI projects has been completed, to include construction of nearly 80,000 new family housing units, major renovations of more than 50,000 units, and repairs and cosmetic improvements to the remainder.

Despite these improvements, we recognize the Department has had a lapse in oversight, giving rise to concerns about the health, safety, and welfare of residents living in privatized housing. These concerns deserve immediate action to ensure our Service members and their families receive quality housing, fair treatment, and greater accountability from both the Department and our housing privatization partners.

The Department has recommitted to our oversight role to ensure our privatized housing projects provide safe, quality, well-maintained housing, and to address resident concerns in a timely, transparent, and accountable manner.

The National Defense Authorization Act for FY 2020 (FY 2020 NDAA, Public Law 116-92) includes extensive direction for the Military Housing Privatization Initiative (MHPI), to include requirements for a Tenant Bill of Rights, a universal lease, a dispute resolution process, and other elements - all impacting DoD's oversight of the MHPI program and projects.

Prior to release of the FY 2020 NDAA, the Department was already working on a number of actions to correct MHPI housing and program deficiencies while addressing resident concerns. In addition, Senior Leaders in the Office of the Secretary of Defense and Military Departments

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now meet regularly with key executives from each of the MHPI partners to ensure our initiatives continue to progress. The Department will release a Tenant Bill of Rights in early 2020 to meet the requirements of the FY 2020 NDAA. Other key actions to date include the development of a universal lease framework, a dispute adjudication process, increased training for installation commanders and housing personnel, and the hiring of additional housing staff across the Military Departments, to include resident advocates.

The FY 2021 budget request includes a \$54.6 million (82 percent) increase for Military Housing Privatization Support compared to the President’s FY 2020 budget request. This funding increase enables the Department’s enhanced oversight of MHPI housing consistent with the FY 2020 NDAA requirements, to include staff augmentation, improved quality control measures, database development and management, and additional training and contract costs.

The Department honors the sacrifice our Service members and their families make to serve our nation. We recognize the environment where Service members (and their families) live impacts their quality of life, their ability to do their jobs, and the Department’s ability to recruit and retain the force. The Department recommits to our oversight role to ensure the long-term success of the MHPI Program, to include ensuring privatized housing projects and partners provide safe, quality, well-maintained housing and address resident concerns in a timely, transparent, and accountable manner.

MANAGING THE MILITARY HEALTH SYSTEM

“Our medical reform efforts must ensure the continued readiness of the force, and quality health care for our Service Members and their families.”

- Secretary of Defense Mark T. Esper

The Military Health System (MHS) provides the DoD with a clinically ready medical force that is able to deliver medical capabilities in support of the National Security Strategy and the defense of our nation. The 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 that improves the health of all those entrusted to our care.

The MHS is one of America’s largest and most complex health care institutions, and the world’s preeminent military health care delivery operation.

With a \$50.8 billion budget, the MHS saves lives on the battlefield, combats infectious disease around the world, and cares for 9.6 million beneficiaries in one of the nation’s largest health benefit plans.

The MHS supports the Secretary’s three goals by increasing the operational readiness of the Joint Force by ensuring they are medically deployable; strengthening partnerships with industry, allies, and interagency partners to provide opportunities for medical professionals to improve their readiness skills; and reforming business processes to streamline management of enterprise-wide health activities, to include the administration of Military Medical Treatment Facilities (MTFs) – with the **goal of providing Great Outcomes, a Ready Medical Force, and Satisfied Patients in an integrated and affordable health care system.**

This complex operation integrates health care delivery, public health and medical education, private sector partnerships along with cutting edge medical research and development. Its readiness mission spans a broad portfolio of operational requirements, such as combat casualty care, disaster relief, global health engagement, and humanitarian assistance. Key enablers of

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.

the system include the DoD 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 delivers a comprehensive health care entitlement to a 9.6 million eligible beneficiary population comprised of active military members and their families, military retirees and their families, dependent survivors, and certain eligible Reserve Component members and their families. The funding and personnel to support the Military Health System’s mission is referred to as the Unified Medical Budget (UMB) and represents a generous portion of the Department’s top-line budget authority. This investment reflects the Department’s commitment to ensure the delivery of timely, safe and effective medical care to our beneficiaries.

FY 2021 Budget Request

The FY 2021 UMB request is \$50.8 billion, down 1.2 percent from the enacted FY 2020 level. The difference between FY 2020 and FY 2021 is driven predominantly by the \$1.6 billion in unrequested congressionally directed additions for research and development in FY 2020, and the transfer of medical readiness activities and functions that did not properly belong in Defense-Wide and could be transferred more appropriately to the Military Departments.

The Department will continue to pursue efforts focused on internal business process improvements and structural changes to find greater efficiencies, such as further integrating the military health system; continuing the deployment of MHS GENESIS – DoD’s electronic health record; implementing the health benefit reforms authorized by Congress; modernizing clinical and business processes; and, streamlining internal operations. As a continuation of these efforts, the Department is realigning \$1.9 billion from the Defense Health Program appropriation to the Military Departments (MilDeps) in FY 2021 to support medical readiness activities outside of the MTFs.

The Department’s efforts to develop and employ cost containment strategies are ongoing. For FY 2021, our efforts will focus on additional business reforms, process re-engineering and restricting of infrastructure as we continue to examine the impacts of recently implemented reforms. Over the past several years, program efficiencies have been extremely successful in

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

Program	FY 2020 Enacted	FY 2021 Request
Defense Health (DHP)	34.4	33.1
Military Personnel ¹	8.9	8.9
Military Construction ¹	0.3	0.5
Health Care Accrual ²	7.8	8.4
Unified Medical Budget	51.4	50.8
Treasury Receipts for Current Medicare-Eligible Retirees ³	11.2	11.8

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.

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constraining health care costs. Initiatives have included the implementation of 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).

Continued Transformation of the MHS

The NDAA for FY 2017, FY 2019 and FY 2020 contained language to drive a wide range of structural and management reforms within the MHS. These adjustments act as a catalyst for MHS transformation into a more integrated system of readiness and health.

In early 2017, the Defense Health Agency (DHA) began preparing to assume responsibility for the administration and management of MTFs and Dental Treatment Facilities (DTFs) 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. All other MTFs/DTFs in the United States transitioned in October 2019, to DHA oversight and management with support from the Military Departments as the DHA continues to build its management system's capacity. The Military Department support is scheduled to end in October 2020 and will be transitioned on a conditions-based approach to ensure that healthcare delivery and readiness is not impacted. The second phase, executing in FY 2021, will transition additional MTFs located overseas to the management control of the DHA with a target of DHA having full control of all MTFs and Dental treatment facilities by October 2022.

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.

The FY 2021 President's Budget reflects the Department's continued efforts to re-scope the military medical end strength portfolio. 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 reform effort to evolve its approach to how it allocates and clinically diversifies the medical military end strength. In 2018, the Military Departments, the Joint Staff, and the Office of the Secretary of Defense (OSD) started to develop methodologies to more adequately determine the wartime requirements for the medical force. The resulting adjustments in active duty military medical providers will ultimately provide a medical force appropriately sized and scoped to meet NDS requirements as well as allow the MHS to optimize operational training and beneficiary care delivery.

The FY 2020 Budget presented the Department's estimate of the military medical manpower required for the NDS and the FY 2021 President's Budget request incorporates a phased conversion of military end strength based on mitigation strategies and market analysis. In some cases, the care will remain in the MTFs and be provided by civilian or contract staff, and where feasible, some care will be transitioned to a local network provider. As efforts are ongoing, the Department will continue to evaluate the impacts of the force structure changes and adjust its plans accordingly though out the transition period. This agile and phased approach helps the Department to ensure all beneficiaries continue to receive safe, high quality care.

The FY 2021 budget continues the deployment of MHS GENESIS, the Department's Electronic Health Record. The FY 2021 expansion to Naval Hospital Camp Pendleton, Elmendorf Air Force

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Base, Fort Wainwright, Naval Medical Center San Diego, Fort Bliss, Fort Carson, Fort Leavenworth, Fort Leonard Wood, and Fort Riley Hospitals is based on the DoD 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 and Wave TRAVIS. In addition, the following waves will begin pre-deployment activities in FY 2021, Wave SAAMC (San Antonio), Wave LACKLAND, Wave WRIGHT-PATTERSON, and Wave DRUM. 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 Veterans Affairs continue to progress in the establishment of the unified Electronic Health Record. In FY 2021, DoD continues funding 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.

STRENGTHENING MILITARY FAMILIES

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

The FY 2021 budget request includes nearly \$8.2 billion (Figure 2.2) for military family support programs. The \$0.2 billion net increase from the FY 2020 enacted funding level for military family support programs is primarily driven by the Commissary's use of prior-year unobligated funds in FY 2020 resulting in a reduction to their appropriated funding.

Figure 2.2 displays a summary of the Department's FY 2019 — FY 2021 budget request for these programs. Key programs are:

- **Child Care and Youth Programs:** Includes funding for child development programs, which serve over 160,000 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.

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- 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.
- Commissary: Includes funding for the Defense Commissary Agency to operate 236 commissary stores on military installations worldwide, employing a workforce of over 12,000 civilian full-time equivalents.
- Department of Defense Education Activity (DoDEA) Schools: Includes funding to support the education of students.

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

Program	FY 2019 Actual	FY 2020 Enacted	FY 2021 PB Request
Child Care and Youth Programs	\$1.4	\$1.7	\$1.7
Morale, Welfare and Recreation	\$1.6	\$1.5	\$1.5
Warfighter and Family Services	\$1.6	\$1.7	\$1.7
Commissary	\$1.3	\$1.0	\$1.1
DoDEA Schools	\$2.2	\$2.1	\$2.1
Total	\$8.0	\$8.0	\$8.2

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 2021 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. As critical enablers of our warfighters, DoD civilians serve in a wide variety of roles and areas around the country and the world. Civilians perform functions in intelligence, equipment maintenance, medical care, family support, base operating services, and other activities that directly support the military forces and readiness. The DoD civilian workforce possesses capabilities, expertise, and skills that directly impact DoD's operational warfighting capabilities, and employs those skills at depots and shipyards; child care centers and schools; at airfields, ranges, and armories, and in theater in direct support of military operations.

The FY 2021 direct civilian pay and benefits budget increases by more than \$3.1 billion over the FY 2020 enacted level. This increase is driven by a FY 2021 1 percent pay raise request that responsibly builds on the FY 2020 3.1 percent pay raise. FY 2021 growth is also driven by a 1.3 percent additional agency contribution to the Federal Employees Retirement System (FERS) for regular employees, and a 1 percent increase in civilian performance awards spending, excluding Senior Executive Service, Senior Level, and Scientific or Professional positions. These benefits allow the Department to remain competitive with private industry in sustaining the talent workforce and rewarding top performing personnel.

Every element of the Total Force brings unique strengths to the Department as a whole. Among other things, civilian personnel provide organic skills and expertise, as well as institutional

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continuity. Effective and appropriate use of civilians allows the Department to focus its Soldiers, Sailors, Airmen, and Marines on the tasks and functions that are truly military essential—thereby enhancing the readiness and lethality of our warfighters. However, there is no “one-size-fits-all” solution to the Total Force. Right-sizing the Department’s Total Force—and its civilian workforce—sometimes means targeted growth in critical support areas, especially as military end strength grows. Successfully executing the Department’s mission means having the right people in the right place at the right time, and the answers to those questions may be different for each Defense Component.

The size and composition of the civilian workforce in the FY 2021 budget reflects evolving critical demand areas which require the Department to manage its civilian workforce on the basis of workload and available funds, and without constraint on end strength while at the same time striving to meet statutory guidelines. By implementing Total Force policies to achieve “the most appropriate and cost efficient mix of military, civilian, and contractor personnel,” the Department is able to focus its uniformed manpower on operational demands, while simultaneously resourcing the functions provided by civilians that enable and enhance the readiness and lethality of the force.

The Department estimates the number of civilian Full-Time Equivalent (FTEs) (excluding Cemeteries and Foreign National Indirect Hire) will decrease 0.2 percent, from 774,943 in FY 2020 to 773,593 in FY 2021. 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. Overall, the number of Department civilians is decreasing; however, there are projected increases 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 2020 ^{2/} Enacted	FY 2021 ^{2/} Request	Percent Change
Army	180.8	186.1	2.9%
Navy	207.0	209	1.0%
Air Force	169.8	168.1	-1.0%
Defense Wide	217.3	210.4	-3.2%
Total DoD	774.9	773.6	-0.2%
U.S. Direct Hires	760.3	759.2	-0.1%
Foreign Direct Hires	14.6	14.4	-1.3%

Numbers may not add due to rounding

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

^{2/} Excludes 32,093 of Foreign National Indirect Hire (FNIH) FTEs in FY 2020 and 32,079 in FY 2021

3. ACHIEVING A SUSTAINABLE LEVEL OF READINESS

Readiness is the measure of the ability of the U.S. military forces to fight and meet the demands of the National Defense Strategy. The FY 2021 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 continues to utilize 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 2021 Military readiness to the National Defense Strategy• Continuing to utilize 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. The Department uses R2F methodology to assess changes in readiness for major force elements and communicates these changes to Department leadership to inform resourcing decisions and updates are included in the Quarterly Readiness Review to Congress. The R2F was update in Q1 FY2020 and continues to improve in both quality and quantity. Since inception, the Department has expanded the list of Force Elements analyzed through this methodology, as well as improved the fidelity of the underlying metrics that are associated with readiness generation. From FY 2018 to FY 2019, the Services have all seen improvement or sustained levels in some of the underlying R2F metrics for the major force elements tracked. Specifically, the Army has seen improvement in 8 of 10 force elements, the Navy has seen improvement in all 6, the Marine Corps has improved in 6 of 7 force elements, and the Air Force has improved in all 17 force elements. Further, the R2F improves the Department’s ability to link resources to readiness outcomes by ensuring those items tracked and identified as critical to readiness generation receive the necessary resourcing to achieve the necessary readiness levels to support NDS priorities. 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.

The deployment of military units around the globe is both a readiness generator and consumer. One of the key changes to Service readiness is the concept of dynamic force employment (DFE) as outlined in the NDS. The DFE is designed to prioritize maintaining capacity and capabilities for combat operations. Scalable in nature, DFE allows the Military Departments the ability to provide proportionate response to emerging global challenges, while preserving force readiness for future peer/near-peer competition. Military actions taken with the DFE construct may be unpredictable in nature, as demonstrated by the January 2020 deployment of the 1st Brigade Combat Team of the 82nd Airborne Division to Kuwait, and they are useful in proactively shaping the strategic environment while maintaining readiness for contingency response. By contrast, the deployment of forces to meet Combatant Command requests above planned force allocations removes units from home station training activities that are generating readiness for great power competition in order to respond to global contingencies that may be lower NDS priorities.

Another critical contributing factor for sustaining readiness is reliable, predictable, and on-time funding. FY 2019 was the first time in over a decade that the Department began the fiscal year with a full-year appropriations bill, and this funding allowed the Military Services to properly plan training events and exercises, order long lead depot supplies and parts, and make other key

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readiness investments without worrying about a continuing resolution or the threat of a government shutdown. Predictable, on-time, and full funding of readiness activities sets the conditions needed for the military departments to achieve their readiness goals.

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 2021 budget request funds improvements in the following areas:

- Army is investing \$30.9 billion in all readiness accounts, which is an increase of \$4.8 billion from FY 2020 enacted levels. This includes \$13.0 billion for home station training for ground maneuver forces and \$2.8 billion for aviation readiness. \$4.3 billion of this growth is related to transfers to readiness activities for OCO operations. Base readiness growth is \$3.4 billion above FY 2020 enacted levels.
- The Navy is investing \$37.7 billion, an increase of \$1.9 billion above FY 2020 enacted levels, in aviation, ship, and combat support readiness activities. The Navy continues to implement the Optimized Fleet Response Plan and reduce its long term maintenance backlog by investing \$9.9 billion in ship depot maintenance and an additional \$1.3 billion in procurement appropriations to continue the Pacific fleet maintenance pilot program. Further, Navy is investing \$7.8 billion, an increase of \$0.4 billion above FY 2020 enacted levels, in aviation readiness to sustain proficiencies, with the goal of improving mission capable rates across the fleet.
- The Marine Corps is investing \$3.9 billion in ground combat readiness, the same as FY 2020 enacted levels, and \$4.2 billion in aviation readiness accounts, an increase of \$0.4 billion above FY 2020 enacted levels, to sustain critical maintenance and training programs.
- The Air Force and Space Force are investing \$37.1 billion in core readiness and readiness enabler activities, of which \$2.3 billion is for Space Force operations and space system sustainment. \$10.7 billion, an increase of \$0.7 billion above FY 2020 enacted levels, is being invested in flying hours and operations to sustain combat readiness. For weapon system sustainment, \$16.7 billion, an increase of \$0.8 billion above FY 2020 enacted levels, is being invested to maintain the inventory of aircraft, space systems, and other weapon systems.

The following provides a more detailed breakdown of FY 2021 readiness investments, by Service.

ARMY READINESS

The Army remains on track to achieve its readiness goal in FY 2022 ensuring its blunt and surge forces are ready. While the Army continues to modernize in order to outpace near-peer adversaries, it continues a holistic approach to readiness by balancing investments in training, equipping, and installations. The Army is advancing NDS lines of efforts with new initiatives to support U.S. Indo-Pacific Command as well as U.S. European Command. For example, the Army is operationalizing Multi-Domain Operations by expanding annual division-level exercises in Europe and the Pacific; each theater will host smaller or larger versions of Defender in alternate years.

The Army's collective and individual training readiness programs are comprised of operational training to provide units with decisive action capability, Training Support Systems (TSS) that enable training, institutional training for Soldier skills and leader development, and mission and

FY 2021 budget builds on readiness gains to prepare for future threats.

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other support to Combatant Commanders (CCDRs). To support collective and individual training, the Army fully resourced active Army Brigade Combat Teams (BCTs) and Combat Aviation Brigades (CABs). Army Reserve and Army National Guard BCTs and CABs are resourced at increased levels as well, with forces remaining available to meet all operational requirements.

As shown in Figure 3-1, the Army invested additional funding over the past 3 years to improve ground and air readiness.

Figure 3-1. FY 2021 Key Army Readiness Investments

ARMY	FY19	FY20	FY21
End Strength ¹	1,010,633	1,010,500	1,012,200
Ground Readiness ²	\$11.4B	\$11.5B	\$13.0B
Aviation Readiness ³	\$2.5B	\$2.6B	\$2.8B
Depot Maintenance ⁴	\$1.9B	\$2.0B	\$1.8B
Infrastructure ⁵	\$6.4B	\$7.6B	\$6.2B

¹ Total Active, Reserve, and National Guard end strength; FY 2020 currently projected end strength

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

³ Aviation Readiness SAGs: 116

⁴ Depot Maintenance SAGs: 123

⁵ Infrastructure SAGs: 132, Military Construction (MILCON) appropriations (includes disaster relief funding)

Regular Army's end strength ramp for FY 2021 is slightly higher than previous requests with modest growth across the National Guard and Reserve components. Army set a goal to increase overall end strength by 1,700 from FY 2020 to FY 2021 to generate the following force structure: 485,900 active component (AC); 336,500 Army National Guard (ARNG); and 189,800 Army Reserve component (RC). FY 2021 end strength growth targets Cyber Operations and Electronic Warfare (EW) capabilities in FY 2021. Beyond FY 2021, the Army plans to increase structure for critical capabilities which include: Corps HQs, Chinook Companies, SHORAD Battalions, Multiple Launch Rocket System Battalions and Bridge Companies.

Ground readiness continues to improve through a holistic approach to readiness across training, Soldier availability, and equipment readiness. The Army has fully resourced their ground training strategy, with increased resources for unit-level maintenance to enhance readiness. The FY 2021 budget aligns additional resources to support Dynamic Force Employment, Emergency Deployment Readiness Exercises (EDRE) and increased decisive action Combat Training Center (CTC) rotations plus Security Force Assistance Brigade (SFAB) rotations. It resources the Army's ground and aviation training strategies at 100 percent for the Active and 80 percent for the Reserve Components, with increased resources for unit-level maintenance. The FY 2021 budget also increases support for flight school in order to meet the Army's pilot requirements. Army aviation is resourced to achieve its readiness outcomes, in part by increasing flight crew member readiness.

The Army's installation readiness program consists of essential services, base support, family programs, and facility sustainment and maintenance. FY 2021 addresses resources for Restoration and Modernization to restore barracks, power projection infrastructure, and critical facilities. Additionally, Facilities Sustainment is funded at 81 percent of the Department of Defense Facilities Sustainment Model requirement. Additionally, to ensure safe and quality housing to Soldiers and families on Army installations, the Army increased the number of personnel supporting the privatized housing inspections by 144, funds additional payments to lessors responsible for underfunded projects, and other initiatives.

Figure 3-2 shows planned rotations for the critical joint training exercises funded in the FY 2021

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budget. The Army resourced 19 decisive action CTC rotations to assess Brigade-level readiness as well as two Culminating Training Exercises for SFAB rotations. While the Army has made significant progress recovering core mission readiness, global operational demands challenge their ability to sustain gains and achieve readiness levels needed to meet contingency planning requirements.

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

CTC Training	FY 2019 Actual	FY 2020 Planned	FY 2021 Planned	FY 2021-2025 Planned
Combat Training Center (CTC) Capacity – Brigade Combat Teams (BCTs)	20	20	19	19
Culminating Training Exercise (CTE) – Security Force Assistance Brigade (SFAB)	2	2	2	2
Warfighter Exercises (WFX)*	15	16	15	16
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

The Navy is continuing to sustain readiness gains after several years of increased funding. In the FY 2021 budget, core readiness accounts grow by 3.1 percent from the FY 2020 enacted budget to FY 2021.

Ship Depot Maintenance increases by \$0.2 billion from FY 2020 to FY 2021, a 1.8 percent increase, and funds 98 percent of the requirement. The program includes an executable maintenance schedule at validated shipyard capacity. Increased investments have resulted in improved shipyard performance trends, such as reductions in days of maintenance delays in the public naval shipyards and improved on-time deliveries. The Navy is continuing its pilot program to fund Pacific Fleet private sector ship maintenance availabilities in the Other Procurement, Navy (OPN) appropriation, requesting \$1.3 billion, an increase of \$0.3 billion above the FY 2020 enacted OPN amount.

Ship Operations increases by \$0.4 billion, a 6.5 percent growth from FY 2020 enacted funding. This is a program modeled on force structure and Global Force Management Allocation Plan (GFMAP) steaming requirements, and increases the ship count to 306 ships in FY 2021. This also includes the Navy’s Military Sealift Command Ship Support.

Aircraft Operations increase by \$0.2 billion from FY 2020 to FY 2021, a 4.4 percent increase from FY 2020 enacted levels. This funds 94 percent of the requirement and reflects what is executable for FY 2021 based on current aircraft availability and manning. The FY 2021 budget focuses on sustaining tactical aviation recovery, increased aviation cost-per-hour, and increased contract maintenance for training aircraft. Naval aviation needs sustained funding levels to continue to build on previous readiness recovery efforts such as:

- The Navy achieved 80 percent mission capable rates for F/A-18 E/F and EA-18G Navy aircraft on October 1, 2019. Navy leveraged readiness investments in FY 2017 - FY 2019, particularly in spares. Navy also improved accountability and implemented process changes to enhance organic, intermediate, and depot aviation maintenance capacity and

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performance to achieve the 80 percent goal. The improved processes are being applied across Naval Aviation to increase and sustain readiness across all Type/Model/Series aircraft.

- An expanded inventory of operable aircraft will enable pilots to execute a larger portion of their training matrix by completing more “sets and reps,” improving pilot proficiency for the fight. The long-term health and viability of the force will improve by spreading flight hours over more aircraft, and improving inventory management as aircraft age.

Aircraft depot maintenance and logistics increases by \$0.3 billion from FY 2020 to FY 2021 to fund 93 percent of the depot requirement. This funds aircraft depot maintenance to executable capacity with growth attributed to revised workload standards incorporating process improvements, the Fleet Readiness Center infrastructure optimization plan, and pricing changes. Aviation logistics increases to support additional F-35, KC-130J, and C/MV-22 aircraft as they join the fleet inventory.

The Navy continues data driven process improvement efforts to ensure the highest return on investment for scarce readiness resources. Performance to Plan (P2P) senior leader forums focus on output metrics to drive improved readiness performance. The P2P approach includes clearly accountable supported commanders; a leading measures performance framework using data and analytics to characterize performance gaps/high leverage performance drivers; and a cadence of accountability provided by a barrier removal forum co-chaired by the Vice Chief of Naval Operations and Assistant Secretary of the Navy for Research, Development and Acquisition (RDA). Current P2P efforts include F/A-18E/F readiness, DDG-51 maintenance, SSN availability, and Naval Shipyard performance.

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 and P2P. One metric Navy is trying to improve upon that is tracked in the R2F is the number of days that shipyard maintenance availabilities are exceeding the planned duration of that maintenance. Since FY 2018, days of maintenance delay in the public shipyards has decreased by over 50% from 1,734 in FY 2018 to 894 in FY 2019). Late maintenance availabilities in FY 2018 completed an average of 124 days late, whereas late maintenance availabilities in FY 2019 completed an average of 69 days late.

Figure 3-3. FY 2021 Key Navy Readiness Investments

NAVY	FY19	FY20	FY21
End Strength ¹	396,643	402,630	406,600
Ship Readiness ²	\$15.2B	\$16.5B	\$17.0B
Aviation Readiness ³	\$7.5B	\$7.4B	\$7.8B
Infrastructure ⁴	\$4.3B	\$7.6B	\$4.9B

1. Total Active and Reserve end strength; FY 2020 currently projected end strength

2. Ship Readiness SAGs: 1B1B, 1B4B (FY 2020 and FY 2021 includes \$1B+ ship depot maintenance transfer to OPN)

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

4. Infrastructure SAGs: BSM1, BSMR, Military Construction (MILCON) appropriations (includes disaster relief funding)

By the end of FY 2021 the Navy will have grown military end strength by almost 10,000 personnel since FY 2019. This growth will eliminate shortfalls in critical warfighting specialties, align manpower to force structure as the Navy grows the Fleet, and reduce manpower gaps at sea.

The Navy has developed an infrastructure investment plan to address substantial deficiencies in shipyard facilities. The Navy is taking important steps to fund and complete shipyard facilities projects in accordance with the Navy Shipyard Infrastructure Optimization Plan, which was

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released in 2019. For example, the Navy requests \$0.2 billion in FY 2021 for the Capital Improvement Program, which procures modern repair equipment and tools for shipyards. Navy also requests \$0.2 billion in FY 2021 for Portsmouth Naval Shipyard in Maine that constructs a multi-mission drydock.

As detailed in Figure 3-4, the FY 2021 budget includes 93 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 2019 Executed		FY 2020 Planned		FY 2021 Planned	
	BASIC	INT*	BASIC	INT*	BASIC	INT*
Carriers	4	3	2	3	6	4
Carrier Air Wings	4	3	5	3	4	4
CG/DDG/LCS	37	21	43	21	53	37
LHA/LHD/LPD/LSD	15	9	17	10	17	15
Attack Submarines	15	34	9	33	15	33

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

**The figures entered for FY21 represent a count of hulls expected to be in the given phase at some point during the year.

MARINE CORPS READINESS

As an inherently naval force, the FY 2021 budget enhances the Marine Corps' warfighting capability through naval integration and prioritizing investments that continue to evolve the Marine Corps toward a Force that has revolutionizing capability for new warfighting concepts.

The Marine Corps has entered a period of transformation to build a Force that is organized, trained, equipped, and postured to meet the demands of the rapidly evolving future operating environment. The Commandant of the Marine Corps' intent is to effect the significant change required to ensure the Marine Corps is aligned with the (NDS), National Military Strategy, and prepared to meet the demands of the Naval Fleet in executing current and emerging operational naval concepts as part of the Integrated American Naval Power. As an inherently naval force, the FY 2021 budget enhances the Marine Corps' warfighting capability through naval integration and prioritizing investments that continue to evolve the Marine Corps toward a Force that has revolutionizing capability for new warfighting concepts, such as Littoral Operations in a Contested Environment (LOCE), Expeditionary Advanced Base Operations (EABO), and Distributed Maritime Operations (DMO), while ensuring the proper balance of resources in modernization, readiness, and manpower accounts.

The FY 2021 ground combat readiness budget of \$3.6 billion enables the Marine Corps to meet the readiness requirements for Depot Maintenance, Maritime Prepositioning, Field Logistics, and the Fleet Marine Forces. The Marine Corps uses a Total Force (Active and Reserve Components) approach for the planning and execution of ground equipment and readiness as it continues to make strategic choices in the divestiture of known legacy and low demand programs that do not meet future operating requirements and to reinvest these funds in capabilities that enable naval expeditionary force-in-readiness to operate inside actively contested maritime spaces and

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facilitate sea control in support of fleet operations.

For aviation readiness, the Marine Corps requests \$4.2 billion for Mission and Other Flight Operations, Fleet Air Training, Aircraft Depot Maintenance, and Aviation Logistics. Marine Aviation continues to lean forward and advance through its ongoing, comprehensive readiness recovery effort, designed to increase the number and quality of mission capable aircraft along with highly trained and combat ready aircrew. Initiatives include: increase supply materiel readiness; decrease the time that aircraft are down awaiting supply; improve training quality and proficiency, while completing in-stride modernization of legacy aircraft and transitions for newer aircraft across all platforms; and fund contractor support for legacy aircraft at the Fleet Replacement Squadrons, which will further enable active duty Marines to fulfill their duties in deployable units. In addition, a large investment has been made in support of the Flying Hour Program to facilitate aircrew training requirements and projected flight hours required to meet training goals as established by the Fleet Marine Forces.

The Marine Corps proposes \$1.9 billion in support of Infrastructure funding, which includes over \$830 million in FY 2021 Military Construction (MILCON) for operational facilities, Guam relocation, training facilities, barracks and Design and Unspecified Minor Construction for urgent projects. Additionally, nearly \$1 billion is requested for Facilities Sustainment, Restoration, and Modernization (FSRM), which funds 81 percent of the Department’s sustainment requirement, to support the maintenance, demolition, restoration, and modernization of installation infrastructure to support warfighting, life/health/safety, training, and quality of life. This includes \$0.8 billion for sustainment, \$0.1 billion for restoration and modernization, and \$0.1 billion for the demolition of 2.1 million square feet of unneeded or underutilized infrastructure.

The Marine Corps recognizes the importance of facilities programs to support warfighting capability. The Marine Corps’ Infrastructure Reset Strategy ensures every dollar is targeted and spent on the highest priorities at the lowest total lifecycle cost, instituting best practices, optimizing investment over the long-term to support Marine Corps’ mission requirements and aligning investment with strategic priorities. The Marine Corps continues to focus on a robust demolition program to eliminate facilities no longer required thereby reducing total cost of ownership. While the NDS does not create new requirements for infrastructure investment accounts, it does require the Marine Corps to review its priorities to ensure compliance with guidance. The Marine Corps will continue to focus limited funding on critical projects that support installation resiliency, relocation and consolidation of forces, operational and training needs, modernizing inadequate and obsolete facilities, and life, health, and safety improvements.

Figure 3-5. FY 2021 Key Marine Corps Readiness Investments

Marine Corps	FY19	FY20	FY21
End Strength ¹	224,398	223,147	222,600
Ground Readiness ²	\$3.5B	\$3.7B	\$3.6B
Aviation Readiness ³	\$3.3B	\$3.8B	\$4.2B
Infrastructure ⁴	\$3.0B	\$4.3B	\$1.8B

1. Total Active and Reserve end strength; FY 2020 currently projected end strength

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

3. Aviation Readiness SAGs - 1A1A, 1A2A, 1A5A, 1A9A (Marine Corps portions of O&M, Navy appropriation)

4. Infrastructure SAGs – BSM1, BSMR, Military Construction (MILCON) appropriations (includes disaster relief funding)

Annual training exercises provide critical opportunities to conduct missions in different environments, simulating realistic combat situations. The Marine Corps invests \$0.8 billion in FY 2021 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

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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.

Figure 3-6. FY 2021 Marine Corps Planned Large Training Exercises

	FY19		FY20		FY21	
	ITX	MTX	ITX	MTX	ITX	MTX
MAGTF CE	4	0	4	0	4	0
Infantry Bn	8	4	8	4	8	6
Artillery Bn (-)	4	0	4	0	4	0
Logistics Bn	4	0	4	0	4	0
Squadrons	9+2 det	9+2 det	9+2 det	9+2 det	9+2 det	9+2 det

AIR FORCE READINESS

The FY 2021 budget request demonstrates the Air Force’s commitment to building and sustaining readiness to meet the challenges described in the NDS. Specifically, the Air Force FY 2021 request makes necessary changes to force structure, focuses manpower and resources on “pacing units,” and invests in critical readiness initiatives, such as multi-domain command and control (MDCS). Moreover, the FY 2021 request increases funding in core readiness accounts and enabling activities that will allow the Service to preserve and build upon readiness gains made over the last several years.

Changes to force structure are necessary to enable the Service to pivot away from outdated and unaffordable programs and begin investing in the systems and future capabilities that are required to win the high-end fight outlined in the NDS. The FY 2021 request makes targeted reductions to legacy programs, such as the B-1 and MQ-9, while also retiring certain aircraft inventories, such as the F-15 C/D. Collectively, these actions will lower aircraft sustainment costs and enable the Air Force to invest in advanced technology and modernization efforts that serve as the foundation to combat future threats.

The Air Force is continually building towards a more lethal and ready force, prepared to defeat our adversaries in high-end combat. The FY 2021 budget focuses manpower and resources on “pacing units,” which are squadrons critical to the early response for combat operations. More than 75 percent of the Service’s pacing squadrons are ready to “fight tonight” with their lead force packages due to an exceptional aircraft mission capable rate of 80 percent. Further, funding for readiness in FY 2017 – FY 2019 contributed to increasing readiness for various platforms. These improvements are due to focused investments in pilot training and production, flying hours, depot maintenance and aviation spare parts. The Air Force continues to leverage the R2F and its internal readiness review team report, which generates a comprehensive list of readiness improvements and goals, to build readiness across the service.

The Air Force is also making essential investments in programs that will prepare the Service to achieve victory on the future battlefield. One main priority is multi-domain command and control (MDC2). This is the communications backbone that will allow current and future platforms and

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sensors to instantly share important data with the user increasing effectiveness, survivability and lethality.

Figure 3-7. FY 2021 Key Air Force Readiness Investments

Air Force	FY19	FY20	FY21
End Strength ¹	508,687	511,622	505,666
Maintenance ²	\$14.8B	\$15.9B	\$15.3B
Flying Hours & Operations ³	\$10.3B	\$10.0B	\$10.7B
Infrastructure ⁴	\$7.5B	\$10.0B	\$4.9B

1. Total Active, Reserve, and National Guard end strength; FY 2020 currently projected end strength (FY 2021 excludes Space Force)

2. Maintenance SAGs: 011M, 011W, 011V (Funding for U.S. Space Force transferred in FY 2021 – see Figure 3-9)

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

4. Infrastructure SAGs: 011R, Military Construction (MILCON) appropriations (includes disaster relief funding)

As showing in Figure 3-7, total Air Force end strength declines in FY 2021, which is due to the transfer of personnel to the Space Force. Beyond the transfer, remaining Air Force personnel are funded to grow slightly in FY 2021 to meet global requirements. This increase will focus on producing critical skills and generating personnel to fill shortages in key readiness areas, such as aircraft maintenance, intelligence, surveillance, and reconnaissance (ISR), remotely piloted aircraft, and cyber operations. In addition, the Air Force repurposes manpower from legacy platform divestitures to mitigate critical shortfalls in fighter and tanker squadrons and to support the beddown of new aircraft.

Stable and predictable funding has allowed the Service to preserve readiness gains, achieve predictable workloads, and execute life cycle sustainment requirements.

The FY 2021 request increases funding, after accounting for the transfer of funding to U.S. Space Force, in core readiness accounts, including maintenance, flying hours and operations, and infrastructure. Maintenance readiness accounts (i.e., Weapon System Sustainment (WSS)) fund Depot Maintenance, Contract Logistics Support, Sustaining Engineering, and Technical Orders to ensure Air Force weapon systems are safe, reliable, and mission ready to defend the homeland, strategically deter, and generate combat air power to prosecute the NDS. Stable and predictable funding has allowed the Service to preserve readiness gains, achieve predictable workloads, and execute life cycle sustainment requirements. In FY 2021, the Air Force funded 87 percent of all WSS requirements with a strategic focus on pacing platforms' readiness, nuclear deterrence operations, education and training in support aircrew taskforce objectives, spare parts availability, and enterprise sustaining engineering efforts. Additionally, the Air Force continues to leverage data analytics (e.g., Condition Based Maintenance), innovation, industry best practices, and cutting edge technologies to reduce sustainment costs, increase efficiency, and improve weapon system reliability.

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 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.

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The Service will address 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. The Air Force has developed a consolidated, long-term, OTI investment plan that guides prioritized live and synthetic OTI investments.

In the FY 2021 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. The following are critical training exercises the Air Force hosts each year:

- RED FLAG – NELLIS is a sponsored exercise and is the Air Force’s premiere air-to-air combat training exercise, and participants 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.
- RED FLAG – RESCUE is a sponsored, two week Combat Search and Rescue exercise. Detachment One, 414th Combat Training Squadron hosts this Personnel Recovery (PR) exercise through the United States Air Force Warfare Center. The missions will be conducted throughout Arizona and western New Mexico. The primary objective is to provide participants the opportunity to plan and employ together, executing multiple PR scenarios at the tactical level, with integration up to the operational level.
- GREEN FLAG (GF) – is a 2 week exercise held in conjunction with all Brigade Combat Team (BCT) rotations at the National Training Center and Joint Readiness Training Center to train Aircrews, Battlefield Airmen, and BCTs in the planning, integration and execution of airpower Close Air Support in support of Decisive Action campaigns. GF exercises are the only tactical exercises that jointly train Combat Air Force (CAF) units with brigade-sized Army units in a realistic scenario for the detailed integration required to effectively and safely conduct the joint counter-land and counter-sea missions.

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

Exercise	FY19 Executed	FY20 Planned	FY21 Planned
Red Flag Nellis	3	3	3
Red Flag Rescue	2	2	3
Green Flag West	10	9	9
Green Flag East	10	10	10

SPACE FORCE READINESS

Figure 3-9. FY 2021 Key Space Force Readiness Investments

Air Force	FY19	FY20	FY21
End Strength ¹	-	38	6,434
Space Operations ²	-	-	\$0.9B
Space System Sustainment ³	-	-	\$1.4B

1. Total Active, Reserve, and National Guard end strength; (Allocation org = SF). FY 2020 included in Services end strength.

2. Space Operations SAGs: 012A, 013A, 013C

3. Space System Sustainment SAGs: 013M, 013W

With passage of the FY 2020 National Defense Authorization Act, the sixth branch of the military, the United States Space Force (USSF), was created within the Department of the Air Force. The Space Force will protect and defend our military capabilities and economic interests in the space domain as our near peer competitors continue to expand their presence in space. The FY 2021

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budget supports the establishment of USSF, and the transition is expected to be complete in FY 2024 as all space related elements are consolidated to the USSF. In FY 2021, USSF requests \$2.3 billion for readiness related activities, which include space operations and space system sustainment. As USSF stands up and its mission is further defined, it will develop space-related metrics and objectives to measure the readiness of the Space Force and its major force elements.

UNITED STATES SPECIAL OPERATIONS COMMAND (USSOCOM) READINESS

The FY 2021 budget request invests in USSOCOM readiness and supports the NDS by ensuring U.S. Special Operations Forces (SOF) are prepared to execute operations with the Joint Force, conduct counterterrorism and counter-violent extremist organization operations, serve as the Coordinating Authority for Countering Weapons of Mass Destruction (CWMD), compete with strategic adversaries below the level of armed conflict, and conduct global crisis response missions. Further, the FY 2021 budget request supports USSOCOM's ability to meet Secretary of Defense FY 2021 Directed Readiness Tables.

Overall, SOF remain at a high level of readiness with few readiness concerns. In the FY 2021 budget, the SOF Enterprise continues to focus on three core challenges: (1) balancing 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; and (3) mitigating risks in near and long-term readiness concerns. The FY 2021 budget request provides USSOCOM with sufficient funding to address these challenges. However, USSOCOM relies heavily on the Services for materiel, logistics, and infrastructure support across the spectrum of operations. Therefore, USSOCOM remains sensitive to budget fluctuations in the Services and will continue to work with the Department and Congress to maintain a stable and sustainable long-term funding stream.

The FY 2021 budget provides USSOCOM with the resources to pursue 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 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; invests in artificial intelligence to increase the speed of processing exploitation, and dissemination (PED) for Intelligence, Surveillance, and Reconnaissance (ISR); begins pursuing the materiel solution for light attack; and increases support for the Preservation of the Force and Family (POTFF) program to maximize personnel readiness.

Figure 3-10. FY 2021 Key USSOCOM Readiness Investments¹

USSOCOM	FY19	FY20	FY21
Personnel ²	69,486	73,203	73,926
Flying Hours	\$0.69B	\$0.74B	\$0.75B
Formal Training	\$0.33B	\$0.34B	\$0.39B
Exercises	\$0.06B	\$0.08B	\$0.07B

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 2021 budget provides funding for SOF participation in support of CJCS-directed training and priority exercises (including Ellipse exercises) within every Geographic Combatant Commander's Area of Responsibility (AOR). These funds are also provided for the execution of USSOCOM component exercises to provide training, validation, and certification of O-6 and

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above joint SOF headquarters preparing to deploy for named operations. These exercises are crucial to sustaining SOF readiness to meet NDS objectives and align with the strategic priorities and directly supports the NDS Line of Effort to “rebuild military readiness as we build a more lethal force”. The budget also continues to sustain the USSOCOM Joint Combined Exchange Training (JCET) program that is crucial to the mission essential task list (METL) training and continued readiness of small SOF units to train in OCONUS environments with friendly foreign forces.

The FY 2021 budget continues to invest 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 ISR, force protection, direct action, cyber, and classified units.

The FY 2021 budget request supports maintaining production for SOF-specific munitions to reduce operational shortfalls and begin building a more substantial wartime reserve. The FY 2021 budget will fund \$0.3 billion for the Special Operations Precision Guided Munitions (SOPGM) critical to readiness to conduct ongoing and anticipated operations and ensures preparedness for future operations.

An example of USSOCOM's balancing modernization and readiness are 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. The FY 2021 budget request enables USSOCOM to continue an accelerated pace of model conversions that is critical to improving the readiness of these aircraft and mitigating second order impacts on aircrew readiness.

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 2021 budget requests \$0.54 billion to support the exercise and engagement requirements of the eleven 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

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participate in CCMD exercises. Selected major CCMD exercises for FY 2021 include:

- U.S. Africa Command (USAFRICOM): AFRICAN LION 21 — An annually scheduled, multinational exercise conducted in Africa designed to improve interoperability and mutual understanding of partner-nation tactics, techniques and procedures. AFRICAN LION enhances the interoperability of the U.S., partner nations and regional organizations in order to contain regional instability, conduct peace operations, counter violent extremist organizations, maintain cross-border security and counter transnational threats. The scope of AFRICAN LION provides an opportunity for all participating units and nations to enhance readiness by performing their mission essential functions.
- U.S. Central Command (USCENTCOM): INTERNAL LOOK 21 — A USCENTCOM and Component Battle Staff exercise that trains the CENTCOM Battle Staff in crisis action planning and execution processes, rehearses and refines headquarters command and control and battle rhythm, exercises the USCENTCOM Joint Battle Command System, and ensures maximum headquarters Battle Staff readiness to deploy forward and command from the USCENTCOM Area of Responsibility.
- U.S. Cyber Command (USCYBERCOM): CYBER FLAG 21 — DoD’s largest tactically-focused joint cyber 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): AUSTERE CHALLENGE 21 — A globally integrated exercise enhancing interoperability and increasing the readiness of USEUCOM to exercise combatant command coordination, command and control, and integration of capabilities and functions of the USEUCOM headquarters, its component commands, and agencies across the U.S. Government in the crisis action planning and execution of early phases of a priority operational plan.
- U.S. Northern Command (USNORTHCOM)/North American Aerospace Defense Command (NORAD): VIGILANT SHIELD 21 — an annual homeland defense exercise focused on the single, unyielding priority of defending North America from attack. The exercise incorporates the Canadian Joint Operations Command, other American combatant commands, services, appropriate U.S. government agencies, and allies, demonstrating readiness and ability to defend Canada and the United States by responding to a wide variety of security contingencies
- U.S. Indo-Pacific Command (USINDOPACOM): NORTHERN EDGE 21 — a biennial field training exercise that prepares joint forces to respond to crises in the Indo-Pacific. The exercise is designed to sharpen participants’ tactical combat skills, to improve command, control and communication relationships, and to develop interoperable plans and programs across the joint force.
- U.S. Southern Command (USSOUTHCOM): PANAMAX 21 — a U.S.-sponsored, multinational annual exercise that provides important training opportunities for nations to work together and build upon the capability to plan and conduct complex multinational operations. The exercise scenario involves security and stability operations to ensure free flow of commerce through the Panama Canal in the context of the constantly evolving nature of new threats in today’s security environment.
- U.S. Strategic Command (USSTRATCOM): GLOBAL THUNDER 21 — an annual command and control exercise providing training opportunities to assess USSTRATCOM mission areas and operational readiness, with a specific focus on nuclear readiness. This

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exercise employs global operations in coordination with other combatant commands, services, appropriate U.S. government agencies, and allies to deter, detect and, if necessary, defeat strategic attacks against the United States and its allies..

- U.S. Transportation Command (USTRANSCOM): TURBO DISTRIBUTION 21-1 through 21-4 — field training exercises specifically designed to train and assess Joint Task Force-Port Opening capabilities to ensure a trained, ready joint team can rapidly assess, deploy, open, operate and manage aerial and sea ports. The exercises build familiarity and improve interoperability among the participating Joint Force units for the purpose of opening seaports, airfields and forwarding the mobility-centric goals of the Army and Air Force

CE2T2 also funds joint training enablers that build on Military Department-specific training and readiness capabilities and help 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 2021 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 exercises held at Twentynine 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 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.

READINESS REFORM

In response to the FY 2019 NDAA, members of the Office of the Secretary of Defense (OSD), Joint Staff, Military Services, Combatant Commands (CCMDs), and Combat Support Agencies (CSAs) have examined the strengths and weaknesses of past and current Defense Readiness Reporting Systems to determine the shortfalls of the current readiness reporting framework and to identify the areas in which the Department could improve the system. They assessed and reviewed new analytical technologies that may help the Department more effectively and efficiently gather, analyze, and visualize readiness data.

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In order to successfully measure the readiness of warfighting force elements, the Department must:

- Improve the data quality, accessibility, and flexibility of our readiness reporting system by accessing, linking and leveraging many authoritative data sources (ADS) across the DoD
- Increase diagnostic capabilities by providing more specific and adaptable data pertaining to factors that contribute to readiness at its current or predicted levels
- Develop consistent, intuitive methods to identify root causes of readiness degradation
- Visualize common readiness trends across the Total Force, and develop predictive models to forecast the impacts on future readiness that result from current decisions, based on leading indicators

Most importantly, the DoD must balance and synchronize three complementary readiness imperatives: provide long-term sustained readiness (led by OSD); sustain the demands of current and emergent global engagements (led by the Joint Staff); and execute the myriad tasks needed to build, sustain, and regenerate readiness at all times, led by each of the Military Services. This balance and synchronization will be critical to produce data-informed qualitative assessments of DoD readiness to the Committees, the Commander-in-Chief, and other key stakeholders in National Defense.

The Department is committed to executing a 10-year plan to modernize the Defense-Wide operational training infrastructure which is critical to readiness and to preserving the U.S. Military's advantage in a rapidly evolving strategic environment.

The Department is also working to reform safety management practices. The Defense Safety Oversight Council (DSOC) continues to bring senior leaders together to focus on Operational Safety and Occupational Safety and Health concerns within the Department. The DSOC provides analysis and tracks 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 the 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 the 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 purpose of the plan is to synchronize efforts and provide authorities for the Department to focus work on important and well-known training infrastructure issues. The plan establishes a long-term oversight and management construct to modernize operational training infrastructure over the next 10 years through specific, measurable efforts aligned with the 2018 NDS and other governing documents.

The foundation of the plan is a set of overarching goals to modernize operational training infrastructure. The goals represent enduring priorities that set into motion an iterative process to collaboratively and deliberately upgrade and field training capability, as well as guide the Department's strategic approach to mitigate known training gaps. The foundational, overarching goals are:

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1. Improve the use of live, virtual, and constructive (LVC) training
2. Improve air combat training systems to enable all-domain air dominance in combat against peer and near-peer adversaries
3. Enable electronic warfare in all training environments and incorporate electromagnetic spectrum as a warfighting maneuver space
4. Integrate robust cyber training capabilities and effects across the full range of military training
5. Modernize training communications to align with national spectrum policies; leverage the opportunities of rapid technological innovation and 5G networks/communications; and mitigate attendant vulnerabilities and threats
6. Improve and expand joint combat operations training
7. Develop Joint Force capability to train in a contested space environment.

Each overarching goal in the plan has associated objectives and actions to be implemented over the plan's 10 year timeframe. The first 2 years of implementation are comprised of actions that initiate efforts aligned with each overarching goal and objective. Key actions for FY 2021 include developing an implementation plan to rapidly acquire adversary air and Integrated Air Defense Systems capability no later than the fourth quarter (Q4) of FY 2021, as well as developing a plan to field prototype 5G training use case and experimentation opportunities by Q2 FY 2021 for fielding by Q3 FY 2023. Several actions in the plan include reorganizing how Defense-wide operational training infrastructure is managed within the Department.

Another key action for FY 2021 is to develop an organizational construct to support joint training enablers by Q4 FY 2021. Finally, there are several known, training infrastructure-related challenges that require further understanding to fully address. The Department will study and define the capabilities and tools needed to incorporate cyber effects into major exercises no later than Q4 FY 2021. To foster more effective, data-driven joint training, the Department will survey available training systems data—such as scoring, feedback, and other performance data—and establish a framework for future cross-Service data collection, sharing, analysis, and design no later than Q4 FY 2021.

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) 2021 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 2021 request institutionalizes the execution of the *National Defense Strategy* (NDS) concept and strategy for irreversible development of 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 Activities

The United States military force, aligned under the NDS construct and 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

China and Russia – today’s revisionist powers in an era of great power competition – are modernizing their militaries while seeking veto power over the economic and security decisions of other nations. Since 2002, China has tripled its annual military spending to an estimated \$250 billion last year. Beijing continues to violate the sovereignty of Indo-Pacific nations and expand its control abroad under the pretense of Belt and Road infrastructure investments. Meanwhile, it is pursuing advantages in emerging technologies, such as artificial intelligence and 5G, while exploiting other nations’ intellectual property for its own gain. Russia intends to upend international norms through aggressive foreign policy, broken treaty obligations, nuclear intimidation, and cyber operations. It has violated the borders of its neighbors in the pursuit of regional dominance and turned to coercion and hybrid tactics as a means to regain strategic advantage. DoD also faces ongoing threats from North Korea’s nuclear weapons program, Iran’s efforts to destabilize the Middle East, and terrorist organizations, such as ISIS, that continue to pose a threat to the United States and our allies.

Figure 4.1 summarizes the top DoD weapons programs in the FY 2021 budget. Further details can be found in the Department’s “Program Acquisition Costs by Weapon Systems” book.

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Figure 4.1. Major Weapons Programs*

(\$ in billions)

Weapon Systems		FY 2020		FY 2021	
		Qty	Enacted	Qty	PB Request
Aircraft					
F-35	Joint Strike Fighter	98	12.6	79	11.4
F-15EX	Advanced Eagle	8	1.1	12	1.6
Air Force NGAD	Next Generation Air Dominance	-	0.9	-	1.0
KC-46A	Tanker	12	2.2	15	3.0
P-8A	Poseidon	9	1.8	-	0.3
F/A-18E/F	Super Hornet	24	2.0	24	2.1
CH-53K	King Stallion Helicopter	6	1.6	7	1.5
E-2D AHE	Advanced Hawkeye	6	1.4	4	1.1
AH-64E	Apache Helicopter	49	1.1	52	1.2
UH-60	Black Hawk Helicopter	99	1.7	60	1.0
VH-92A	Executive Helicopter	6	0.8	5	0.7
V-22	Osprey	14	2.1	9	1.8
MQ-4	Triton Unmanned Aerial Vehicle	2	0.7	-	0.4
MQ-25	Stingray Unmanned Aerial Vehicle	-	0.6	-	0.3
TBD	Light Attack Aircraft (Air Force)	-	0.2	-	0.0
TBD	Armed Overwatch (USSCOM)	-	-	5	0.1
Missile Defense/Nuclear Deterrent					
MDD	Missile Defeat and Defense	-	21.5	-	20.3
B-21	Raider	-	3.0	-	2.8
SSBN	COLUMBIA Class Submarine	-	2.4	1	4.4
Trident II	Trident II Missile Mods	-	1.2	-	1.2
LRSO	Long Range Standoff Weapon	-	0.7	-	0.5
GBSD	Ground Based Strategic Deterrent	-	0.6	-	1.5
B61 Tail Kit	B61 Mod 12 Life Extension Program	533	0.1	-	0.05
Ships					
SSN 774	VIRGINIA Class Submarine	2	8.8	1	4.7
DDG 51	ARLEIGH BURKE Destroyer	3	6.2	2	3.5
CVN 80/81	FORD Aircraft Carrier	1	2.5	-	3.0
FFG(X)	Frigate (FFG(X))	1	1.3	1	1.1
LPD 17	SAN ANTONIO Amphibious Transport	-	0.6	1	1.2
T-AO	Fleet Replenishment Oiler	2	1.1	-	0.1
EPF	Expeditionary Fast Transport	1	0.3	-	-
USV	Unmanned Surface Vessels (Large)	2	0.4	2	0.5
T-ATS	Towing, Salvage, and Rescue Ship	2	0.2	2	0.2
Space					
NSSL	National Security Space Launch	4	1.7	3	1.6
GPS	Global Positioning System	1	1.7	2	1.8
NG OPIR	Next Gen. Overhead Persistent Infrared	-	1.7	-	2.5

* Includes Procurement and RDT&E dollars and quantities

POWER PROJECTION

The FY 2021 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 2021 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 F-35B 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 2021 budget also includes procurement of 4th generation fighter aircraft by procuring 24 additional F/A-18E/F Super Hornets and capitalizing on existing Foreign Military Sales (FMS) production lines to procure 12 F-15 EX aircraft to increase readiness of the Navy and Air Force fighter fleet and relieve pressure on the aging legacy platforms. 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. In order to meet the long-term missions of the NDS, the Department continues to develop advanced combat aircraft for both the Navy and Air Force within the Next Generation Air Dominance program. The FY 2021 budget also continues procurement of the KC-46A aerial refueling tanker, which will replace aging legacy tankers. The KC-46A provides increased refueling capability for Navy and Air Force aircraft. Finally, to further enable the Counter Violent Extremist Organization (CVEO) mission, the FY 2021 budget allocates funding to Special Operations Command (SOCOM) for an Armed Overwatch Aircraft program to support operations and partner nations in the fight against terrorism.

The FY 2021 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



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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 2021 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. The budget funds B-52 avionics and weapons upgrades as well as replacement for the B-52's inefficient and aging engines.

The FY 2021 budget funds multiple electronic warfare capabilities to improve platform survivability and enable power projection. The Next Generation Jammer (NGJ) will provide significantly improved Airborne Electronic Attack (AEA) capabilities against advanced integrated air defense radars, communications, and data links for the EA-18G aircraft. The FY 2021 budget also funds survivability improvements in the F-15 Eagle Passive Active Warning and Survivability System (EPAWSS) and the Integrated Defensive Electronic Countermeasures System for F/A-18 aircraft. These will autonomously detect, identify, locate, and defeat radio frequency (RF) threat systems. In addition, the FY 2021 budget funds the continued production of the Common Infrared Countermeasures (CIRCM) system to defeat current and emerging missile threats to rotary wing, tilt rotor, and small fixed wing aircraft across the Department.

Sea Power

Nuclear aircraft carriers (CVNs) provide forward presence for air power projection. The FY 2021 budget continues incremental funding for the GERALD R. FORD Class nuclear aircraft carriers: ENTERPRISE (CVN 80) and the DORIS MILLER (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 2021 budget request includes funding for the first LPD 17 SAN ANTONIO Class Flight II ship, Landing Craft Air Cushion (LCAC) 101 and 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 2021 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 2021 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 2021 budget request continues diversifying and expanding sea power strike capacity by continuing procurement of offensively armed Unmanned Surface Vessels (USVs) and provides funding for two additional Towing, Salvage, and Rescue ship to continue recapitalizing these important assets.



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

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(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 2021 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 2021 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 2021 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 2021 budget improves the lethality and survivability of the Army's Brigade Combat Teams by divesting legacy systems and investing in modernizing combat vehicles in the Armored Brigade Combat Teams to include upgrading Abrams tanks (pictured here), producing M109A7 Paladin Integrated Management Self-Propelled Howitzers, and building Armored Multi-Purpose Vehicles. The budget also upgrades 154 Stryker vehicles for the Stryker Brigade Combat Teams. Beyond these efforts, the FY 2021 budget continues investments in research, development, test and evaluation for Future Vehicle Lift Family of Systems Technology, next generation of combat vehicles, long range artillery, Infantry Support Weapons, and for Military Ground-Based CREW Technology. Another key combat vehicle investment is the purchase of 72 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 expected military operations.



The FY 2021 budget continues to make great strides in Close Combat by investing in key recommendations provided by the Close Combat Lethality Task Force (CCLTF) that improve and enhance the lethality, survivability, and performance of the infantry in both the Army and the United States Marine Corps (USMC). The FY 2021 budget accelerates the procurement of the Integrated Visual Augmentation System (IVAS) to support the first unit equipped and initial operating capability in FY 2021. 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. The FY 2021 budget also funds the Joint Artificial Intelligence Center's (JAIC) efforts for small unit maneuver, as well as investments in holistic performance-based programs that will enhance the physical fitness, cognitive ability, resilience, and overall performance of close combat formations.

Special Operations

The FY 2021 budget for Special Operations Forces (SOF) reflects the NDS focus on great power competition by increasing funding for research and development, modernization, and expanded capabilities for high-end warfighting while sustaining counterterrorism (CT) and CVEO operations, coordinating the Department's Countering Weapons of Mass Destruction (CWMD) mission, and continuing to focus on readiness. The FY 2021 budget sustains SOF manpower growth and readiness and increases lethality through modernization and recapitalization, and investing in new technologies. This includes investments in precision-strike systems, future vertical lift (FVL), Armed Overwatch/Targeting, and next-generation surface and sub-surface maritime craft.

MUNITIONS

The Department continues to conduct limited combat operations in small conflicts, all supported by coalition partners. Timely procurement actions are vital to reduce risk to near-term munition stockpiles and also to ensure that strategic inventories are sustained and ready in support of worldwide Operational Plans. Forecasting munitions requirements remains a considerable challenge, given the domain spectrum (ground, sea, and air) the Department covers, coupled with the range of combat effects demanded by different operational theaters. The parallel obligation to support coalition partner munitions needs and integrating them with Department actions is similarly essential in ensuring cooperative combat operations can be successfully conducted.

Many munitions are precision-guided, launch and leave, with limited low-collateral damage and employed by more than one Service and 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. 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 is still expending munitions for current operations primarily to check Islamic State of Iraq and Syria (ISIS) aggression, the demand signal continues to recede given the sustained success of combat operations against the adversary. The Department is currently focused on a two-fold effort. First, ensure the U.S. worldwide munition inventories are sufficiently stocked by adjusting future procurement ramps accordingly. Second, 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 cruise missiles such as the Joint Air-to-Surface Standoff Missile (JASSM), 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 2021 budget has invested in both of these paths, which equally contribute to strengthening the Department's lethal posture.

The Department continues to invest in the munitions industrial base to ensure production capacity is economically exercised. The FY 2021 request invests in both 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.

Overview – FY 2021 Defense Budget

Figure 4.2. FY 2021 Funding for Munitions* (Base and OCO) (\$ in millions)

Weapon System	FY 2019		FY 2020		FY 2021		FY20–FY21
	Actual Qty	Actuals	Qty	Enacted	PB Qty	PB Request	Quantity Change
Guided Multiple Launch Rocket System	7,951	\$1,118.5	8,523	\$1,338.4	7,360	\$1,204.0	-1,163
Joint Direct Attack Munition	39,614	\$1,119.3	28,388	\$1,109.5	20,338	\$532.7	-8,050
Joint Air-to-Surface Standoff Missile	360	\$643.7	390	\$561.9	400	\$576.7	+10
Long Range Anti-Ship Missile (LRASM)	48	\$315.6	17	\$187.9	53	\$224.4	+36
Tomahawk	-	\$332.5	90	\$659.2	203	\$603.0	+113
Small Diameter Bomb I	5,743	\$209.3	7,078	\$273.3	2,462	\$95.9	-4,616
Hellfire	5,161	\$461.0	8,790	\$726.8	8,150	\$516.6	-640
Standard Missile-6	125	\$743.6	125	\$655.7	125	\$816.4	-

* Includes Procurement and RDT&E dollars and quantities

NUCLEAR MODERNIZATION/NUCLEAR DETERRENCE

“Nuclear deterrence is the highest defense priority of the U.S. Department of Defense.”

- National Defense Strategy

Modernizing the nation’s nuclear delivery and command, control, and communications systems is the Department’s number one priority, and these programs are funded in the FY 2021 budget request. The Department has steadily received strong, bipartisan congressional support for the nuclear deterrence modernization mission. 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. Recapitalizing the nuclear platforms and delivery systems and associated support systems will require an increase in spending over the next 20 years. The amount expended to recapitalize the nuclear enterprise continues to be cost effective and affordable and is not anticipated to exceed 7 percent of the Department’s budget during that period. The table below reflects the funding for eight critical weapons systems.

Overview – FY 2021 Defense Budget

Figure 4.3. Nuclear Modernization FY 2021 Funding* (DoD Funding only) (\$ in billions)

Weapon System	FY 2019 Actual	FY 2020 Enacted	FY 2021 Request	FY20 – FY21 \$ Change
Ground Based Strategic Deterrent	\$0.4	\$0.6	\$1.5	+\$1.0
Long Range Stand Off cruise missile	\$0.6	\$0.7	\$0.5	-\$0.2
COLUMBIA class submarines	\$3.9	\$2.4	\$4.4	+\$2.1
Trident II Life Extension	\$1.1	\$1.2	\$1.2	--
B-21 Bomber	\$2.2	\$3.0	\$2.8	-\$0.1
F-35 Dual Capable Aircraft	\$0.08	\$0.07	\$0.11	+\$0.04
B61 Tail Kit	\$0.19	\$0.11	\$0.05	-\$0.06
Nuclear Command, Control and Communications (NC3)	\$2.7	\$3.5	\$4.2	+0.7

* Includes Procurement and RDT&E dollars

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 the late 2020s. The program is planning for a Milestone B decision and subsequent entry into the Engineering and Manufacturing Development (EMD) phase in the fourth quarter of 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 entered service in 1982. 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 mission. The LRSO is also critical as a hedge against risks in the other, more complicated nuclear deterrence system development programs and in enhancing the credibility of the DoD deterrent to assure U.S. allies. The program is in the Technology Maturation and Risk Reduction (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. FY 2021 is the start of construction of the lead ship.

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 continue development efforts for a follow-on system to the D5LE in FY 2021.

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.

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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.

Nuclear Command, Control, and Communications (NC3). The NC3 system is critical to the nation’s nuclear enterprise. It provides assured and resilient connectivity between the President and nuclear forces via terrestrial, airborne, maritime, and space-based components. The Department is prioritizing resources to modernize legacy NC3 systems that are nearing or past projected end of life and architecting the next generation NC3 capability in continued support of strategic deterrence.

MISSILE DEFEAT & DEFENSE

The Department is committed to supporting the 2019 Missile Defense Review calling for a layered defense, comprehensive missile defense capabilities, flexibility and adaptability, tighter offense-defense integration and interoperability, and the importance of space. While the FY 2020 budget request made key down payments on lethality and shifted to great power competition through innovation, the FY 2021 budget request focuses on a diversified set of missile defeat and defense (MDD) capabilities to counter the advancing threat.

“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 FY 2021 budget funds enhancements to U.S. MDD capabilities to defend the homeland, deployed forces, allies, and partners against an increasingly complex adversarial missile threat. This budget request increases missile defense capacity and capability to keep pace with advancing threats, while investing in new alternative approaches to a layered defense of the homeland. The FY 2021 budget request includes \$20.3 billion for MDD, which includes \$9.2 billion for the Missile Defense Agency (MDA), \$7.9 billion in regional and strategic missile defense capabilities outside of MDA, and \$3.2 billion in missile defeat or left-of-launch activities.

MDA is pursuing a layered homeland defense approach that will include the development of a Next Generation Interceptor (NGI) for Ground-Based Interceptors (GBI) and improvements to current regional defense systems to enable limited homeland defense underlay capability. The NGI will improve system survivability and performance against projected threats. MDA will continue design and development activities for two competitive interceptor development contracts scheduled to be awarded in 4th quarter of FY 2020.

Improvements to current regional defense systems will include an assessment of the Aegis BMD weapon system and SM-3 Block IIA missile to augment homeland defenses to defeat Intercontinental Ballistic Missiles (ICBM) threats. Also, MDA will initiate the development and demonstration of a new THAAD interceptor prototype to support Contiguous United States Defense as part of the layered homeland defense effort. This effort will develop prototype software and hardware and perform a series of demonstrations to prove the technologies to

This budget request increases missile defense capacity and capability to keep pace with advancing threats, while investing in new alternative approaches to a layered defense of the homeland.

Overview – FY 2021 Defense Budget

enable expansion of engagement options and coverage areas for the THAAD weapon system in a flight test in FY 2023.

The budget supports completion of an additional missile field in Alaska to enable an operational fleet of 44 GBIs and 20 NGIs in the future and the deployment of the an upgraded Command and Control, Battle Management and Communications (C2BMC) and Long Range Discrimination Radar in Alaska to improve Missile Defense System (MDS) discrimination capability and allow for more efficient use of the GBI inventory.

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 MDA FY 2021 budget request:

- Begins new Next Generation Interceptor (NGI) All-Up Round (AUR) competition to develop homeland defense interceptor capability and capacity and will increase current fleet size to 64 as early as the end of the decade.
- Leverages existing architectures and regional defense systems to demonstrate complementary homeland defense underlay capabilities. If the demonstrations are successful, homeland defense underlay systems could begin fielding as early as 2025.
- Supports the U.S. Forces Korea (USFK) to improve missile defense capability on the Korean peninsula.
- Supports Hypersonic Defense and continues to assess architecture alternatives and provide recommendations for Regional Glide Phase Weapon System missile defense configurations to keep pace with evolving threats. DoD will pursue hypersonic threat defense weapon systems and leverage and upgrade existing systems while developing and maturing component technologies that augment hypersonic defense architectures.
- Matures advanced component technology against ballistic targets and advanced threats to improve weapon system performance and operational utility.
- 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 34 Standard Missile-3 (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 six SM-3 Block IIA missiles to contribute to defense against longer-range and more complex threats; ensures the



Overview – FY 2021 Defense Budget

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 41 THAAD Interceptors in FY 2021 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, cybersecurity 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.

Outside of MDA, the Department invested nearly \$7.9 billion in regional and strategic missile defense capabilities:

- Air Force and Space Force investments total \$2.7 billion to upgrade and sustain strategic and tactical warning and tracking systems. These investments include the Next Generation Overhead Persistent Infrared to track ballistic and hypersonic threats, Upgraded Early Warning Radars, and Wide Area Surveillance in the National Capital Region.
- Army investments total \$2.8 billion, bolstering regional missile defense capability. These investments include procuring 168 PAC-3/MSE missiles in FY 2021 and fielding the Lower Tier Air and Missile Defense System planned urgent materials release by FY 2022 and four Maneuver Short Range Air Defense battalions by FY 2023.
- Navy investments total \$2.0 billion, focusing on ship-based defense for regional and strategic threats. These investments include Aegis Ballistic Missile Defense Weapon System, Standard Missile procurement for cruise, ballistic, and hypersonic missile defense, and E-2D Hawkeye sensor capabilities.
- Space Development Agency (SDA) missile defense investments total \$99.6 million in FY 2021 to develop and demonstrate a hypersonic tracking layer by FY 2023. In addition, SDA is developing a data Transport Layer that will enhance several mission areas to include missile defense.

Finally, the Department invested \$3.2 billion for left-of-launch capabilities involving cyber and hypersonic strike.

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 2021 budget request for S&T is \$14.1 billion, which is equal to the Department’s FY 2020 request 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 2020 enacted amount includes congressional S&T adds, totaling \$2.3 billion (offset by \$259 million in S&T marks). See Figure 4.4.

“We cannot expect success fighting tomorrow’s conflicts with yesterday’s weapons or equipment...we must invest in modernization of key capabilities.”
-National Security Strategy

Highlights of the FY 2021 budget request for S&T:

- Maintains a robust Basic Research program of \$2.3 billion to yield disruptive, non-incremental advances and high quality defense science, technology, engineering, and mathematics talent
- 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 2019 Actuals*	FY 2020 Enacted**	FY 2021 Request***	FY20–FY21 Change
Basic Research (6.1)	2.5	2.6	2.3	-0.3
Applied Research (6.2)	5.9	6.1	5.4	-0.7
Adv Tech Dev (6.3)	6.9	7.4	6.4	-1.0
Total S&T	15.3	16.1	14.1	-2.0

*FY 2019 actuals include Base plus OCO
 **FY 2020 enacted includes \$76 million OCO funds
 ***FY 2021 reflects the President’s Budget request, includes \$29 million OCO funds
 Numbers may not add due to rounding

SPACE AND SPACE-BASED SYSTEMS

The FY 2021 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 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 Department will prioritize investments in resilience, reconstitution, and operations to assure our space capabilities.”
-National Defense Strategy

The Space Force will continue the production of Space Based Infrared Systems (SBIRS) Space Vehicle 6 to address OPIR requirements. Advanced Extremely High Frequency (AEHF) Space

Overview – FY 2021 Defense Budget

Vehicle 6 is to launch in 2020 and investment continues for the rapid prototyping of the payload for the follow-on system, Evolved Strategic SATCOM (ESS), to meet military SATCOM (MILSATCOM) needs in the FY 2021 budget. Resiliency improvements are being incorporated into the production line for SBIRS Space Vehicles 5 and 6 and AEHF Space Vehicle 6.

The FY 2021 budget request continues the Next-Generation Overhead Persistent Infrared (NG OPIR) strategic missile warning system as part of a transition to the future OPIR architecture. The Next-Generation system incorporates mature resiliency features to increase strategic survivability in a contested environment. Additionally, the Space 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.

The FY 2021 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 Evolved Expendable Launch Vehicle (EELV), program has been aligned with satellite launch schedules in FY 2020 and FY 2021 and continues to pursue a public private partnership approach for future launch service acquisitions. The Space 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 ACTIVITIES

The Department Cyber Strategy identifies five cyberspace 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.



Overview – FY 2021 Defense Budget

The FY 2021 Cyberspace Activities budget (\$9.8 billion) continues to build on the goals laid out in the Digital Modernization Strategy (DMS); Innovate for Competitive Advantage, Optimize for Efficiencies and Improve Capability, Evolve Cybersecurity for Agile and Resilient Defense Posture, and Cultivate Talent for a Ready Digital Force. The budget has been optimized to support the implementation of the Cyber Strategy by funding programs and activities that advance cybersecurity, cyberspace operations, and advanced cyber research and development activities:

- A. The \$5.4 billion Cybersecurity budget for FY 2021 builds on the important initiatives established in FY 2020 and provides for increased capabilities in Cross Domain Solutions, Next-Generation Encryption Solutions, and Network Modernizations. The DoD is building more agile, effective, and efficient capabilities that provide cyber resilient platforms from which to execute missions by:
 - Driving cryptology modernization and deployment for the next generation of mission systems and platforms (FY 2021, \$678.8 million)
 - Securing points of information sharing across multiple security domains to ensure confidentiality, integrity, and availability of cross domain systems and the information transiting those domains (FY 2021, \$296.2 million)
 - Operationalizing Identity and Credential Access Management (ICAM) modernization efforts to align with and utilize emerging technology and architectures (FY 2021, \$198.5 million)
 - Operationalizing endpoint management through Comply to Connect (C2C) and Automated Continuous Endpoint Monitoring (ACEM) (FY 2021, \$67.2 million)
 - Focusing on critical infrastructure vulnerabilities and bolstering efforts between the defense activities and the Defense Industrial Base (DIB) for more effective execution of risk remediation activities (FY 2021, \$69.8 million)
- B. The FY 2021 Cyber Operations budget (\$3.8 billion) supports the implementation of the Cyber Strategy by funding programs and activities that advance:
 - Cooperation with allies and partners in the conduct of “hunt forward” defensive cyberspace operations to counter malign cyber actors (FY 2021, \$431.6 million)
 - The development of capabilities to integrate joint, coalition and inter-agency command and control to enhance multi-domain operations (FY 2021, \$238.6 million)
 - DoD mission assurance activities that allow the Department to better understand the risks to its key missions and to increase resilience and implement mitigations to reduce the vulnerability of key assets (FY 2021, \$460.4 million)

The Cyber Operations budget includes \$2.2 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

Overview – FY 2021 Defense Budget

- 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

The Cyber Mission Force (CMF) is the operational arm of U.S. Cyber Command (USCYBERCOM), and its teams execute the Command's mission to direct, synchronize and coordinate cyberspace operations in defense of the nation's interests.

USCYBERCOM and the Services share the responsibility for training and equipping the Cyber Mission Force. USCYBERCOM procures Joint Access Platforms, Joint Tools, Joint Analytics, and Joint Common Services, that will support CMF operations across the Services. The Services equip the CMF through materiel solution analyses, prototyping, and the acquisition of cyber capabilities. The U.S. Army is the DoD Executive Agent for the Cyber Training Ranges and the acquisition lead for Persistent Cyber Training Environment (PCTE). The Air Force is the DoD Executive Agent for the Unified Platform and Joint Cyber Command and Control.

Military operations in cyberspace provide U.S. cyber forces with operational experience as well as insights into capability and training requirements. The Department also continues to make significant investments in dual-use cyber ranges with the flexibility to support both CMF training and the evaluation of Information Technology, control systems, and weapon systems.

- C. The FY 2021 Cyberspace Activities budget includes resources for advanced cyber related research and development activities (\$0.6 billion). These resources support the implementation of the Cyber Strategy by funding programs and activities that advance:
- Defensive Cyberspace Operations
 - Defense of DoD Information Network (DoDIN) operations
 - Offensive Cyberspace Operations
 - Operation and sustainment of cyber ranges

Ensuring successful cyber mission support to the DoD and its mission partners even in the face of sophisticated cyber adversaries.

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5. BUILDING THE SPACE FORCE

“The Space Force will organize, equip, and train the next generation of warriors to deter aggression and defend the nation, our allies, and American interests against hostile actions in...space.”

- 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.

Sections

- United States Space Force
- Fiscal Year 2021 Budget
- Transitional Budget and Resource Plan

With the support of Congress, the DoD is reforming the organization of our military space enterprise to protect American interests in space. We will move deliberately and with alacrity. Our urgency is driven by our strategy – the National Defense Strategy has made competition with China and Russia the principal priority of the Department, with space a key domain of strategic competition. Furthermore, the National Strategy for Space reinforces the need to strengthen our resilience, deterrence, and warfighting options in space. Guided by these documents, the U.S. Space Force will deter adversary attacks on the United States and its space capabilities; assure the use of essential space capabilities by friendly forces across all phases of conflict while denying their hostile use by our adversaries and demonstrate U.S. leadership and resolve in maintaining stability in the space domain. The changes DoD is making to its space enterprise will institutionalize American commitment to the space domain, guard the economic benefits space provides, protect U.S. freedom of operation in space, and provide a foundation for the growth of the space economy over the coming decades.

UNITED STATES SPACE FORCE

The Fiscal Year 2020 National Defense Authorization Act (FY 2020 NDAA), enacted on December 20, 2019, established the U.S. Space Force as a separate branch of the Armed Forces within the Department of the Air Force. According to statute, the Secretary of the Air Force is responsible for organizing, training, and equipping two separate and distinct Military Services: the U.S. Space Force and the U.S. Air Force. A uniformed 4-star Chief of Space Operations (CSO) will be granted equal membership on the Joint Chiefs of Staff (JCS) one year from enactment of the FY 2020 NDAA and will serve as the JCS expert on and advocate for space power.



The U.S. Space Force will organize, train, and equip military space forces of the United States to provide: freedom of operation in, from, and to the space domain; and prompt and sustained space operations. The U.S. Space Force will include both combat and space-focused combat-support functions to enable prompt and sustained offensive and defensive space operations and joint operations in all domains. The U.S. Space Force will continue to rely on the U.S. Air Force for foundational and infrastructure support, except in performing those functions unique to the space domain or central to its independence, in order to avoid duplication of effort and bureaucratic growth of staff and organization.

Overview – FY 2021 Defense Budget

Investing in the U.S. Space Force will allow the Department to build a new Military Service capable of deterring aggression, providing freedom of operations, and enabling the joint warfighter. Legally establishing the U.S. Space Force does not guarantee the United States preeminence in the space domain—the Nation must commit sufficient and appropriate resources to properly accomplish its assigned responsibilities. These investments will provide for freedom of operations in space, strengthen the mission assurance of capabilities to support U.S. and allied forces in all domains, as well as protecting these forces against potential adversaries’ space-enabled capabilities.

The ability to deliver space capabilities that ensure unimpeded freedom of operation for the Joint Force is enabled by a dedicated, highly-capable, and properly trained and educated workforce. Like every other domain of warfare, the U.S. Space Force is developing a dedicated cadre that both explores new concepts for warfare and adapts existing models from other warfighting domains. The U.S. Space Force will invest in developing space power doctrine; space education and training; space concepts of operations; space tactics, techniques, and procedures; space intelligence; and space personnel management.

FISCAL YEAR 2021 BUDGET

As shown in Figure 5.1, the FY 2021 budget transfers over \$15 billion from the U.S. Air Force to the U.S. Space Force. The transfer includes: space-related Weapon Systems and Operations, Weapon System Sustainment/Central Asset Management, Major Command (MAJCOM) Support, Education and Training, Space-Related Air Force Elements, and Space-Related Headquarters. In addition, space-related classified funding will transfer from the Air Force Rapid Capabilities Office, the Space Rapid Capabilities Office, and other Air Force organizations. The civilian personnel costs associated with these programs will also transfer from the U.S. Air Force to the U.S. Space Force, and military personnel costs will follow once an integrated pay and personnel system is established. Of note, funding related to the National Reconnaissance Office will not transfer into the U.S. Space Force.

The U.S. Space Force budget includes resources to build the headquarters and field centers for doctrine development, warfare, intelligence, professional military education, test, and personnel (see Figure 5.2). The headquarters and field centers will be effective and efficient by resourcing personnel through transfers and limited growth. Personnel levels within the headquarters and field centers are expected to reach 553 in FY 2021 and increase to approximately 1,800 by FY 2025.

Figure 5.1. FY 2021 Budget Overview (Base and OCO)

U.S. Space Force Funding (\$ in millions)	FY 2020*	FY 2021
Operation & Maintenance	40.0	2,608.4
Procurement	--	2,446.1
Research, Development, Test & Evaluation	--	10,327.6
TOTAL Funding	40.0	15,382.1
U.S. Space Force Personnel	FY 2020*	FY 2021
Civilian Full-Time Equivalents (FTE)	122	3,545
Military End Strength (E/S)	38	6,434
TOTAL Personnel	160	9,979

* FY 2020 Enacted. FY 2020 personnel numbers exclude an additional 40 detailees.

Overview – FY 2021 Defense Budget

Figure 5.2. FY 2021 Budget – U.S. Space Force Headquarters and Field Centers

USSF Headquarters and Field Centers Funding (\$ in millions)	FY 2020*	FY 2021
Operation & Maintenance	40.0	111.1
USSF Headquarters and Field Centers Personnel	FY 2020*	FY 2021
Civilian Full-Time Equivalents (FTE)	122	209
Military End Strength (E/S)	38	334
TOTAL Personnel	160	553

* FY 2020 Enacted. FY 2020 personnel numbers exclude an additional 40 detailees.

TRANSITIONAL BUDGET AND RESOURCE PLAN

The U.S. Space Force stand-up, which began in FY 2020, will continue through FY 2025. Most personnel who were previously assigned to Air Force Space Command, a former Major Command within the U.S. Air Force, are now assigned to the U.S. Space Force to perform its missions. “Assignment” to the U.S. Space Force is similar to U.S. Air Force members being “assigned” to Combatant Commands or U.S. Army members being “assigned” to the Joint Staff. The term “assignment” denotes a temporary association to a specific unit or organization.

Over the next year, the Department will finalize the process by which personnel will be formally and permanently “transferred” into the U.S. Space Force. Transfer describes the process whereby a military member is “sworn into” a different branch of Service. Enlisted members take a new Oath of Enlistment, and Officers are provided a new Commission. The DoD intends to formally transfer only space mission-focused forces, which will include space operations, intelligence, engineering, acquisition, science, and cyber/communications.

To efficiently and holistically manage DoD space forces, the Department’s vision remains to consolidate the preponderance of space missions, units, resources, and personnel from the existing Military Services into the new U.S. Space Force. Transfers are critical to unifying today’s disparate space-related research, development, acquisition, fielding, and operations into a single organization led by a single leader. Failing to consolidate the preponderance of military space activities and capabilities from across the DoD will fail to leverage the historic opportunity the establishment of the U.S. Space Force as a separate Military Service provides.

If authorized by Congress, the Secretary of Defense, in consultation with each Military Department Secretary and Military Service Chief, will determine the specific U.S. Army, U.S. Navy, and other DoD space missions and units (with associated resources and personnel) that will transfer into the U.S. Space Force in FY 2022. The Space Development Agency will also transfer into the U.S. Space Force in order to consolidate space acquisition under a single military leader and Service Acquisition Executive.

The Department’s goal is to transfer the necessary space-related missions, units, resources, and personnel into the U.S. Space Force no later than FY 2022, consistent with law. Transferring units may be realigned, established, or re-designated to ensure existing and future forces are effectively organized to execute space missions. Missions, units, resources, and personnel will be transferred in a manner that minimizes disruption to current missions and acquisition programs and avoids adverse impact to military and civilian personnel. Current U.S. Air Force installations with a preponderance of space activities may also be renamed as U.S. Space Force installations. In the immediate future, these name changes will not affect the base operating support and financial management relationships between the U.S. Space Force and the U.S. Air Force.

Overview – FY 2021 Defense Budget

Finally, the Department is committed to an approach that minimizes bureaucratic growth. Separate from bureaucracy, the Department anticipates that there will be a realignment in personnel and resources devoted to space operations and programs for new missions and capabilities that are required for a warfighting domain. This realignment will be reflected in future budget submissions.

Conclusion

DoD space organization and management reforms are underway to address challenges to U.S. advantages in space. The DoD is executing a comprehensive plan to continue transferring applicable resources and personnel to the U.S. Space Force through 2025. The Department stands ready to update the Congress on each major step of these activities.

6. OVERSEAS CONTINGENCY OPERATIONS (OCO)

The Fiscal Year (FY) 2021 Budget requests \$69.0 billion for Overseas Contingency Operations (OCO). This request focuses on continued military operations in the Middle East and South Asia, efforts to deter Russian aggression, and global counterterrorism operations. It includes OCO funding for base requirements, in support of the National Defense Strategy, which are compliant with current legislative caps. Figure 6.1 displays requested OCO funding by category: direct war, enduring requirements, and OCO for base requirements.

Sections
<ul style="list-style-type: none"> OCO Categories Current Operations OCO Functional/Mission Category

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 the Department of State works to negotiate a settlement to the war 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 to achieve U.S. national security objectives.
- Continued development of the Afghan National Army and National Police to serve as an effective security force that is able to counter terrorism and insurgent threats as well as a reliable partner to the United States.
- Building the capacity of the Iraqi Security Forces and vetted 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.
- 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.

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

Operation/Activity	FY 2020 Enacted	FY 2021 Request	Delta FY 2020 – FY 2021
Direct War Requirements	24.6	20.5	-4.1
Enduring Requirements	41.4	32.5	-8.9
OCO for Base Requirements ^{1/2}	6.4	16.0	+9.6
Subtotal	72.4	69.0	-3.4
Prior-Year Rescissions	-1.1	-	+1.1
Grand Total	71.3	69.0	-2.3

Numbers may not add due to rounding

1/ The FY 2021 “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.

2/ The \$6.4 billion FY 2020 Enacted OCO for Base Requirements reflect \$4.9 billion in congressional appropriations for DoD-requested OCO for Base Requirements plus congressional adds for National Guard and Reserve Equipment (\$1.3 billion) and the ISR Transfer Fund (\$250 million).

OCO CATEGORIES

The FY 2021 OCO request is divided into three requirement categories – direct war, enduring, and OCO for base.

Direct War Requirements (\$20.5 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. Includes partnership programs such as the Afghanistan Security Forces Fund (ASFF), the Counter-ISIS Train and Equip Fund (CTEF), and the Coalition Support Fund (CSF).

OCO for Enduring Requirements (\$32.5 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 (\$16.0 billion) – Reflects funding for base budget requirements, which support the NDS in accordance with the budgetary caps established in the Bipartisan Budget Act of 2019 (BBA).

CURRENT OPERATIONS

The FY 2021 OCO budget request funds military presence in Afghanistan in support of Operation FREEDOM’S SENTINEL (OFS) as well as in Iraq and Syria in support of Operation INHERENT RESOLVE (OIR). The OCO budget also funds CENTCOM in-theater presence supporting both CENTCOM operations and additional support from the Continental United States (CONUS).

In Afghanistan, the Department continues to execute its dual missions of conducting counterterrorism (CT) operations and training, advising, and assisting (TAA) the Afghan National Defense and Security Forces (ANDSF) while diplomats work to negotiate a settlement that safeguards national interests. The budget assumes a drawdown of forces which will be determined by capabilities required. The Department will work with Congress on any budget adjustments as decisions are finalized.

In Iraq and Syria, the liberation of territory from ISIS shifts the Department’s focus to ensuring that regional partner forces can prevent the reemergence of ISIS. Working by, with, and through Iraqi and Syrian partners, the Department is helping to provide wide-area security in liberated areas, addressing the ongoing ISIS threat, preventing ISIS reemergence, and setting conditions for long-term stability.

The budget request provides flexibility for the Secretary of Defense and Geographic Combatant Commanders (GCC) to continue military operations while future plans are developed and implemented.

Figure 6.2 displays the force levels assumed in the Department’s FY 2021 OCO budget, expressed as annual average troop strength.

Overview – FY 2021 Defense Budget

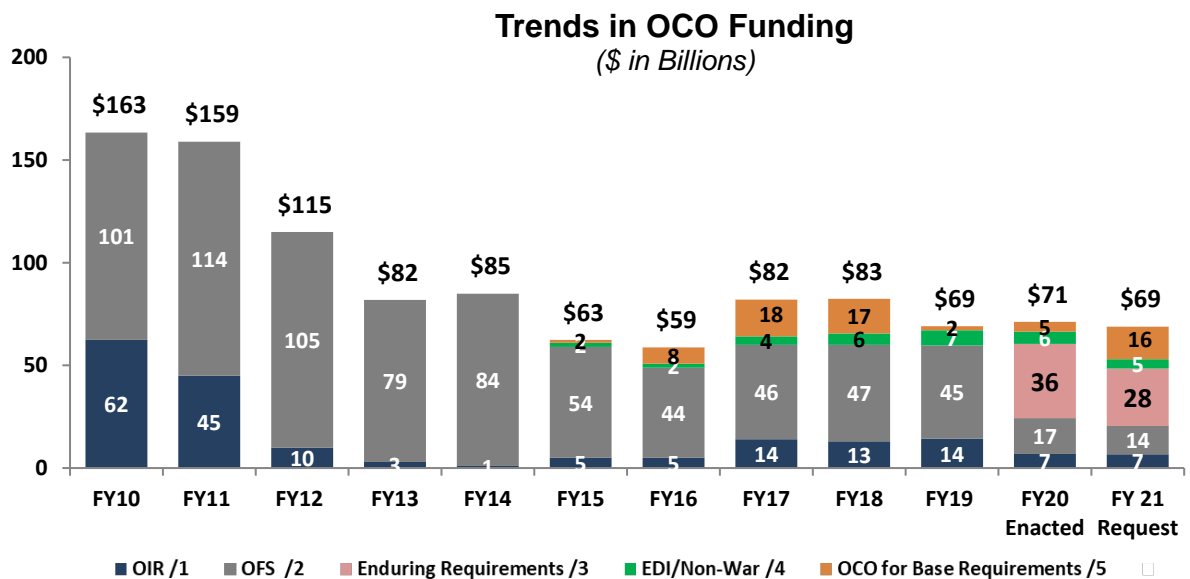
Figure 6.2. U.S. Force Level Assumptions in DoD OCO Budget
(Average Annual Troop Strength)

	FY 2019 Actual	FY 2020 PB Request	FY 2021 PB Request ¹
Total Force Levels	99,178	87,822	91,233

1/ FY 2021 includes Temporary Enabling Force (TEF) support for Afghanistan/Iraq/Syria

The FY 2021 OCO budget request reflects a \$2.3 billion decrease from the FY 2020 OCO enacted level of \$71.3 billion to account for projected OFS, OIR, and In-Theater Support requirements. Figure 6.3 shows the trends in OCO funding.

Figure 6.3 OCO Funding Trends



The total OCO funding has not declined at the same rate as the in-country troop strength due to the fixed, and often inelastic, costs of infrastructure, support requirements, and in-theater presence to support contingency operations. 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, procurement of contingency-focused assets like munitions, remotely piloted aircraft, and force protection capabilities support 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 CATEGORY

Funding in the FY 2021 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 Budget	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request	Delta FY 2020 to FY 2021
Operations/Force Protection	14.5	14.4	13.4	-1.0
In-Theater Support	19.5	19.5	16.2	-3.3
Counter and Deter Threat Network / DTRA	0.5	0.5	0.3	-0.2
Equipment Reset and Readiness	8.6	8.7	7.6	-1.1
Classified Programs	9.9	10.3	5.1	-5.2
Afghanistan Security Forces Fund (ASFF)	4.9	4.2	4.0	-0.2
Support for Coalition Forces	1.0	0.4	0.4	-
Counter-ISIS Train and Equip Fund (CTEF)	1.4	1.2	0.9	-0.3
Security Cooperation	0.8	0.8	0.6	-0.2
European Deterrence Initiative (EDI)	6.5	6.0	4.5	-1.5
Subtotal	67.6	66.0	53.0	-13.0
OCO for Base Requirements ^{1/}	2.5	6.4	16.0	+9.6
Prior-Year Rescissions	-1.3	-1.1	-	+1.1
Total	68.8	71.3	69.0	-2.3

Numbers may not add due to rounding

^{1/} The \$6.4 billion FY 2020 Enacted OCO for Base Requirements reflect \$4.9 billion in congressional appropriations for DoD-requested OCO for Base Requirements plus congressional adds for National Guard and Reserve Equipment (\$1.3 billion) and the ISR Transfer Fund (\$250 million).

Operations/Force Protection (\$13.4 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,

Overview – FY 2021 Defense Budget

- Commanders' Emergency Response Program (CERP) (\$2.5 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 (\$16.2 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) (\$44 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 Counter-ISIS focused train and equip operations

Counter and Deter Threat Network (\$0.3 billion): The requested funds enable the Defense Threat Reduction Agency (DTRA) to counter Chinese, Russian, Iranian, North Korean and their proxy threat networks while maintaining pressure on Violent Extremist Organizations (VEOs). DTRA's counter threat network capabilities provide analytic support to Combatant Commands, deployed Warfighters, coalition partners and allies to enable enhanced understanding and coordinated operations, actions, and investments targeted to strategic outcomes against nation state, proxy, and VEO threats networks in conflict and in competition.

Equipment Reset and Readiness (\$7.6 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, tactical vehicles, and various combat support equipment. The FY 2021 OCO budget funds the replenishment of rockets, missiles, and conventional ammunition including Hellfire, Guided Multiple Launch Rocket System, Small Diameter Bomb (SDB), Joint Direct Attack Munition (JDAM), and Joint Air-to-Surface Standoff Missile (JASSM). 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 (\$5.1 billion): The request funds \$5.1 billion for classified programs.

Afghanistan Security Forces Fund (ASFF) (\$4.0 billion): This request funds the sustainment, infrastructure, equipment, and training requirements for up to approximately 347,000 members of the Afghan National Army and National 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. This request continues the Afghanistan Aviation

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Modernization program, to include addition of medium-lift helicopters to support the Special Mission Wing.

Support for Coalition Forces (\$0.4 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 2021 budget request for support for coalition forces includes \$180 million for the Coalition Support Fund (CSF) and \$250 million for the Lift and Sustain program. The FY 2021 CSF request of \$180 million reflects a \$45 million (20 percent) decrease from the FY 2020 enacted level of \$225 million due to the continuing suspension of U.S. security assistance to Pakistan based on the President’s January 4, 2018, guidance. The FY 2021 Lift and Sustain request of \$250 million reflects a \$100 million (67 percent) increase from the FY 2020 enacted level of \$150 million due to anticipated increases in coalition troops participating in U.S. military operations in Afghanistan, Iraq, and Syria.

Counter-ISIS Train and Equip Fund (CTEF) (\$0.9 billion): The U.S. 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 2021 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 secure territory previously held by ISIS and prevent its reemergence. The \$845 million request includes \$645 million to assist the Iraqi Security Forces and \$200 million to assist the VSO forces.

Security Cooperation (\$0.6 billion): Security Cooperation (SC) funding and authorities enable the United States’ ability to assist partner nations in counterterrorism (CT), crisis response and other transnational threats, as well as operations that promote U.S. interests. Security cooperation funding enhances the United States’ ability to assist partner nations in counterterrorism (CT), crisis response, and addressing other transnational threats. The NDS Implementation (NDS-I) account, previously the Security Cooperation account, serves as a vital tool in strategic competition, countering transnational threats, and preparing allies and partners to operate in lieu of, or in coalition with, U.S. forces. Activities funded through the NDS-I account primarily assist GCCs efforts pursuant to Section 333 of Chapter 16, 10 U.S. Code to build partner capacity with allied and partner nation security forces. Such activities enable training with foreign forces, support for operations and capacity building, as well as educational, equipping, and training activities between the DoD and national security forces. This funding resource assists the GCCs to conduct CT and border security capacity activities in their individual areas of responsibility. Beginning in FY 2021, OCO funding for the Ministry of Defense Advisors Program (Afghanistan) will be requested as part of the NDS-I account.

European Deterrence Initiative (\$4.5 billion): The FY 2021 budget request continues to position the right capabilities in key locations throughout Europe in order to deter adversarial threats in a timely manner. The FY 2021 budget request of \$4.5 billion for EDI supports rotational force deployments and the phased implementation of the multi-year activities funded in previous budgets. The FY 2021 EDI budget request includes \$250 million for the Ukraine Security Assistance Initiative (USAI) 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. EDI funding is requested in the applicable Component accounts.

The Department continues to execute the following lines of effort to accomplish EDI objectives:

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- Increased U.S. military presence in Europe;
- Additional exercises and training with allies and partners;
- Enhanced prepositioning of U.S. equipment in Europe;
- Improved infrastructure for greater readiness; and,
- Building allied and partner capacity.

OCO for Base Requirements (\$16.0 billion): The FY 2021 OCO budget request includes \$16.0 billion to pay for base budget requirements, in support of the National Defense Strategy, for defense readiness. These base budget requirements are funded in the OCO budget due to budget caps enacted in the BBA of 2019. These activities include ground operations, depot equipment purchase and maintenance, contractor logistics support, and ship operations.

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7. THE DEPARTMENT OF DEFENSE AUDIT

The biggest benefits of audit come from the findings, which help us identify vulnerabilities in cybersecurity, improve inventory management, and provide better data for decision makers.

The Department of Defense Audit

The financial statement annual audit regimen is foundational to reforming the Department's business practices and directly supports the National Defense Strategy. Data from the audits is driving the Department's strategy, goals, and priorities and enabling leaders to focus on areas that yield the most value to the warfighter. The audits are already proving invaluable and have the potential to support long-term, sustainable reform that should lead to improved efficiency, better buying power, and increased public confidence in DoD's stewardship of funds.

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

During an annual 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. Results of these audits give DoD management independent validation and feedback on the effectiveness of each reporting entity's ability to capture, record, and report financial activity. Audit results also give Department leaders visibility into the counts, locations, and conditions of DoD assets (i.e., property, inventory, munitions, etc.). This relates directly to readiness and ensuring that programming, budgeting, and investment decisions are well informed.

“The Department of Defense is one of the most complex enterprises in the world. In partnership with Congress, we must continually improve our business practices in order to reduce costs and maintain our competitive edge. Each of us owes it to the American taxpayers to be as responsible in spending their money as they were in earning it. As we undertake these financial audits in support of the National Defense Strategy, we will strive to make that an enduring legacy of this Administration.”

-Deputy Secretary of Defense
David L. Norquist, November 2019

For years, the Department has received a disclaimer of opinion on the DoD-wide financial statements from the DoD OIG. These disclaimers were not based on independent audit testing. The annual comprehensive DoD-wide financial statement audit regimen beginning in FY 2018 has changed this. The DoD consolidated financial audit will continue year after year and provides independent, actionable feedback. The DoD owes accountability and transparency to the American people, as 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 that inform business process

reform are some of the benefits the Department will receive from the financial statement audit even before the Department achieves an overall positive opinion.

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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 FY 2019 audit covered the Department’s total assets of more than \$2.9 trillion and involved more than 1,400 auditors, who conducted over 600 site visits. Auditor findings and recommendations help DoD leaders prioritize improvements, drive efficiencies, identify issues with systems, measure progress, and inform business reform efforts. The outcomes of the audit remediation efforts will include greater financial data integrity, better support for the warfighter, and increased transparency for Congress and the American people.

Independent Public Accountants (IPAs) conducted 24 standalone audits of DoD reporting entities. The DoD OIG oversaw IPAs and issued the overarching consolidated audit opinion. In FY 2019, seven reporting entities are expected to receive unmodified (clean) opinions, including the DoD OIG, which is still pending; and one received a qualified (modified) opinion.

All other DoD reporting entities received a disclaimer of opinion. A disclaimer of opinion means the auditor was unable to obtain sufficient audit evidence on which to base an opinion on the financial statements. These results are not unexpected; consistent with the experience of other large Federal agencies, a disclaimer of opinion is not unusual as auditors must become familiar with complex processes and their findings drive corrective actions that may require additional time.

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) considers the opinions of each Component auditor (performed by an independent public accounting firm) in forming its opinion.				DoD Components not undergoing stand-alone audits are included in the consolidated audit. DoD OIG performs internal controls and substantive testing over activities and balances.					
Army General Fund	Navy General Fund	Air Force General Fund	Military Retirement Fund	WHS	MDA	DSCA	DoDEA	DARPA	
Army Working Capital Fund	U.S. Marine Corps General Fund	Air Force Working Capital Fund	Medicare-Eligible Retiree Health Care Fund	DCMA	DTRA	CBDP	JCS (incl. NDU)	DHRA	
U.S. Army Corps of Engineers – Civil Works	Navy Working Capital Fund	Defense Health Program	Defense Commissary Agency	DAU	DSS	DTIC	OEA	DMA	
DLA General Fund	DoD Classified	DHA-CRM	DFAS Working Capital Fund	DOTe	DPAA	DTSA	DFAS GF	MHPI	
DLA Working Capital Fund	USSOCOM	DISA General Fund	Defense Contract Audit Agency	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	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
DLA Strategic Materials	USTRANSCOM	DISA Working Capital Fund	DoD OIG	DoD Education Benefits Fund	Emergency Response 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		

Unmodified
Qualified
Disclaimer
Ongoing

AUDIT REMEDIATION

The number of auditor findings closed and material weaknesses downgraded from year to year is an initial independent benchmark for measuring progress toward achieving an unmodified audit opinion. During FY 2019, the Department effectively remediated over 25 percent of the Notices of Findings and Recommendations (NFRs) issued during the FY 2018 audit, allowing auditors to not re-issue those findings. In some cases, corrective actions were implemented in time for the auditors to validate their effectiveness in addressing the issues identified in the NFRs. The Department anticipates NFRs closing at increased rates over time as the audit and related remediation efforts mature. As the closings of these NFRs grow, the related material weaknesses (MWs) are expected to be downgraded or resolved as the effect of implemented corrective actions continues to manifest.

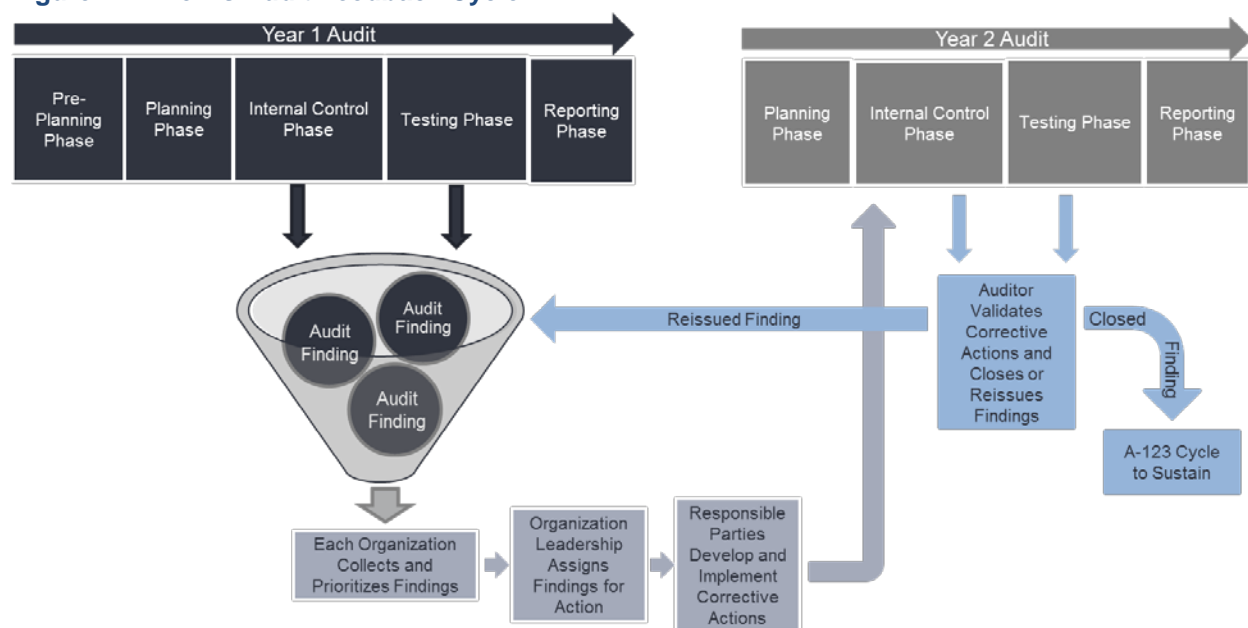
Additionally, the Department measures audit progress by:

- Tracking the achievement of major milestones toward the remediation of complex NFRs;
- Assessing the quality of corrective action plan (CAP) preparation and implementation by comparing them to those previously validated by the auditors as successfully addressing NFRs;
- Identifying areas where auditors are able to rely on internal controls and moving validated CAPs into sustainment; and
- Expanding the coverage of service provider process reviews in the form of Statement on Standards for Attestation Engagements (SSAE) No. 18 examinations so that auditors can increasingly rely upon System and Organizational Control (SOC) reports over service providers.

Ultimately, the Department will track progress by the number of reporting entities moving from disclaimers of opinion to qualified opinions and from qualified opinions to unmodified opinions. Progress of remediation will be closely tracked by management with the ultimate closure through the annual audit process when auditors confirm that an audit finding/condition is closed by not re-issuing the finding. As part of the remediation process, the Department will focus on MWs that are most impactful to the Department's audit opinion. As MWs are resolved, audit opinions will improve. Figure 7.2 provides a visual of how the annual audit feedback cycle works.

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Figure 7.2. DoD's Audit Feedback Cycle



Leadership has been actively engaged in overseeing the progress of CAPs. The Department established functional councils that meet regularly to share best practices and collaborate on solution development for NFRs that are DoD-wide issues. The Deputy Secretary of Defense meets periodically with Military Department Under Secretaries and management to review audit NFR and CAP metrics using the Advana NFR database. The NFR database uses near real-time data, providing leadership with visibility into the current status of all NFRs and CAPs across the Department.

BUDGET

For the initial years of audit, we anticipate spending nearly \$1 billion annually with approximately 20 percent of these resources required to pay the independent auditors; 30 percent representing the cost of supporting the audit to include responding to auditors' request for information, and 50 percent of total costs directed at remediating findings. While the cost of the audit is substantial, it represents a small percentage 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.

The benefits of this annual regimen cannot always be quantified, but it will result in long-term savings in three areas:

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

An important but intangible benefit comes in the form of increased public confidence that will result from positive audit opinions – first on individual component audits, and ultimately the consolidated DoD statements.

DATA ANALYTICS

A valuable by-product of the audit is the ability to generate a consistent view of our enterprise financial transaction data. The increasing reliance upon Advana, the Comptroller's advanced data analytics platform, for audit sampling, supporting transaction details in response to auditor requests, monitoring remediation activities, and inspiring data-driven conversation with Components and other stakeholders will also allow for improved decision-making and better informed budget execution.

Conclusion

The audit is about more than compliance and financial management. Qualitative changes are happening every day that will, over time, result in real change in how the Department does business. The tone-at-the-top is being echoed throughout the organization's chain-of-command. The workforce's understanding of audit requirements continues to grow, and, as efficiencies are gained, value is being realized. Systems are being made more reliable, and audits are providing the tools needed to effect sustainable improvements. The audit is helping galvanize change that advances cybersecurity, property management, inventory, and readiness—for the benefit of the warfighter and the American people.

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8. REFORMING DEFENSE

The FY 2021 budget reforms the Department for greater performance and accountability and ensures our resources are directed toward the highest priorities.

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 business reform efforts. Through collective Defense Wide efforts, the Department saved over \$6 billion in Fiscal Year 2019 and will achieve the \$7.7 billion in savings budgeted for in FY 2020.

In addition to the FY 2021 savings of \$8.7 billion programmed in the FY 2020 cycle, the recent Defense-Wide Reviews of the Fourth Estate identified reform opportunities of \$5.7 billion in FY 2021 savings for reinvestment in lethality and readiness. Finally, the CMO, Under Secretary of Defense (Comptroller) and Services have included in the FY 2021 request additional new savings of \$3.4 billion for reinvestment in NDS priorities as identified below which will bring the Department's impact for FY 2021 Reform to \$9.1 billion.

Defense-Wide Reviews of the Department of Defense Fourth Estate

In August of 2019, the Department launched the Defense-Wide Review (DWR), a comprehensive review and rationalization of all Fourth Estate programs, functions, and activities designed to identify savings in FY 2021 and in future years. The DWR was a major DoD initiative to improve the alignment of time, money, and manpower to NDS priorities. Specifically, the Secretary of Defense and the Deputy Secretary of Defense, along with the CMO, Comptroller, and Director, Cost Assessment and Program Evaluation (CAPE), leveraged a risk-based approach to decrease overhead, divest of legacy activities, and reduce the cost of lower priority programs, enabling the Department to increase investment in innovation and enhance lethality to our competitive military advantage in high-end warfare.

In total, the Secretary led 21 review sessions examining \$99 billion of appropriated resources across roughly 50 Defense-Wide (DW) organizations and activities. Over the course of four months, the DWR conducted a comprehensive review of DoD organizations outside of the Military Departments, identifying aggressive reform opportunities resulting in over \$5.7 billion in savings for reinvestment in lethality and readiness, and identifying an additional \$2.1 billion in activities and functions to realign to the Military Departments. The Department will continue these efforts to review these agencies more fully in 2020. Reform within the DoD is a continuous process

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requiring review of priorities, enforcement of fiscal discipline, and business process improvement.

The OCMO Fourth Estate Management Office (FEMO) initiated a formal process to reduce redundancies and optimize Defense Agencies and Department of Defense Field Activities (DAFA) business processes and systems. The DWR and the FEMO reviews are expected to identify a significant number of business process redesign and optimization opportunities that may require an increase in facilitation and execution and resource capacity to achieve required end state as a result of reviews. OCMO created the FEMO to execute its responsibilities with a focus on shared business activities of the DAFAs. This will include annual review and certification of DAFA budgets and periodic reviews of DAFAs' efficiency and effectiveness.

Additional FY 2021 Service Reform Savings

In addition to the 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 priorities.

The FY 2021 request includes \$3.4 billion in reform savings that the Department will reinvest in NDS priorities. Through the FY 2021 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.

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.
 - The Navy conducted execution reviews of programs delayed due to cost, schedule, or performance issues. For those underperforming programs, funds were reduced to achieve the established execution benchmarks. This process allows the Navy to efficiently and effectively recoup resources in support of the NDS. (FY 2021, \$540 million)
 - The Army is reforming its logistics enterprise to enable standardized, auditable, and cost effective processes and system improvements. This reform will lead to streamlined business processes that impact logistics readiness. (FY 2021, \$18 million)

Figure 8.1. FY 2021 Defense Reforms

Reform Levers	FY 2021 (\$ billions)
Business Process Improvement	0.6
Business System Improvement	0.1
Policy Reform	0.1
Weapon System Acquisition	0.2
Divestments	1.0
Better Alignment of Resources	1.4
TOTAL	3.4

Numbers may not add due to rounding

- **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 Navy Maritime Maintenance Enterprise Solution technical refresh will transform a suite of legacy government systems that are highly federated to a more centralized

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- enterprise architecture utilizing common commercial off the shelf tools hosted in a commercial cloud environment, supporting common business processes. Recapitalizing the aging IT infrastructure and toolset that supports fleet maintenance will greatly reduce the risk of system failure and the risk of vulnerability to cyber-attack. (FY 2021, \$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.
 - Through a force design review, the U.S. Marine Corps aims to ensure the greatest level of effectiveness and efficiency. This initiative reduces USMC Active Component end strength by 2,300 Marines in areas that did not have a demand signal from Combatant Commanders, or a defined requirement in the NDS. (FY 2021, \$107 million)
 - **Weapon System Acquisition** – Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades.
 - The Navy negotiated savings on the E-2D all-weather twin engine carrier multi-year procurement contract that enabled funding of a technology refresh and training. (FY 2021, \$52 million)
 - The Missile Defense Agency (MDA) coupled two annual Terminal High Altitude Area Defense (THAAD) interceptor lot buys into a single lot buy for economic order quantity savings, which allowed for the lowest interceptor average unit cost. (FY 2021, \$32 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 Air Force will divest 24 high-altitude RQ-4 Block 20 Battlefield Airborne Communications Node (BACN) aircraft and Block 30 multi-intelligence aircraft in FY 2021. The Air Force will continue to provide the data link and communications range extension (BACN) mission using the E-11 fleet. (FY 2021, \$269 million)
 - The is implementing the “Pilot Training Next” which are new training technologies that will offer a more effective approach to pilot training. The retirement of the current training platform will contribute to increased investment for its undergraduate pilot training fleet. (FY 2021, \$31 million)
 - The Navy will accelerate the decommissioning of four Ballistic Missile Defense Cruisers (Aegis CG61, CG67, CG72 and CG73) with minimal impact to operational availability. These ships are the Navy’s least capable Aegis baseline in the high end fight and will be decommissioned with over 30 years of service. (FY 2021, \$38 million)
 - In FY 2021, the Army eliminates 41 lower priority programs to improve performance, affordability, and resource higher priorities that support the NDS. Eliminations result in reductions to legacy munitions, fires, protection, sustainment, mobility, mission command and cyber programs that are not aligned with the NDS. (FY 2021, \$299 million)
 - **Better Alignment of Resources** – Reprioritizing or moving finances and personnel to realign from legacy capability in support of the National Defense Strategy.
 - The Air Force B-2 Defense Management System – Modernization acquisition delay resulted in a realignment of resources to address reliability and sustainment of the B-2 through end of life, while developing new capabilities aligned with the NDS. (FY 2021, \$337 million)
 - The Army reduces requirements in the Network Portfolio for 28 programs, while maximizing efficiencies. Some efficiencies are the Army’s Training Resource Model

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increase in accurate training predictions; Program Executive Office – Enterprise Information Systems contract and overhead; and SATCOM Iridium Phone requirement to mission essential capabilities. (FY 2021, \$226 million)

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.

9. MILITARY DEPARTMENTS

“We will continue to build a more lethal force by increasing readiness and modernizing for the future. The goal is to deter war, and this can only be done with a strong, modern, and ready military that has overmatch in all domains. Our adversaries must see diplomacy as their best option because war with the United States will force them to bear enormous costs.”

-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) 2021 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 Department of the Army Base + OCO + Emergency</i>	FY 2020 Enacted	FY 2021 Request	Δ FY 2020 – FY 2021
Military Personnel	62,638,220	65,514,816	+2,876,596
Operation and Maintenance	70,497,845	68,126,162	-2,371,683
Procurement	24,415,223	24,058,405	-356,818
RDT&E	12,540,463	12,770,167	+229,704
Military Construction	1,886,014	1,075,983	-810,031
Family Housing Construction	141,372	119,400	-21,972
Family Housing Operations	407,907	367,142	-40,765
Revolving and Management Funds	247,697	76,807	-170,890
Pass Thru (ASFF, CTEF, & CHEM-DEMIL)	5,534,477	5,750,112	+215,635
Base Realignment & Closure	78,111	66,060	-12,051
Subtotal Department of the Army	178,387,329	177,925,054	-462,275
Arlington National Cemetery	80,800	70,800	-10,000
Total Department of the Army	178,468,129	177,995,854	-472,275

Number may not add due to rounding

Afghanistan Security Forces Fund (ASFF)

Counter-Islamic State of Iraq & Syria Train and Equip Fund (CTEF)

Chemical Agents & Munitions Destruction (CHEM DEMIL)

“We must maintain a sense of urgency, negate bureaucracy and dogma and remain steadfast in our priorities of readiness, modernization and reform....”

-Honorable Ryan McCarthy, Secretary of the Army

Introduction

The Total Army remains strong and ready to provide prompt, sustained land forces to win decisively against any adversary, anytime, and anywhere, in defense of our the nation's interests.

The Army remains globally engaged and ready; there are approximately 187,000 Soldiers currently serving in 140 countries around the world supporting 60 percent of Combatant Command requirements. After nearly two decades of Post-9/11 contingency operations, the Total Army remains strong and ready to provide prompt, sustained land Forces to win decisively against any adversary, anytime, and anywhere, in defense of our the Nation's interests. Simultaneously, the Army is in the midst of its most comprehensive modernization effort since the late 1970s and early 1980s, when doctrine shifted from Active Defense to Air-Land Battle. It was at this time that the Army developed and fielded the "Big 5" weapons systems (Abrams tank, Bradley fighting vehicle, Patriot air defense system, AH-64 Apache and UH-60 Blackhawk helicopters) in support of the Air-Land Battle doctrine, and the Nation abandoned conscription replacing it with the All-Volunteer Force.

Today, as the Army changes focus from contingency operations to supporting Joint All-Domain and Large Scale Combat Operations (LSCO), the Army is purposefully modernizing, focused on six modernization priorities supported by the eight Cross Functional Teams (CFTs) and the Rapid Capabilities and Critical Technologies Office (RCCTO). Prioritizing modernization investments now will enable American land power dominance to meet the demands of great power competition and great power conflict presented by threats in the Indo-Pacific and European Theaters (China and Russia). To prevail in this competition, and possible conflict, the Army must be prepared and equipped to support and win in Joint All-Domain and LSCO. Unlike Army modernization in the 1970s and 1980s, underwritten with tangible increases to research, development and acquisition funding, the Army today has led the Department of Defense in the pursuit of reforms and has leveraged two consecutive years of "deep-dive" reviews of its programs to optimize its modernization portfolio to support the *National Defense Strategy* (NDS). Leveraging these reform efforts, the Army today is making the necessary choices to achieve a balance between Readiness and Modernization, and doing so with a budget that can be characterized by a flat topline.

Regardless of budget topline, the Army's most important weapon system, and its true strength, is its people, both Soldiers and Civilians, across the Regular Army (RA), U.S. Army Reserve (USAR) and Army National Guard (ARNG) and their Families, who support them, all of whom are committed to serving our Nation. They are the keystones as the Army balances efforts and resources to simultaneously sustain and improve Readiness and to modernize the Force.

Fiscal Environment

The Army is committed to maximizing every dollar spent through painstaking and deliberate prioritization as it executes the Army Strategy in support of the 2018 NDS. Beginning in 2017, with a large increase in the Defense Budget, the Army reversed the readiness decline associated with six years of flat or declining budgets from FY 2011 to FY 2016, while simultaneously providing the majority of support for ongoing contingency operations.

In FY 2019, Congress enacted the Defense Appropriation before the beginning of the fiscal year. The on-time enactment provided resource predictability for the fiscal year and enabled commanders to effectively and efficiently execute their annual training and operations plans for the entire fiscal year, and to build Army Readiness at all three echelons – Tactical, Operational, and Strategic. This kind of resource certainty is invaluable to the Army's ability to support the NDS.

Overview – FY 2021 Defense Budget

During the “Night Court” sessions, Army Senior Leaders (ASLs) took decisive and prudent actions to internally resource and jumpstart Army modernization within the Army’s flat budget topline. Army Senior Leaders conducted comprehensive “deep-dive” reviews to prioritize and make tough choices that informed the FY 2020 and FY 2021 President Budget Submissions.

Readiness

“If you look across the key priorities, we have a great deal of momentum at this point in time. . . The readiness posture “is very robust,” and there is much energy and focus being applied across the Army to meeting key performance parameters.”

-Honorable Ryan McCarthy, Secretary of the Army



For the past two decades, the Army reported Readiness in terms of tactical units and their ability to meet deployment timelines and conduct operations designed or planned for the counter-insurgency fight and counter-terrorism. To deliver capabilities demanded by the NDS, the Army must take a more holistic view of the components of Readiness to build and sustain Tactical, Operational, and Strategic Readiness. Comprehensive Readiness is achieved when the Army can generate trained, disciplined, and fit tactical units, starting with the Army’s most basic unit; the squad (Tactical

Readiness); provide ground combat capability and capacity to the Joint Force (Operational Readiness); and rapidly deploy that capability and capacity in support of Combatant Commanders (Strategic Readiness).

The Army assesses its Strategic Readiness as not only the ability of its tactical units to fight and win, but also its ability to get to the fight fast and fully prepared. As such, the Army includes its capacities and capabilities in the areas of manning, training, equipping, sustaining, and providing installation services and quality of life as key components of Strategic Readiness. To achieve the Strategic Readiness required to support the NDS, the Army requires modest end strength growth (RA, +900 (total of 485,900); ARNG, +500 (total of 336,500); USAR, +300 (total of 189,800)) to fully man its formations and to bring new capabilities on board.

The Army will conduct the Department’s longest and most challenging initial combat training for Infantry and Armor and Cavalry Scout recruits (22 weeks) to expand Tactical Readiness. The Army will also pilot extending Engineer One Station Unit Training from 14 to 22 weeks and extend Senior Reserve Officer Training Corps Cadet Summer training from 31 to 37 days adding additional rigor in essential combat skills. These increases in initial combat training will ensure newly enlisted Soldiers can quickly integrate into their squads, and that new junior leaders are prepared to assume their duties quickly upon arrival at their first duty station.

To advance Operational Readiness, this budget request will resource the Active Component to achieve brigade level proficiency and resource the Army National Guard and U.S. Army Reserve to platoon level proficiency. This budget request will also resource air crews across the Total Army to achieve Active Component aviation battalion level proficiency and the Army National Guard and the U.S. Army Reserve at platoon plus and platoon levels, respectively. To ensure Readiness for decisive Large-Scale Combat Operations, the Total Army will conduct 24 brigade

Overview – FY 2021 Defense Budget

level Combat Training Center rotations in FY 2021 (17 for the Active Component, four for the Army National Guard, and five for units on rotation in Europe).

The Army continues to build and sustain Operational and Strategic Readiness, increasing mobilization capacity by resourcing Dynamic Force Employment (DFE) and Mobilization Force Generation Installation (MFGI) investments. In FY 2021, the Army will demonstrate Readiness to operate in the Indo-Pacific Theater through DEFENDER-Pacific exercises while also continuing to buttress the European Theater through DEFENDER-Europe exercises. Strategically, the Army is reconfiguring prepositioned stocks around the globe ensuring theaters are set with the equipment and supplies essential to meet Joint All-Domain operational demands in both Large-Scale Combat Operations and contingency environments. Finally, to increase capacity and operational mission command capability, beginning in FY 2020 and continuing into FY 2021, the Army will stand up an additional corps headquarters. The new corps headquarters will focus planning and other activities on European scenarios, but it will be capable of global deployment.

Modernization

“Russia and especially China are on a trajectory to surpass U.S. capability . . . both seek to modernize, to man and gain overmatch against the U.S. and our allies. Either you have a sense of urgency today or a sense of regret tomorrow.”

- Honorable Ryan McCarthy, Secretary of the Army

The Army Modernization Strategy (AMS) focuses on six modernization priorities (long range precision fires; next generation combat vehicle; future vertical lift; network; air and missile defense; Soldier lethality). The Army established eight Cross-Functional Teams (CFTs) focusing on 31+3 signature modernization efforts (see Table 1). CFTs are reducing the time to deliver new weapons systems by integrating operator/users upfront in the acquisition process with representatives from the program requirements, science and technology, testing, resourcing, costing, and sustainment communities.



Table 1 – 31 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)	
Soldier 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)	

Additionally, there are three other lines of effort (“+3”), which fall under the Rapid Capabilities and Critical Technologies Office (RCCTO), that are essential to the future of Large-Scale Combat Operations and competition with great powers.

1. Hypersonics. This budget supports fielding the first prototype hypersonic battery with all ground and support equipment, firing test shots in FY 2022 and fielding combat rounds in FY 2023.
2. Directed Energy Mobile Short-Range Air Defense System (DE-MSHORAD). Resources applied facilitate fielding the first combat relevant laser weapon (50KW) on Stryker vehicles in FY 2022.
3. Indirect Fire Protection Capability. Funding supports a 300KW mobile, ground based laser integrated onto a Family of Medium Tactical Vehicles (FMTV).

Army modernization is essential to building a more lethal Force to deploy, fight, and win our Nation’s wars. The Army integrated development, acquisition, and capabilities under one command – Army Futures Command (AFC) – to enable more efficient, effective, bold, innovative acquisition reform and rapid modernization. AFC has the single focus of changing the Army’s war fighting doctrine and providing new warfighting capabilities faster and more cost effectively. This is achieved through rapid innovation, experimentation, demonstration and rapid prototyping to deliver the next generation of weapons, vehicles, and equipment required to conduct Joint All-Domain Operations and Large-Scale Combat Operations.

Overview – FY 2021 Defense Budget

FY 2021 is a critical transition year for Army modernization as the capabilities under development in recent years begin to mature from the testing to prototyping and early production phases. Implementing the hard choices made to enable initial development of systems requires equally challenging decisions to ensure systems are produced, procured, and fielded to the Warfighter to meet NDS requirements. The need to maintain peace through strength in order to deter enemies underpins the Army's sense of urgency to modernize. The Army cannot modernize at the pace and scale necessary while constrained by a future of flat or declining budgets, and unpredictable and untimely funding.

To fund modernization efforts, the Army made difficult and deliberate choices. In the FY 2020 budget, the Army cancelled 93 procurement programs and delayed another 93 programs to realign funds to higher priority programs in support of the NDS. In the FY 2021 Budget Request, the Army again made difficult, purposeful choices, cancelling 41 programs and delaying 39 programs. The Army aligned over \$9.1 billion in funding across FY 2021-2025 Program Objective Memorandum (POM) to ensure adequate funding for CFT and RCCTO modernization efforts. Allocating resources with the goal of increasing lethality and improving "return on investment", which are required to support the NDS for both the current fight and the future fight, Army Senior Leaders divested programs, producing marginable gains in favor of programs that are essential for success in the current fight and directed investments to programs needed to prevail during great power competition and in support of Joint All-Domain Operations.

Reform

"We cannot be an Industrial Age Army in the Information Age. We must transform all linear industrial age processes to be more effective, protect our resources, and make better decisions. We must be the Army of tomorrow, today."

-General James McConville, 40th Chief of Staff, Army

The purpose of Army Reform is to free up time, money, and manpower to reinvest in readiness and modernization. Army Senior Leaders, through their "Night Court" sessions, were able to realign \$2.4 billion in FY 2021 and \$13.5 billion across the Future Year's Defense Program (FYDP) to support the Army Vision 2028 and the Army Modernization Strategy (AMS). These savings enabled the Army to continue its ambitious and essential modernization agenda, support the NDS, and simultaneously maintain readiness gains in a fiscally constrained environment. Of the Army's \$2.4 billion in total FY 2021 savings, the Department of Defense recognized \$1.4 billion as Reforms: \$0.9 billion for "Better Alignment of Resources", \$0.2 billion for "Business Process Improvement", and \$0.3 billion for "Divestments."

Army reforms are not just focused on process adjustments and funding adjustment decisions. The Army has several other ongoing initiatives under its reform umbrella, including: Army Command Accountability & Execution Review (CAER), Contract Reviews, and Achieving Auditability. The CAER initiative continues to assist leaders and Commanders to improve their fiscal stewardship by maximizing their purchasing power and minimizing inefficiencies. CAER has already greatly enhanced the Army's fiscal stewardship, reducing inefficient spending by 40 percent in its first full year.

Key CAER outcomes in FY 2019 include: 99.9 percent obligation rate at year end close; 2nd quarter reallocation of \$248 million for higher priorities; and a change of policy reducing the use of Miscellaneous Obligation Document (MOD) actions from \$1.2 billion in FY 2018 to only \$228 million in FY 2019.

Overview – FY 2021 Defense Budget

The Army entered its second year of full financial statement audits in FY 2019, building upon the momentum generated from its FY 2018 audits, and moving forward without interruption during FY 2019. Although the FY 2019 audit resulted in a disclaimer, the Army has made significant headway into improving its business processes and accountability. In FY 2020, the Army will continue this progress and aggressively develop and maintain a culture that expects auditable records at every level.

People

“Winning matters, and People are my number one priority. People are our Soldiers – Regular Army, National Guard, and Reserve – their Families, Civilians, and Soldiers for Life – Retirees and Veterans. We win through our people, and people will drive success in our Readiness, Modernization and Reform priorities. We must take care of our people...”

-General James McConville, 40th Chief of Staff, Army



Modernization is not just about equipment – the Army does not man equipment, the Army equips Soldiers. It is the grit, determination, and innovation of these Soldiers that has been the basis of the Army’s success for generations, and it will ensure success through this critical period of transition. The Army’s vision is to build cohesive teams for the Joint Force by maximizing the talents of its people, the Army’s greatest strength and most important weapon system. This requires building a 21st Century talent management system by creating the policies, programs, and processes that recognize

and capitalize on the unique knowledge, skills, and behaviors possessed by every member of the Army team and then employ each member for maximum effect. The Total Army will acquire, develop, employ, and retain the diversity of Soldier and Civilian talent needed to achieve Total Army readiness.

Through a 3 percent pay raise for service members and 1 percent pay raise for Army civilians the Army will continue to acquire and retain its talent while also recognizing their dedication and commitment to our Nation. Army Senior Leaders also recognize our Soldiers, civilians and their families should have the best quality of life possible, so the Army is implementing policy changes and process improvements for Soldier and family quality of life issues aligned to the Army Chief of Staff’s five people priorities: housing, health care, child and youth services, spouse employment opportunities, and Permanent Change of Station moves. These people priority efforts are foundational to the Army’s overall readiness and our ability to support combatant commanders’ requirements around the world. With the right people, in the right place, at the right time, the Army will successfully deploy, fight, and win LSCO and in support of Joint All-Domain Operations.

Conclusion

The Army remains fully committed to achieving the Army’s Vision of 2028, which provides the strategic framework for guiding the Army into the next decade. However, we remain focused on delivering the Army’s 31 + 3 signature efforts as we modernize our Army. The Army’s FY 2021 Budget Request prioritizes resources to build Readiness, win in the current and future fight, and deploy a more lethal and ready Total Army, focused on Joint All-Domain and LSCO. To counter the threats we face today and into the future, the Army must take care of our people, continue to improve our readiness, accelerate modernization, and implement smart reforms. All of these efforts are critical in providing the Nation a professional, lethal, and decisive Force that will win against any of our adversaries. None of this is possible without timely, adequate, predictable, and sustained funding, which is necessary to ensure readiness for the current and future fight.

“When we send the Army somewhere, we don’t go to participate, we don’t go to try hard, we go to win. Winning Matters! We win by doing the right things, the right way.”

-General James McConville, 40th Chief of Staff, Army

WINNING MATTERS!

Overview – FY 2021 Defense Budget

DEPARTMENT OF THE NAVY

<i>Discretionary Budget Authority in Thousands</i> Department of the Navy Base + OCO + Emergency	FY 2020 Enacted	FY 2021 Request	Δ FY 2020 – FY 2021
Military Personnel	51,857,936	55,175,348	+3,317,412
Operation and Maintenance	68,001,583	70,602,087	+2,600,504
Procurement	61,559,061	57,177,470	-4,381,591
RDT&E	20,219,012	21,486,610	+1,267,598
Military Construction	6,704,035	2,241,786	-4,462,249
Family Housing	425,131	389,390	-35,741
Revolving and Management Funds	233,500		-233,500
Total Department of the Navy	209,000,258	207,072,691	-1,927,567

Introduction



Together our Navy and Marine Corps teams provide the Integrated Maritime Power that is an essential element of the NDS. The importance of Seapower for our nation's economic and political security is vital to preserving the freedoms we all enjoy as United States citizens. The Navy/Marine Corps is America's Away Team and now more than ever, we need to be able to fight anytime, anywhere. There is no better signal of our commitment to a region than U.S. Naval operations in the region. That is why we will continue to fly, sail, and operate wherever international law allows.

The FY 2021 budget request optimizes our budget dollars in order to maximize naval power. Maritime power has never been more critical to the success of our nation. The NDS remains our guidepost, and we are aligned to that strategy by providing for a more ready and more lethal force. This is accomplished by building on prior investments, sustaining the industrial base, retaining a competitive advantage, and continuing our investments in a more cost-imposing/affordable future force. We are looking internally first for streamlining and integration efforts in order to ensure that every tax dollar spent is value added while maintaining mastery of the seas for the American people.

Our request prioritizes a strategy driven and balanced approach to deliver the most capable force within our allocated resources. We recapitalize the strategic ballistic missile submarine and stay the course on our investment in readiness recovery. Additionally, we resource the increased lethality and modernization efforts with the greatest potential to deliver non-linear warfighting advantages. The velocity at which our peer competitors are pacing requires harnessing lessons learned, strengthening analytics, delivering technology, and ramping up our efforts to reach superior agility in response.



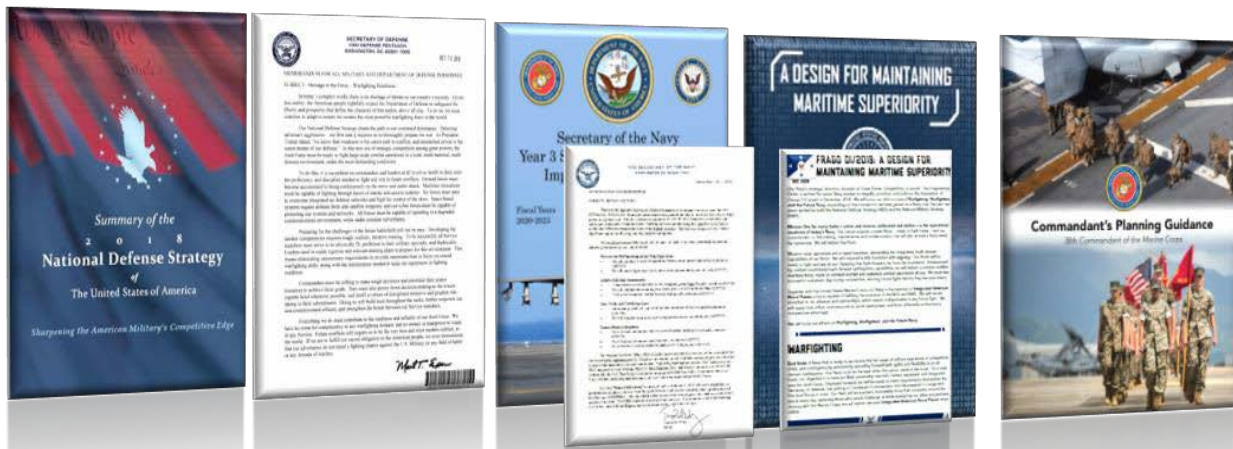
As we look to a future of greater global trade and greater unpredictability, the maritime power is

Overview – FY 2021 Defense Budget

crucial. We remain committed to a larger force, but this budget slows the rate of growth of our naval forces in order to field a more ready, and lethal force today, and in the future. Key lethality and modernization investments include high-end extended range munitions and kill chains, unmanned systems, hypersonic and advanced strike missiles, directed energy, containerized weapons, information warfare, and fully networked command, control and communications.

Strategic Guidance and Themes

By expanding on the momentum gained over the past 2 years, our FY 2021 President’s Budget request is rooted in the strategic guidance spanning National Security, Defense, Military strategies, and Departmental guidance. As outlined in the 2018 NDS, great power competition has reemerged as the central challenge to security and prosperity. Our budget prioritizes fleet-wide, offense focused, distributed and dynamic maneuver, including Marine Corps operational maneuver, to optimize the integrated naval power and contribution to the Joint Force. The new breed of threat requires an Integrated American Naval Power with continued commitment to fiscally responsible investing and funding.



With the issuance of Fragmentary Order Number 1 of 2019: “Design for Maintaining Maritime Superiority Version 2.0,” the Chief of Naval Operations (CNO) reaffirms the Navy’s alignment with the NDS, and also provides some course corrections following several changes over the past year. Mission One for every Sailor is the operational readiness of today’s Navy. A ready Navy – ready to fight today – and our commitment to the training, maintenance, and modernization that will also ensure a Navy ready for tomorrow. The CNO’s guidance emphasizes three lines of effort:



Warfighting: A Navy that is ready to win across the full range of military operations in competition, crisis, and contingency by persistently operating forward with agility and flexibility in an all domain battlespace. Our Navy must be the best when the nation needs it the most.

Warfighters: A world-class naval force through recruitment, education, training, and retention of talented American men and women – a force that also empowers Navy families through the initiatives under the Navy Family Framework 3.0.

Overview – FY 2021 Defense Budget

Future Navy: A Navy fully prepared to fight and win. Our Navy will be equipped with the right capabilities and numbers to execute our operating concepts. In order to maintain the maritime competitive advantage envisioned in our fleet design, we will ensure the wholeness of combat capable and lethal forces maximizing the benefits of Distributed Maritime Operations, Expeditionary Advanced Base Operations, and Littoral Operations in a Contested Environment. We will develop and field affordable, lethal, numerous, and connected capabilities. We will use experimentation, exercises, and wargames to determine what is required to operate forward – firepower, capacity, command and control, and logistics; build the fleet to match; and train together until we achieve seamlessly integrated combat power across the naval and Joint Force.



The Commandant of the Marine Corp's (CMC's) vision is expressed in the Commandant's Planning Guidance (CPG). The CPG states that the Marine Corps will be trained and equipped as a naval expeditionary force-in-readiness and prepared to operate inside actively contested maritime spaces in support of fleet operations. In crisis prevention and crisis response, the Fleet Marine Force – acting as an extension of the Fleet – will be first on the scene, first to help, first to contain a brewing crisis, and first to fight if required to do so. The CMC's guidance emphasizes five lines of effort:

Force Design: This is the CMC's number one priority stressing the need for change and divestment of legacy capabilities that do not meet our future requirements, regardless of their past operational efficacy. Together, the Navy-Marine Corps Team will enable the joint force to partner, persist and operate forward despite adversary employment of long-range precision fires.

Warfighting: As good as we are today, we will need to be even better tomorrow to maintain our warfighting overmatch. We will achieve this through the strength of our innovation, ingenuity, and willingness to continually adapt to and initiate changes in the operating environment to affect the behavior of real-world pacing threats. Expeditionary Advanced Based Operations complement the Navy's Distributed Maritime Operations Concept and will inform how we approach missions against peer adversaries.

Core Values: The Marine Corps developed its warfighting spirit and character in the values of honor, courage, and commitment. The Marine Corps is an elite institution of warriors, and will remain so. It is a shared responsibility to ensure the continued health of our collective soul and identity.

Command and Leadership: Leaders must ensure Marines are well-led and cared for physically, emotionally, and spiritually, both in and out of combat.

American seapower is essential to defending the nation and its interest around the globe. Together, the Navy will expand and strengthen Navy-Marine Corps integration by aligning concepts, capabilities, planning, programming, budgeting, and operations to provide Integrated American Naval Power to the Joint Force.

Security and Operational Environment

The world's economy has grown remarkably over the last 30 years in large part due to the stability afforded by a Naval Service. Today, the U.S. economy is inextricably linked to the global economy. Global trades are critical to the U.S. gross domestic product, and we must ensure that we have a Navy that can protect it. Increasing political and economic tension pervades relationships among powerful nations. As such, we must protect our key economic trade routes and we need a Navy sized to do that in an ever-growing and complex world.

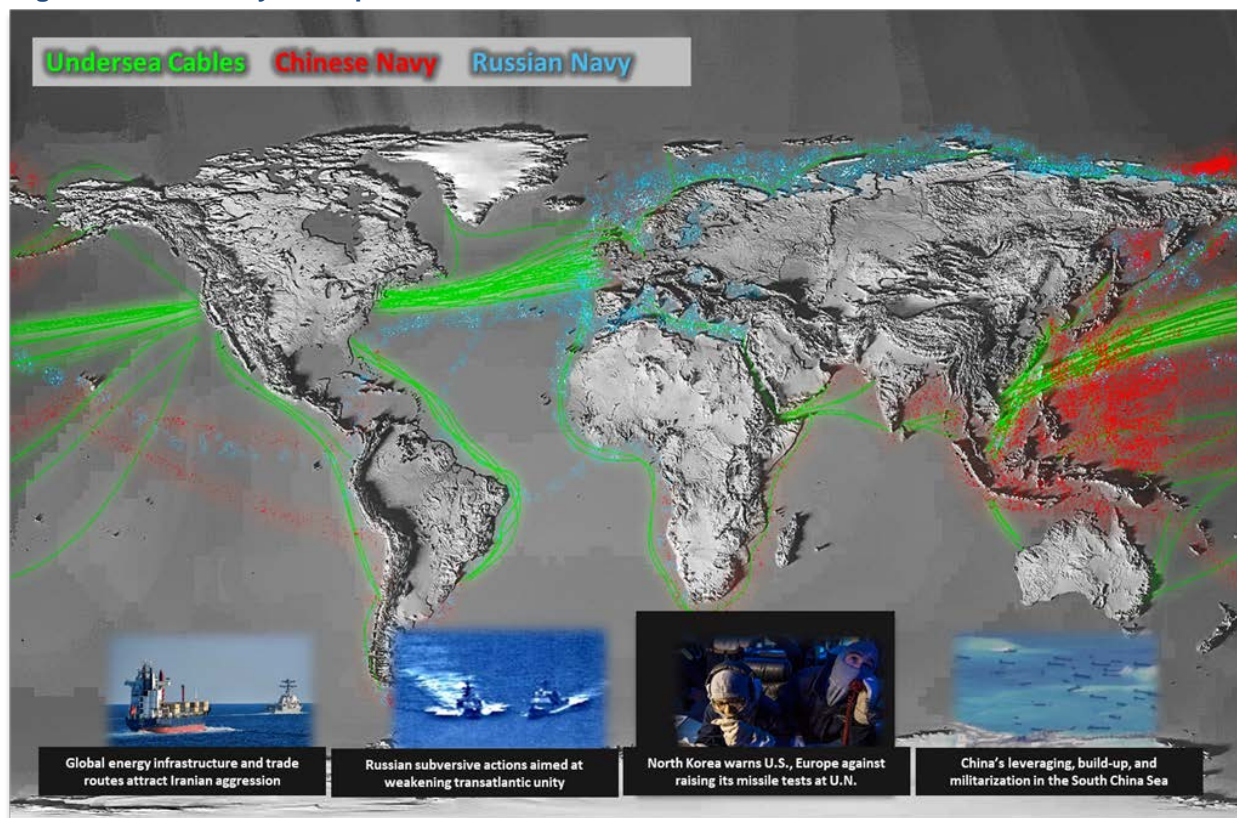
Overview – FY 2021 Defense Budget

In this setting, the U.S. continues to rely on international military partners for global stability. Increasingly, friends as well as potential foes, rely on technology in military operations. Peer competitors with high-end military capabilities are acting aggressively in multiple domains, challenging the interests of the U.S. and our allies. To compete in this threat environment, the Department relies on the integrated multi-service multi-domain capabilities and national security campaign for lasting peace and prosperity.

This budget adapts the force to reflect key changes in the security environment. We continue to see increased reliance on the maritime system, with maritime traffic increasing four-fold over the last 2 decades; 90 percent of all global goods being shipped, and new trades routes opening to the north. Almost the entire internet and trillions of dollars in trade are carried today on a largely unsecure network of undersea cables.

Overall, the maritime system is more heavily used, more stressed and more contested than ever before as indicated in Figure 9.1.

Figure 9.1 – Security and Operational Environment



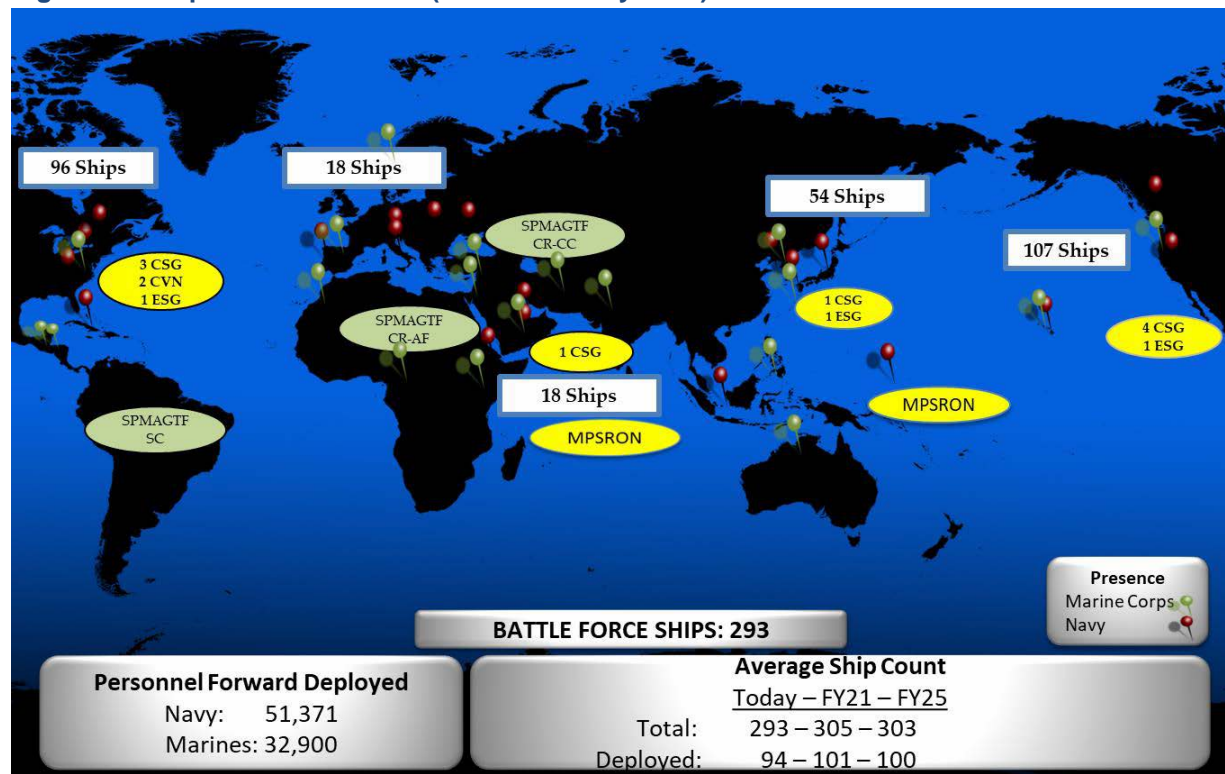
Our global competitors continue to grow their naval forces, and they are expanding their areas of operations and collaboration with each other. China's battle fleet, for example, has grown from 262 to 335 surface ships over the last decade while Russia continues to invest in advanced submarines with stealth capabilities. Other nations such as Iran, North Korea, and non-state actors are exploiting asymmetric capabilities to create instability and uncertainty on the global maritime commons. We simply have a lot more to protect from increasingly capable maritime adversaries who will present challenges to our economic security and indeed, our very way of life.

To meet the challenges discussed, the Navy and Marine Corps provide forward postured sea-based forces (Figure 9.2), including 51,371 Sailors and 32,900 Marines currently deployed or underway on 94 ships, two Carrier Strike Groups, and two Expeditionary Strike Groups. In

Overview – FY 2021 Defense Budget

In addition, the Navy maintains 40 cyber mission teams across the globe conducting cyber operations in support of Naval forces.

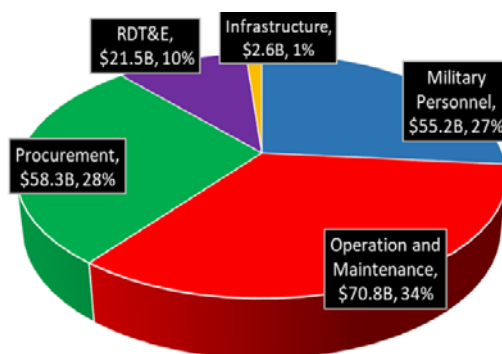
Figure 9.2 – Operational Context (as of 9 January 2020)



The Navy and Marine Corps are engaged in joint, integrated operations around the globe, providing immediate response options, assuring allies and deterring our adversaries.

FY 2021 President's Budget Overview

The total FY 2021 President's Budget request for the Department of Navy (DON) is \$207.1 billion. This represents a \$1.9 billion decrease from FY 2020. Our procurement account decreases by -6.6 percent to fund the increases in operation & maintenance (+4.1 percent), military personnel (+6.4 percent), and R&D (+5.1 percent) as we protect readiness investments and invest in key technologies. All resources shown are required to maximize our Naval power through the balanced delivery of readiness, lethality and capable capacity.



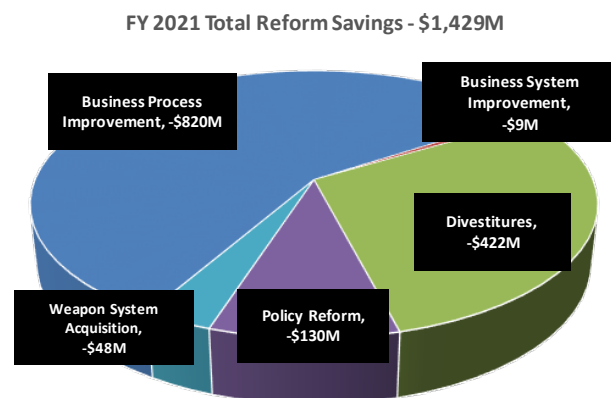
Warfighting analytics played a key role as the DON built our current budget request. As part of this analysis, warfighting value is assessed in iterative wargames, mission and campaign analyses, and experimentation. Since 2015, the Department has performed 850 Joint, DON, and combined experiments, wargames, and exercises. This body of analysis identified key leverage points with the greatest potential to produce enduring asymmetric warfighting advantages. The FY 2021 budget investments align to these leverage points.

Overview – FY 2021 Defense Budget

Reform

The NDS requires relentless and ruthless prioritization in order to balance near term challenges and prepare for great power competition, particularly given the fiscal realities confronting us. The Department of the Navy is focused on informing our processes to free up time, money, and manpower - this is a strategic imperative. Guided by the Department's Business Operations Plan, we are enhancing performance and affordability through a variety of methods. In addition to tracking our prior year reform efforts, this year we followed Secretary Esper's lead that 'no reform is too small' and that 'we must accomplish a mindset shift where leaders think critically about the optimal application of every dollar in their respective budgets to advance the strategy.' It started with the introduction of a Zero-Based Budget review (ZBB) and continuation of wholeness balance reviews where we scrutinized every line item in the DON's budget. This included prioritizing the allocation of dollars based on alignment to strategy, return on investment, relative value, portfolio optimization and specific outcome metrics. The use of data driven process reforms like performance to plan have helped to illuminate the highest leverage points and areas where we can accelerate learning.

The DON realigned nearly \$80 billion during this budget build and achieved reform savings of \$1.4 billion in FY 2021, and \$1.4 billion in FY 2021 and we continue to track \$166 billion of reform over the current FYDP that was laid in during prior budget cycles and continues to be tracked. Our reform efforts include areas such as divestiture of less capable legacy platforms, better contracting, and improvements to systems and processes as shown in the chart.



People

Mission one is operational readiness, and readiness starts with our Sailors and Marines. For the Navy this means keeping manning synchronized with our force structure. We need to properly man our ships, submarines, and aviation squadrons. Our active Navy military manpower (347,800) continues to increase and is aligned to our force structure changes as the fleet size grows, sustains Sailor 2025 and personnel system transformational objectives, and supports new platforms, new capabilities, addresses fleet needs and reduces gaps in manning. Our reserve Navy military manpower (58,800) decreases slightly as we reduce our need for non-prior service accessions due to the strong flow of prior service sailors who wish to continue to serve in a reserve capacity after leaving active duty. Prior service accessions are a key component to increased lethality and strategic depth for our reserve force.



Our active Marine Corps military manpower (184,100) delivers the end strength in FY 2021 to align with Commandant's Force Design to modernize the force as prescribed by the NDS and to sustain the readiness of the current force. Our reserve Marine Corps military manpower (38,500) delivers a ready-relevant-responsive force capable of seamlessly augmenting, reinforcing, and operating as part of the Total Force.

Overview – FY 2021 Defense Budget

The FY 2021 budget requests funding for 220,901 civilians, recognizing the key role the civilian workforce has in the Department. This increase of less than 1 percent from FY 2020 represents sustained and targeted growth necessary for mission success. Our additional civilians are crucial to our ability to sustain our equipment, with ship maintenance workers and aviation mechanics, and to design and develop communications and weapons platforms of the future, with scientists and engineers. A greater focus is placed on efficiency, with added personnel for audit accuracy, and quality-of-life with more civilian oversight of privatized housing for the military. All of our civilian growth supports a larger, more capable and agile naval force.

Readiness



Our forces must be agile and ready. Ship maintenance continues to be a focus area for the Navy, and we are committed to better predictability and maintenance of our ships. This is an all hands-on deck effort to leverage data analytics to identify and close the performance gaps. In FY 2021 we grow 2 percent above FY 2020 which funds 98 percent of our full requirement limited by our current capacity. We continue to capitalize on the FY 2020 pilot program for private contractor shipyard maintenance in

the Pacific, by extending it into FY 2021. Predictable stable funding here is crucial to incentivize private yard growth. Similarly, ship operations funding increases 3.6 percent over last year. This resources our full requirement, allows for 58 days underway while deployed and 24 days underway while non-deployed per quarter.

Marine Corps readiness is focused on building a more lethal force. Therefore, Funding remains relatively flat but is reprioritized to focus resources in accordance with the Commandant's Planning Guidance. The Marine Corps Expeditionary Equipment emphasis is to modernize key capabilities. This is a continuance of the "Divest to Invest" initiative as legacy equipment sets that do not meet future requirements are divested.

Aircraft Depot Maintenance and Logistics funding increases 14 percent as we enhance our ability to win the high-end fight and improve our throughput. However, this only funds 92 percent of the requirement due to capacity at the Fleet Readiness Centers. By providing more funds for key performance drivers, this sustains our higher mission capable rates for Strike Fighters. The flying hour program increases by 2 percent, but fund only 93 percent of the full requirement. This fully funds TACAIR readiness to continue gains in FY 2019, provides sufficient funding to fund increased aviation cost-per-hour for some of our newer aircraft, and it allows for the increased contract maintenance for training aircraft. This will ensure proficiency to execute the high-end fight.



Overview – FY 2021 Defense Budget

Historically, we have taken risk in our shore infrastructure in order to increase afloat and unit readiness, future force structure, and other priorities. Over time, this decision has resulted in the degradation of our facilities. Our current budget request prioritizes shore investments to increase fleet readiness. For FY 2021 we increase funding 4 percent over FY 2020 and fund facility sustainment to 81 percent of the modeled sustainment requirement. Base operating support funding in FY 2021 also increases for programs such as childcare, utilities, physical security enhancements, as well as port and airfield operations. Marine Corps facility sustainment is also funded to 81 percent; though this represents a decrease of 3 percent that is due to the higher level in FY 2020 for increases in disaster relief. These funding levels implement the Commandant's infrastructure reset strategy to optimize infrastructure footprint.

Research and Development

Shifting from readiness to lethality and research and development efforts, our budget request provides continued investment toward innovation to deliver more capability within the FYDP and beyond. Research and Development funding increases 5 percent to promote increased lethality and better capability through innovation. Our ship, aircraft, and weapons development efforts are sustained. We continue Columbia Class sub development, recapitalizing our Strategic Nuclear Deterrent and other ship building efforts such as - the Ford Class carrier, Guided Missile Frigate, and Future Large Surface Combatant. We begin design concept for two new intra-theater lift vessels able to support Expeditionary Advanced Based Operations in a Contested Environment. We continue to advance capabilities in the F-35 Joint Strike Fighter for both the Navy and Marine Corps. In the area of weapons development, we are providing for longer range, and hypersonic weapons and increasing investments in areas like Conventional Prompt Strike and our Standard Missile family of missiles. The budget request continues investment in key Marine Corps development programs such as the Ground Based Anti-Ship Missile, Ground Based Air Defense, CH-53K helicopter, and Amphibious Combat Vehicle.

Procurement

Shipbuilding procurement funding decreases from \$24 billion to \$20 billion (-17 percent) between FY 2020 and FY 2021. The Department appreciates the strong support by Congress for naval shipbuilding in FY 2020. We currently have 73 ships under contract with 44 ships in construction and 10 more ships are projected to award in FY 2020. Our FY 2021 request includes 8 battle force ships for one COLUMBIA and one VIRGINIA class submarine, two ARLEIGH BURKE class destroyers, one Guided Missile Frigate, one Landing Platform Dock (LPD) Flight II, and two



Towing, Salvage, and Rescue Ships. We also restored funding for the CVN 75 (HARRY S TRUMAN) and its associated airwing and will refuel the ship beginning in FY 2025. We procure 44 ships over the FYDP. In balancing resources and requirements, we carefully weighed the effects of our program decisions on the industrial base to ensure our nation maintains the skills, capabilities, and capacities critical to meeting the needs of our NDS. Unmanned continues to be a priority this year with procurement of our large unmanned surface vessel, which will ultimately serve as a sensor and shooter. We procure ten of these over the FYDP, currently funded in Research and Development but transitioning to SCN funding in FY 2023. We also procure six

Overview – FY 2021 Defense Budget

extra-large unmanned undersea vessels where we are focusing on payload integration and solutions for specific Fleet needs. These are funded in Other Procurement, Navy account.

Aviation procurement funding decreases from \$19.7 billion to \$17.2 billion (-12.7 percent) as we complete the buy of several type model series - such as the P-8 and F- 5 Tiger IIs. We procure



121 aircraft in FY 2021 and 537 aircraft over the FYDP. Key aviation investments include: the final 24 F-18 Super Hornets in FY 2021, production of F-35B and C Lightning II's, final 5 E-2D Advanced Hawkeye multiyear procurement in FY 2023, increase logistical capacity and capability with a multi-year buy of the KC- 130J Super Tanker, the ramp-up of CH-53K King Stallion production, and a multi-year procurement of the CMV-22 Osprey, Carrier Onboard Delivery (COD) variant. For unmanned investments, the procurement of 5 MQ-4C Tritons is paused in FY 2021 and

FY 2022 to allow the Integrated Functional Capability-4 (IFC 4.0) design to mature, which will eliminate concurrency risk and minimize the retrofit cost.

Audit

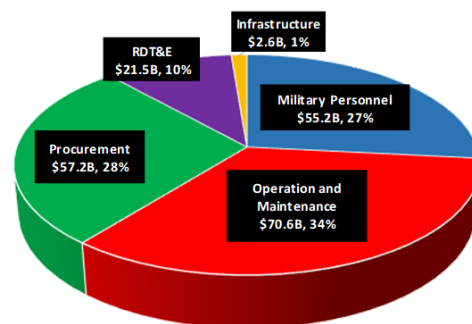
The budget supports our audit efforts, which are critical to demonstrating accountability of government funds and reassuring the American people we are using their resources appropriately. We are committed to improving processes and correcting inefficiencies within the DON. This is an enterprise priority – not just a financial issue. As such, DON leaders at all echelons are fully engaged. The audit has spawned transformational improvements, including:

- Improved visibility, management, and accountability of our material to get the right part to the right place at the right time, every time
- Consolidation of our general ledger and business systems to standardize and streamline our business processes



Resource Summary

The combined base and contingency operations DON FY 2021 President's Budget request is \$207.1 billion.



Conclusion

To summarize, the Department of the Navy's budget implements the NDS by delivering a balanced, high-end wartime force; investing in increased lethality and modernization; continuing readiness recovery progress; and achieving significant reform savings with divestments and better resource alignment.

The Department continues to aggressively work to accelerate development and fielding of new concepts, technologies, and capabilities that offer the potential to evolve the force mix to be more lethal, cost imposing, and affordable.

This budget request will deliver a larger more ready and more lethal force in FY 2021 as compared to the force we have today.

DEPARTMENT OF THE AIR FORCE

<i>Discretionary Budget Authority in Thousands</i> Department of the Air Force Base + OCO +Emergency	FY 2020 Enacted	FY 2021 Request	Δ FY 2020 – FY 2021
Military Personnel	40,252,539	42,809,274	+2,556,735
Operation and Maintenance	63,802,021	65,902,610	+2,100,589
Procurement	49,996,731	48,993,405	-1,003,326
RDT&E	45,432,153	47,724,725	+2,292,572
Military Construction	5,400,705	1,227,554	-4,173,151
Family Housing	429,847	414,235	-15,612
Revolving and Management Funds	92,499	95,712	+3,213
Total Department of the Air Force	205,406,495	207,167,515	+1,761,020

Numbers may not add due to rounding

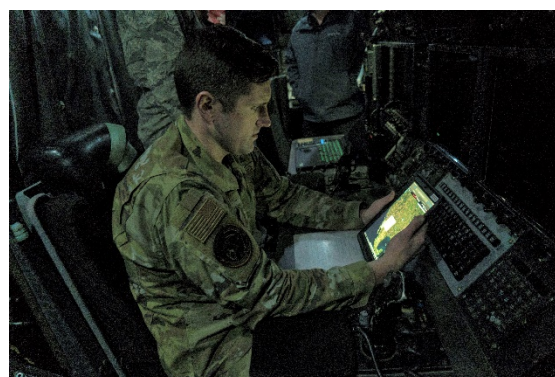
Introduction

The security environment continues to change in dangerous ways, China and Russia continue to employ aggressive tactics to coerce neighbors, suppress dissent, and undermine freedom. They present existential challenges to United States interests and global norms. In addition, Iran and North Korea continue to threaten our friends and pursue weapons of mass destruction. Violent extremists around the globe continue to threaten and perpetrate indiscriminate violence to support their nefarious aims.

The Department of the Air Force must continue to change in order to counter this toxic mix. With the NDS as our guide, the Department of the Air Force—now consisting of two co-equal services: the United States Space Force and the United States Air Force—is changing rapidly. In FY 2021, to achieve the goals of the NDS, the Department will pursue an integrated design and field modernized forces that can connect with the Joint Force, dominate space, generate combat power, and conduct logistics under attack. As we change to meet the future, the Department will continue to provide the Joint Force with ready forces and critical capabilities to conduct Nuclear Deterrence, Homeland Defense, and Counter Violent Extremist Organization (CVEO). Additionally, this budget continues to Develop and Care for our People and Their Families.

Connect with the Joint Force

Modern warfare is inherently multi-domain, and so is the Department of the Air Force. Conflicts are not limited to the air or space or land or sea; rather, they involve engagement and effects across many or all warfighting domains, simultaneously. To prevail, the future Joint Force must be prepared to employ through All-Domain Operations.



The most important capability the Department of the Air Force can deliver to help the Joint Force achieve multi-domain operations is to connect disparate forces into a much more seamless whole. The key to this effort is Joint All-Domain Command and Control (JADC2) which brings the Joint Force together and allows a convergence of combat power. DoD is standing up a JADC2 Cross Functional Team (CFT), co-chaired by Joint Staff J6 and DoD CIO, to deliver JADC2 capabilities. Our Department budget includes \$435 million to develop the network, connectivity, and infrastructure for this critical capability. We are working with the CFT, other Departments and

Overview – FY 2021 Defense Budget

Services to ensure our efforts fuse into a holistic framework and support our common and open architecture efforts.

Success in modern warfare requires a solid digital infrastructure backbone that we do not have today. Department-level investments in the Digital Air Force initiative set the foundation for the future networked Air, Space, and Joint forces. We have begun the transition from in-house communications networks to an Enterprise Information Technology as a Service framework, leveraging the best-practices of industry while allowing Air and Space professionals to focus more on warfighting and less on maintenance of our networks.

The ability to exploit volumes of data is essential, so the Department is pursuing machine learning and artificial intelligence technology, which will increase understanding of, and ability to act upon, the information we have. This technology is already engaged in maintenance and supply systems to better predict and mitigate shortfalls and chokepoints. The Department will also harness these capabilities to reduce the time required to prosecute targets in the battlespace, allowing Joint forces to execute thousands of kill chains in hundreds of hours. This will facilitate the transition from humans in the loop for all decisions to having humans on the loop, overseeing but not slowing processes, as we observe, orient, decide, and act faster than our adversaries – decision advantage to win.

Dominating Space

On December 20, 2019, the President and Congress established the United States Space Force as the newest branch of the Armed Forces, a historic milestone for our nation and those who defend it. The United States Space Force will unify, focus, and accelerate the development of doctrine, capabilities, and expertise to outpace future threats. The Space Force is already establishing headquarters functions and structural organization for the Space Force on an aggressive timeline. Most importantly, it will pursue a Space Superiority Strategy to ensure we can protect, defend, and, if necessary, fight in through, and from the space domain.



This budget submission includes investments necessary to build a Space Force capable of executing the elements of this strategy. First, we will protect and defend the highly-capable satellite systems that are not easily replaced while designing new ones capable of defending themselves. Second, we will develop a broad range of options and capabilities to respond if our national security space capabilities are threatened. Third, the Space Force will field robust and resilient space systems with a diverse architecture that will make it increasingly difficult for adversaries to benefit from an attack. Fourth, we will confuse and complicate our adversaries' decision calculus through unpredictability. Preserving U.S. and allied decision advantage enhances deterrence and ensures the survivability of national security space capabilities.

Generate Combat Power



To prevail in future conflict, the Joint force must be able to generate sufficient combat power to blunt an attack against the U.S. or its allies. Capacity will matter in peer conflict, and the Department will contribute warfighting capacity to the Joint force. We will continue to pursue advanced technologies and incorporate these into our weapons and platforms, including hypersonics, directed energy, optionally-manned systems, mass weapon payload systems, and advanced space capabilities. These future capabilities will complement existing systems to allow us to achieve effects

against enemy targets, kinetically or non-kinetically, in all domains, at unmatched speed and scale.

One example of a new way of generating combat power is the fighter force. This budget invests \$1.0 billion in the Next-Generation Air Dominance program which seeks to leverage best-practices from existing technologies while developing systems to integrate legacy and future platforms into the networked, multi-domain Joint force with a mix of manned, unmanned, and optionally-manned aircraft.

Secure Logistics Under Attack

Today, American forces are extremely efficient in moving people, materiel, and weapon systems across the globe to fight from a small number of forward operating bases with well-developed infrastructure. Future battlefields will be too dangerous, dynamic, and dispersed to allow us to fight this way. The ability to deliver logistics to the Joint warfighter will be under attack, so we must be prepared to move to win.

The Department of the Air Force will invest in forward-based stocks to enable forces to move rapidly and join their support at forward locations. These locations will vary in size, setup, and security, so we must be prepared to move to protect our forces and make it difficult for enemies to target them.

Logistics will need to be lean and agile, allowing us to rapidly move material within a theater. As we reinvent logistics, the Department is investing in future transportation platforms and autonomous logistics capabilities. We will also continue efforts to develop and field future vertical lift to move smaller amounts of equipment quickly to many more places than in the past. In addition to developing future capabilities, we will continue investing in our existing and modernized mobility aircraft fleets. The Joint force will depend on the KC-46 to provide force extension and power projection. This budget continues the recapitalization of the tanker fleet with the procurement of 15 KC-46 aircraft.



Nuclear Deterrence

Our nuclear forces allow the nation to take risks that we could not otherwise afford in this era of Great Power Competition. This need is even more critical today, due to on-going evolution and fielding of other countries' strategic nuclear capabilities, including hypersonic weapons, which continue to challenge U.S. and allied security. As the steward of two-thirds of the triad and 75 percent of the Nuclear Command, Control, and Communications, the Department of the Air Force is investing now across the entire spectrum of the Department's nuclear capabilities in order to maintain a credible and effective deterrent in the future.

Next Generation Overhead Persistent Infrared (OPIR) system constitutes a survivable modernized missile warning constellation. The FY 2021 budget continues our investment in the Next-Gen OPIR to remain on schedule. Our budget request includes research, development, and acquisition funds for the next generations of gravity and guided weapons to allow stand-off forces to employ munitions when called upon. This budget invests \$1.5 billion in developing the Ground-Based Strategic Deterrent which is a modern, sustainable design to ensure the Nation will maintain its most responsive leg of the nuclear triad well into the 21st century.

Our nuclear-capable bomber force represents the most responsive leg of the nuclear triad. The Air Force's future bomber, the B-21 Raider, is maturing on schedule and on cost, and we expect the first flight of a production aircraft in FY 2021 or shortly thereafter. The Raider will be the backbone of our future nuclear-capable bomber fleet, and we are committed to fully funding the program in its current development phase to maintain our aggressive and critical timeline for bringing it online.

In addition to new delivery systems, we must also modernize the weapons they carry. Our budget request includes research, development, and acquisition funds for the next generations of gravity and guided weapons to allow stand-in and stand-off forces to employ munitions when called upon.

Homeland Defense

At its most fundamental level, the entire Department of Defense exists to defend the American Homeland and our way of life. As such, the mission of the United States Air Force to defend the homeland must be fully funded if the Department is to faithfully execute this charge. We must invest in the forces which stand ready, 24/7, to fly, fight, and win against any foe who would challenge the United States' territorial sovereignty.



This mission necessitates the use of our most advanced capabilities. The Department will continue upgrading limited numbers of existing aircraft fleets to include modernizing the radars in many F-16 aircraft. These updated legacy aircraft will be complemented by new-build F-15EX aircraft which are significantly more capable and cost-effective than the F-15Cs they will replace.

Defense of the homeland also involves defeating malicious online threats and we must counter direct aggression as well as indirect sources of

influence. The Department's cyber warriors are constantly at work, under the newly-reactivated 16th Air Force, to "Defend Forward" with actions to deter adverse action and defend friendly networks and information.

Counter Violent Extremism

The CVEO is a critical and complex mission that requires interagency and international cooperation. To better align with the NDS, the Department is moving away from aircraft and capabilities which are only of use in uncontested environments toward robust, scalable, and survivable systems. Our budget right-sizes our legacy Intelligence, Surveillance and Reconnaissance (ISR) assets while maintaining capacity during the transition to better align with the NDS. Learning from our Light Attack experiment, we will now focus on developing the tactics, techniques, and procedures which will allow for the use of these aircraft to build partner capacity and help foreign forces combat VEOs in their own homelands.

Develop and Care for Our People and Their Families

Our platforms and systems may be the best in the world, but our most valuable assets are the people who develop, operate, and maintain them. We have grown our force over the last three budget years on our way to a necessary end-strength of 333,700 active and 697,500 total personnel: a Total Force of Active Duty, Guard, Reserve, and Civilian Airmen and Space Professionals. Our FY 2021 budget adds 900 additional active duty Airmen in F-35A and refueling operations, maintenance, and combat support to improve readiness and increase lethality by reinforcing the Air Force's foundational fighting formation, the squadron.



Additionally, the FY 2021 budget resources supports 10,000 civilian and military billets for the Space Force.

Part of caring for our Airmen and their families is providing a safe, secure environment for them to live and work. There have been numerous challenges with military privatized housing, and we have invested considerable resources into addressing these issues. This budget continues investments into the personnel required to provide proper oversight of our project owners and advocacy for our residents.

Suicide and sexual assault continue to be insidious threats to our force. We will continue to devote resources and invest in programs, such as the True North initiative, which are designed to increase resiliency and connectedness among our forces.

Conclusion

The Department of the Air Force FY 2021 budget is designed to meet both today's and tomorrow's challenges by sustaining our readiness and investing in leading-edge innovation to operate and win in both the contested and uncontested environments. This more lethal and ready force will dominate Air, Space, and Cyberspace and enable the Joint force to detect, deter, and defeat any threat, in any domain, faster than any adversary can act. With this budget the Department supports irreversible implementation of the NDS.

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10. PERFORMANCE PLAN AND ANNUAL PERFORMANCE REPORT

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 FY 2018 – FY 2022 National Defense Business Operation Plan (NDBOP) directly contributes to NDS implementation and focuses on improving the Department’s business operations and support for the Secretary’s three major lines of effort:

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 strategic objectives in the NDBOP are drawn from the NDS, as well as input from all DoD Components. Additionally, the objectives are also influenced by initiatives in the President’s Management Agenda (PMA), and recommendations from the Government Accountability Office (GAO), and the DoD Inspector General (IG).

Each year the Department publishes an Annual Performance Plan (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, and an Annual Performance Report (APR), which documents component results and measures implementation progress for the previous fiscal year. The unclassified APP and APR are available at: <https://cmo.defense.gov/Publications/Annual-Performance-Plan-and-Performance-Report/>. The classified APP and APR may be available upon request.

The Chief Management Officer (CMO) is responsible for delivery of optimized Defense-wide Enterprise Business Operations and shared services to assure the success of the NDS. The Office of the Chief Management Officer (OCMO) is an integral player and change agent in the Department, especially in terms of improving the affordability and performance of the DoD, in accordance with the NDS’s third line of effort. The CMO drives transformational and sustainable reform of Enterprise Business Operations throughout the Department with a focus on simplifying business processes and maximizing the use of shared services and enterprise Information Technology, while eliminating duplication.

Enterprise Performance Management

“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.”

- National Defense Strategy

The Department is a performance-based organization committed to using performance data to drive decision-making and improve business operations. The Department is committed to establishing consistent performance measures and definitions to benchmark performance and increase accountability. Leaders at all levels throughout the Department are responsible for meeting the performance goals and measures set out in the APP that relate to their functional areas. Additionally, the APP performance goals and measures are used to inform critical elements of senior executive performance plans in order to empower leaders to focus on achieving measurable outcomes that align with the NDS and NDBOP (see Figure 10.1).

Overview – FY 2021 Defense Budget

In addition to the APP performance goals and measures, the Department employs hundreds of other performance measures to help assess progress in key areas such as reform, acquisition performance, military readiness, audit remediation, and business process improvement. Together, these datasets help DoD management monitor the entire breadth and scope of the Department's worldwide responsibilities and guide the effective and efficient use of resources. This performance information supports multiple decision-making and accountability efforts such as Deputy Secretary and Secretary of Defense Management decisions, budget justification exhibits, and a wide range of reports to the Congress to facilitate proper legislative oversight. Figure 10.1 is a high level depiction of how performance measure results drive the evaluation of senior executive performance.

Figure 10.1 – DoD Performance Measurement and Evaluation Process



Looking Back (APR Overview)

The Department made significant progress conducting the Defense Wide Review (DWR) across the DAFAs and other organizations to reinvest in innovation and warfighting requirements. Additionally, the Department was successful in meeting or exceeding many of the priority measures for FY 2019, 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.

Overview – FY 2021 Defense Budget

DoD Financial Audit

The DoD audit aligns with the strategic goals of the NDS, including reforming the Department for greater performance and accountability. The DoD annual financial statement audit comprises of 24 standalone audits and one consolidated audit conducted by the DoD OIG. Six organizations received unmodified (clean) opinions, the highest grade; one received a qualified (modified) opinion, which means that data is right with some exceptions, and one is pending an opinion. Opinion for the DoD OIG is ongoing. All other reporting entities received a disclaimer of opinion, which means the auditors did not have enough evidence to provide an opinion.

Key Audit Take Aways:

- Defense Commissary Agency progressed from a modified opinion for FY 2018 to an unmodified opinion for FY 2019.
- Military Departments made significant progress in validating the existence and completeness of real property.
- Components were better-prepared and responsive to audit requests and site visits..

IT & Business Systems

To date, the team programmed and budgeted combined savings of over \$250 million in FY 2019 through commercial IT solutions in business travel, department-wide network management, and by working with Defense Information System Agency (DISA) and the MilDeps to close duplicative data centers. In addition, the team submitted a funding realignment issue to reclaim \$96.3 million in underutilized software licenses Department-wide to fund an enterprise wide real-time endpoint monitoring capability.

Other accomplishments include capturing and redirecting seven acquisition Request for Proposals (RFPs) for services that the USALearning contract currently provides, savings of over \$25 million 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.

The DoD is centralizing Fourth Estate common use IT through network, cybersecurity, and service desk consolidation. The initial consolidation efforts include 22 Fourth Estate organizations, with the objective to reduce the number of networks, cybersecurity operations centers, and service desks for greater efficiency and effectiveness.

Regulatory Reform

The DoD Regulatory Reform Task Force met on a bi-weekly basis to review the existing 716 DoD regulations and make recommendations to the Secretary or Deputy Secretary of Defense regarding their repeal, replacement, or modification, with a goal of reducing the Department's existing regulations by 25 percent. The Task force completed the review phase by December 31, 2018. DoD is now in the implementation phase. The Task Force continues to meet on a quarterly bases for implementation and regulatory program updates. It is estimated that the implementation phase will take three to five years.

Contracting and Category Management

Category Management refers to the business practice of buying common goods and services as an enterprise to eliminate redundancies, increase efficiency, and deliver more value and savings from the Government's acquisition programs. Category Management develops and uses business intelligence for data-driven decisions to improve cost, capability and compliance of the acquisition of common goods and services. Category Management drives efficiencies and savings through rate, process and demand improvements. Enterprise Data Management assures

Overview – FY 2021 Defense Budget

the availability of common, usable, defense-wide data sets that enables enterprise-wide business management. The Department's cost data, coupled with commercial reference data, support Category Management to better leverage DoD's buying power, inform make/buy and other management decisions. The Department will evaluate \$180 billion in spend over 33 months through a series of "sprints."

In FY 2019, the Department implemented the first sprint to evaluate spend in various categories and identify cost savings opportunities. To date, Sprint 1 has \$1.02 billion in savings. Sprint 2 has \$193 million in savings, with savings in 4 of 19 projects still under review, and Sprint 3 concluded August 2019 with an implementation plan to follow.

Healthcare

DoD transitioned eight Military Treatment Facilities (MTFs) to the authority, direction and control of the DHA in FY 2019. In October 2019, DHA assumed control over all MTFs in the United States, along with those in Alaska, Hawaii, and Puerto Rico. Services will provide direct support to the DHA as it develops its headquarters management capability to ensure that operations continue in an efficient and effective manner. Central to DHA headquarters capability growth will be realignment of civilian personnel from the Services to the DHA. Efforts to continue enterprise consolidation of purchased services, specialty care, revenue cycle management, medical logistics, laboratory, pharmacy, and facilities will continue in FY 2021. The Department continued review of the total medical force structure requirements and has included the revised reductions to medical force structure in the FY 2021 President's Budget.

Human Resources

Overall, FY 2019 time to hire (TTH) days decreased 5 percent from FY 2018 (99 days to 94). Specifically, however, TTH days steadily declined during FY 2019 and ended at 87 days in the fourth quarter, only two days (2.35 percent) above the 85-day target. Increased Direct Hire Authority usage and PPP streamlining initiatives supported the improvement.

Defense Logistics Agency

The Defense Logistics Agency (DLA) achieved \$84 million in cost avoidance to the Department in FY 2019 from efficiencies implemented through consolidation of Industrial Supply, Storage and Distribution functions. DLA realized \$25 million in savings in FY 2019 through the Whole of Government initiative, which expanded support to Veteran's Affairs, General Services Administration (GSA), and the US Coast Guard, increasing DLA's buying power

Looking Forward (APP Overview)

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

Continuous Reform in Action

The DoD is actively identifying opportunities to make the Department a smarter customer and more effective enterprise through:

1. Improved maintenance and sustainment of America's warfighting capability;
2. Reduced overhead to enhance lethality;
3. Greater enterprise-wide efficiencies; and
4. Increased performance at the speed of relevance.

Overview – FY 2021 Defense Budget

Continuous reform is realizing operational and financial benefits through assessment and innovation in the lines of business. Business reform activity continues to mature as efforts to create efficiencies show progress. The evaluation framework implemented by the Reform Management Group to identify and evaluate areas for reform will become the basis for future reform activities.

Enterprise Data

The OCMO established a Chief Data Officer (CDO), who is tasked with meeting the responsibilities of the FY 2018 NDAA, by expanding the Department's data analytics capabilities to drive the success of today's initiatives, and ensure that the Department is positioned for the future. The Director of the Data Insights Directorate is the Chair of the Data Management and Analytics Steering Committee, which is a governance forum for Data Management and Analytics within the Department.

The OCMO will continue to extract and analyze data to support business reform and lead 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.

Transformation

The OCMO is charged with establishing policies for, and directing, all enterprise business operations of the Department, including planning and processes, business transformation, performance measurement and management, and business information technology management and improvement. The Transformation directorate continues to lead reform efforts to improve enterprise business operations across the Department, establishing a culture of continuous improvement focused on results and accountability. The Transformation directorate serves as the Executive Secretariat for the Reform Management Group (RMG) and maintains the rigor and oversight of reform initiatives and decisions impacting the Department's business operations.

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APPENDIX A: RESOURCE EXHIBITS

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

Total Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	154,749	163,499	+8,750
Operation and Maintenance	289,597	288,921	-676
Procurement	143,754	136,884	-6,870
RDT&E	104,485	106,555	+2,070
Revolving and Management Funds	1,818	1,369	-449
Defense Bill	694,403	697,229	+2,826
Military Construction	16,723	6,812	-9,911
Family Housing	1,465	1,351	-114
Military Construction Bill	18,188	8,163	-10,025
TOTAL	712,591	705,392	-7,199

Source: Comptroller Information System

Numbers may not add due to rounding.

*FY 2020 reflects enacted.

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

Total Budget	FY 2020*	FY 2021	Δ FY20-21
Army	178,387	177,925	-462
Navy	209,000	207,073	-1,927
Air Force	205,406	207,168	+1,762
Defense-Wide	119,797	113,227	-6,570
TOTAL	712,591	705,392	-7,199

Source: Comptroller Information System

Numbers may not add due to rounding.

*FY 2020 reflects enacted.

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

Department of the Army Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	62,638	65,515	+2,877
Operation & Maintenance	75,047	72,987	-2,060
Procurement	25,401	24,948	-453
RDT&E	12,540	12,770	+230
Military Construction	1,964	1,142	-822
Family Housing	549	487	-62
Revolving and Management Funds	248	77	-171
ARMY TOTAL	178,387	177,925	-462

Overview – FY 2021 Defense Budget

Department of the Navy Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	51,858	55,175	+3,317
Operation & Maintenance	68,002	70,602	+2,600
Procurement	61,559	57,177	-4,382
RDT&E	20,219	21,487	+1,268
Military Construction	6,704	2,242	-4,462
Family Housing	425	389	-36
Revolving and Management Funds	234	--	-234
NAVY TOTAL	209,000	207,073	-1,927

Department of the Air Force Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	40,253	42,809	+2,556
Operation & Maintenance	63,802	65,903	+2,101
Procurement	49,997	48,993	-1,004
RDT&E	45,432	47,725	+2,293
Military Construction	5,401	1,228	-4,173
Family Housing	430	414	-16
Revolving and Management Funds	92	96	+4
AIR FORCE TOTAL	205,406	207,168	+1,762

Defense-Wide Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	82,747	79,430	-3,317
Procurement	6,798	5,765	-1,033
RDT&E	26,293	24,574	-1,719
Military Construction	2,655	2,201	-454
Family Housing	61	61	--
Revolving and Management Funds	1,244	1,196	-48
DEFENSE-WIDE TOTAL	119,797	113,227	-6,570

DEPARTMENT OF DEFENSE TOTAL	712,591	705,392	-7,199
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Source: Comptroller Information System
*FY 2020 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2021 Defense Budget

Table A-4. Combat Force Structure Overview

Service	FY 2020	FY 2021	Delta FY20- FY21
Army Active			
Brigade Combat Teams (BCT)	31	31	-
Combat Aviation Brigades (CAB)	11	11	-
Army National Guard			
BCT	27	27	-
CAB	8	8	-
Theater Aviation Brigades (TAB)	2	2	
Army Reserve			
CAB	2	2	-
Navy			
Number of Ships	297	306	+9
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	40	40	-
Aircraft Inventory (TAI)	4,127	4,155	+28
Air Force Reserve			
Combat Coded Squadrons	3	3	-
Aircraft Inventory (TAI)	328	322	-6
Air National Guard			
Combat Coded Squadrons	21	21	-
Aircraft Inventory (TAI)	1,043	1,010	-33

Overview – FY 2021 Defense Budget

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

Service	FY 2020 ¹	FY 2021	Delta FY20 – FY21
Army	485.0	485.9	+0.9
Navy	342.5	347.8	+5.3
Marine Corps	184.7	184.1	-0.6
Air Force	333.8	327.3	-6.6
Space Force²	38	6.4	+6.4
TOTAL	1,346.0	1,351.5	+5.5

¹FY 2020 reflects projected end strength levels.

Numbers may not add due to rounding.

²FY 2020 Space Force end strength included in Service numbers (non-add)

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

Service	FY 2020 ¹	FY 2021	Delta FY20 – FY21
Army Reserve	189.5	189.8	+0.3
Navy Reserve	60.2	58.8	-1.4
Marine Corps Reserve	38.5	38.5	+0.0
Air Force Reserve	70.1	70.3	+0.2
Army National Guard	336.0	336.5	+0.5
Air National Guard	107.7	108.1	+0.4
TOTAL	801.9	802.0	+0.1

¹FY 2020 reflects projected end strength levels.

Numbers may not add due to rounding.

Table A-7. DoD Base Budget by Appropriation Title (\$ in millions)

Base Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	150,263	158,897	+8,634
Operation and Maintenance	234,885	230,352	-4,533
Procurement	131,734	131,756	+22
RDT&E	103,520	106,225	+2,705
Revolving and Management Funds	1,564	1,349	-215
Defense Bill	621,966	628,578	+6,612
Military Construction	9,850	6,462	-3,388
Family Housing	1,465	1,351	-114
Military Construction Bill	11,315	7,814	-3,501
TOTAL	633,281	636,392	+3,111

Source: Comptroller Information System

Numbers may not add due to rounding.

*FY 2020 reflects enacted.

Overview – FY 2021 Defense Budget

Table A-8. DoD Base Budget by Military Department (\$ in millions)

Base Budget	FY 2020*	FY 2021	Δ FY20-21
Army	146,824	150,225	+3,401
Navy	192,770	194,058	+1,288
Air Force	184,639	185,635	+996
Defense-Wide	109,048	106,474	-2,574
TOTAL	633,281	636,392	+3,111

Source: Comptroller Information System

Numbers may not add due to rounding.

*FY 2020 reflects enacted.

Table A-9. DoD OCO Budget by Appropriation Title (\$ in millions)

OCO Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Military Personnel	4,486	4,603	+117
Operation and Maintenance	53,735	58,569	+4,834
Procurement	11,590	5,128	-6,462
RDT&E	834	331	-503
Revolving and Management Funds	20	20	--
Defense Bill	70,665	68,650	-2,015
Military Construction	645	350	-295
Family Housing	--	--	--
Military Construction Bill	645	350	-295
TOTAL	71,310	69,000	-2,310

Source: Comptroller Information System

Numbers may not add due to rounding.

1. P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

2. \$20.5B for direct war requirements, \$32.5B OCO for Enduring Requirements, and \$16.0B OCO for Base Requirements

Table A-10. DoD OCO Budget by Military Department (\$ in millions)

OCO Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Army	31,448	27,700	-3,748
Navy	11,420	13,015	+1,595
Air Force	17,770	21,533	+3,763
Defense-Wide	10,672	6,753	-3,919
TOTAL	71,310	69,000	-2,310

Source: Comptroller Information System

Numbers may not add due to rounding.

1. P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

2. \$20.5B for direct war requirements, \$32.5B OCO for Enduring Requirements, and \$16.0B OCO for Base Requirements

Overview – FY 2021 Defense Budget

Table A-11. DoD Emergency Budget by Appropriation Title (\$ in millions)

Emergency Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation and Maintenance	977	--	-977
Procurement	431	--	-431
RDT&E	130	--	-130
Revolving and Management Funds	234	--	-234
Defense Bill	1,771	--	-1,771
Military Construction	6,229	--	-6,229
Family Housing	--	--	--
Military Construction Bill	6,229	--	-6,229
TOTAL	8,000	--	-8,000

Source: Comptroller Information System

Numbers may not add due to rounding.

*Natural disaster relief for Hurricanes Michael and Florence per P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

Table A-12. DoD Emergency Budget by Military Department (\$ in millions)

Emergency Budget	FY 2020*	FY 2021	Δ FY20-21
Army	115	--	-115
Navy	4,810	--	-4,810
Air Force	2,998	--	-2,998
Defense-Wide	77	--	-77
TOTAL	8,000	--	-8,000

Source: Comptroller Information System

Numbers may not add due to rounding.

*Natural disaster relief for Hurricanes Michael and Florence per P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

Table A-13. DoD Base Budget by Military Department and Appropriation Title (\$ in millions)

Department of the Army Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	59,658	62,538	+2,880
Operation & Maintenance	50,239	50,875	+636
Procurement	21,975	22,555	+580
RDT&E	12,393	12,587	+194
Military Construction	1,783	1,126	-657
Family Housing	549	487	-62
Revolving and Management Funds	228	57	-171
ARMY TOTAL	146,824	150,225	+3,401

Overview – FY 2021 Defense Budget

Department of the Navy Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	51,382	54,649	+3,267
Operation & Maintenance	57,267	58,769	+1,502
Procurement	60,639	56,651	-3,988
RDT&E	19,924	21,427	+1,503
Military Construction	3,132	2,172	-960
Family Housing	425	389	-36
Revolving and Management Funds	--	--	--
NAVY TOTAL	192,770	194,058	+1,288

Department of the Air Force Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	39,223	41,709	+2,486
Operation & Maintenance	53,126	47,690	-5,436
Procurement	44,061	47,043	+2,982
RDT&E	45,304	47,719	+2,415
Military Construction	2,404	964	-1,440
Family Housing	430	414	-16
Revolving and Management Funds	92	96	+4
AIR FORCE TOTAL	184,639	185,635	+996

Defense-Wide Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	74,254	73,018	-1,236
Procurement	5,060	5,506	+446
RDT&E	25,899	24,491	-1,408
Military Construction	2,531	2,201	-330
Family Housing	61	61	--
Revolving and Management Funds	1,244	1,196	-48
DEFENSE-WIDE TOTAL	109,048	106,474	-2,574

BASE TOTAL	633,281	636,392	+3,111
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Source: Comptroller Information System
*FY 2020 reflects enacted.

Numbers may not add due to rounding.

Overview – FY 2021 Defense Budget

Table A-14. DoD OCO Budget by Military Department and Appropriation Title (\$ in millions)

Department of the Army Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Military Personnel	2,981	2,977	-4
Operation & Maintenance	24,762	22,112	-2,650
Procurement	3,426	2,393	-1,033
RDT&E	147	183	+36
Military Construction	112	16	-96
Family Housing	--	--	--
Revolving and Management Funds	20	20	--
ARMY TOTAL	31,448	27,700	-3,748

Department of the Navy Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Military Personnel	476	526	+50
Operation & Maintenance	9,914	11,833	+1,919
Procurement	772	526	-246
RDT&E	164	60	-104
Military Construction	95	70	-25
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
NAVY TOTAL	11,420	13,015	+1,595

Department of the Air Force Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Military Personnel	1,030	1,100	+70
Operation & Maintenance	10,566	18,213	+7,647
Procurement	5,654	1,951	-3,703
RDT&E	128	5	-123
Military Construction	392	264	-128
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
AIR FORCE TOTAL	17,770	21,533	+3,763

Overview – FY 2021 Defense Budget

Defense-Wide Budget	FY 2020 ¹	FY 2021 ²	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	8,493	6,411	-2,082
Procurement	1,738	258	-1,480
RDT&E	394	83	-311
Military Construction	46	--	-46
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
DEFENSE-WIDE TOTAL	10,672	6,753	-3,919

OCO TOTAL	71,310	69,000	-2,310
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Source: Comptroller Information System

Numbers may not add due to rounding.

1. P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

2. \$20.5B for direct war requirements, \$32.5B OCO for Enduring Requirements, and \$16.0B OCO for Base Requirements

Table A-15. DoD Emergency Budget by Military Department and Appropriation Title (\$ in millions)

Department of the Army Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	46	--	-46
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	69	--	-69
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
ARMY TOTAL	115	--	-115

Department of the Navy Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	821	--	-821
Procurement	148	--	-148
RDT&E	130	--	-130
Military Construction	3,477	--	-3,477
Family Housing	--	--	--
Revolving and Management Funds	234	--	-234
NAVY TOTAL	4,810	--	-4,810

Overview – FY 2021 Defense Budget

Department of the Air Force Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	110	--	-110
Procurement	282	--	-282
RDT&E	--	--	--
Military Construction	2,605	--	-2,605
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
AIR FORCE TOTAL	2,998	--	-2,998

Defense-Wide Budget	FY 2020*	FY 2021	Δ FY20-21
Military Personnel	--	--	--
Operation & Maintenance	--	--	--
Procurement	--	--	--
RDT&E	--	--	--
Military Construction	77	--	-77
Family Housing	--	--	--
Revolving and Management Funds	--	--	--
DEFENSE-WIDE TOTAL	77	--	-77

EMERGENCY TOTAL	8,000	--	-8,000
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Source: Comptroller Information System

Numbers may not add due to rounding.

*Natural disaster relief for Hurricanes Michael and Florence per P.L. 116-93 (Consolidated Appropriations Act, 2020) and P.L. 116-94 (Further Consolidated Appropriations Act, 2020)

APPENDIX B: Acronym List

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

A2/AD	Anti-access, area denial
ABCTs	Armored Brigade Combat Teams
AC	Active Component
ACE	Advanced Capability Enablers
ACEM	Automated Continuous Endpoint Monitoring
ADS	authoritative data sources
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
AMS	Army Modernization Strategy
ANDSF	Afghan National Defense and Security Forces
AOR	Area of Responsibility
APP	Annual Performance Plan
APR	Annual Performance Report
ARGs	Amphibious Readiness Groups
ARNG	Army Reserve/National Guard
ARRW	Advanced Rapid Response Weapon
A&S	Acquisition and Sustainment
ASL	Army Senior Leaders
ASFF	Afghanistan Security Forces Fund
AT&L	Acquisition, Technology, and Logistics
AUR	All-Up RounSM-3
BACN	Battlefield Airborne Communications Node
BBA	Bipartisan Budget Act
BCT	Brigade Combat Team
BMD	Ballistic Missile Defense
BRS	Blended Retirement System
BSRF	Black Sea Rotational Force
C2BMC	Command and Control, Battle Management and Communications
C2C	Comply to Connect
C4I	command, control, communications, computers, and intelligence
CA	California
CABs	Combat Aviation Brigades
CAER	Command Accountability & Execution Review

Overview – FY 2020 Defense Budget

CAF	Combat Air Force
CAPs	corrective action plans
CAPE	Cost Assessment and Program Evaluation
CCDR	Combatant Commanders
CCLTF	Close Combat Lethality Task Force
CCMD	Combatant Command
CCP	Cyber Campaign Plan
CDO	Chief Data Officer
CE2	Combatant Command Exercise and Engagement
CE2T2	Combatant Command Exercise and Engagement/ Training Transformation
CENTCOM	Central Command
CERP	Commanders Emergency Response Program
CFTs	Cross-Functional Teams
CG	Guided Missile Cruiser
CH	Chinook helicopter
CIO	Chief Information Officer
CIRCM	Common Infrared Countermeasures
CJOC	Canadian Joint Operations Command
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
COD	Carrier Onboard Delivery
CONUS	Contiguous United States
CPG	Commandant's Planning Guidance
CPI	Continuous Process Improvement
CPX	Command Post Exercise
CR/SRR	Comprehensive Review / Strategic Readiness Review
CS/CSS	combat service/combat service support
CSA	Combat Support Agencies
CSF	Coalition Support Fund
CSGs	Carrier Strike Groups
CSO	Chief of Space Operations
CSSF	Chief of Staff of the Space Force
CT	Counterterrorism
CTC	Combat Training Center
CTEF	Counter-ISIS Train and Equip Fund
CV	Carrier Variant
CVEO	combating violent extremists
CVN	aircraft carrier, fixed wing, nuclear powered

Overview – FY 2020 Defense Budget

CWMD	Countering Weapons of Mass Destruction
D5	Trident II
D5LE	Life Extension
DAFA	Department of Defense Field Activities
DA/ULO	Decisive Action in support of Unified Land Operations
DATE	Decisive Action Training Environment
DCA	Dual-Capable Aircraft
DCMO	Defense Chief Management Officer
DDG	Destroyers
DE	Directed Energy
DEMSHORAD	Directed Energy Mobile Short-Range Air Defense System
DFE	Dynamic Force Employment
DHA	Defense Health Agency
DHMSM	Department of Defense (DoD) Healthcare Management System Modernization Program
DHP	Defense Health Program
DIB	Defense Industrial Base
DII	Defense Innovation Initiative
DISA	Defense Information Systems Agency
DIU	Defense Innovation Unit
DLA	Defense Logistics Agency
DMO	Distributed Maritime Operations
DoD	Department of Defense
DOE/NNSA	Department of Energy/National Nuclear Security Administration
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
DPO	Distribution Process Owners
D-RAPCON	Deployable Radar Approach Control
DRRS	Defense Readiness Reporting System
DSOC	Defense Safety Oversight Council
DTF	Dental Treatment Facilities
DTRA	Defense Threat Reduction Agency
DW	Defense wide
DWR	Defense-Wide Review
EABO	Expeditionary Advanced Base Operations
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
ESS	Evolved Strategic SATCOM

Overview – FY 2020 Defense Budget

FEMO	Fourth Estate Management Office
FERS	Federal Employees Retirement System
FMS	Foreign Military Sales
FSRM	Facilities Sustainment, Restoration, and Modernization
FTEs	Full-Time Equivalents
FTX	field training exercise
FVL	future vertical lift
FY	Fiscal Year
FYDP	Future Years Defense Program
FVL	future vertical lift
GSA	General Services Administration
GAO	Government Accountability Office
GBI	Ground-Based Interceptors
GBSD	Ground Based Strategic Deterrent
GCCs	Geographic Combatant Commands
GF	Green Flag
GFMAP	Global Force Management Allocation Plan
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
ICAM	Identity and Credential Access Management
ICBM	Intercontinental Ballistic Missiles
IG	Inspector General
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
JADC2	Joint All-Domain Command and Control
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

Overview – FY 2020 Defense Budget

JIDA	Joint Improvised-Threat Defeat Agency
JITDF	Joint Improvised-Threat Defeat Fund
JNWC	Joint Navigation Warfare Center
JTCP	Joint Training Coordination Program
JTEN	Joint Training Enterprise Network
LCAC	Landing Craft Air Cushion
LCS	Littoral Combat Ship
LCU	Landing Craft, Utility
LD/HD	low-density, high-demand
LEP	Life Extension Program
LHD	Landing Helicopter Dock
LHA	Landing Helicopter Assault
LOCE	Littoral Operations in a Contested Environment
LPD	Landing Platform Dock
LPD	Landing Platform Dock
LRASM	Long-Range Anti-Ship Missile
LRPF	Long-Range Precision Fires
LRSO	Long Range Stand-Off
LSCO	Large Scale Combat Operations
LVC	Live, virtual, and constructive
MAAWS	Multi-Role Anti-Armor Anti-Personnel Weapon System
MAGTF	Marine Air Ground Task Forces
MAJCOM	Major Command
MARFOREUR	Marine Forces Europe
MASTR-E	Monitoring and Assessing Soldier Tactical Readiness and Effectiveness
MC&FP	Military Community and Family Policy
M-Code	Military code
MDA	Missile Defense Agency
MDD	Missile Defeat and Defense
MDC2	Multi-Domain Command and Control
MDS	Missile Defense System
MDR	Missile Defense Review
MDO	Multi-Domain Operations
MEB	Marine Expeditionary Brigade
METL	Mission Essential Task List
MFGI	Mobilization Force Generation Installation
MHA	Major DoD Headquarters Activities
MHPI	Military Housing Privatization Initiative
MHS	Military Health System
MILCON	Military Construction
MILDepts	Military Departments
MILSATCOM	Military SATCOM
MOD	Miscellaneous Obligation Document
MRBM	Medium Range Ballistic Missiles

Overview – FY 2020 Defense Budget

MTF	Military Treatment Facility
MTX	Mountain Exercise
MW	material weaknesses
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
NFR	Notices of Findings and Recommendations
NGAD	Next Generation Air Dominance
NGCV	Next Generation Combat Vehicle
NG OPIR	Next-Generation Overhead Persistent Infrared
NAGC	National Association of Government Communicators
NGI	Next Generation Interceptor
NGJ	Next Generation Jammer
NNSA	National Nuclear Security Administration
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
P2P	Performance to Plan
PB	President's Budget
PCTE	Persistent Cyber Training Environment
PED	processing, exploitation, and dissemination

Overview – FY 2020 Defense Budget

PEO	Program Executive Office's
POD	Print on Demand
POTFF	Preservation of the Force and Family
PMA	President's Management Agenda
PNT	Positioning, Navigation, and Timing
PR	Personnel Recovery
Q2	second quarter
Q3	third quarter
Q4	Fourth quarter
R2F	Readiness Recovery Framework
RA	Regular Army
RC	Reserve Components
RDA	Research, Development and Acquisition
RDT&E	Research, Development, Test, and Evaluation
R&E	Research and Engineering
RF	radio frequency
RFI	Ready For Issue
RFP	Request for Proposals
RKV	Redesigned Kill Vehicle
RMG	Reform Management Group
ROI	return on investment
SATCOM	Satellite Communication
S&T	science and technology
SBIRS	Space Based Infrared System
SC	Security Cooperation
SCO	Squad Common Optics
SDA	Space Development Agency
SDB	Small Diameter Bomb
SECO	Spouse Education and Career Opportunities Program
SFAB	Security Force Assistance Brigade
SLBM	Submarine-Launched Ballistic Missile
SM-3	Standard Missile-3
SM-6	Standard Missile-6
SOC	System and Organizational Control
SOF	Special Operations Forces
SOPGM	Special Operations Precision Guided Munitions
SRBM	Short Range Ballistic Missiles
SRRB	Service Requirements Review Board
SSAE	Statement on Standards for Attestation Engagements
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

Overview – FY 2020 Defense Budget

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
TSS	Training Support Systems
TTH	time-to-hire
UAE	United Arab Emirates
UAS	unmanned aircraft systems
UH	Utility Helicopter
UMB	Unified Medical Budget
U.S.	United States
USAFE	United States Air Forces in Europe
USAFRICOM	United States Africa Command
USAI	Ukraine Security Assistance Initiative
USAR	United States Army Reserve
USCENTCOM	U.S. Central Command
USCYBERCOM	U.S. Cyber Command
USD	Under Secretary of Defense
USD(C)	Secretary of Defense for Comptroller
USEUCOM	U.S. European Command
USFK	U.S. Forces Korea
USINDOPACOM	U.S. Indo-Pacific Command
USMC	United States Marine Corps
USNORTHCOM	U.S. Northern Command
USSF	United States Space Force
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
VEO	Violent Extremist Organization
VCS	VIRGINIA Class submarines
VPM	VIRGINIA Payload Module

Overview – FY 2020 Defense Budget

VSO	Vetted Syrian Opposition
WCF	Working Capital Fund
WFX	Warfighter Exercises
WRP	Workforce Recruitment Program
WS	Warning System
WSS	Weapons System Sustainment

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