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

**MAY 2021** 



## **Defense Budget Overview**

## UNITED STATES DEPARTMENT OF DEFENSE FISCAL YEAR 2022 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 2022. 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): <u>http://comptroller.defense.gov</u>.

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 <u>https://cmo.defense.gov/Publications/Annual-Performance-Plan-and-Performance-Report/</u>.

Other background information can be accessed at <u>www.defense.gov</u>.

The estimated cost of this report or study for the Department of Defense is approximately \$31,000 for the 2021 Fiscal Year. This includes \$13,000 in expenses and \$18,000 in DoD labor.

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### 1. FY 2022 BUDGET SUMMARY

"DoD needs resources matched to strategy, strategy matched to policy, and policy matched to the will of the American people"

- Secretary of Defense Lloyd J. Austin – Message to the Force

#### INTRODUCTION

The Department of Defense's (DoD) mission is to deter adversaries and defend the United States homeland and its citizens. As global threats evolve, so too must the Department if we are to remain ready and capable of thwarting the aims of adversaries. Accordingly, DoD's FY 2022 budget request invests in the people, priorities, and purpose of mission that will renew America's advantages and support the United States' efforts to advance our defense priorities. **Sections** 

- Introduction
- Interim National Security Strategic Guidance
- FY 2022 Budget Request Overview
- Conclusion

The COVID-19 pandemic is the most urgent challenge facing our nation today, and its impact has had far-reaching implications for the Department and its workforce, operations, and acquisitions. The DoD will support the Administration's efforts to stop the pandemic and assist COVID-19 relief efforts and vaccine distribution. Moreover, the FY 2022 budget invests in DoD's capacity to prevent and respond to future pandemics and biological events. The pandemic has laid bare the vulnerability of both the nation and the force to biological events, the consequences of which may only grow in the future due to a changing climate, global preparedness and supply chain vulnerabilities, and advances in technology that facilitate creating and modifying dangerous agents.

China poses the greatest long-term challenge to the United States, and strengthening deterrence against China will require DoD to work in concert with other instruments of national power. A combat-credible Joint Force will underpin a whole-of-nation approach to competition and ensure the Nation leads from a position of strength. Accordingly, DoD will prioritize China and its military modernization as our pacing challenge. The Department will continue to modernize its forces, global posture, and operational concepts to ensure our armed forces are capable of deterring and defending against aggression that undermines the security of both the United States and our allies.

As part of that effort, DoD is leveraging our technological advantages and investing in cuttingedge technologies that will deliver new warfighting advantages to our forces, including artificial intelligence, hypersonic technology, cyber, and quantum computing, among others. DoD is increasing the speed and scale of innovation in the force, including the development, experimentation, and adoption of emerging capabilities and joint operational concepts to counter competitors in both high-end and gray zone conflicts.

The Department must also balance competing challenges that stem from advanced and persistent threats to global security. DoD will remain fully ready to deter and, if necessary, respond to nation-state threats stemming from Russia, Iran, and North Korea, and will continue to disrupt violent extremist organizations that pose transnational and regional threats to U.S. forces and to our allies and partners.

The United States also faces a growing climate crisis, and DoD recognizes that the country's longterm security requires that we elevate climate as a national security priority. Where possible, DoD will seek to lead the way for alternative climate-considered approaches for the country. DoD will integrate climate considerations in all policies, strategies, and partner engagement activities. There is no doubt that the climate crisis will have an impact on DoD's missions, plans, and capabilities, and the FY 2022 budget ensures the Department is prepared to meet those challenges head on.

DoD recognizes that it cannot tackle these challenges alone and still achieve the Nation's security objectives. Success will require teamwork—both with our international allies and partners, and with the interagency, Congress, private industry, and the American people here at home. DoD will prioritize rebuilding mutually beneficial defense partnerships, a strategic advantage that no U.S. competitor can match, and will work to align defense priorities to advance shared interests. At home, the Department will invest in American manufacturing, military families, and national disaster and pandemic response infrastructure, ensuring the Department's positive impacts are felt across America as we work together to build back better.

Finally, DoD's greatest advantage is its workforce, supported by its military families. Taking care of our people and their physical, mental, and emotional health is among the Department's highest priorities because we cannot be ready without an energetic and empowered workforce. DoD will invest in the growth and development of our workforce, including training, education, and opportunities for advancement that will improve promotion and retention for our total workforce, both civilian and military. DoD is committed to addressing the challenges that undermine our ability to attract and retain the highest quality Total Force, from housing and family support to suicide and sexual assault prevention. The Department will ensure our force reflects the breadth of skills and talent of all those willing and able to serve across our diverse nation. By investing in America's enduring advantages, including our people, the FY 2022 budget ensures the Department can meet today's challenges from a position of strength and ultimately build back better.

Secretary Austin's *Message to the Force*, released March 4, 2021, provides the overarching strategic framework for both the Department's near-term priorities and for the DoD FY 2022 budget request described herein.

# INTERIM NATIONAL SECURITY STRATEGIC GUIDANCE – RENEWING AMERICA'S ADVANTAGES

## *"It is our most solemn obligation to protect the security of the American people."*

#### - President Joseph R. Biden, Jr. - Interim National Security Strategic Guidance

The President's Interim National Security Strategic Guidance (*Interim Guidance*), released on March 3, 2021, provides strategic direction to DoD and informs the Department's priorities as reflected in the FY 2022 budget request. The *Interim Guidance* recognizes that preserving America's security requires a whole-of-government approach that leverages a broad range of instruments of national power. The military has a critical role to play in deterring war and protecting the security of the United States, but it is only one instrument of foreign policy. Diplomacy, development, and economic statecraft—backed by highly capable armed forces that are equipped to deter our adversaries and defeat threats that emerge—are the tools of first resort to advance America's interests globally.

The *Interim Guidance's* elevation of diplomacy does not signify a weaker U.S. military; on the contrary, it maintains that a powerful military matched to the security environment remains a core American advantage, and the United States will never hesitate to use force when required to defend our vital national interests. Accordingly, the readiness of our armed forces remains a top priority to ensure that the U.S. military remains the best trained and equipped force in the world.

To meet the strategic challenges posed by an increasingly assertive China, the *Interim Guidance* directs DOD to shift resources away from vulnerable platforms and weapons systems that are ill-suited to advanced threats and to redirect investments to cutting-edge technologies and capabilities that will determine our military and national security advantage in the future. This will require streamlining the process for developing, acquiring, and deploying these technologies. Where possible the *Interim Guidance* emphasizes avoiding costly arms races and re-establishes U.S. credibility as a leader in arms control, including in the pursuit of new arms control arrangements.

The Interim Guidance recognizes that many of the greatest threats to American prosperity and security—including the climate crisis, global pandemics, cyber threats, and nuclear proliferation—are borderless challenges that require collective action. In order to address those challenges, the United States must display global leadership and leverage the support of our allies and partners worldwide. In particular, the United States will reinvigorate and modernize alliances and partnerships around the world, including both our core alliances in the North Atlantic Treaty Organization (NATO) and East Asia, and our partners in South and Southeast Asia and the Pacific Islands. America's network of allies and partners is a unique and powerful competitive advantage, and one that will help the United States tackle shared challenges, including climate change and China-related defense priorities.

Finally, the *Interim Guidance* prioritizes the health of the national security workforce and to inspire a new generation to public service. The *Interim Guidance* directs DoD to ensure it is a workplace of equal opportunity that represents the diversity of the Nation, to eradicate workplace sexual harassment and assault, and to emphasize professional integrity, accountability, and transparency at all times.

The Interim Guidance drives our decision-making – focusing our resolve and efforts on modernizing our military capabilities, while leading first with diplomacy; and revitalize America's unmatched network of alliances and partnerships.

#### FY 2022 BUDGET REQUEST OVERVIEW

"I am committed to ensuring that the Department develops the right people, priorities, and purpose of mission to continue to defend our Nation from enemies foreign and domestic. This will require aligning our priorities and capabilities to a changing and dynamic threat landscape. We will do so in a way that is based on a sober assessment of our strategic needs and recognize the importance of building and sustaining a strong workforce and unity within our Department, across the Nation and with our allies and partners around the world."

- Secretary of Defense Lloyd J. Austin – Message to the Force

The DoD FY 2022 budget builds upon the foundation of the President's *Interim Guidance*, which focuses on making smart and disciplined choices regarding our national defense and the responsible use of our military, to ensure our armed forces are equipped to deter our adversaries, defend our people, interests, and allies, and defeat threats. Further guiding the Department's efforts and this budget request are the Secretary's following three priorities detailed in his *Message to the Force*:

- 1. Defend the Nation
  - **Defeat COVID-19** The Department will continue to act boldly and quickly to support Federal Government efforts to defeat the disease, defend the force against it, and work with our domestic and international partners to protect our Nation from potential novel and deadly viruses of the future.
  - **Prioritize China as the Pacing Threat** The Department will prioritize China as our number one pacing challenge and develop the right operational concepts, capabilities, and plans to bolster deterrence and maintain our competitive advantage.
  - Address Advanced and Persistent Threats We will ensure that we remain fully ready to respond to and effectively deter nation-state threats emanating from Russia, Iran, and North Korea, and disrupt transnational and non-state actor threats from violent extremist organizations, such as those operating in the Middle East, Africa, and South and Central Asia.
  - Innovate and Modernize The Department will innovate at a speed and scale that matches a dynamic threat landscape. This will require advances in our joint warfighting concepts and a commitment to rapid experimentation and fielding of capabilities. Where necessary, we will divest of legacy systems and programs that no longer meet our security needs, while investing smartly for the future.
  - **Tackle the Climate Crisis** We will elevate climate as a national security priority, integrating climate considerations into the Department's policies, strategies, and partner engagements.

#### 2. Take Care of Our People

• **Grow our Talent** – We will build opportunities for growth and development in the Department, invest in training and education, and create new opportunities for advancement that drive promotion and retention for our total workforce - civilian and military.

- Build Resilience and Readiness The Department will maintain and enhance force readiness and protect the safety, health, and welfare of service members and their families, as well as our civilian employees. The Department will lead with our values, building diversity, equity, and inclusion into all aspects of our work to drive innovative solutions across the enterprise.
- Ensure Accountable Leadership DoD leaders at every level will be responsible for building a safe environment for our people and guaranteeing that we show swift and clear accountability to anyone who does not act within the highest standards of the Department.
- 3. Succeed through Teamwork
  - Join Forces with our Allies and Partners We will consult with our allies and partners and, when appropriate, we will act together.
  - Work in Partnership with Our Nation We will redouble our commitment to a cooperative, whole-of-nation approach to national security that builds consensus, drives creative solutions to crises, and guarantees that we lead from a position of strength -fielding a credible force, ready to back up the hard work of our diplomats around the world and our national partners here at home.
  - Build Unity within DoD We will continue to build unity of effort and mission across components, commands, services, and theaters, and we will demonstrate teamwork at the highest levels of the Department and expect it across every level, knowing that working collaboratively together will ensure the greatest success in protecting and defending our Nation.

\$ in billions	FY 2020 Actuals	FY 2021 Enacted	FY 2022 Request	FY21-FY22 Change
Base <sup>1</sup>	704.6	703.7	715.0	+11.3
Emergency Supplementals <sup>2</sup>	18.6			
Total	723.2	703.7	715.0	+11.3

#### Figure 1.1. Department of Defense Budget

<sup>1</sup> Includes Overseas Contingency Operations/Direct War and Enduring Operations Cost in all years

<sup>2</sup> FY 2020 includes supplemental funding for COVID-19 and Natural Disaster Relief

The President's FY 2022 budget request for DoD is \$715 billion. This budget represents an \$11.3 billion or 1.6 percent increase over the FY 2021 enacted level. While this increase is slightly less than the anticipated rate of inflation for FY 2022, this funding level, coupled with the tough choices the Department made to realign resources and divest legacy systems, enables DoD to -

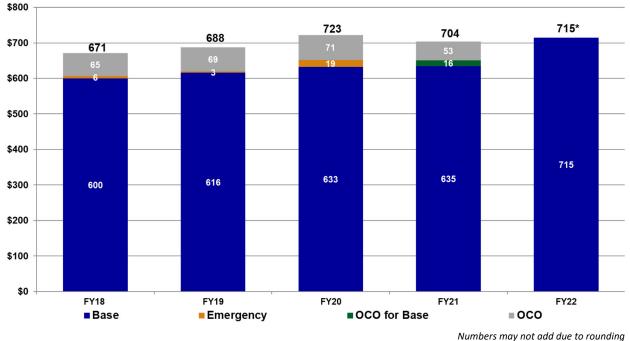
- Sustain and advance readiness;
- Protect investments in critical deterrent capabilities such as long range strike, next generation air, advanced munitions, and maritime response;
- Reallocate resources to fund climate resiliency, clean energy, and research and development in advanced technologies; and

• Fund both military and civilian pay raises to ensure that the Department can attract and retain top talent.

"Defending America also means setting clear priorities within our defense budget."

- President Joseph R. Biden, Jr. – Interim National Security Strategic Guidance

#### Figure 1.2. DoD Topline Funding FY 2018 – 2022



Discretionary Budget Authority Then Year Dollars in Billions

\* FY 2022 Includes \$42.1 billion for Direct War and Enduring Operations costs in the base request

#### CONCLUSION

Sustainable, predictable, adequate, and timely budgets are paramount to achieving the Nation's security objectives in an efficient and effective manner. The FY 2022 budget aligns the Department's priorities and capabilities to a changing and dynamic threat landscape by capitalizing on the unmatched strength of America's innovative workforce, unwavering commitment to democratic values, and unrivaled global alliances and partnerships. Congressional approval of the FY 2022 budget will solidify and renew America's advantages over the coming decades, while holding DoD spending near historical lows as a share of the U.S. economy.

### 2. DEFEND THE NATION

"Challengers who seek to undermine America's interests by force should never doubt America's resolve or readiness to thwart their aims."

- Deputy Secretary of Defense Dr. Kathleen H. Hicks

The Fiscal Year (FY) 2022 budget request for the Department of Defense (DoD) seeks to strengthen the ability of U.S. forces to defend the United States homeland, its citizens, and its allies and partners from aggression. The DoD will prioritize activities that will deter and defend against aggression in the Indo-Pacific region, while also maintaining the capacity and capabilities to respond to current and evolving threats around the globe. While China represents the pacing challenge that informs new investments in power projection capabilities, cutting-edge defense technologies, and enhanced regional posture, the United States does not have the luxury of ignoring persistent advanced threats outside the Indo-Pacific.

#### Sections

- Defeat COVID-19
- China The Pacing Challenge
- Pacific Deterrence Initiative
- Addressing Advanced and Persistent Threats – Russia, Iran, North Korea, and Violent Extremist Organizations
- Power Projection

Protecting the United States, forward-deployed U.S. forces, and allies is critical to deterring attack from adversaries and maintaining credible U.S. security commitments across the globe. Accordingly, the FY 2022 President's Budget request prioritizes investments that will preserve the military's ability to project power globally against a full spectrum of threats. To make room for new capabilities, DoD is rightsizing programs and operations optimized for an earlier era and that no longer meet the Nation's security needs.

#### **DEFEAT COVID-19**

*"The greatest proximate challenge to our Nation's security is the threat of COVID-19."* 

- Secretary of Defense Lloyd J. Austin – Message to the Force

The Department has brought to bear its substantial capabilities and resources, consistent with the law and mindful of DoD's own mission requirements, to support the Nation's fight against the COVID-19 pandemic.

- Since January 27, 2021, the Department has received 495 FEMA mission assignments and 66 requests for assistance from other Federal departments and agencies in response to the COVID-19 pandemic.
  - More than 62,100 personnel, including National Guard from all 50 States, 3 territories, and the District of Columbia have supported the fight against COVID-19.
  - Nearly 5,000 of the Department's medical professionals deployed to ten States, sometimes to multiple locations within one State. Two Navy hospital ships, several Navy Expeditionary Medical Facilities, Army Combat Hospital Centers, Army Reserve Urban Augmentation Medical Task Forces, and Air Force Expeditionary Medical Support units provided surge medical support on ships, at alternate care facilities, and in civilian hospitals and nursing homes.

- Since January 27, 2021 more than 4,600 DoD personnel have supported the national vaccination effort in California, Colorado, Florida, Georgia, Illinois, Indiana, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Tennessee, Texas, Virginia, Washington, Wisconsin, Guam, and the U.S. Virgin Islands. As of May 10, 2021, the Department is supporting 31 Community Vaccination Centers with more than 3,800 personnel.
- To date, the total FEMA obligation amount for DoD medical support is \$4.9 billion, provided on a reimbursable basis pursuant to the Stafford Act. However, FEMA is not reimbursing the Department for TRICARE costs incurred by the loss of medical personnel to assist with FEMA mission assignments.
- The Defense Logistics Agency (DLA) has delivered more than 230 million rapid "pointof-care" antigen tests to support HHS nationwide COVID-19 relief efforts in more than 14,500 locations, including States, nursing homes, and schools.
- DLA has executed 30,711 contract actions, obligating more than \$3.6 billion to provide critical lifesaving medical supplies, including test kits, ventilators, pharmaceutical drugs, and Personal Protective Equipment (PPE), such as masks, gloves, and gowns, to meet customer demands and support the Strategic National Stockpile. Along with PPE, DLA also provided food, clothing, fuel, construction materials, and repair parts to DoD and other Federal agencies.
- The Department supported the Department of State's repatriation of more than 4,500 U.S. citizens stranded abroad due to the pandemic.
- In support of Project Air Bridge, U.S. Transportation Command (USTRANSCOM) delivered into the private sector supply chain: nearly 1.5 million N95 respirators; 937 million gloves; 112.7 million surgical masks; 39.4 million surgical gowns; more than 2.4 million thermometers; more than 2.5 million face shields; 1.4 million coveralls; 109,000 stethoscopes; 370,000 oxygen masks; and more than 160,000 cannulas.
- The Department aimed decades' worth of experience studying infectious diseases of military importance, including HIV/AIDS, Ebola, and coronaviruses such as Middle East Respiratory Syndrome (MERS), at the Department's DoD laboratories on the COVID-19 pandemic.
  - In January 2020, the Department began research and development (R&D) on diagnostics, therapeutics, and vaccines for SARS-CoV-2, the strain of coronavirus that causes COVID-19.
  - The Defense Health Program Medical R&D funds provided the initial infusion required to support early COVID-19 research efforts.
  - The Department is investing over \$1.3 billion from the CARES Act towards R&D for new medical countermeasures. Investments are balanced with near, mid, and long-term solutions with tailored strategies focused on rapid delivery, leveraging accelerated regulatory mechanisms (e.g., Emergency Use Authorization (EUA)) to support new medical countermeasures to survey, prevent, diagnose, and treat COVID-19.

- Vaccination
  - As of May 10, 2021, the Department's personnel administered more than 7.7 million cumulative doses to Defense personnel and the general public though DoD Supported Community Vaccination Centers.
  - As of May 10, 2021, 609,491 military personnel (Active/Reserve/National Guard) have been fully vaccinated and an additional 259,059 have received the first doses.
  - $\circ\,$  As of May 10, 2021, DLA has delivered 586,000 doses of COVID-19 vaccine to 83 OCONUS locations.
  - Since January 12, 2021, USTRANSCOM has supported the DoD vaccination effort with 94 MILAIR channel flights delivering 65,700 doses of vaccine to Cuba (Guantanamo Bay), Greenland (Thule), Djibouti (Camp Lemonier), Afghanistan (Bagram Airfield), Turkey (Incirlik), Diego Garcia, Niger (Agadez & Niamey), Kuwait, Honduras, and Qatar.

In order to sustain the momentum in the COVID-19 fight, continue to defend the force against the disease, and prepare for future pandemics, the FY 2022 budget request adds over \$500 million for COVID-19 and pandemic response activities including testing, public health surveillance, and medical research for the advanced development of repurposed drugs and vaccines/products that will reduce the time for future treatments to reach the warfighter.

#### CHINA – THE PACING CHALLENGE

"Globally, I understand that Asia must be the focus of our effort. And I see China, in particular, as the pacing challenge for the Department."

- Secretary of Defense Lloyd J. Austin – Message to the Force

The DoD is prioritizing China as the top pacing priority, as it remains the only U.S. competitor able to combine its economic, diplomatic, military, and technologic power to mount a sustained challenge to the international system. The rapid development and operational focus of the People's Republic of China (PRC) constitutes a significant and long-term security threat to the United States and to our allies and partners. This threat is a consequence of nearly two decades of intense effort by China to modernize and reform the People's Liberation Army (PLA) and other forces into an increasingly capable joint force able to conduct the full range of military operations across every warfighting domain.

In addition to a significant buildup and modernization of its strategic forces, the PLA is advancing its capabilities and concepts for conducting information, cyber, space, and counterspace operations. China is also mobilizing vast resources to become a global leader in emerging technologies and is leveraging those advances in support of its military modernization.

China has made clear that it expects the PLA to be a global military actor capable of securing China's growing overseas interests and advancing other PRC objectives abroad. These changes are accompanied by aggressive and at times coercive activities that seek to expand the PRC's military influence by forging closer ties with foreign militaries, developing overseas military bases, and expanding the PLA's presence worldwide.

China's robust military modernization activities have, in recent decades, sought to erode the ability of U.S. forces to project power in the region, and China has continued to accelerate the development of capabilities specifically designed to counter key U.S. strategic and operational advantages. The continued erosion of U.S. military advantages relative to China remains the most significant risk to U.S. security interests. If left unimpeded, this continued erosion could

fundamentally challenge our ability to achieve U.S. defense objectives and to defend the sovereignty of our allies, the consequence of which would be to limit DoD's ability to underpin other U.S. instruments of power.

#### PACIFIC DETERRENCE INITIATIVE

The Pacific Deterrence Initiative (PDI) emphasizes elements within the FY 2022 President's Budget request that bolster deterrence and maintain our competitive advantage. The FY 2022 PDI features a \$5.1 billion subset of the Department's FY 2022 budget request, not a separate fund, in targeted investments for the Indo-Pacific region, which will be used to develop and procure defense capabilities in support of joint force lethality, especially in providing survivable strike and stand-off capability in a denied environment. The PDI also highlights investments to improve allied and partner capabilities, and to develop innovative concepts to counter threats through advanced technologies. Note that in total, the Department is investing over \$66 billion in the Indo-Pacific region for FY 2022, including what is highlighted in the PDI. As this year represents the first-ever PDI presentation, the Department expects modifications to the PDI display in future budgets as it works with the Congress to make refinements.

The People's Republic of China (PRC's) growing military capabilities are designed specifically to erode U.S., allied, and partner freedom of action in the Indo-Pacific region, and to underpin the PRC's coercive diplomatic, economic, and other policies. PDI therefore highlights critical DoD investments that improve our capabilities, posture, training, and readiness, along with those of our key allies and partners. PDI investments, however, are not the totality of DoD resourcing and activities that support warfighting effectiveness, deterrence, and competition for the Indo-Pacific; in fact, the majority of DoD investments in a more lethal, resilient, and ready Joint Force have applicability, directly or indirectly, in support of this strategic imperative. However, the PDI does serve as a useful framework for understanding and measuring specific investments as detailed in the categories outlined below.

Section 1251 of the FY 2021 National Defense Authorization Act (NDAA) directs DoD to establish a PDI for the following five purposes:

- Modernize and strengthen the presence of the United States Armed Forces, including those with advanced capabilities;
- Improve logistics and maintenance capabilities and the pre-positioning of equipment, munitions, fuel, and materiel;
- Carry out a program of exercises, training, experimentation, and innovation for the joint force;
- Improve infrastructure to enhance the responsiveness and resiliency of the United States Armed Forces; and,
- Build the defense and security capabilities, capacity, and cooperation of allies and partners.

The FY 2022 PDI highlights DoD investments intended to advance those congressionally-directed objectives, structured around the following four categories of investment:

PDI Investments by Category	FY 2022
Force Design and posture	23.0
Exercises, Experimentation, and Innovation	150.0
Joint Force Lethality	4,914.1
Strengthening Alliances and Partnerships	0.5
Total PDI Enhancements	5,087.6

Figure 2.1. PDI by category (\$ in millions)

The DoD's FY 2022 PB request includes \$5.1 billion in targeted investments to specific programs for PDI, per the investment categories referenced above. In particular, the FY 2022 PB request improves the Joint Force's long-range strike capability and capacity, which multiple DoD-internal and -external analyses have identified as critical to U.S. warfighting capability and a credible deterrent for the Indo-Pacific region. This includes increased investments in the capability and capacity of Tomahawk and Standard Missile 6 (SM-6); land-based conventional fires capabilities with ranges exceeding the 500km limit previously imposed by the Intermediate-Range Nuclear Forces (INF) Treaty; and hypersonic capabilities, such as the Navy's Conventional Prompt Strike capability. The FY 2022 PB request also expands both shipbuilding activities and shipbuilding capacity, which are necessary to maintain U.S. maritime superiority in the Indo-Pacific, given the centrality of this domain to operations in theater. For example, the FY 2022 PB request expands investments in uncrewed surface and subsurface vessels, platform types crucial to the future development of U.S. naval power projection and Distributed Maritime Operations in the expansive and highly contested Indo-Pacific operating environment. The FY 2022 PB request also includes other investments to improve warfighting capabilities relevant to operational challenges in the Indo-Pacific, including capability enhancements for the F-35 Joint Strike Fighter, resilient Positioning, Navigation and Timing (PNT), and Marine Corps stand-in capabilities.

These investments build upon an extensive array of broader Joint Force investments proposed in DoD's overall FY 2022 PB request, which prioritize the strategic and operational challenges of the Indo-Pacific theater as DoD's pacing threat. For example, in addition to the targeted \$5.1 billion for PDI, the FY 2022 PB request also includes significant investments in advanced munitions development and procurement; survivable strike platform capability and capacity; expanded forward force posture and resiliency; and resilient Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) systems. All of these investments will help DoD to maintain a conventional military advantage necessary to deter aggression in the Indo-Pacific region.

The PDI, and DoD investments and activities more broadly:

- Demonstrate the U.S. commitment to preserving a free and open Indo-Pacific. The DoD is focused on maintaining and extending our military advantage in the region, paced to threats posed by the PRC, while deterring and countering the destabilizing actions of North Korea.
- Build forces that are lethal, resilient, ready, and postured to respond quickly and effectively against aggression. Maintaining and increasing our military effectiveness is essential to deterring aggression and preventing conflict.
- Help strengthen our Indo-Pacific alliances and partnerships that are central to the U.S. vision of a free, open, and rules-based Indo-Pacific regional order, and which enable

collective responses to common challenges that undermine security and stability.

The DoD will continue to prioritize investments that maximize the Joint Force's warfighting advantage and ability to deter conflict, while also enabling combat- and cost-effective solutions for other capability gaps and shortfalls. The DoD's PDI and related investments and activities provide a military foundation on which broader U.S. government policies and activities can be advanced to deter aggression and reinforce our network of allies and partners in the region and globally.

# ADDRESSING ADVANCED AND PERSISTENT THREATS – RUSSIA, IRAN, NORTH KOREA, AND VIOLENT EXTREMIST ORGANIZATIONS

"We will ensure that we remain fully ready to respond to and effectively deter nation-state threats emanating from Russia, Iran, and North Korea, and disrupt transnational and non-state actor threats from violent extremist organizations, such as those operating in the Middle East, Africa, and South and Central Asia."

- Secretary of Defense Lloyd J. Austin – Message to the Force

Even as China represents the pacing threat for the Joint Force, the United States must still maintain the forces and capabilities necessary to deter and defend against enduring threats outside the Indo-Pacific region. Russia remains an enduring and capable adversary that continues to spurn international norms, violate the territorial integrity of its neighbors and the sovereignty of national elections, and to pursue its aims using hybrid tactics and nuclear coercion. It's robust military modernization and training is programmed to ensure Russia continues to steadily advance its asymmetric capabilities, conventional force lethality, and nuclear deterrence with an intent to limit U.S. response options. The DoD also faces ongoing threats from the North Korean regime's nuclear weapons program, offensive cyber tools, and other destabilizing activities intended to solidify regime security and grow the rogue nation's regional and unconventional capabilities pose threats to our forces and partners in the Middle East. Finally, violent extremist organizations, while degraded globally, continue to pose transnational and regional threats to the United States and our allies and partners.

#### POWER PROJECTION

The FY 2022 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.

"We lead from a position of strength – fielding a creditable force, ready to back up the hard work of our diplomats around the world and our national partners here at home."

- Secretary of Defense Lloyd J. Austin – Message to the Force

#### Major Weapons Programs

Figure 2.2 summarizes the top DoD weapons programs in the FY 2022 budget. Further details can be found in the Department's "Program Acquisition Costs by Weapon Systems" book.

	Weapon Systems		2021	FY 2022	
	weapon Systems	Qty	Enacted	Qty	PB Request
Aircraft					
F–35	Joint Strike Fighter	96	12.9	85	12.0
F-15EX	Eagle II	12	1.5	12	1.5
Air Force NGAD	Next Generation Air Dominance	-	0.9	-	1.5
KC-46A	Tanker	15	2.8	14	2.5
P8A	Poseidon	9	1.8	-	0.2
F/A-18E/F	Super Hornet	24	1.9	-	0.3
CH-53K	King Stallion Helicopter	9	1.7	9	1.7
E–2D AHE	Advanced Hawkeye	5	1.2	5	1.3
AH–64E	Apache Helicopter	52	1.2	30	0.8
UH-60	Black Hawk Helicopter	66	1.1	48	0.9
VH-92A	Executive Helicopter	5	0.7	-	0.1
V–22	Osprey	15	2.1	8	1.4
MQ-4	Triton Unmanned Aerial Vehicle	1	0.6	-	0.4
MQ-25	Stingray Unmanned Aerial Vehicle	-	0.3	-	0.3
TBD	Armed Overwatch (USSOCOM)	1	0.02	6	0.2
	Nuclear Deterrent				
MDD	Missile Defeat and Defense	-	20.9	-	20.4
B-21	Raider	-	2.8	-	3.0
SSBN	COLUMBIA Class Submarine	1	4.5		5.0
Trident II	Trident II Missile Mods	-	1.5	-	1.6
LRSO	Long Range Standoff Weapon	-	0.4	-	0.6
GBSD	Ground Based Strategic Deterrent	-	1.4	-	2.6
B61 Tail Kit	B61 Mod 12 Life Extension Program	-	0.05	-	0.003
Ships			0.00		0.000
SSN 774	VIRGINIA Class Submarine	2	7.2	2	6.9
DDG 51	ARLEIGH BURKE Destroyer	2	3.8	1	2.4
CVN 80/81	FORD Aircraft Carrier	-	2.9	-	2.9
FFG(X)	Frigate (FFG(X))	1	1.1	1	1.3
LPD 17	SAN ANTONIO Amphibious	1	1.2	-	0.2
	Transport				
T-AO	Fleet Replenishment Oiler	-	0.1	1	0.9
EPF	Expeditionary Fast Transport	1	0.3	-	-
USV	Uncrewed Surface Vessels (Large)	-	0.1	-	0.2
T-ATS	Towing, Salvage, and Rescue Ship	2	0.2	2	0.2
T-AGOS(X)	Ocean Surveillance Ship	-	-	1	0.4
Space	· · ·		I		
NSSL	National Security Space Launch	3	1.6	5	1.7
GPS	Global Positioning System	2	1.8	2	1.8
NG OPIR	Next Gen. Overhead Persistent Infrared	-	2.5	-	2.6

#### **Figure 2.2. Major Weapons Programs**\*(\$ *in billions*)

\* Includes Procurement and RDT&E dollars and quantities

#### Air Power

The FY 2022 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, 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 stealth, advanced sensors, and interoperability allow 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 Department remains committed to improving sustainment affordability and delivering cost-effective upgrades to prevail against future threats.

The FY 2022 budget also includes procurement for 12 F-15 EX Eagle II aircraft after the first two F-15EX were delivered to the Air Force in 2021. The 144 aircraft program of record will relieve pressure on aging legacy platforms while providing enhanced capabilities to the warfighter. The budget continues to fund the Navy's MQ-25 uncrewed aircraft system, which will provide the Department with an uncrewed tanker capability that will extend the striking power of the carrier air wing while providing maritime surveillance for the carrier strike group. To meet the long-term missions of the President's Interim Guidance, the Department continues to develop advanced combat aircraft for both the Navy and Air Force within the Next Generation Air Dominance program. The FY 2022 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 2022 budget includes procurement for the Special Operations Command (SOCOM) Armed Overwatch Aircraft program to support operations and partner nations in the fight against terrorism.

The FY 2022 budget funds the continued Air Force and Navy procurement of both the AIM-120D Advanced Medium Range Air-to-Air Missile (AMRAAM) and the AIM-9X Block II Sidewinder short-range air-to-air missile.

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 2022 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 mission systems and communications upgrades as well as replacement for the B-52's inefficient and aging engines.

The FY 2022 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 2022 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 2022 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 2022 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 2022 budget request continues funding for the first LPD 17 SAN ANTONIO Class Flight II ship and funds the Landing Craft Air Cushion (LCAC) 101 Service Life Extension Program (SLEP) 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 2022 budget continues procurement of the DDG 51 Flight III variant, 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 The FY 2022 budget request also supports procurement of the new Missile threats. CONSTELLATION class 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 2022 budget request continues diversifying and expanding sea power strike capacity by continuing funding for offensively armed Uncrewed Surface Vessels (USVs) and provides funding for two additional Towing, Salvage, and Rescue ships 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 (TLAMs) and have the capacity to host up to 66 Special Operation Forces (SOF) personnel; however, they



begin to decommission starting in 2027 at a rate of 1 per year. After the FY 2021 award of the first COLUMBIA class ballistic missile submarine, which is planned to replace the aging OHIO class submarine, the FY 2022 budget request continues critical research and development and other key funding for the program. The FY 2022 budget request also 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 Navy awarded a construction contract for a second Virginia-class attack submarine this fiscal year in March 2021.

The FY 2022 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 (SEWIP) 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 2022 budget continues funding for 125 Standard Missile-6 (SM-6), 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 2022 budget improves the lethality and survivability of the Army's Brigade Combat Teams by retiring vulnerable systems and investing in modernizing combat vehicles in the Armored Brigade Combat Teams to include upgrading Abrams tanks, producing M109A7 Paladin Integrated Management Self-Propelled Howitzers, and building Armored Multi-Purpose Vehicles (AMPV). In FY 2022, the AMPV program is buying 196 Command Weapons Stations (CWSs): 65 that were part



of the Limited User Test or LUT Fixes and buying 131 hybrid skirts. The FY 2022 budget also supports upgrading 187 Stryker vehicles for the Stryker Brigade Combat Teams. Beyond these efforts, the FY 2022 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 Counter Radio-Controlled Improvised Explosive Devices (RCIED) Electronic Warfare or CREW Technology. Another key combat vehicle investment is the Marine Corps' procurement of 92 Amphibious Combat Vehicles. These systems replace the aging Amphibious Assault Vehicle 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 Commandant of the Marine Corps Planning Guidance of March 2020 focuses on capabilities required to satisfy approved naval concepts of Distributed Maritime Operations (DMO), Expeditionary Advanced Base Operations (EABO), and Littoral Operations in a Contested Area (LOCE). The United States Marine Corps continues to divest of items that do not support the Force Design capabilities identified above and are identifying capability gaps for future acquisition efforts.

The FY 2022 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 USMC. The FY 2022 budget continues the rapid fielding procurement of the Army's Integrated Visual Augmentation System (IVAS) which provides leap-ahead technology for the Close Combat Forces. The FY 2022 budget also funds the Joint Artificial Intelligence Center's (JAIC) efforts for small unit maneuver.

#### **Special Operations**

The FY 2022 budget for Special Operations Forces (SOF) reflects the focus on strategic competition by increasing funding for research and development, modernization, and expanded capabilities for high-end warfighting while strengthening crisis response, 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 2022 budget sustains SOF manpower growth and readiness, increases lethality through modernization and recapitalization, and continues to invest in new technologies that support the SOF-unique requirements. 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 execute very limited strike operations in select theaters against extremists, all supported by coalition partners. Munitions of choice are normally precision, low lethality and limited range weapons, procured at low cost, but very effective against this target class. These critical weapons offer great utility across a range of conflicts, but are particularly suitable to uncontested access, low-intensity conflicts. While the current demand signal has receded, the Department continues to procure these critical weapons at economic rates in recurring annual procurements. That commitment is 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. The Department procurement ramp increases over the last five years across this class of critical munitions have successfully strengthened industrial capacity among primary supply contractors for these select lines, resulting in quality products, high production rates, on-time deliveries, and competitive pricing. That success has allowed the Department to selectively adjust future rates downward accordingly and shift out-year procurements toward more high-performance tactical weapon systems for more advanced worldwide threats. Success against near-peer threats will hinge on our ability to quickly leverage the performance and lethality that arsenal brings to the battlefield.

The Department continues to focus on a two-fold effort. First, ensure the U.S. worldwide munition inventories are sufficiently stocked by adjusting future procurement ramps accordingly. Second, increase the procurement of more advanced, high-end weapon systems, which provide increased standoff, enhanced lethality, and autonomous targeting for employment against near-pear 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 Department also continues to modernize the Navy's Tomahawk cruise missile and add increased capability to SM-6, both improvements offer increased lethality across a broader range of advanced target sets. Additionally, ground launch capability is being pursued for these missiles which will provide better coverage of critical/strategic

target sets. The FY 2022 budget has invested in both of these important procurement paths, shifting and balancing priorities accordingly, which equally contribute to strengthening the Department's lethal posture and our National Security.

		· · · ·			,		
	FY 2020		FY 2021		FY 2022		FY21–FY22
Weapon Systems	Actual Qty	Actuals	Qty	Enacted	PB Qty	PB Request	Quantity Change
Guided Multiple Launch Rocket System	8,190	\$1,294.0	6,524	\$1,137.0	6,471	\$1,098.2	-53
Joint Direct Attack Munition	28,022	\$1,109.5	20,071	\$546.7	4,890	\$198.2	-15,181
Joint Air-to-Surface Standoff Missile	390	\$556.0	400	\$570.7	525	\$827.9	+125
Long Range Anti-Ship Missile (LRASM)	17	\$185.2	48	200.6	48	\$289.0	-
Tomahawk	90	\$702.3	122	\$645.3	60	\$551.7	-62
Small Diameter Bomb I	7,078	\$273.3	2,462	\$95.8	998	\$82.8	-1,464
Hellfire	8,469	\$726.7	8,130	\$516.6	2,098	\$230.0	-6,033
Standard Missile-6	125	\$698.1	125	\$795.1	125	\$910.7	-

#### Figure 2.3. FY 2022 Funding for Munitions\* (Base and OCO) (\$ in millions)

\* Includes Procurement and RDT&E dollars and quantities

#### Nuclear Modernization/Nuclear Deterrence

## "...Nuclear deterrence is the cornerstone of American national security...And I think it must be modernized in order to be safe, secure, credible."

- Deputy Secretary of Defense Dr. Kathleen H. Hicks

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 2022 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 significant investment over the next 20 years. The amount expended to recapitalize the nuclear enterprise 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.

Figure 2.4. Nuclear modernization FY 2022 Funding* (DoD Funding only) (\$ in billions)					
Weapon Systems	FY 2020 Actual	FY 2021 Enacted	FY 2022 Request	FY21 – FY22 \$ Change	
Ground Based Strategic Deterrent	\$0.5	\$1.4	\$2.6	+\$1.2	
Long Range Stand Off cruise missile	\$0.7	\$0.4	\$0.6	+\$0.2	
COLUMBIA class submarines	\$2.3	\$4.5	\$5.0	+\$0.5	
Trident II Missile Mods	\$1.5	\$1.5	\$1.6	+\$0.1	
B-21 Bomber	\$2.9	\$2.8	\$3.0	+\$0.2	
F-35 Dual Capable Aircraft	\$0.07	\$0.09	\$0.04	-\$0.05	
B61 Tail Kit	\$0.066	\$0.045	\$0.003	-\$0.042	
Nuclear Command, Control and Communications (NC3)	\$2.5	\$2.7	\$2.9	+\$0.2	

#### Figure 2.4. Nuclear Modernization FY 2022 Funding\* (DoD Funding only) (\$ in billions)

\* Includes Procurement and RDT&E dollars

**Ground Based Strategic Deterrent (GBSD):** The GBSD system will replace the 1970s-era Minuteman (MM) III Intercontinental Ballistic Missile Weapon System (WS), including new missiles, WS Command and Control, and ground systems; and conversion, modernization, and replacement of the MM III infrastructure, beginning in the late 2020s. GBSD will maintain the land-based Triad leg's responsive and stabilizing attributes, while providing increased capability, enhanced security, improved



reliability, and lowered lifecycle sustainment costs over MM III. The program's funding ramp-up in FY 2021 and FY 2022 reflects its entry into the Engineering and Manufacturing Development (EMD) phase in the fourth quarter of FY 2020. GBSD is planning to conduct its first flight test in FY 2024.

**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 the third quarter of FY 2021.

**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 2022 includes the second increment of full funding for the lead ship.

**Trident II (D5) Submarine-Launched Ballistic Missile (SLBM) Life Extension (D5LE)/(D5LE2):** 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. D5LE2 is required to replace D5LE in order to support COLUMBIA-class missile inventory and outloads starting in FY 2039 on COLUMBIA

Hull 9. D5LE2 will leverage the highly reliable solid rocket motor design and couple it with modern avionics electronics, guidance and structures to unlock inherent flexibility and adaptability for the future. D5LE2 investment begins now to maintain and modernize the most survivable leg of the Triad.

**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. The first two B-21 aircraft are currently under construction.

**F-35A Dual-Capable Aircraft (DCA):** The F-35A DCA will replace the Air Force's F-16 DCA to support extended deterrence. The F-35A DCA is scheduled to achieve nuclear certification in FY 2024.

**B61 Mod 12 Life Extension Program (LEP) Tail Kit Assembly (TKA):** The nuclear gravity bomb B61 Mod 12 LEP will consolidate four legacy B61 variants into a single variant for carriage on heavy bombers and DCA. The Air Force funded TKA will be coupled with the Department of Energy/National Nuclear Security Administration (DOE/NNSA) Bomb Assembly to extend the lifespan of the B61 gravity bomb while making it safer, more secure, and more reliable. The TKA program received Full-Rate Production approval in October 2020.

**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 continues to support the 2019 Missile Defense Review calling for a layered defense, comprehensive missile defense capabilities, flexibility and adaptability, tighter offense-defense integration and interoperability, and dominance in space. While the FY 2021 budget request made foundational investments in lethality and shifted to strategic competition through innovation, the FY 2022 budget request continues to develop and field a diversified set of missile defeat and defense (MDD) capabilities to counter the advancing threat.

The FY 2022 budget builds on previous 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 homeland defense (LHD). The FY 2022 budget request includes \$20.4 billion for MDD, which includes \$8.9 billion for the Missile Defense Agency (MDA), \$7.7 billion in regional and strategic missile defense capabilities outside of MDA, and \$3.8 billion for missile defeat or left-of-launch activities.

In FY 2022, MDA is pursuing a LHD approach that will include improvements to current regional defense systems to enable a limited homeland defense underlay capability in addition to the development of a Next Generation Interceptor (NGI) for Ground-Based Midcourse Defense (GMD).

Improvements to current regional defense systems will include a continued assessment of the Aegis Ballistic Missile Defense (BMD) weapon system and fielding of SM-3 Block IIA missiles to augment homeland defenses to defeat Intercontinental Ballistic Missiles (ICBM) threats. Also, MDA will continue to evaluate a new Terminal High-Altitude Area Defense (THAAD) interceptor prototype to support Contiguous United States Defense as part of the LHD effort. This effort will

result in a series of technology demonstrations allowing for expansion of engagement options and coverage areas for the THAAD weapon system culminating in a flight test in FY 2023.

The NGI is envisioned to improve system survivability and performance against projected threats. MDA will continue design and development activities with two competitive interceptor development contracts awarded in 2<sup>nd</sup> quarter of FY 2021.

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 an initial Technology Capability Declaration for the Long Range Discrimination Radar (LRDR) in Alaska to improve Missile Defense System (MDS) discrimination capability and allow for more efficient use of the GMD 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 2022 budget request:

- Leverages existing architectures and regional defense systems to demonstrate
   complementary homeland defense underlay
- complementary homeland defense underlay capabilities. If the demonstrations are successful, homeland defense underlay systems could begin fielding as early as 2025.
- Continues development of LHD to augment GMD by exploring potential contributions of Aegis BMD, Aegis SM-3 Block IIA interceptors, THAAD, and assessment studies to inform Department decisions on the way forward for LHD.



- Continues NGI All-Up Round (AUR) development to enhance homeland defense interceptor capability and capacity to increase current fleet size to 64 interceptors (44 GBI and 20 NGIs) as early as the end of the decade.
- Supports the U.S. Forces Korea (USFK) to improve missile defense capability on the Korean peninsula.
- Includes Space Development Agency (SDA) missile defense investments 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.
- Supports Hypersonic Defense and continues to assess architecture alternatives and provide recommendations for hypersonic missile defense configurations to keep pace with evolving threats. Continues development of the Hypersonic and Ballistic Tracking Space Sensor (HBTSS) in collaboration with United States Space Force and the Space Development Agency (SDA).
- Continues collaboration 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 BMD architecture.
- Continues increasing BMD capability and capacity of the Aegis Fleet and procures additional 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 additional SM-3

Block IIA missiles to contribute to defense against longer-range and more complex threats; ensures the maturation of the manufacturing process; and continues development of the Sea Based Terminal capability to protect the Fleet and forces ashore.

- Provides funding for 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 18 additional THAAD Interceptors in FY 2022 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 \$7.7 billion in regional and strategic missile defense capabilities including:

- Air Force and Space Force investments total \$2.8 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 \$2.4 billion, bolstering regional missile defense capability. These
  investments include procuring 180 PAC-3/MSE missiles in FY 2022 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.
- Defense-Wide investments total \$0.5 billion, focusing on joint air and missile defense research and development, advanced innovation technologies, and missile defense technology demonstrations.

Finally, the Department plans to continue investments for left-of-launch capabilities involving cyber operations as well as hypersonic strike.

### 3. INNOVATE AND MODERNIZE

*"The Department will innovate at a speed and scale that matches a dynamic threat landscape. This will require advances in our joint warfighting concepts and a commitment to rapid experimentation and fielding of capabilities."* 

- Secretary of Defense Lloyd J. Austin – Message to the Force

The Fiscal Year (FY) 2022 budget request for the Department of Defense (DoD) focuses on the vision to build a lethal, resilient, agile and ready force. Renewing and maintaining our technological superiority in the face of near-peer competitors is critical to the future security of the United States and our Allies.

The FY 2022 request underscores the Secretary of Defense's commitment to innovating and modernizing the DoD with a Research, Development, Test and Evaluation (RDT&E) budget totaling \$112 billion. This is the most ever requested by the Department and an increase of more than 5 percent over the FY 2021 enacted level.

### Sections

- Science and Technology
- Advanced Capability Enablers Microelectronics, Hypersonics, AI, and 5G
- Space and Spaced Based-Systems
- Cyberspace Activities
- Tackling the Climate Crisis
- Divestments

#### SCIENCE AND TECHNOLOGY

The Department has a long-standing commitment to pursuing innovative ideas that will protect our nation and keep our troops safe. The DoD 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 2022 budget request for S&T is \$14.7 billion, which is \$615 million more than the Department's FY 2021 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. See Figure 3.1.

Highlights of the FY 2022 budget request for S&T:

- Maintains requested Basic Research program funding at \$2.3 billion, which supports high risk and high pay-off basic research projects in physical science, life science, and applied mathematics that probe the limits of today's technologies and discovers new phenomena and know-how that ultimately lead to future technologies for the Department.
  - Investments in the Department's traditional fields of interest and emerging fields, such as artificial intelligence/machine learning, quantum science, neuroscience, novel engineered materials, understanding human and social behavior, engineered biology, and manufacturing sciences are expected to generate longterm value.
  - Basic Research programs help develop the future workforce through training in fields critical to the Department, as well as fostering a community of U.S. experts to mitigate against technological surprise.
- Applied Research and Advanced Technology Development comprise 84 percent of S&T funding, consistent with the Department's practice over the last 3 decades of emphasizing new technology transition to acquisition programs.

Program	FY 2020 Actuals <sup>*</sup>	FY 2021 Enacted <sup>**</sup>	FY 2022 Request <sup>***</sup>	FY21 – FY22 Change			
Basic Research (6.1)	2.5	2.6	2.3	-0.3			
Applied Research (6.2)	6.1	6.4	5.5	-0.9			
Adv Tech Dev (6.3)	7.3	7.8	6.9	-0.9			
Total S&T	15.9	16.8	14.7	-2.1			

#### Figure 3.1. Science & Technology Program (\$ in billions)

\*FY 2020 actuals include Base plus OCO

Numbers may not add due to rounding

"FY 2021 enacted includes \$29 million OCO funds

\*\*\*FY 2022 reflects the President's Budget request

# ADVANCED CAPABILITY ENABLERS – MICROELECTRONICS, HYPERSONICS, ARTIFICIAL INTELLIGENCE, AND 5G,

"Being the best today isn't a guarantee of being the best tomorrow – not in an age when technology is changing the character of warfare itself, and our potential adversaries are very deliberately working to blunt our edge."

- Secretary of Defense Lloyd J. Austin Speech at Indo-Pacific Command Apr 30, 2021

Modernizing our military requires successful research, technology maturation, prototyping, systems integration, and test capability to turn innovative and disruptive technology into fielded and sustainable military systems. The Fiscal Year 2022 President's Budget requests \$2.3 billion for various microelectronics efforts crucial to long-term national security. The U.S. means of domestically producing advanced, assured microelectronics is fragile and threatened. Major efforts include:

- Investments in domestic design, fabrication, and packaging capabilities and capacity to improve access to trusted, state of the art microelectronics, and increase options for access to radiation hardened parts;
- Procuring sufficient quantities of legacy microchips and retain capacity to sustain weapons systems in the near-term; and
- Expanding coordination across the Department and with the whole-of-government to ensure effective transition of advanced capability microchips into extant and next generation weapons systems.

Advanced capability microelectronics technology development directly influences success in fielding disruptive technologies, including the following Advanced Capability Enablers:

- Hypersonics: Increases the quantity of Army Long Range Hypersonic Weapon (LRHW) batteries fielded; increases funding for Navy Conventional Prompt Strike (CPS) to add DDG 1000 class destroyers as launch platforms with more weapons purchased, adds money to start procurement of the Air Force Advanced Rapid Response Weapon (ARRW), and adds funding to mature an air-launched hypersonic cruise missile capability (FY 2022, \$3.8 billion)
- Artificial Intelligence (AI): Reflecting the rapidly growing importance of AI in every facet of the Department's operations, DoD AI efforts now number more than 600, up about 50 percent over FY 2021 (FY 2022, \$874 million)
- 5G (Fifth Generation) Wireless Networks: Transformational magnitude of greater network bandwidth and speed, enabling the trillion-sensor world, thereby creating vastly more data from more sensors and sources (FY 2022, \$398 million)

#### SPACE AND SPACE-BASED SYSTEMS

The FY 2022 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

*"The DoD will establish, maintain, and preserve U.S. freedom of operations in the space domain."* 

-Defense Space Strategy

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 Space Force will complete the production and launch of Space Based Infrared Systems (SBIRS) Space Vehicle 6 to address OPIR requirements. Advanced Extremely High Frequency (AEHF) Space Vehicle 6 was launched 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 2022 budget. Three rapid-prototyping contracts for ESS were awarded during September-November 2020. Protected Tactical SATCOM (PTS) is the next generation anti-jamming satellite system, which will provide protected tactical communications for warfighters all over the world, including the Polar Regions. The three rapid-prototyping contracts for PTS were awarded in February of 2020.



The FY 2022 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 2022 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 2021 and FY 2022 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.

Our top priority is to develop a Joint All Domain Command and Control System to ensure United States Space Command and their joint and coalition warfighting partners have the capability they require to command and control in a contested domain.

#### **CYBERSPACE ACTIVITIES**

The Department of Defense Cyber Strategy represents the Department's vision for addressing threats and implementing the priorities of the National Security Strategy for cyberspace. The Departments cyberspace objectives are:

- 1. Ensuring the Joint Force can achieve its missions in a contested cyberspace environment.
- 2. Strengthening the Joint Force by conducting cyberspace operations that enhance U.S. military advantages.
- 3. Defending U.S. critical infrastructure from malicious cyber activity that alone, or as part of a campaign, could cause a significant cyber incident.



- 4. Securing DoD information and systems, including DoD information on non-DoD owned networks, against malicious cyber activity.
- 5. Expanding DoD cyber cooperation with interagency, industry, and international partners.

The FY 2022 Cyberspace Activities budget (\$10.4 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 \$5.6 billion Cybersecurity budget for FY 2022 builds on the important initiatives established in FY 2021 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 2022, \$980.9 million)
  - Securing information sharing across multiple security domains to ensure appropriate confidentiality, data integrity, and controlled availability of cross domain systems and the information transiting those domains (FY 2022, \$315.8 million)
  - Imbedding "Zero Trust" (ZT) Architectures and supporting ZT capabilities by deploying Comply-to-Connect (C2C) as an enabling principle of ZT (FY 2022, \$615.0 million)
  - Operationalizing Identity and Credential Access Management (ICAM) modernization efforts to align with and utilize emerging technology and architectures (FY 2022, \$243.9 million)
  - Operationalizing endpoint management through C2C and Automated Continuous Endpoint Monitoring (ACEM) (FY 2022, \$339.7 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 2022, \$63.4 million)
- B. The Department "defends forward" in the day-to-day competition and conflict to disrupt or halt malicious cyber activity at its source. Defending forward consists of three mutually reinforcing sets of activities. The Department generates threat insights based on DoD activity outside U.S. networks; it enables better national defenses by leveraging those insights to help our interagency, industry, and international partners; and, it acts, when necessary, to disrupt adversary cyber actors. In conflict, U.S. cyber forces will be prepared to operate alongside our air, land, sea, and space forces to target adversary weaknesses, offset adversary strengths, and amplify the effectiveness of other elements of the Joint Force. The FY 2022 Cyber Operations budget (\$4.3 billion) supports the implementation of the Cyber Strategy by funding programs and activities in Cyber Collection, Intelligence Preparation for Operations, Defensive Cyber Effects Operations (DCEO), Offensive Cyber Effects Operations (OCEO) in support of cyber operations, and infrastructure in direct support of operations. Ongoing activities include:
  - Consistent with congressional direction issued in Section 1746 of the FY 2021 NDAA, the Department is developing a comprehensive plan to ensure Commander, USCYBERCOM is provided enhanced authority, direction, and control of the Joint Cyber Headquarters, its Cyber Mission Forces, and the supporting Cyber infrastructure and architecture with the FY 2024 budget.
  - The further development and employment of capabilities to integrate joint, coalition, and inter-agency command and control to enhance multi-domain operations (FY 2022, \$181.9 million)
  - The 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 2022, \$715.0 million)
  - Cooperation with allies and partners in the conduct of "hunt forward" defensive cyberspace operations to counter malign cyber actors (FY 2022, \$147.2 million)
  - Continued development of the Unified Platform, which will allow Cyber Mission Forces to securely connect and integrate the capabilities and information needed to conduct missions (FY 2022, \$113.9 million)

The Cyber Operations FY 2022 budget includes \$2.5 billion to continue support for the manning, training, and equipping of the Cyber Mission Forces (CMF). The Department is simultaneously enhancing the ability of its cyber forces to carry out missions in cyberspace and fielding 137 CMF teams in FY 2022 composed of:

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

• And in FY 2022, DoD is providing additional funding and civilian manpower, and adjusts military manpower, to support the growth of the Cyber Mission Forces by 4 teams. Additional teams address the increased Cyber Operations requirements and the Cyber support to Space Operations.

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 2022 Cyberspace Activities budget includes resources for advanced cyber related research and development activities (\$0.5 billion). These resources will continue support for the implementation of the Cyber Strategy and all-domain operations. The USD(R&E) Strategic Cyber Capability Goals increase dominance across the cyberspace domain and electromagnetic spectrum by accelerating the development and integration of promising technologies, leading to:
  - Vastly more resilient systems
  - Unrivaled and highly integrated cyber and cyber-enabled capabilities
  - Substantially enhanced expertise and skills within the cyber operations, cybersecurity, and cyber S&T workforces

In addition, the Cyberspace Activities budget will strongly leverage and integrate technologies that will increase the capability, speed, and agility of DoD's cyber range infrastructure. This will allow DoD to rapidly and comprehensively assess incremental and disruptive technologies, ensuring delivery of cyber capabilities to USCYBERCOM and other forces at the speed of need.

#### **TACKLING THE CLIMATE CRISIS**

"We face a growing climate crisis that is impacting our missions, plans, and capabilities and must be met by ambitious, immediate action."

- Secretary Of Defense Lloyd J. Austin – Message to the Force

There is little about what the Department of Defense does to defend the American people that is not affected by climate change. From melting Arctic sea ice and thawing permafrost, to wildfires, hurricanes, drought, and sea level rise, climate change is creating new missions and impacting the operational environment.

Meanwhile, extreme weather events, including wildfires in California, hurricanes on the East Coast, and "black flag" days across the country impact training and readiness while siphoning limited mission resources. Recent years have seen severe weather events cost the Department billions of dollars in hurricane and flood recovery costs. Given the current trajectory, the impact of climate change on the force is expected to increase.

The Department is responding to climate change in two ways: adaptation to enhance resilience and mitigation, taking those efforts required to reduce DoD's contribution to climate effects. The Department is committed to integrating climate considerations into policy and strategy and pursuing investments that enhance operational capability, mission resilience and readiness while also reducing climate impacts.

The Department's mission objectives are well aligned with its climate investments. From increasing platform efficiency to improving freedom of action in contested logistics environments to deploying new technologies to strengthen resilience of key capabilities at military installations, the Department is committed to solutions that are good for the climate and the mission. The budget request reflects that commitment, including \$617 million of new investment across four categories:

- Strengthening Installation Mission Resilience investments are focused on improving the ability of military installations and the critical capabilities housed there to operate efficiently and rapidly recover from disruptions in the availability of public infrastructure like the electric grid due to severe weather or other events like cyber-attacks (\$263 million).
- Science and Technology (S&T) includes investments in basic and applied research, advanced development, and technology prototyping, with a focus on priority areas of energy demand reduction and management and advanced energy supply and storage (\$186 million).
- Enhancing Capability and Leveraging DoD Buying Power includes investments to (1) improve the energy efficiency of operational platforms to enhance capability and increase freedom of action in contested logistics environments; (2) support the workforce needed to leverage private sector investment and build through third-party financed projects to improve installation energy efficiency and mission resilience; and (3) begin the process of modernizing the non-tactical fleet through electrification (\$153 million).
- Climate-informed Wargaming, Analysis and Contingency Planning investments focus on incorporating climate risks into wargames, exercises and other planning tools to ensure the Department understands the impacts of climate change on the mission and is prepared to respond (\$15 million).

#### DIVESTMENTS

Secretary of Defense Austin recently emphasized in his *Message to the Force* that the Department will continue to innovate to match the dynamic threat landscape. This will require advances in our joint warfighting concepts and a commitment to rapid experimentation and fielding of capabilities. Where necessary, the Department will evaluate and retire vulnerable systems and programs that no longer meet mission and/or security needs, while investing smartly for the future.

Divestments vary by Service and individual platform, and involve the selling or discontinued use of equipment or weapon systems, no longer optimized for military need. Some equipment or weapon systems are obsolete when more capable, less expensive, or more efficient replacements become operational. Divestments also occur when the operational, maintenance, and IT support costs become unaffordable; due to changing mission and operational requirements; or as part of the planned end of lifecycle of the equipment or weapons system. Strategic divestment is critical to modernizing for the challenges of today and tomorrow.

For the FY 2022 President's Budget, the Military Departments and USSOCOM reported divestments totaling over \$2.8 billion as shown in Figure 3.2. These collective divestment savings will enable the Services and the Department to improve the efficiency of the force and redirect resources to higher national defense priorities.

#### Figure 3.2. FY 2022 Divestments (\$ in millions)

Component	FY 2022 Savings		
Department of the Army	(\$47.8)		
Department of the Navy	(\$1,262.6)		
Department of the Air Force	(\$1,401.0)		
Defense-wide	(\$117.9)		
TOTAL	(\$2,829.3)		

#### Department of the Army

The Department of the Army divests seven programs in FY 2022 for a savings of \$47.8 million, including night vision, missiles, electronic warfare, and information technology programs as shown in Figure 3.3. The Army's equipment and weapon systems divestment totaled almost \$2.5 billion in FY 2020 and \$300 million in FY 2021, resulting in a total savings of \$18.1 billion between FY 2020 – 2025. Since FY 2020, the Army has cancelled funding for 105 procurement programs and reduced funding for 169 additional programs and internally realigned the associated RDT&E and procurement funding, totaling \$23.9 billion, towards modernization priorities to support Multi-Domain Operations (MDO). These divestment decisions enable investment to address capability gaps in Long Range Precision Fires, Next Generation Combat Vehicle, Future Vertical Lift, Network, Air and Missile Defense, and Soldier Lethality.

Risk was taken in the development of future capabilities and procurement of commercial-like systems such as ground transport, engineer, and base support equipment to invest in leap-ahead technologies such as energetics and long-range, hypersonic delivery. Air defense modernization provides a good example, where the Avenger product-line was terminated and funding aligned to mobile short-range air defense (M-SHORAD) and next-generation laser capabilities. Another example is the Advanced Precision Kill Weapons System (APKWS), which was found to have similar capability as an existing Navy system; the APKWS program was cancelled enabling the Army to redirect \$365 million to modernization efforts. Also, the Army terminated the development for a next generation Enhanced Container Handling Unit (E-CHU), the Heavy Expanded Mobility Tactical Truck (HEMTT), and Enhanced Heavy Equipment Transporter (E-HET), because projected increases in capability did not justify the cost; allowing \$790 million in savings to be realigned to modernization efforts. As the Army fields advanced technologies, such as the Integrated Visual Augmentation System (IVAS) to close-combat forces, current generation night vision equipment is cascaded to the next echelon of Active and Reserve forces.

Divestment	FY 2022 Savings			
Aviator Night Vision Imaging System	(\$1.8)			
Hellfire Missile Launcher	(\$9.0)			
Joint Tech. Center System Integration	(\$4.3)			
Launcher, 2.75" Rocket	(\$2.5)			
Lightweight Counter Mortar Radar	(\$9.3)			
Multi-Function Electronic Warfare	(\$12.3)			
Spider Networked Munition System	(\$8.6)			
TOTAL	(\$47.8)			

#### Figure 3.3. Department of the Army FY 2022 Divestments (*\$ in millions*)

#### Department of the Navy

The Department of the Navy continues to drive a data-centric, transparent, and outcome-oriented culture for fiscal responsibility, focusing on valuation and prioritization of requirements to improve the allocation of resources and maximize naval power. The Navy strategically retired less-capable platforms, reducing costs and realigning funds to source higher priority efforts, while maintaining the strongest balance of overall capabilities.

The Navy divests roughly \$1.3 billion of capabilities in FY 2022, including:

#### Decommission two CGs (CGs 66 and 68)

Internal Navy guidance on the Inactivation, Retirement, and Disposition of U.S. Naval Vessels governed the divestment strategy. Less-capable cruisers with only Ballistic Missile Defense capability are being divested to fund more capable Air Defense Commander Ships. There were several reasons that led to the decision to divest of these ships. First, divestment allows investment in higher priority capability and capacity. Second, divestment enables the Navy to fund other CGs and prioritize the completion of critical modernization availabilities. Third, Cruiser modernization costs have grown to 90 percent – 200 percent more than the initial programming estimates. Lastly, from an Air and Missile Defense Commander (AMDC) capability perspective, CG 66 would have likely returned from CG Mod "late to need." Due to current delays in early CG Mod ships (> 1 year), the ship would likely not return to operational status until after the low-point inventory of AMDC capable ships. DDG Flight IIIs and selective Service Life Extension of Air Defense Commander (ADC) Cruisers will provide future needed ADC capability.

#### Decommission one LSD (LSD 41)

Internal Navy guidance on the Inactivation, Retirement, and Disposition of U.S. Naval Vessels governed the divestment strategy. This decision reduces amphibious fleet inventory by 1 in FY 2022. The purpose of this divestment is to reallocate Dock Landing Ship (LSD) force funding toward procurement of additional Future Naval Force Structure shipbuilding requirements for Light Amphibious Warships (LAW) to support the Navy's concept of Distributed Maritime Operations, and the Commandant's Planning Guidance (CPG) and Force Design (FD) initiatives. LPD-17 Flight IIs, supplemented by LAW are the replacement capability.

#### Decommission four Littoral Combat Ships (LCS)

Internal Navy guidance on the Inactivation, Retirement, and Disposition of U.S. Naval Vessels governed the divestment strategy. There were several reasons that led to the decision to divest of these ships. First, decommissioning of LCSs 3 and 4, primarily test platforms, avoids the cost

to upgrade these ships to the common configuration and capability with the rest of the Fleet and allows for investments in higher priority capability and capacity. Next, LCSs 3 and 4 do not have mission packages (MP) assigned and the current MP procurement does not account for MP procurement for these two ships. Continued Fleet Operations would require purchasing an MP for each ship. Finally, LCSs 7 and 9 have experienced major propulsion train casualties (known combining gear issue) and will incur significant associated repair costs. Decommissioning these two ships includes a cost avoidance strategy, so that scarce maintenance funding can be allocated to the highest priority ships. The replacement capability is the FFG 62 Constellation class of ships.

# Divest Coastal Riverine Squadron Craft

The Navy divests of 12 MK VI Patrol Boats from Coastal Riverine Squadrons. The Navy reallocated the associated end strength savings to higher priority Navy programs. The final deployment for the affected Coastal Riverine companies is scheduled to be complete by approximately the end of 2021. The MK VI requirement originated from a November 2007 Commander, U.S. Fifth Fleet Urgent Operational Needs Statement for a visit, board, search, and seizure overwatch platform in the littorals and the mission set was expanded to 2nd, 3rd and 7th Fleets and added maritime force protection, Theater Security Cooperation, Expeditionary MCM support, and intelligence collection tasks. Following divestment, these missions will be accomplished using other Navy platforms to include leveraging U.S. Coast Guard to escort High Value Units (HVU) (e.g., CVN, SSN, SSGN) in Fleet concentration areas.

# Accelerate Divestment of F/A-18 A-Ds

F/A-18 A-Ds were first scheduled for a phased divestment to be complete by FY 2024 as identified in the FY 2019 budget. The current budget request accelerates full divestment (55 aircraft) to FY 2022. The Navy accelerated Navy Reserve's transition from F/A-18A-D to F/A-18E/F scheduled to be complete by end of FY 2022 by recapitalizing Hornet aircraft with Super Hornets. The Navy mitigates risk in the near term with expected transfer of F-16s to Navy from U.S. Air Force. This divestment reduces long-term support cost of older Type/Model/Series, while retaining adversary capacity, and Naval Aviation Warfighting Development Center testing capability using Block I Super Hornets. F/A-18 E/Fs, F-35C, F/A-XX will serve as replacement capability.

# Accelerate Divestment of Broad Area Maritime Surveillance-Demonstrator (BAMS-D)

The divestment strategy from the FY 2021 budget originally scheduled BAMS-D to divest in FY 2023. The current budget request accelerates this divestment by a year. This divestment removes resourcing from non-program of record efforts and accelerates cost savings by moving divestment from FY 2023 to FY 2022. This decision allows for investment in higher priority capability and capacity. Replacement capabilities include P-8A Poseidon, MQ-4, and EP-3E operations extended by one year to maintain compliance with 2011 National Defense Authorization Act and subsequent Joint Requirements Oversight Council approved Maritime intelligence, surveillance, reconnaissance, and targeting transition plan.

# USMC Divestments/ Training Devices Reduction

The future Fleet Marine Force (FMF) requires transformation to a modernized force with new organic capabilities. The current budget continues to implement Force Design 2030, which will allow the Navy and Marine Corps to restore the strategic initiative and define the future of maritime conflict by capitalizing on new capabilities to deter conflict and dominate inside an adversary's weapon engagement zone. These decisions were made to divest of capabilities that do not meet future requirements supported in the National Defense Strategy. In addition, the Training Counter Radio-Controlled Improvised Explosive Device- Electronic Warfare system was divested as it no

longer meets training objectives. Funds will be reallocated into Force Design initiatives that modernize and increase the lethality of the Marine Corps, including Warfighting, 21st Century Learning and Network Modernization.

Figure 5.4. Department of the Navy F1 2022 Divestments (\$ in minors				
Divestment	FY 2022 Savings			
Decommission CG 66 & CG 68	(\$369.1)			
Decommission LSD 41	(\$200.3)			
Decommission LCS 3, 4, 7, & 9	(\$186.1)			
Decommission seven LSDs	(\$97.8)			
Divest F/A-18A-D	(\$95.2)			
Divest BAMS-D	(\$81.4)			
Divest Coastal Riverine Squadron Craft	(\$74.0)			
Divest RQ-21 Scan Eagle	(\$28.0)			
Divest USMC capabilities	(\$9.4)			
Divest other programs	(\$121.5)			
TOTAL	(\$1,262.6)			

Figure 3.4. Department of the Navy FY 2022 Divestments (\$ in millions)

Numbers may not add due to rounding

# Department of the Air Force

The Department of the Air Force seeks to invest in technologies and field systems that are both lethal and survivable against a peer threat. This ultimately means divestment of many outdated and costly platforms in order to free up manpower and resources to field more capable systems to address emerging threats.

For the FY 2022 President's Budget, the Air Force reported divestments totaling over \$1.4 billion. These collective divestment savings will enable the Air Force to improve the efficiency of the force and redirect resources to higher national defense priorities.

# Fighters

The F-15C/D fleet has major structural issues and will run out of safe airframe flying hours in 2023-2027. By the 2035-2040 timeframe, the Air Force must have a fighter fleet that provides the capability, capacity, and affordability to meet air superiority/global strike needs for our nation's defense, both in competition and in conflict. To attain the desired fighter fleet, the Air Force must right-size current aircraft inventories to expedite the transition away from less-capable, aging aircraft & emphasize investment in future capabilities such as NGAD and F-35 modernization. The desired Air Force fighter fleet should match capability and capacity of both platforms and weapons to mission requirements.

The Air Force must right-size the A-10 fleet to present cost-effective platforms for the Counter-Violent Extremist Organizations and lower-end fights until at least 2030. A fleet size of 218 allows Attack Squadrons to be sized to a minimum of 18 primary aircraft available, which ensures one squadron is always available to support combatant commander requirements. Failure to rightsize the A-10 fleet places at risk a future force that provides the capability, capacity, and affordability to achieve National Defense Strategy (NDS) objectives and meet air superiority and global strike needs for the Joint Force.

# Intelligence Surveillance Reconnaissance (ISR) & Command and Control (C2)

The NDS requires the Air Force to compete in the highly-contested environment. Therefore, the Air Force must accelerate investment in competitive capabilities that can penetrate and survive in the highly-contested environment. This requires the Air Force to begin divestment of systems such as the RQ-4 Block 30. Also, the JSTARS cannot survive in the high-end fight and will also be divested. Divestment of these weapon systems provides resources to fund emerging Intelligence, Surveillance, and Reconnaissance capabilities that can penetrate and collect data in the highly-contested environment.

#### Global Mobility

To maintain our edge in Rapid Global Mobility for the future fight, the Air Force must continue investment in the KC-46, which requires divesting older aircraft as KC-46s are delivered. Retirement of old tankers allows the Air Force to transition critical manpower from KC-10s and KC-135s to the KC-46. Additionally, the Air Force will continue to provide rapid global mobility while right-sizing a C-130 force. Right-sizing the C-130 fleet in FY 2022 constitutes a low level of risk, given future Joint warfighting missions and domestic imperatives.

Aircraft Type	FY 2022 Divestments	FY 2022 Savings
A-10 Thunderbolt	(42)	(\$343.9)
F-15C/D	(48)	(\$248.9)
F-16 C/D	(47)	(\$30.9)
KC-135	(18)	(\$112.7)
KC-10	(14)	(\$174.0)
С-130Н	(8)	(\$83.1)
E-8 (JSTARS)	(4)	(\$106.5)
RQ-4 Block 30 Global Hawk	(20)	(\$273.3)
TOTAL	(201)	(\$1,373.3)

Figure 3.5. Department of the Air Force FY 2022 Aircraft Divestments (\$ in millions)

In addition, the Air Force realizes \$27.7 million in other FY 2022 program savings related to the divestment of OC-135 flying hours and F-15C Multifunctional Information Distribution System - Joint Tactical Radio System (MIDS-JTRS) integration.

# **U.S. Special Operations Command**

The U.S. Special Operations Command divests outdated intelligence, surveillance, and reconnaissance and global video surveillance capabilities for a total savings of \$117.9 million in FY 2022.

# 4. MAINTAIN AND ENHANCE THE MILITARY'S STRATEGIC READINESS

In Secretary Austin's *Message to the Force* dated March 4, 2021, he emphasized his commitment to developing the "right people, priorities, and purpose of mission to continue to defend our Nation from enemies foreign and domestic." Central to this effort is the strategic readiness and preparedness of the Joint Force to succeed on current and future battlefields. To this end, the FY 2022 budget endeavors to build and posture a more lethal, operationally ready, and resilient joint force that provides the Nation with the capability to address, and if necessary, defeat the threats identified in the President's *Interim Guidance*.

The Joint Force faces a wide range of increasingly complex threats and remains challenged by ever-present global demands. To address the current operational reality and the potential for future high-end conflict, the Department must balance investments across capacity and capability, while ensuring continued growth in high-end combat effectiveness. The Department's FY 2022 budget supports modernizing capabilities for the future fight and sustaining current force readiness.

To guide and inform readiness investments, the Department strives to assess the current and long-term readiness of the force using several key lenses including: lethality, operational readiness, global force posture, mobilization, sustainment, and resilience. Success in these core dimensions of readiness is vital to competing with the People's Republic of China and Russia, as well as, addressing other emergent and "fight tonight" challenges.

#### **Major Themes**

- Army Readiness
- Navy Readiness
- Marine Corps
   Readiness
- Air Force Readiness
- Space Force
   Readiness
- United States Special Operations Command Readiness
- Joint Capabilities



The complex, strategic environment facing the Nation requires a ready force – for both near-term and longer-term challenges - to meet the National Security Priorities. One of the key changes to enhancing military readiness is the concept of dynamic force employment (DFE). Through DFE, the Military Departments prioritize the sustainment of Joint Force capacity and capability for major combat, while providing options for proactive and scalable employment of the Joint Force to create operational unpredictability and preserve force readiness for future peer/near-peer competition. Thanks to the support provided by the U.S. Congress, beginning in FY 2021, the Joint Staff and Military Services began aligning resources and adjusting force generation, to institute DFE, ensuring the effective use of units identified as part of the Immediate Response Force and Contingency Response Force.

Another critical contributing factor for sustaining readiness is reliable, predictable, and on-time funding. Timely passage of an appropriations bill helps set the conditions needed for the military departments to achieve their readiness goals as prescribed by the Secretary. It enables the Military Services to properly plan training events and exercises, order long lead depot supplies and parts, and make other key readiness investments.

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 2022 budget request funds improvements in the following areas:

- Army is investing \$27.8 billion in its core readiness and readiness enablers' accounts, which is a decrease of \$1.8 billion from FY 2021 enacted levels due to reduced USCENTCOM operations. This includes \$11.6 billion for home station training for ground maneuver forces and \$3.0 billion for aviation readiness.
- The Navy is investing \$44.7 billion, an increase of \$2.4 billion above FY 2021 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 \$10.3 billion in ship depot maintenance and an additional \$1.3 billion in procurement appropriations to expand the Pacific fleet maintenance pilot program to U.S. Fleet Forces Command. Further, the Department of the Navy is investing \$12.7 billion, an increase of \$1.2 billion above FY 2021 enacted levels, in aviation readiness to sustain proficiencies, with the goal of improving mission capable rates across the fleet.
- The Marine Corps is investing \$3.6 billion in ground combat readiness, an increase of \$0.1 billion above FY 2021 enacted levels, \$4.9 billion in aviation readiness accounts (Flying Hours funded in Operation and Maintenance, Navy), and an increase of \$0.4 billion above FY 2021 enacted levels to sustain critical maintenance and training programs.
- The Air Force and Space Force are investing \$36.5 billion in core readiness and readiness enabler activities, of which \$2.7 billion is for Space Force operations and space system sustainment. The \$10.3 billion budget request for flying hours and operations to sustain combat readiness is an increase of \$0.3 billion above FY 2021 enacted levels. For weapon system sustainment, \$15.4 billion, an increase of \$6 million above FY 2021 enacted levels, is being invested to maintain the inventory of aircraft, space systems, and other weapon systems.

The following provides a detailed breakdown of FY 2022 readiness investments, by Service.

# **ARMY READINESS**

The Army remains on track to meet Global Force Management Allocation Plan (GFMAP) and Directed Readiness Table requirements in FY 2022. As the Army continues to modernize in order to outpace near-peer adversaries, it continues a holistic approach to tactical, operational, and strategic readiness by balancing investments in training, equipping, and installations. The Army is advancing National Security Priorities to support U.S. Indo-Pacific Command as well as U.S. European Command. For example, the Army continues to conduct Project Convergence efforts to



test emerging technologies and evaluate the Army's contribution to All-Domain operations. The Army is also adding a High Mobility Artillery Rocket Battalion and associated combat support capabilities to an existing Multi-Domain Task Force.

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

FY 2022 budget builds on current readiness gains and modernizes for the *future fight.* 

enable training, institutional training for Soldier skills and leader development, and mission and other support to Combatant Commanders (CCDRs). To support collective and individual training, the Army resourced active Army Brigade Combat Teams (BCTs) and Combat Aviation Brigades (CABs) to meet the Directed Readiness Table Requirements. Army Reserve and Army National Guard BCTs and CABs are resourced to remain available for operational requirements.

Army	FY 2020	FY 2021	FY 2022
End Strength <sup>1</sup>	1,010,215	1,012,300	1,010,500
Ground Readiness <sup>2</sup>	\$11.5B	\$13.0B	\$11.6B
Aviation Readiness <sup>3</sup>	\$2.6B	\$2.8B	\$3.0B
Depot Maintenance <sup>4</sup>	\$2.0B	\$1.8B	\$1.5B
Infrastructure <sup>5</sup>	\$8.2B	\$6.8B	\$7.1B

#### Figure 4.1. FY 2022 Key Army Readiness Investments

<sup>1</sup> Total Active, Reserve, and National Guard end strength; FY 2021 currently projected end strength

<sup>2</sup> Ground Readiness Sub Activity Groups (SAGs) 111, 112, 113, 114, 115

<sup>3</sup> Aviation Readiness SAGs: 116

<sup>4</sup> Depot Maintenance SAGs: 123

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

The active component (AC) Army is postured to achieve its end strength target of 485,000 in FY 2022. The reserve component (RC) end strength objective of 189,800 in FY 2021 will decrease by 300 to 189,500 in FY 2022, and Army National Guard will decrease by 500 to 336,000. The FY 2022 end strength balances structure to focus on enabling Large Scale Combat Operations (LSCO) as a waypoint for Multi-Domain Operations.

Ground readiness remains stable through a holistic approach to readiness across training, Soldier availability, and equipment readiness. The Army's ground and aviation training strategies are resourced to meet the requirements outlined in the Directed Readiness Tables. The FY 2022 budget also supports flight school in order to meet the Army's pilot requirements.

In addition to core readiness and readiness enabler activities, The Army's installation readiness program consists of base operations services, family programs, installation utilities, environmental programs, military construction, and facility sustainment, modernization, and restoration (SRM). The FY 2022 Restoration and Modernization resources are prioritized to restore barracks, power projection infrastructure, and critical facilities. Facilities Sustainment funding is programmed at 80 percent of the Department of Defense (DoD) Facilities Sustainment Model requirement.

Starting in FY 2022, the Army will begin a new unit lifecycle model named the Regionally Aligned Readiness and Modernization Model (ReARMM). This new model will balance multiple regional requirements on the force with the Army's necessity to modernize units. The Army must prioritize unit modernization to ensure the Army remains both competitive and ready.

Figure 4.2 shows planned rotations for the critical joint training exercises funded in the FY 2022 budget. The Army resourced 20 decisive action Combat Training Center (CTC) rotations to assess Brigade-level tactical readiness as well as a Culminating Training Exercise 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 4.2. Required, Planned, and Executed Army (Regular, Reserve, Guard) rotations through Maneuver CTCs DA/ULO, and Warfighter Exercises (WFX)

CTC Training	FY 2020 Actual	FY 2021 Planned	FY 2022 Planned
Combat Training Center (CTC) Capacity – Brigade Combat Teams (BCTs)	20	19	20
Culminating Training Exercise (CTE) – Security Force Assistance Brigade (SFAB)	2	2	1
Warfighter Exercises (WFX)	11	11	11
Emergency Deployment Readiness (EDRE) (CONUS)	4	4	4

# NAVY READINESS

The Navy and Navy Reserve are continuing to sustain readiness gains after several years of increased funding. In the FY 2022 budget, core readiness accounts grow by 4.5 percent from the FY 2021 enacted budget to FY 2022.

Ship Depot Maintenance increases by \$0.6 billion from FY 2021 to FY 2022, a 5 percent increase, and funds 97 percent of the requirement. The program includes an executable maintenance schedule at validated shipyard capacity. The program also includes the continuation of submarine overhaul availabilities in the private sector. Increased investments have resulted in improved shipyard performance trends, such as reductions in days of maintenance delays and improved on-time deliveries. The Navy is continuing its pilot program to fund private sector ship maintenance availabilities in the Other Procurement, Navy (OPN) appropriation, expanding the pilot to Fleet Forces Command in addition to Pacific Fleet. FY 2022 requests \$1.3 billion, an increase of \$0.1 billion above the FY 2021 enacted OPN amount.

Ship Operations increases by \$0.3 billion, a 6 percent growth from FY 2021 enacted funding. This is a program modeled on force structure and Global Force Management Allocation Plan (GFMAP) steaming requirements. The battle force inventory decreases to 294 ships in FY 2021 and increases to 296 by the end of FY 2022. This also includes the Navy's Military Sealift Command Support Ships.

Aircraft Operations (not including Marine Corps aviation) increases by \$0.6 billion from FY 2021 to



FY 2022, a 12 percent increase from FY 2021 enacted levels. FY 2022 funding is based on current aircraft availability, manning and funding priorities. The FY 2022 budget focuses on sustaining tactical aviation recovery despite 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 also improved accountability and implemented process changes to enhance organic, intermediate, and depot aviation maintenance capacity and 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 (not including Marine Corps aviation) increases by \$0.1 billion from FY 2021 to FY 2022. 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 increased inventory of F-35 and C/MV-22 aircraft.

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 aviation (F/A 18E/F & E-2D) readiness, DDG 51 maintenance, SSN availability, Logistics, military personnel (MILPERS), Cyber, and Naval Shipyard performance.

Through efforts such as P2P and the implementation of Availability Duration Scorecard 3.0, the Navy has implemented more thorough inspections and longer planning periods - arresting, and inverting, historically high duration delays in private contracted ship maintenance. The Navy continues to see improvements in its ability to award availabilities on-time, and as planned, and has seen a marked decrease in duration variance since FY 2018. The Average days of private maintenance delays has decreased by over 70 percent from 143 days in FY 2018 to 39 days in FY 2019. For FY 2020, the Navy experienced an average delay of -3 days. The Navy is also meeting or exceeding its contract award goals 71 percent of the time in FY 2020 and FY 2021.

Navy	FY 2020	FY 2021	FY 2022
End Strength <sup>1</sup>	405,672	407,329	404,800
Ship Readiness <sup>2</sup>	\$16.6B	\$16.5B	\$17.5B
Aviation Readiness <sup>3</sup>	\$7.5B	\$7.4B	\$7.8B
Infrastructure <sup>4</sup>	\$8.1B	\$5.4B	\$4.9B

#### Figure 4.3. FY 2022 Key Navy Readiness Investments

<sup>1</sup> Total Active and Reserve end strength; FY 2021 currently projected end strength

<sup>2</sup> Ship Readiness SAGs: 1B1B, 1B4B (FY 2020 – FY 2022 includes \$1B+ ship depot maintenance transfer to OPN)

<sup>3</sup> Aviation Readiness SAGs: 1A1A, 1A2A, 1A5A, 1A9A, excludes funding for Marine Corps

<sup>4</sup> Infrastructure SAGs: BSM1, BSMR, Military Construction (MILCON) appropriations (includes disaster relief funding)

By the end of FY 2022 the Navy will have grown military end strength by over 8,000 personnel since FY 2019, despite dropping 1,800 in FY 2022 from the FY 2021 Authorized level. This end strength level aligns with force structure requirements and maintains a force that can fight and win.

As detailed in Figure 4.4, the FY 2022 budget includes 49 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.

	FY 2020	FY 2020 Executed		FY 2021 Planned		Planned
	BASIC	INT*	BASIC	INT*	BASIC	INT*
Carriers	2	3	4	2	3	3
Carrier Air Wings	2	3	4	2	3	3
CG/DDG/LCS	23	19	37	27	32	20
LHA/LHD/LPD/LSD	14	2	7	12	5	5
Attack Submarines	13	18	14	19	16	18

#### Figure 4.4. Programmed Navy Training Throughput

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

\*\* The figures entered for FY 2022 represent a count of hulls expected to be in the given phase at some point during the year.

# MARINE CORPS READINESS

The Commandant of the Marine Corps number one priority is Force Design 2030, transforming from a legacy force to a modernized force with new organic capabilities organized, trained, equipped, and postured to meet the demands of the rapidly evolving future operating environment. The intent is to effect significant change required to ensure the Marine Corps is aligned with the National Security Priorities, 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.

"Divest to Reallocate" is the overall theme for the Marine Corps' FY 2022 President's Budget submission. The FY 2022 budget implements the Commandant's Force Design initiative by reallocating resources from older capabilities and surge capacity to fund advanced warfighting, network modernization and 21<sup>st</sup> Century Learning. As an inherently naval force, the FY 2022 budget enhances the Marine Corps' warfighting capability and readiness 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 Marine Corps is investing \$3.6 billion in ground combat readiness, an increase of \$88 million from the FY 2021 enacted levels, and \$4.9 billion in aviation readiness accounts, an increase of \$342 million above FY 2021 enacted levels, to sustain critical maintenance and training programs.

The FY 2022 ground combat readiness budget of \$3.6 billion enables the Marine Corps to meet the readiness requirements for Fleet Marine Forces, Field Logistics, Maritime Prepositioning, and Cyberspace Activities. 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 retirement of older and low demand programs that do not meet future operating requirements and to reallocate these funds in capabilities that enable naval expeditionary force-in-readiness to operate inside actively contested maritime spaces and facilitate sea control in support of fleet operations.

As an inherently naval force, the FY 2022 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.

For FY 2022 Aviation Readiness, the Marine Corps requests \$4.9 billion across active and reserve aviation readiness accounts. Break out of major Aviation Readiness investment as follows:

- \$2.7 billion for Mission and Other Flight Operations (1A1A Operation and Maintenance, Navy), i.e. The Flying Hour Program (FHP) – Funded to 90 percent of the executable requirement. Funds Aviation Fuel, Contract Maintenance, Aviation Depot Level Reparable (AVDLR), and Flying Hour Maintenance for USMC Type Model Series (T/M/S) platforms to include JSF F-35B/C, AV-8B, MV-22, CH-53 Series, KC-130J, UH-1, F/A-18, and Unmanned Platforms (UAS)
- \$0.7 billion for Fleet Air Training (1A2A)
- \$0.5 billion for Aircraft Depot Maintenance (1A5A)
- \$1.0 billion for Aviation Logistics (1A9A) Primarily funds JSF F-35 B/C maintenance actions and FHP & KC-130J & MV-22 maintenance

The Marine Aviation Current Readiness program is essential to combat readiness and preservation of aviation equipment. Aviation readiness is integrated with the Naval Aviation Enterprise (NAE). The NAE is a partnership of fleet and provider stakeholders who use enterprise principles and tenets to advance and sustain Naval Aviation warfighting capabilities at an affordable cost today and in the future.

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: increasing supply materiel readiness; decreasing aircraft downtime awaiting supply; improving training quality and proficiency, while completing in-stride modernization of older aircraft and transitioning to newer aircraft across all platforms; and funding contractor support for 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 \$2.4 billion in support of Infrastructure funding, which includes \$1.1 billion in FY 2022 Military Construction (MILCON) for operational facilities, Guam relocation, training facilities, design and Unspecified Minor Construction for urgent projects. Additionally, \$1.3 billion is requested for Facilities Sustainment, Restoration, and Modernization (FSRM), which funds 80 percent of the Marine Corps' sustainment requirement, provides funding to support restoration and modernization of existing facilities, and the demolition of facilities no longer required. This includes \$0.9 billion for sustainment, \$0.3 billion for restoration and modernization.

The Marine Corps recognizes the importance of facilities programs to support warfighting capability. The 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 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. The Marine Corps will continue to focus 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.

Marine Corps	FY 2020	FY 2021	FY 2022
End Strength <sup>1</sup>	216,459	217,443	215,300
Ground Readiness <sup>2</sup>	\$3.6B	\$3.5B	\$3.6B
Aviation Readiness <sup>3</sup>	\$4.0B	\$4.6B	\$4.9B
Infrastructure <sup>4</sup>	\$4.4B	\$1.8B	\$2.4B

#### Figure 4.5. FY 2022 Key Marine Corps Readiness Accounts

<sup>1</sup> Total Active and Reserve end strength; FY 2021 currently projected end strength

<sup>2</sup> Ground Readiness SAGs - 1A1A, 1A2A, 1B1B, 1CCY.

<sup>3</sup> Aviation Readiness SAGs - 1A1A, 1A2A, 1A5A, 1A9A (Marine Corps portions of O&M, Navy and O&M, Navy Reserve appropriations) <sup>4</sup> 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 2022 in support of its Service-Level Training Installations to ensure Marines are properly trained to address all warfighting domains across the range of military operations. The two premier Service-Level Training Exercises are the Integrated Training Exercise (ITX) and Mountain Exercise (MTX). ITX, conducted at the Marine Corps Air Ground Combat Center at Twenty-nine 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.

	FY 2020		FY 2021		FY 2022	
	ITX	MTX	ITX	MTX	ITX	MTX
MAGTF CE	4	0	4	0	4	0
Infantry Bn	8	4	8	6	8	6
Artillery Bn (-)	4	0	4	0	4	0
Logistics Bn	4	1	4	1	4	1
Squadrons/Bn	9	3	9	3	9	3

# Figure 4.C. EV 0000 Marine Come Diamond Lange Training Examples

# **AIR FORCE READINESS**

The FY 2022 budget request demonstrates the Air Force's commitment to building and sustaining readiness while balancing with modernization to meet the challenges described in the Interim Guidance. Specifically, the Air Force FY 2022 request makes necessary changes to force structure, focuses manpower and resources on frontline units, and invests in critical readiness initiatives such as synthetic training and command and control (C2) capabilities. Moreover, the FY 2022 request maintains funding in core readiness accounts and enabling activities that provide the Air Force the opportunity to build future readiness to meet the advancing threat of peer/nearpeer competitors.

Changes to force structure are necessary to enable the Service to pivot away from cost prohibitive platforms and continue focusing on system modernization and future capabilities required to win the high-end fight. The FY 2022 request makes targeted divesture reductions to vulnerable systems that must occur as these actions lower aircraft sustainment costs and enable the Air Force to invest in advanced technology and modernization efforts to maintain our advantage over peer adversaries.

The Air Force is committed to building a more lethal and ready force, prepared to defeat our adversaries in high-end combat. The majority of the Service's pacing squadrons are ready to "fight tonight" with their lead force packages, and the FY 2022 budget sustains the manpower and resources for those units, which are critical to the early response for combat operations. The Air Force continues to utilize the Readiness Recovery Framework (R2F) to assess key readiness metrics and ensure awareness and mitigations for stressed force elements in accordance with the Directed Readiness Tables requirements.

The Air Force is also making investments in Command and Control (C2) capabilities that will provide the Air Force/DoD sustained C2. The Advanced Battlefield Management System (ABMS) is the Air Force's contribution to the Joint All-Domain Command and Control (JADC2) concept. which seeks to allow current and future platforms/sensors to instantly share critical operational data across the DoD enterprise in the future contested high-end warfighting environment.

#### Figure 4.7. FY 2022 Key Air Force Readiness Investments

Air Force	FY 2020	FY 2021	FY 2022
End Strength <sup>1</sup>	510,175	507,755	506,900
Maintenance <sup>2</sup>	\$15.8B	\$15.5B	\$15.4B
Flying Hours & Operations <sup>3</sup>	\$9.4B	\$9.9B	\$10.3B
Infrastructure <sup>4</sup>	\$10.7B	\$5.6B	\$7.3B

<sup>1</sup> Total Active, Reserve, and National Guard end strength; FY 2021 currently projected end strength (excludes Space Force)

<sup>2</sup> Maintenance SAGs: 011M, 011W, 011V (Funding for U.S. Space Force transferred in FY 2021 – see Figure 4.9)

<sup>3</sup> Flying Hours & Operations SAGs: 011A (AFR), 011F (ANG), 011Y (AF)

<sup>4</sup> Infrastructure SAGs: 011R, Military Construction (MILCON) appropriations (includes disaster relief funding)

As shown in Figure 4.7, total Air Force end strength declines in FY 2022 due to the transfer of personnel to the Space Force. Beyond the transfer, Air Force personnel are funded to grow slightly in FY 2022 to meet global requirements. This increase continues to 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 continues to pursue force structure divestiture and repurpose manpower accordingly to mitigate critical shortfalls, manage experience, and enable readiness as new aircraft and systems come on line.

The FY 2022 request increases funding, after accounting for the transfer of funding to U.S. Space Force, in core readiness accounts, including maintenance, flying 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 mission ready. Stable and predictable funding has allowed the Service to preserve readiness gains, achieve predictable workloads, and execute life cycle sustainment requirements. In FY 2022, the Air Force funded its WSS requirements with a strategic focus on depot repair throughput, spare parts availability, and enterprise sustaining engineering efforts. Additionally, the Air Force continues to leverage data analytics (e.g., Condition Based Maintenance (CBM)), industry best practices, and emerging technologies such as Artificial Intelligence (AI) to reduce sustainment costs and increase process efficiencies.

The Air Force is also concentrating on sustaining readiness gains in air mobility. Continuing investments in strategic airlift and tanker operational training at home is striving to improve aircrew quality of life and proficiency. However, tanker capacity and negative trends in aircraft availability due to increasing and maintenance requirements and depot times continue to challenge substantive readiness improvements.

The Service is addressing operational training infrastructure (OTI) shortfalls through targeted near term investment and a long-term funding strategy to upgrade both its live and synthetic training infrastructure.

In the FY 2022 budget, the Air Force continues to develop the infrastructure necessary to train for the challenges of future combat operations. This funding will assist in upgrading critical training infrastructure 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 – ALASKA is a PACAF-sponsored training exercise conducted three to four times a year and features large force employment exercise scenarios. The focus is at the tactical level and the goal is to give aircrew and pilots the equivalent of their first ten combat sorties. Units receive equivalent level of training whether they attend RED FLAG Nellis or Alaska.

RED FLAG – NELLIS is an ACC-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 an ACC-sponsored, 2 week Combat Search and Rescue (CSAR) exercise. Detachment One, 414th Combat Training Squadron hosts this Personnel Recovery (PR) exercise through the United States Air Force Warfare Center. The missions are 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 Army's 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 counterland and counter-sea missions.

Exercise	FY 2020 Executed	FY 2021 Planned	FY 2022 Planned
Red Flag Alaska	1 executed of 3 planned	3	3
Red Flag Nellis	All 3 planned were executed	3	3
Red Flag Rescue	1 executed of 2 planned	2	3
Green Flag West	6 executed of 10 planned	9	9
Green Flag East	9 executed of 10 planned	10	10

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# SPACE FORCE READINESS

#### Figure 4.9. FY 2022 Key Space Force Readiness Investments

Space Force	FY 2020	FY 2021	FY 2022
End Strength <sup>1</sup>	85	6,434	8,400
Space Operations <sup>2</sup>	-	\$0.9B	\$1.3B
Space System Sustainment <sup>3</sup>	-	\$1.4B	\$1.4B
Infrastructure <sup>4</sup>	-	-	\$0.2B

<sup>1</sup> Total Active, end strength; (Allocation org = SF). FY 2021 currently projected end strength.

<sup>2</sup> Space Operations SAGs: 012A, 013A, 013C

<sup>3</sup> Space System Sustainment SAGs: 013M, 013W

<sup>4</sup> Infrastructure SAG: 013R

The United States Space Force (USSF) spent 2021 continuing to develop and refine the organizational construct and functions; now, in 2022, we are aggressively integrating the Service into the fabric of national and international security by collaborating across the DoD, interagency, commercial industry, and our allies and partners. As the USSF creates new and independent military options, we are preparing a new force presentation model to optimize integration and deliver space expertise in order to maximize the effect of space capabilities for the joint force. Balancing force allocation and Service-retained capability assures long-term advantage over high-end global threats. Additionally, USSF is performing the analytical and developmental work to create the most effective and efficient force design for the contested domain of space. These initiatives make us resilient and competitive, and put us in a position of advantage against our near peer competitors.

As the USSF goes through its third year of integration and normalization, our efforts to capture our force presentation model revolve around our ability to accomplish six key functions: 1) sizing forces; 2) deploying forces; 3) employing forces; 4) sustaining operational effects; 5) managing force rotations; and 6) articulating Service purpose. Space Force elements in general are not employed or deployed as large organizational constructs, but rather provide diverse combat effects from tactically independent elements which in many cases are not deployed into or

employed from the affected area of responsibility. As it is a critical imperative of an independent military service to present ready forces to combatant commands, the USSF must accomplish the following four tasks: 1) Establish Service Components assigned to each of the DoD's Combatant Commands; 2) Align key documentation to account for Space Force Service Components; 3) Design, document and implement Unit Type Codes (UTCs) for the purposes of accurately reflecting the combat capabilities into force elements to enable effective readiness reporting and facilitate tailorable, flexible and agile force presentation of space capabilities; and 4) Clearly delineate service-retained and institutional forces to optimize force readiness and accomplish the organizing, training, and equipping functions required by U.S. Code, Title 10.

The USSF will ensure there is the proper allocation of Service billets to perform the highest priority functions. The Space Force will design operational force elements and a supporting organizational construct for presenting forces to combatant commands. The Space Force will continue to mature its deploy-to-dwell concepts currently captured in our Space Mission Force requirements. Additionally, while the other Services center their force presentation models on an organizational combat unit, i.e. the Army Brigade Combat Team, the Navy's Carrier Strike Group, the Marine Air-Ground Task Force, and the Air Force Air Expeditionary Task Force, the aggregated USSF force elements will be presented as a Space Mission Task Force and will be assigned or attached to the joint force commander for operational employment.

The USSF continues to pursue enhanced simulators, virtual training environments, sophisticated ranges, and large force employment exercises to increase operational readiness. These efforts will provide realistic threat environments and improve training integration.

# UNITED STATES SPECIAL OPERATIONS COMMAND (USSOCOM) READINESS

The FY 2022 budget request invests in USSOCOM readiness and supports the National Security Priorities 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), conduct internet-based Military Information Support Operations (MISO), compete with strategic adversaries below the level of armed conflict, and conduct global crisis response missions. Further, the FY 2022 budget request supports USSOCOM's ability to meet the Secretary of Defense's FY 2022 Directed Readiness Tables.

Overall, SOF maintains a relatively stable readiness posture while simultaneously modernizing the force and maintaining a persistent global presence. In the FY 2022 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 2022 budget request provides USSOCOM with sufficient funding to address these challenges. The USSOCOM continues to rely heavily on the Services for materiel, logistics, and infrastructure support across the spectrum of operations.

The FY 2022 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 ISR; begins pursuing the materiel solution for armed overwatch in FY 2022; and increases support for the Preservation of the Force and Family

USSOCOM	FY 2020	FY 2021	FY 2022
Personnel <sup>2</sup>	71,786	73,926	74,441
Flying Hours	\$0.63B	\$0.71B	\$0.63B
Formal Training	\$0.343B	\$0.37B	\$0.37B
Exercises	\$0.08B	\$0.09B	\$0.09B

(POTFF) program to maximize personnel readiness.

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

<sup>2</sup> Total Personnel includes Active, Reserve, and National Guard end strength and Civilian Full-Time Equivalents

The FY 2022 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 above joint SOF headquarters preparing to deploy for named operations. These exercises are crucial to sustaining SOF readiness. The FY 2022 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 U.S. SOF units to train in OCONUS environments with friendly foreign forces.

The FY 2022 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. The budget supports SOF transitioning to sustainable Force Generation (FORGEN) Models to meet DoD Deployment to Dwell ratios and rebuild readiness in challenged areas. These relatively small but crucial capacity enhancements include expanded CS/CSS capabilities to reduce stress on SOF enablers, initiatives to improve SOF aviation platform availability, as well as support Intelligence, Surveillance, and Reconnaissance (ISR), force protection, direct action, cyber, and classified units.

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 older 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. Building new capacity while maintaining current capability stresses the platform availability, aircrew training, and ability to develop new Tactics, Techniques, and Procedures (TTPs). The FY 2022 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 primary DoD Joint training program that resources the Combatant Commands (CCMDs) and Services to train fully capable Joint forces. In addition to training and readiness benefits, CE2T2-funded 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 2022 budget requests \$554 million to support the exercise and engagement requirements of the eleven CCMDs, increase joint context in Service exercises, train individuals in key joint skills, and provide joint training enablers to the CE2T2 Enterprise.

The CE2T2-funded 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 key DoD lever for strategic competition—both in preparedness for warfighting and day-to-day competition. 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.

The exercise portion of the program budgets for the planning and execution of exercises, transportation of personnel and equipment, and incremental costs incurred by the Services to participate in CCMD exercises. Selected major exercises for FY 2022 include:

- Large Scale Global Exercise 22 (LSGE): The LSGE 22 is an emerging concept that will link multiple CCMDs with allies and partners in order to exercise warfighting plans on a global scale. LSGE 22 will stress the integration of joint/combined major force elements to conduct Joint All Domain Operations across multiple echelons of command and control against a near peer adversary.
- U.S. Africa Command (USAFRICOM): AFRICAN LION is an annual, large-scale Joint, International, Interagency, and Multi-domain exercise conducted in Africa to counter malign activity in North Africa and Southern Europe and increase interoperability between U.S., African, and international partners to defend the theatre from adversary military aggression.
- U.S. Central Command (USCENTCOM): INTERNAL LOOK is 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 is an interagency, combined, total force tactical-level exercise focused on defense of U.S. Critical Infrastructure and Key Resources (CI/KR) and strengthening domestic and international partnerships through the conduct of coordinated defensive cyberspace operations.
- U.S. European Command (USEUCOM): BALTOPS is a multinational exercise with a focus on maritime capabilities of NATO Allies and Partner Nations. It is the premier maritime-focused exercise in the Baltic Region and includes air and maritime assets from NATO allies and partner nations in live training events. Training focus areas include air defense, anti-submarine warfare, maritime interdiction, and mine countermeasures

operations.

- U.S. Indo-Pacific Command (USINDOPACOM): BALIKATAN is an annual, joint multilateral exercise with the Armed Forces of the Philippines, the Australian Defense Force, and the Japan Self-Defense Forces.
- U.S. Northern Command (USNORTHCOM) and North American Aerospace Defense Command (NORAD): VIGILANT SHIELD is 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 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. Southern Command (USSOUTHCOM): PANAMAX is an annual, multinational exercise focused on the security of the Panama Canal and the surrounding region. PANAMAX enhances regional security by training the SOUTHCOM Battle staff, subordinate component commands, and participating nations to conduct multinational operations that are aimed at countering a wide range of threats and enabling strategic competition in the Central American and Panama Canal region.
- U.S. Space Command (USSPACECOM): Annual combatant command exercise to validate command readiness and set a path towards Full Operational Capability (FOC). This exercise was recently approved by the Joint Staff and the name for the exercise is pending. USSPACECOM is fully nested within the LSGE concept and aligned with the other CCMD's exercises. This annual exercise will emphasize globally integrated operations in coordination with other Combatant Commands, Services, appropriate U.S. government agencies, and Allies for missions in, from and to space.
- U.S. Special Operations Command (USSOCOM): JADED THUNDER (JT) is an annual exercise series that integrates SOF components with appropriate Joint and coalition training audiences to validate and exercise air command and control, Joint Terminal Attack Control (JTAC), and fire support architecture. JT is a pre-deployment Mission Rehearsal Exercise that trains JTAC and Combat Air Force platforms in an integrated, joint, operational and tactical environment.
- U.S. Strategic Command (USSTRATCOM): GLOBAL THUNDER is an annual exercise providing training opportunities to assess USSTRATCOM mission areas and operational readiness. This 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 is a series of field training exercises specifically designed to train and assess Joint Task Force-Port Opening capabilities to ensure that a trained joint team can rapidly assess, deploy, open, operate and manage aerial and sea ports in support of Combatant Commanders.

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 enables the Services to provide joint capable units to the CCMDs. The major enablers that the program funds include:

• The Joint National Training Capability (JNTC) program advances joint capabilities and interoperability by concentrating on emerging joint training requirements through collective training experiences using a managed set of globally distributed capabilities and activities.

The program resources Service, USSOCOM and JS J7 joint training and enabling capabilities that improve interoperability and realism of tactical and operational joint training between the Services and USSOCOM. JNTC enables joint collective training for 36 accredited programs across the Services and USSOCOM by developing relevant joint training content and ensuring global distributed access.

- The Joint Training Coordination Program (JTCP) enables the Services and U.S. Special Operations Command to participate in the exercises of the other Services. Through such participation, U.S. forces develop the skills and cross-Service familiarity that is necessary to operate in a joint environment. Specific exercises receiving JTCP funding in FY 2022 include: Air Force's RED FLAG exercises held at Nellis Air Force Base, NV; Navy Composite Training Unit Exercise/Joint Task Force Exercises; Marine Corps Service Level Training Exercise Program; Army National Training Center in Fort Irwin, CA; and USSOCOM Navy Special Warfare Command's TRIDENT series of exercises. These joint training venues use CE2T2 funds to bring joint context into Service training activities.
- The Joint Training Enterprise Network (JTEN) is a system that links the geographically separated Joint Live, Virtual, and Constructive (JLVC) training capabilities of the CCMDs and the Departments, and integrates them into a realistic joint training environment. The JTEN/JLVC bridges the gap between tactical and operational level training and mission rehearsal activities by providing real-time connectivity and simulations of higher headquarter authorities.
- Joint Knowledge Online (JKO) delivers training content and tools to increase joint context and generate ready forces. JKO is a distributed learning platform that provides persistent global access to web-based training and education tools, and content for responsive, justin-time individual and staff training opportunities. JKO is used by Combatant Commands, Combat Support Agencies (CSAs), Services, and other DoD organizations.

# 5. Take Care of Our People

"Our most critical asset as a Department is our people. We remain the preeminent fighting force in the world because of our personnel in and out of uniform, and I have never had more confidence in our ability to meet the security challenges of today and tomorrow."

- Secretary of Defense Lloyd J. Austin – Message to the Force, March 4, 2021

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 of outdated activities and lower priority programs to provide the Sections

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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, in his *Message to the Force* dated March 4, 2021, identified taking care of people as one of his top priorities. To do this, 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 FY 2022 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.

Ensuring participation of a diverse workforce also demands investments in access to child care and support to families with dependents with special educational and/or medical needs. The FY 2022 budget request supports care for children at either on-base child development centers or through off-base child care fee assistance programs. The FY 2022 request also funds a pilot program providing financial assistance to service members to offset the cost of in-home child care, such as care provided by nannies or au pairs. In addition, the FY 2022 request supports the Department's standardization efforts for the Exceptional Family Member Program (EFMP) by closing the gap in the number of staff who assist EFMP families with the necessary services and support.

The FY 2022 budget request continues to advance the National Security Priorities by sustaining the gains in recent budgets and continuing to build a more lethal and ready force. Recognizing the importance of the Total Force, the FY 2022 budget includes a 2.7 percent pay raise for both military and civilian personnel.

2.7 percent military and civilian pay raise – retains the force as we build opportunities for growth and development.

# **GROW OUR TALENT**

Our most critical asset as a Department is our people. We remain the preeminent fighting force in the world because of our personnel in and out of uniform. The experience, professionalism, and commitment of our people has always been our decisive advantage.

#### 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 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 defend the Nation.

Military pay and benefits funding grows by more than \$5.0 billion over the FY 2021 enacted level. This increase includes funding for a 2.7 percent military pay raise, which builds on last year's 3.0 percent increase and is key to retaining the best of today's force as we create new opportunities for advancement that drive promotion and retention for tomorrow's total force. The FY 2022 Total Force end strength will decrease by approximately 5,400 from the currently projected FY 2021 levels. Overall anticipated FY 2021 end strength has remained close (within 1 thousand) to the



FY 2021 enacted level; however, this belies the impact of COVID-19 on Service accession and retention goals. The active component has had to manage historically high levels of retention and the Services have had to adapt their accession pipelines to accommodate force health protection guidelines. The reduction in end strength in FY 2022 is a function of the divestment of outdated platforms across multiple Services and components (e.g. older F-16s, Landing Ship Docks, tank companies and Helicopter Sea Combat Squadrons, etc.) in order to invest in future capabilities. Looking forward, the Services will focus growth in advanced capabilities like cyber, electronic warfare, and special operations, which are needed to contend with our most capable, potential adversaries and fulfill the Interim National Security Strategic Guidance to preserve peace from a position of strength.

In addition to the annual basic pay raise proposal, the FY 2022 budget requests funding for a full range of compensation programs, from monthly special and incentive pays to modernized retirement benefits.

#### **DoD Civilians**

The FY 2022 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 2022 direct civilian pay and benefits budget increases by more than \$4.1 billion over the

FY 2021 enacted level. This increase is driven primarily by the proposed 2.7 percent pay raise, and a 1.1 percent increase in the Department's required contribution to the Federal Employees Retirement System (FERS) for regular employees. These increases allow the Department to achieve and maintain technical and intellectual superiority and remain competitive with private industry in attracting and sustaining the talent workforce.

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 continuity. Effective and appropriate use of civilians allows the Department to focus its Soldiers, Sailors, Airmen, Marines, and Guardians 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— can mean targeted growth in critical areas alongside reductions and efficiencies in others. 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 2022 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 Equivalents (FTEs) (excluding Cemeteries and Foreign National Indirect Hire) will increase by 1.1 percent, from 777,428 in FY 2021 to 785,952 in FY 2022. The Department continues to improve business practices by eliminating unintended redundancies within the workforce and by consolidating and improving our older Information Technology systems. 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, digital and artificial intelligence critical for essential modernization, readiness regeneration and force structure sustainment functions, and ensuring that our military members and their families receive unparalleled support.

Program	FY 2021 <sup>2/</sup> Enacted	FY 2022 <sup>2/</sup> Request	Percent Change
Army	184.5	186.6	1.2%
Navy	209.9	211.1	0.6%
Air Force	172.8	175.9	1.8%
Defense-Wide	210.2	212.4	1.0%
Total DoD	777.4	786.0	1.1%
U.S. Direct Hires	761.7	769.1	1.1%
Foreign Direct Hires	16.7	16.9	1.0%

#### Figure 5.1. Civilian FTEs<sup>1/</sup>

Numbers may not add due to rounding

<sup>1/</sup> Excludes Cemetery Expense and Foreign National Indirect Hire (FNIH) FTEs

<sup>2/</sup> Excludes 29,969 of Foreign National Indirect Hire (FNIH) FTEs in FY 2021 and 29,566 in FY 2022

# **BUILDING RESILIENCE AND FORCE READINESS**

"We will focus our efforts on...removing barriers that limit our people from realizing their full potential as partners in the work of the DoD. We will never spare support for our people..."

- Secretary of Defense Lloyd J. Austin – Message to the Force, March 4, 2021

We maintain and enhance force readiness and develop the capabilities we need to protect America when we fully embrace diversity of backgrounds, experiences, and thought. The Department will lead with our values, building diversity, equity, and inclusion into all aspects of our work in everything we do.

#### Managing the Military Health System

The Military Health System (MHS) provides the DoD with a clinically ready medical force that is able to deliver medical capabilities in support of administration priorities including, *Maintaining and Enhancing Readiness* and *Taking Care of Our People* in 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 supports the Secretary's 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 – 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. The MHS 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 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 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 \$54.0 billion unified medical budget, the MHS saves lives on the battlefield, combats infectious disease around the world, and cares for 9.7 million beneficiaries in one of the nation's largest health benefit plans.

# The Cost of Military Health Care

The MHS delivers a comprehensive health care entitlement to a 9.7 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). This investment reflects the Department's commitment to ensure the delivery of timely, safe and effective medical care to our beneficiaries.

# FY 2022 Budget Request

The FY 2022 UMB request is \$54.0 billion, up 5.3 percent from the enacted FY 2021 level. The difference between FY 2021 and FY 2022 is driven predominantly by two factors. First, the increase in the Defense Health Program is driven by increases in health care costs based on updated forecasting and analysis of Private Sector Care requirements and the addition of funding for anticipated COVID-19 requirements discussed in more detail below. The balance of the UMB increase is associated with the health

# Figure 5.2. Military Health Care Funding (\$ in billions)

Program	FY 2021 Enacted	FY 2022 Request
Defense Health (DHP)	34.1	35.6
Military Personnel /1	8.3	8.5
Military Construction <sup>/1</sup>	0.5	0.5
Health Care Accrual <sup>/2</sup>	8.4	9.3
Unified Medical Budget	51.3	54.0
Treasury Receipts for Current Medicare-Eligible Retirees <sup>/3</sup>	11.4	12.0

Numbers may not add due to rounding

<sup>1/</sup> Funded in Military Personnel & Construction accounts. <sup>2/</sup> 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.

<sup>3</sup> Transfer receipts in the year of execution to support 2.5 million Medicare-eligible retirees and family members.

care accrual for Medicare-eligible retirees. The accrual increase is driven by actuarial updates for actual claims experience and updates to other actuarial assumptions as approved by the DoD Board of Actuaries.

The Private Sector Care increase supports the provision of the TRICARE benefit to the DoD beneficiary population. In FY 2022, the Department focused on re-baselining funding for Private Sector Care healthcare requirements to address rising healthcare costs experienced in late FY 2019 and pre-COVID FY 2020. These rising costs were driven by workload and enrollment shifts to the private sector from military treatment facilities, Mail Order and Retail Pharmacy demand increases, demand increases driven by unlimited access to private sector Urgent Care Clinics, and increases in emergency room demand. The FY 2022 Private Sector Care baseline correction will reduce risk to the TRICARE program and conversely reduce overall risk to other DoD programs and allow the Department to continue to deliver the benefit to the beneficiary population.

The Department continues to pursue efforts focused on internal business process improvements and structural changes to find greater efficiencies, such as further integrating the MHS; 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.

# COVID-19 Response

The COVID-19 Pandemic had and continues to have a major impact on the DoD and its MHS, in terms of both the management of the pandemic inside DoD and the MHS's larger role in the national whole-of-government counterattack against the virus. Under conditions of extreme

institutional stress, and beginning from a focus on warfighter missions, DoD and the MHS performed admirably, keeping America's warfighters fully ready of accomplishing their missions while providing invaluable practical and psychological support to the American people. The entire MHS pivoted quickly and effectively, in responding to the pandemic across a wide range of requirements, both internal to DoD and across the public health universe. In FY 2022 and beyond, we will continue our efforts to eradicate the virus and apply lessons learned, which will have an immediate and sustained impact on the ability of the MHS to support the ongoing pandemic and to prepare for future major public health emergencies. Specific COVID-19 and Pandemic Response resources were added for FY 2022 to integrate essential requirements for prevention, diagnosis, and surveillance health activities.

#### 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. As we forge a new way of doing business, our commitment is to build an improved system of military health that delivers on our readiness mission to ensure troops are fit to fight, medical professionals are ready to support them in training and on the battlefield, and our patients are receiving the highest quality care possible.

The MHS is laser-focused on three key areas of organizational reform: consolidated management of the direct care and purchased care systems; a reinvigorated focus on readiness within the direct care system; and optimizing the size and composition of the military medical force, including the recruitment, education and training, and sustainment of skills to deliver on our readiness mission.

The MHS reform efforts underway will improve the quality of care and access to services for our patients, and better integrate the direct and purchased care systems. Standardization will lead to improved safety and familiar business practices which will allow patients to more easily manage their health care. The sweeping organizational changes underway represent a historic opportunity for the MHS to better support the warfighter and care for the patient. To date, we have built a system that has achieved the highest battlefield survival rates in history, provided world-class health care for millions of beneficiaries, remained at the global forefront of cutting-edge research and development, and built the strongest and most extensive arsenal of military medical combat support capabilities on the planet.

In response to Section 719(c) of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2020 and Sections 721 and 725 of the NDAA for FY 2017 (Public Law 114-328), the Department is optimizing military medical end strength to match operational requirements and enable the Military Health System (MHS) to increase the medical readiness of the force, as well as the readiness of our medical force. The plan is founded on the requirements each Military Department developed to meet strategic guidance and operational plans. Each Service provided a review of its force structure assessment process and an analysis of strategies for effecting this optimization at military medical treatment facilities (MTFs). The Department will continually reassess these requirements as strategies and plans change, ensuring the Department's military force structure, including military medical end strength, remains optimized to meet the operational requirements of the Department. It is important to note that as the Department embarks on this conditions-based, optimizing approach to military medical manpower, no eligible beneficiary will go without access to quality healthcare, which will continue to occur either in an MTF or through a purchased care network provider.

# **Continued Deployment of the Electronic Health Record**

The FY 2022 budget continues the deployment of MHS GENESIS, the Department's Electronic Health Record. While two waves were slightly delayed in FY 2020 due to COVID-19, the program used the temporary suspension of in-person training activities during the summer of 2020 to advance and complete a major system upgrade that benefits both DoD and VA users. As of May 1, 2021, MHS GENESIS deployment is approximately 30 percent complete and remains on track for full delivery by the end of calendar year 2023, with eight waves going live before the end of FY 2022 and an additional seven beginning deployment activities in FY 2022. Additional enhancements in FY 2022 to MHS GENESIS will provide tele-health capability expansion (accelerated due to COVID-19); 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 2022, DoD continues funding the clinical application, HealtheIntent, 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 and school liaisons, 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 FY 2022 budget request includes \$8.6 billion for military family support programs. The \$0.2 billion net increase from the FY 2021 enacted funding level for military family support programs is primarily driven by increased funding for facilities sustainment, restoration, and modernization of DoDEA schools.

Figure 5.3 displays a summary of the Department's FY 2020 — FY 2022 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 853,000 military-affiliated youth between the ages of 6 and 18.
- Morale, Welfare, and Recreation programs: Includes funding for mission sustaining programs such as fitness centers, libraries, and single service member programs; voluntary education; and recreation programs such as outdoor recreation and auto skills centers.
- Warfighter and Family Services: Includes funding for family support centers, and non-medical counseling support services for Active Duty, National Guard, and Reserve members and their families.
- Commissarv: Includes funding for the Defense Commissary Agency to operate 236 commissary stores on military installations worldwide, employing a workforce of over 12,000 civilian employees.
- FY 2022 Program FY 2020 Actual FY 2021 Enacted 1.8 1.6 1.7 2.2 1.7 1.6

# DoDEA Schools: Includes funding to support the education of students.

families served, but without degradation in the guality of the programs provided.

Request Child Care and Youth Programs 1.6 Morale, Welfare and Recreation 1.8 1.7 Warfighter and Family Services 1.0 Commissary 1.1 1.2 **DoDEA Schools** 2.2 2.2 2.4 Total 8.7 8.4 8.6 Numbers may not add due to rounding

Figure 5.3. Military Family Support Programs (\$ in billions)

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

# **Military Housing Privatization**

The Department is steadfast in its commitment to ensure our privatized housing projects provide safe, quality, well-maintained housing, and to address resident concerns in a timely, transparent, and accountable manner.

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 79 MHPI family housing projects currently in place across approximately 150 installations.

Under the MHPI, the Military Departments conveyed their existing government family housing units to competitively selected privatization entities (i.e., the MHPI housing projects). The MHPI housing 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 housing 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, MHPI housing projects constructed nearly 80,000 new family housing units and major renovations of more than 50,000 units.

Despite these improvements, the Department has recognized that a lapse in oversight gave rise to concerns in early FY 2019 about conditions in some privatized housing units. In response, the Department's focus has been, and continues to be, on implementing actions to enhance the MHPI program, consistent with our commitment to ensure MHPI housing projects provide safe, quality, well-maintained housing where our military members and their families will want and choose to live. This includes implementing MHPI reforms enacted as part of the National Defense Authorization Act (NDAA) for FY 2020 and FY 2021, including 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.

The Department was already working on a number of actions to address MHPI housing concerns, and has made significant progress implementing MHPI reforms set out in the FY 2020 and FY 2021 NDAAs. We have developed Department-wide privatized housing policies to reinforce and expand our programmatic oversight over MHPI housing projects, with a focus on five key aspects that include: 1) senior leader engagement to collaborate internally and with MHPI companies on housing issues and necessary corrective actions; 2) rebuilding trust with military members and their families; 3) accountability at all levels within DoD and by MHPI companies to perform our oversight as originally intended at the outset of housing privatization; 4) transparency and more frequent communication with MHPI Tenants (i.e., military members and their families who reside in MHPI housing); and 5) ensuring the long-term financial viability of the MHPI projects and MHPI program.

Senior leaders are actively engaged to address MHPI housing challenges, led by the Assistant Secretary of Defense for Sustainment, who the Secretary of Defense designated as the Department's Chief Housing Officer (CHO) in February 2020 to oversee all aspects of privatized housing. In order to assist in executing the statutorily-defined CHO duties and responsibilities, the Department also recently established a Deputy Assistant Secretary of Defense (DASD) for Housing.

The Department has prioritized our MHPI reform efforts on actions that will improve the tenant experience, rebuild tenant trust, and maintain MHPI housing project financial viability. Our initial phase has been focused on implementing the MHPI Tenant Bill of Rights, and the NDAA requirements imbedded in those rights, as a visible commitment to military members and their families. Based on our efforts to date, 14 of the 18 Tenant rights set out in the 2020 NDAA are available to all Tenants at existing MHPI housing projects. In addition, the Department has issued all of the policy guidance



necessary to fully implement the remaining four Tenant rights at all MHPI housing projects, but retroactive application of these remaining requirements at existing projects will require voluntary agreement by the respective MHPI company. We expect the remaining four tenant rights – standard documents to include the newly-developed universal lease framework, a dispute adjudication process, rent segregation during formal disputes, and provision of a home's 7-year maintenance history to prospective/current tenants – to be available at the vast majority of installations with MHPI housing by June 1, 2021. This represents a foundational step in our ongoing effort to improve to the Department's privatized housing program oversight.

Our other key actions to date include enhanced transparency and reporting of maintenance and repair work orders, increased training for installation commanders and housing personnel, the hiring of additional housing staff across the Military Departments to include resident advocates, increased communication between residents and military leadership, improved survey processes to assess tenant satisfaction and inform MHPI company incentive fee payments, and expanded MHPI project and program oversight at all levels, under the leadership of the CHO.

Our next phase of MHPI reform actions is focused on continuing to improve the safety, quality, and habitability of the privatized housing, enforcing performance standards established for the MHPI companies, and monitoring of individual MHPI project performance to ensure the long-term financial viability of the MHPI projects and program.

The FY 2022 budget request sustains funding increases established for Military Housing Privatization Support in the President's FY 2021 budget request (FY 2022 is \$56.1 million above the FY 2020 budget request). This funding increase will enable the Department's continued enhanced oversight of MHPI housing consistent with the FY 2020 and FY 2021 NDAA requirements, to include staff augmentation, improved quality control measures, database development and management, and additional training and contract costs.

The DoD understands that family is important and honors the sacrifice that military 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. We remain committed to the long-term success of the MHPI program, and will continue to remain diligent in our oversight to ensure delivery of quality housing for military members and their families over the life of the projects.

# ENSURE ACCOUNTABLE LEADERSHIP

Building a safe environment to serve – fully embracing a diversity of backgrounds, experience, and thought to build unity within the DoD. Highlighting initiatives to eliminate:

#### **Sexual Assault/Harassment**

*"I will fight hard to stamp out sexual assault and to rid our ranks of racists and extremists and to create a climate where everyone fit and willing has the opportunity to serve this country with dignity.* 

The job of the Department of Defense is to keep America safe from our enemies, but we can't do that if some of those enemies lie within our own ranks."

- Secretary of Defense Lloyd J. Austin –Confirmation Hearing

The DoD is committed to stamping out sexual assault in our ranks for a simple reason – our Service members deserve to serve in a culture of dignity and respect. Our people –Warfighters, active and reserve, and the civilian employees and contractors that support them - are the foundation of military readiness. When even one member of the Total Force is harmed, our ability to maintain readiness falters. Sexual Assault, Sexual Harassment, and corrosive climate negatively impact our future force; recruiting and retaining the country's best and brightest means the Department must focus on preventing crime, supporting victims, and holding offenders appropriately accountable.

Sexual Assault and Harassment is a leadership challenge; make no mistake, DoD will lead on this issue. Released in 2019, the Prevention Plan of Action is our guide to growing and optimizing our program. In 2020, DoD published an integrated violence prevention policy, creating a unity of effort across prevention programs and policies, and focusing prevention efforts on those activities that have the greatest potential to reduce multiple forms of violence. The Department has also forged partnerships with both national and international partners, including the Centers for Disease Control and Prevention, to provide prevention technical



assistance at all military command echelons. The immediate actions recently ordered by the Secretary of Defense accelerate these ongoing prevention efforts by directing compliance assessments with prevention and response policy, conducting high risk installation evaluations, and identifying and training a violence prevention workforce. The Lines of Effort of the recently chartered 90-Day Independent Review Commission on Sexual Assault in the Military will be another layer of examination to identify and fill any gaps in programming or policy.

The FY 2022 President's Budget supports our sexual assault and harassment prevention and response activities, systems, and programs. The Department of Defense is focused on continued implementation of the Prevention Plan of Action and the development of the requisite knowledge and tools to ensure leaders at all levels are properly equipped and understand their role in the prevention of Sexual Assault and Sexual Harassment. The Department endeavors to establish a robust prevention system that is integrated across programs to defeat multiple forms of violence and readiness detracting behaviors. The DoD is also targeting improved prevention effectiveness by conducting evaluations of several ongoing sexual assault programs across the Department; results will be used to improve other prevention initiatives. Effective Prevention – implemented with fidelity and monitored for achieving desired outcomes, engenders force readiness. The FY 2022 President's Budget also includes funding to establish the Defense Center of Excellence for Sexual Assault Prevention, Response, Education, and Training to develop, deliver, and evaluate Sexual Assault Prevention and Response workforce education and training requirements.

# Extremism in Ranks

The DoD places the highest importance on treating all personnel with dignity and respect, in an inclusive environment free from impermissible discrimination, harassment, and maltreatment. While we believe the vast majority of those who serve in the military and the civilian workforce that supports them do so with honor, dignity and respect, recent events have taught us that we must be ever vigilant in our efforts to identify and combat extremist behavior within our ranks.



Building on our after-action findings from the NAS Pensacola attack, the Department will execute \$9.1 million in FY 2021 for initial actions to combat extremism and insider threats. The funding will allow for immediate actions including: enhanced federal capabilities in reporting; tracking

extremism activities; and improved DoD accession processes to include screening potential recruits for extremist ties. The Department also established a Steering Committee (SC) to support and coordinate DoD-wide effort to root out extremist behaviors from the ranks.

The FY 2022 budget includes a \$30.8 million request for the Department to continue to strengthen DoD tools to identify and address extremism, enhance training at all levels of the force, and update existing Department policies to include the development of a punitive regulation on extremist activities. The Department will improve vetting protocols and screening of public available electronic information (aka social media) and develop and deploy an Enterprise Case Management tracking tool for tracking activities of concern. In addition, DoD will reinforce education and implement an enhanced standardized training on combating extremism in the ranks, strengthen Insider Threat Programs and Direct Awareness Campaign to deter, detect, and mitigate extremist threats, and use continuous evaluation programs for security clearance holders.

# Discrimination

The Department takes its obligation seriously to provide a workplace free from discrimination. In policy and in practice, the Department does not tolerate or condone unlawful discrimination, harassment, retaliation, or reprisal of any kind. These problematic behaviors jeopardize combat readiness and mission accomplishment, weaken trust within the ranks, and erode unit cohesion. It is unlawful to discriminate against civilians based on race, color, national origin, religion, sex (including pregnancy, gender identity, and sexual orientation), disability, age, genetic information, or reprisal for previous Equal Employment Opportunity (EEO) actions. Similarly, discrimination against Service members based on race, color, national origin, religion, sex (including pregnancy and gender identity), or sexual orientation is prohibited by DoD policy. Leaders at all levels must promptly act to prevent and eliminate unlawful discrimination, harassment, and retaliation

To meet this requirement, over the last year, the Department issued three new policies and updated another policy to bolster its efforts in providing an environment free from discrimination, including discriminatory harassment, and encouraging a more diverse and inclusive Total Force.

In December 2020, the DoD Board on Diversity and Inclusion offered 15 recommendations to bolster the Department's diversity and inclusion posture, to include developing diverse pools of qualified candidates for nominative positions. While the Department continues to support its work to implement the Board's recommendations, DoD can do more; to include understanding the individual, interpersonal, and institutional factors that promote racial, ethnic, and gender diversity and inclusion in the military and eliminating any causal factors that prevent this diversity or lead to discriminatory practices.

Despite the steps already taken, we recognize the Department has more to do in this area, and we are taking steps to ensure our Service members and DoD civilian employees are provided an opportunity to achieve their professional goals in support of the Nation's defense based on merit and remove any barriers preventing such opportunity.

# 6. SUCCEED THROUGH TEAMWORK

"We will lead not merely by the example of our power but by the power of our example"

- President Joseph R. Biden - Inaugural Address January 20, 2021

#### JOIN FORCES WITH OUR ALLIES AND PARTNERS

The United States' network of alliances and partnerships provides an unparalleled strategic advantage that no competitor can match. By working with allies and partners to align our defense priorities, the United States is better positioned to protect its security interests, deter aggression, support a free and open international order, and foster the conditions for democratic values and economic growth. The Department of Defense (DoD)

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- Join Force with Our Allies and Partners
- Work in Partnership with Our Nation

FY 2022 budget request prioritizes rebuilding our mutually beneficial defense relationships around the world that are central to the U.S. military's ability to maintain its competitive edge in regions far from American shores.

The DoD must work with and through our allies and partners to advance shared interests, deter key threats, and help allies and partners effectively defend their sovereignty, based upon a foundation of mutual respect and accountability. Through our defense relationships, the Department will further its strategic objectives that include sustaining Joint Force military advantages globally; maintaining credible deterrence to prevent aggression against our vital interests; defending allies from military aggression and bolstering partners against coercion; and ensuring common domains remain open and free.

To reap the benefits of these relationships, DoD will pursue tangible, sustainable measures to strengthen and modernize our alliances and partnerships in ways that bolster our ability to deter aggression, and if necessary, fight and win as interoperable coalitions. The Department will work to deepen interoperability with its most capable allies, particularly those most capable of high-end combat missions, and to increase cooperation on capability and technology innovation, including protecting critical technology and associated information. As part of this effort, DoD will also afford greater attention to operational security and resilience and increase our emphasis on organic enabling capabilities and the development of counter-power projection capabilities that would allow these allies to operate in contested environments alongside U.S. forces.

 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. The U.S.-Australia Alliance has never been stronger. The "Unbreakable Alliance" remains essential to U.S. defense and security objectives in the Indo-Pacific and beyond. Australia's Defence Strategic Update 2020, articulates a decisive shift in the orientation of its defense and security resources towards the Indo-Pacific. The U.S.-ROK Alliance is the linchpin of security and stability



on the Korean Peninsula and the broader Indo-Pacific region. The United States and ROK will continue to work to find synergies in each country's regional strategy to uphold common values and protect global norms. The DoD is working closely with Japan to align implementation of each country's defense strategies; adapt U.S.-Japan Alliance roles, missions, and capabilities to future threats; enhance trilateral and quadrilateral cooperation;

and increase operational readiness and training in line with realignment plans. Singapore hosted the transit and rotational deployment of more than 1,500 U.S. military aircraft and vessels (2015-2018), and in 2019, signed a memorandum of understanding agreeing to establish a Singapore fighter training presence on Guam. For the Philippines, we continue to plan for over 300 bilateral defense activities annually, and we are increasing the complexity of these engagements to further strengthen interoperability with a key treaty ally in Southeast Asia. In November 2019, the United States and Thailand issued the Joint Vision 2020 which set the stage to bolster force modernization cooperation, expansion of exercises and training to improve joint readiness, and enhance reciprocal access between the two allies. The DoD continues to provide Taiwan defensive arms and services in accordance with the Taiwan Relations Act. The Department has prioritized capabilities that are highly mobile, distributable, lethal, and would best enable Taiwan to defend themselves against an attack. Additionally, and particularly in light of the increasing Chinese military threat to Taiwan, the Department seeks to prevent miscalculation by sustaining our forward deployed, and credible force.

- **Europe**: In the North Atlantic Treaty Organization (NATO), our allies have responded positively to U.S. leaders' expressed intention to revitalize our Alliance relationships. The NATO Secretary General announced that 2021 will be the seventh consecutive year of increased total defense spending by the European Allies and Canada. Through 2020, NATO Allies have increased their defense spending by a cumulative total of \$190 billion since 2014, when NATO made the pledge of 2 percent of GDP for defense; eleven Allies met that benchmark in 2020. In service of the Alliance's core task of deterrence and defense, NATO is fostering a culture of readiness through the NATO Readiness Initiative or "4 30's," in which NATO nations have committed to make an additional 30 fighter aircraft squadrons, 30 mechanized infantry battalions, and 30 naval surface combatants ready for employment within 30 days or less.
- **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. Over the last 5 years, the Department of State's U.S. Foreign Military Sales program—executed by the Department of Defense—has sold approximately \$99 billion of defense goods and services to Partners within the U.S. Central Command (USCENTCOM) Area of Responsibility (AOR). 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 defense. The Saudi-led Regional Integrated Air and Missile Defense (IAMD) Initiative and the International Maritime Security Construct (IMSC) are two such examples.

The DoD must also support the broader network of allies and partners who can effectively manage their own territorial defenses, act as net exporters of security, and facilitate U.S. or coalition force flow and logistics. As regional security environments evolve, future mission demands on the U.S. Joint Force may necessitate changes in needed basing, access, and agreements. Those who oppose the United States often seek to exploit gaps, seams, and vulnerabilities among our allies and partners situated along their borders, our geographic theater boundaries, near choke points in areas outside national jurisdiction, and near ethnic, economic, and political fault lines. Accordingly, these states will play important roles as we seek to deter conflict and support other forms of national power.

Critically, DoD also seeks enhanced cooperation with frontline allies and partners located along the borders of those who oppose us. To lessen the threat posed by a *fait accompli* scenario, DoD can help improve the ability of allies and partners to selectively deter, blunt, and impose costs on malign actions, hostile activities, and ongoing or potential military aggression until the United States and other nations could bring decisive force to bear. The Department will focus on building

frontline ally and partner capacity and internal resilience to defend themselves against aggression and coercion and to motivate transformative defense institutional change.

"The nature of warfare is changing; it spans an unprecedented theater that stretches from the heavens to cyberspace and far into the oceans' depths. That demands new thinking and new action inside the Defense Department. We must redouble our efforts to work together - with allies and partners, across commands, across services and across our fiefdoms and stovepipes."

> - Secretary of Defense Lloyd J. Austin Speech at Indo-Pacific Command Apr 30, 2021

As some countries, particularly China and Russia, seek to erode the ability of U.S. forces to project power abroad in defense of our allies and partners, DoD understands that it cannot tackle this challenge alone. Allies and partners affect the full range of activities that encompass DoD priority missions. Moreover, as the *Interim Guidance* recognizes, many of the greatest threats to American prosperity and security—including the climate crisis, global pandemics, cyber threats, and nuclear proliferation—are borderless challenges that require collective action. The United States' success in tacking these challenges will hinge on our ability to leverage our strong relationships with our allies and partners.

# WORK IN PARTNERSHIP WITH OUR NATION

The DoD cannot alone address the many complex security challenges confronting the United States. The Department and its armed forces must, at all times, work in concert with other elements of national power – including diplomatic, economic, and intelligence activities – as part of a whole-of-government effort to address threats to the homeland, our core interests, our allies and our partners.

The FY 2022 budget request invests in activities with positive impacts that Americans will feel at home –including support for American manufacturing and industry, for the people who serve in our all-volunteer force and their families, and for our disaster and pandemic response infrastructure.

Instituting effective and efficient climate adaptation over the range of DoD missions, operations, and infrastructure will require leveraging all relevant information, methods, technologies, and approaches. This can only be achieved through close collaboration with others. The Department will build unity of effort and mission across DoD components, commands, services, and theaters. Close cooperation with all who have a stake in our national security; other Federal agencies, Congress, private industry, academia, non-governmental organizations (NGOs), the American people, and allies around the world will be a distinguishing feature of our efforts and will help secure our common interests and promote our shared values.

"Protecting the United States of America requires teamwork at every level: state, local, tribal, and Federal. It requires cooperation with all who have a stake in our national security: our interagency, Congress, private industry, and the American people."

- Secretary of Defense Lloyd J. Austin – Message to the Force

#### **Build Back Better**

President Biden's *Interim Guidance* and Build Back Better Recovery Plan emphasize federal support for American manufacturing and innovation, small businesses, under-represented populations, and the American workforce. These objectives resonate with the Department's longstanding partnership with the National Security Industrial Base to ensure a secure, resilient industrial capacity, particularly in times of national crisis. The FY 2022 budget request robustly invests in programs that bolster the National Security Industrial Base, and in the process provides good-paying jobs in manufacturing and technology for U.S. workers.

The FY 2022 President's Budget increases science and technology (S&T) investments, expands production capacity of key systems, and addresses high priority supply chain vulnerabilities. Key investments include: proliferated satellite constellations that leverage the U.S. commercial space sector, demonstration projects with U.S. telecommunications companies to advance military and civilian 5G applications, production capacity for hypersonic weapons and other munitions, and upgraded depot and support facilities for new and legacy platforms.

The FY 2022 budget request also partners with U.S. companies to bring critical supply chains back to the U.S., thereby reducing our dependency on adversarial nations. Consistent with Executive Order 14107 on America's Supply Chains, this request leverages the Defense Production Act (DPA) and Industrial Base Analysis and Sustainment (IBAS) program adding \$182 million in FY 2022 to maintain and expand U.S. production capacity for rare earth elements (\$43 million split between IBAS (\$41 million) and DPA (\$2 million)), critical chemicals (\$20 million), and microelectronics (\$119 million) — components that are essential to both military and commercial advanced technology products. Consistent with the President's priorities and Interim Guidance, the Department continues its initiatives to encourage and sustain participation by all Americans in its industrial base partnerships. The FY 2022 budget request ensures linkages with small businesses through the Small Business Innovation Research (SBIR), the Small Business Technology Transfer (STTR), and the Indian Incentive Programs (IIP). The FY 2022 President's Budget also funds S&T undergraduate and graduate education opportunities, shipyard and depot apprenticeship programs, and collaborations with universities to improve the manufacturing curriculum and develop the technically skilled workforce the Department and nation need. As the United States continues its economic recovery, the Department remains committed to resourcing programs aligned with the President's Build Back Better economic recovery plan that benefit American manufactures, businesses, and workers.

#### **Defense Production Act**

The Defense Production Act provides the President broad authority to ensure the timely availability of essential domestic industrial resources to support national defense and homeland security requirements through the use of highly tailored economic incentives. Specifically, the program incentivizes domestic companies to produce necessary resources, materials, and technologies through the provision of loans, loan guarantees, purchase commitments, and direct purchases. These authorities can and have been utilized to increase domestic production capacity for medical supplies during a crisis and ensure that the nation is not overly reliant on overseas networks that may be prone to disruption.

In March 2020, Congress appropriated \$1 billion to the Defense Production Act Purchases account in the *Coronavirus Aid, Relief, and Economic Security* (CARES) *Act* to "prevent, prepare for, and respond to coronavirus, domestically or internationally." Of this \$1 billion, \$687 million was for Defense Industrial Base mitigation efforts, \$100 million was transferred to the DPA loan program, and \$213 million was allocated to increasing domestic production capacity for critical health resources, including COVID-19 medical test kits, N95 mask respirators, ventilator filters, and syringe and needle sets. Through facility conversion, equipment purchases, enabling of sub-

tier suppliers, and assisting with long-lead material purchases, the DPA Title III program relieved manufacturing bottlenecks and created domestic capacity to respond to today's surging demand while setting the conditions for a sustained recovery from the global pandemic.

Similarly, in March 2021, the *American Rescue Plan Act of 2021* appropriated \$10 billion to fund further COVID-19 response activities under Title III of the Defense Production Act. The DoD will support the Department of Health and Human Services with the execution of these funds in accordance with their spend plans and priorities for testing and diagnostics, personal protective equipment (PPE), and vaccine and therapeutics.

The authorities contained within Title III of the DPA were created to prepare for and respond to circumstances in which the domestic industrial base either did not possess the capability or the capacity to fully meet national defense and homeland security requirements. As evidenced above, these authorities also are being leveraged during times of crisis to ensure supply chains for pharmaceuticals, medical equipment, and other critical materials are robust. The DPA Title III Program will continue to undertake efforts to ensure our nation is not reliant on overseas networks prone to disruption.

# **Climate as a National Security Priority**

President Biden's Executive Order on Tackling the Climate Crisis at Home and Abroad (EO 14008) highlights the fundamental link between climate change and national security and establishes that climate considerations shall be an essential element of United States foreign policy and national security. The EO calls on federal agencies, including the DoD, to prioritize climate change in all activities and for the Department to incorporate its security implications into analysis and key strategy, planning and programming documents.

Those are essential steps as there is little about what the Department does to defend the American people that is not affected by climate change. As the Arctic melts, competition for resources and influence in the region increases. Closer to the equator, rising temperatures and more frequent and intense extreme weather events challenge local governments and are a contributing factor to mass migration, fueling instability. In the Pacific, rising sea levels and more frequent and intense storms threaten millions while pushing the limits of the capacity to respond. All of these create new missions and impact the operational environment.



The Department is not immune to the impacts of climate change. In just the past few years, Hurricane Michael caused billions of dollars of damage at Tyndall Air Force Base in Florida. Severe flooding of the Missouri River caused hundreds of millions of dollars in damage at Offutt Air Force Base. Wildfires in California have forced evacuations, and "black flag" days across the country have impacted training.

The Department is responding to climate change in two ways: adaptation to enhance resilience and adjust DOD installations and infrastructure in anticipation of a changing environment and mitigation, taking those efforts to reduce DoD's contribution to climate effects. To do this the Department will pursue investments that enhance resilience, improve operational capability and strengthen resilience while also reducing our climate impacts. The Department's FY 2022 President's Budget (PB) request reflects that commitment. The request includes \$617 million of new investments that will have an immediate positive impact on the Department's preparedness, capability, and mission resilience while laying the groundwork for future investment in FY 2023 and beyond.

The FY 2022 budget request invests in resilience through a portfolio of programs including the Military Installation Resilience (MIR) program, the Resource and Environmental Protection Integration Program (REPI), the Energy Resiliency and Conservation Investment Program (ERCIP), and the Defense Community Infrastructure Pilot (DCIP) Program as well as military construction funds. These investments are focused on strengthening the ability of military installations to operate under adverse conditions and to rapidly recover from disruptions, whether natural or man-made.

The FY 2022 budget request contains important investments in energy and climate S&T, with a particular emphasis on energy demand reduction, demand management, supply, and storage. These investments not only address the realities of a changing climate, but are also aimed at building a more capable, lethal Joint Force, better able to operate in a denied environment faced with highly contested logistics.

Likewise, the request includes funding to increase operational energy efficiencies and pursue alternative energy sources that increase Joint Force capability while also reducing sustainment costs over time. The FY 2022 budget proposes funding to support a workforce needed to leverage private sector investment and to improve installation energy efficiency and resilience, including increasing the Services' capacity to leverage third party financing options like Energy Savings Performance Contracts (ESPC), Utility Energy Services Contracts (UESC), Enhanced Use Leases (EUL). Consistent with the Administration's executive order, the FY 2022 budget also includes a "down-payment" to begin the process of modernizing the non-tactical fleet through electrification.

The FY 2022 budget also requests funding to prepare for contingencies associated with a changing climate, including investments to prepare for an opening Arctic and increased peer competition in that region. Consistent with the Administration's focus on growing partner capacity, the budget requests funding for overseas humanitarian assistance (HA) and disaster relief (DR).

Similarly, the FY 2022 budget increases the investment in Defense Support to Civil Authorities and HA/DR exercises and training to better prepare the Joint Force to meet future demands. Finally, in what is a critical step toward understanding future challenges, the proposed budget includes investments to explore the strategic implications of climate change and to understand how more frequent and intense severe weather events, increased resource scarcity, and poor governance may drive instability and lead to conflict in the future.

# Global Health/COVID-19

The DoD's Global Health Engagement (GHE), in coordination with other U.S. Government departments and agencies, is the interaction of individuals or elements of DoD and those of partner nations' armed forces or civilian authorities to: 1) build trust and confidence; 2) share information; 3) coordinate mutual activities; 4) maintain influence; and 5) achieve interoperability in support of U.S. national and military security strategy. GHE focuses on DoD force health protection; partner capacity-building and interoperability; humanitarian assistance and foreign disaster relief; and nuclear, chemical, and biological defense programs.

The Department's GHE activities play a significant role in advancing U.S. global health priorities. GHE serves as a key strategic enabler to advance readiness, build interoperability, and enhance security cooperation. GHE activities offer *critical opportunities to build a medically ready force*, reduce risks to the warfighter, and foster the mission-capable status of partner forces. By building trust and cooperation, GHE activities often serve to facilitate partnerships in other sectors, further deepening our alliances. GHE activities enhance partner health capabilities, research, and

## **Overview – FY 2022 Defense Budget**

capacities resulting in increased self-reliance. These activities promote mutual awareness, familiarity, and confidence. Partners can better contribute to globally integrated health services, identify disease threats, respond rapidly to disasters or outbreaks, partner in the fight against global threat networks, and advance shared interests to maintain regional stability and security.

Many GHE activities align with the U.S. Government's commitment to advancing the Global Health Security Agenda (GHSA). Working closely with other Federal departments and agencies, DoD supports implementation of GHSA initiatives through GHE activities related to force health protection, threat reduction, and biodefense programs, including biosurveillance and medical research.



The COVID-19 pandemic further complicated the global security environment and threatened interests we share with allies and partners. DoD support is a critical component of a U.S.-led global response to the COVID-19 pandemic. The Department's international COVID-19 response is intended to stem further transmission and reemergence of COVID-19, mitigate near- and long-term global impacts, and protect the American people at home and abroad. The first phase of DoD's assistance, from March 2020 until May 2020, focused on supporting countries' immediate response to the pandemic by providing locally-procured PPE, medical supplies and

equipment, and testing supplies. The second phase of DoD's assistance, which commenced in June 2020, focuses on capacity building to support mid- to long-term pandemic and infectious disease preparedness and response capabilities.

The DoD is currently providing assistance in building public health capacity in countries in every geographic combatant command through the Overseas Humanitarian, Disaster, and Civic Aid account; Cooperative Threat Reduction (CTR) Program; OCONUS labs; and foreign military sales. In coordination with U.S. Agency for International Development (USAID) and the State Department, DoD has provided, through the provision and transport of immediate relief commodities, life-saving medical equipment and capacity building humanitarian aid. The DoD OCONUS labs and the CTR - Biological Threat Reduction Program continue to facilitate the detection and reporting of diseases that could affect the armed forces of the United States and its allies and partners.

These programs are critical in enhancing our allies and partners' response activities to COVID-19 and building long-term public health capacity. The DoD continues to work with Allies and Partners to support them during this crisis and these efforts are not only consistent with our national values, but they also demonstrate the DoD as a committed and reliable partner.

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# 7. CONTINGENCY OPERATIONS

On April 14, 2021, the President announced his intention to withdraw all U.S. troops from Afghanistan by September 11, 2021. The FY 2022 budget request of \$42.1 billion supports this drawdown, the resulting force posture, and other contingency operations. These direct war and enduring operations requirements are accounted for in the base budget for the first time. This request focuses on continued military operations and support in the Middle East and South Asia, efforts to deter Russian aggression, and global counterterrorism operations. Figure 7.1 displays requested funding by

#### Sections

- Movement of OCO to Base
- Contingency Operations
   Categories
- Current Operations
- Contingency Operations
   Functional/Mission Category

category: direct war, enduring operations requirements, and Overseas Contingency Operations (OCO) for base requirements.

The request supports the following activities:

• 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 become a reliable partner to the United States.

• Building capacity of the Iraqi Security Forces and vetted Syrian groups and individuals to counter ISIS in support of the U.S. strategic objectives.

Category	FY 2021 Enacted	FY 2022 Request <sup>2</sup>	Delta FY 2021 _ FY 2022
Direct War Requirements	19.9	14.3	-5.6
Enduring Requirements	34.0	27.8	-6.2
OCO for Base Requirements <sup>1</sup>	16.5	-	-16.5
Subtotal	70.4	42.1	-28.3
Prior-Year Rescissions	-1.9	-	+1.9
Grand Total	68.5	42.1	-26.4

#### Figure 7.1. Costs by Category (\$ in billions)

Numbers may not add due to rounding <sup>1/</sup> The FY 2021 "OCO for Base Requirements" reflects the Department of Defense's base budget requirements requested in the FY 2021 OCO budget in order to comply with the base defense caps in current law.

<sup>2/</sup> The FY 2022 Request amounts are accounted for in the base budget.

• Conducting U.S. Central Command (USCENTCOM) 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.

# MOVEMENT OF OCO TO BASE

To comply with the Office of Management and Budget direction in the Summary of the President's Discretionary Funding Request, dated April 9, 2021, the Department of Defense (DoD) is shifting funds that had previously been designated as OCO to the base budget. The discretionary request also discontinues requests for OCO as a separate funding category, instead funding direct war costs and enduring operations in the DoD base budget, a significant budgetary reform.

# **CONTINGENCY OPERATIONS CATEGORIES**

The FY 2022 request of \$42.1 billion is divided into two requirement categories – direct war and enduring requirements. Combined, enduring requirements and direct war requirements comprise "traditional" OCO:

Direct War Requirements (\$14.3 billion) – Reflects combat or combat support costs that are not expected to continue once combat operations end at major contingency locations. These costs include in-country war support for Operation INHERENT RESOLVE (OIR) in Iraq and Syria. These costs also include partnership programs such as the Afghanistan Security Forces Fund (ASFF), the Counter-ISIS Train and Equip Fund (CTEF), and the Coalition Support Fund (CSF).

Enduring Requirements (\$27.8 billion) – Reflects enduring in-theater and Continental United States (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. These costs also include the European Deterrence Initiative (EDI), the Ukraine Security Assistance Initiative (USAI), and Security Cooperation. Of note, the enduring requirements costs listed in this chapter are not a comprehensive accounting of in-theater and CONUS costs, but rather an accounting of cost previously included in OCO. There are similar costs included in prior year base requests (e.g., an additional \$0.5 billion Security Cooperation costs in base for a total of \$1.1 billion). Provision of the enduring requirements in OCO. In subsequent President's Budget requests, this breakout will be rolled into the base budget to improve the comprehensive accounting of in-theater and CONUS costs.

# **CURRENT OPERATIONS**

The FY 2022 direct war and enduring requirements fund military presence in Iraq and Syria in support of OIR. The requirements also fund USCENTCOM in-theater presence supporting both USCENTCOM operations and additional support from the CONUS.

In Afghanistan, the Department continues building partnerships using the Afghanistan Security Forces Fund (ASFF) for the sustainment, infrastructure, equipment, and training requirements for an authorized force of up to 352,000 Ministry of Defense (MoD) and Ministry of Interior (MoI) personnel, although the Afghan National Defense and Security Forces (ANDSF) have not historically met the full authorized force structure. Although the United States plans withdrawal from Afghanistan by September 11, 2021, there are residual costs in the FY 2022 budget, which include equipment reset and readiness, in-theater support, and operations/force protection.

In Iraq and Syria, liberation of territory from ISIS shifted the Department's focus. Working by, with, and through vetted Iraqi and Syrian partner forces, the Department is setting conditions for long-term stability by assisting in wide-area security in liberated areas, addressing the ongoing ISIS threat, preventing ISIS resurgence, and collaborating with interagency partners.

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 7.2 displays the budget request by Operation/Activity.

### Figure 7.2. Costs by Operation/Activity (\$ in billions)

Operation/Activity	FY 2021 Enacted	FY 2022 Request <sup>2</sup>	Delta FY 2021 to FY 2022
Operation FREEDOM'S SENTINEL (OFS) Direct War Costs	12.9	8.9	-4.0
Operation INHERENT RESOLVE (OIR) Direct War Costs	7.0	5.4	-1.6
Enduring Theater Requirements and Related Missions	29.5	24.1	-5.4
European Deterrence Initiative (EDI) and the Ukraine Security Assistance Initiative (USAI)	4.5	3.7	-0.8
OCO for Base Requirements <sup>1</sup>	16.5	-	-16.5
Subtotal	70.4	42.1	-28.3
Prior-Year Rescissions	-1.9	-	+1.9
Grand Total	68.5	42.1	-26.4

Numbers may not add due to rounding

<sup>1/</sup> The FY 2021 "OCO for Base Requirements" reflects the Department of Defense's base budget requirements requested in the FY 2021 OCO budget in order to comply with the base defense caps in current law. <sup>2/</sup> The FY 2022 Request amounts are accounted for in the base budget.

The FY 2022 Request amounts are accounted for in the base budget.

Figure 7.3 displays the force levels assumed in the Department's FY 2022 budget, expressed as annual average troop strength.

### Figure 7.3. U.S. Force Level Assumptions in DoD Budget (Average Annual Troop Strength)

Operation/Location	FY 2020 Actual	FY 2021 Request	FY 2022 Request
Afghanistan (OFS)	16,025	8,600	0
Iraq/Syria (OIR)	5,487	8,003	3,400
In-Theater Support <sup>1/</sup>	48,513	46,109	43,899
In-CONUS <sup>2</sup> /Other Mobilization <sup>3/</sup>	32,169	28,521	23,394
Total Force Levels	102,194	91,233	70,693

<sup>1/</sup> In-Theater support includes support for Iraq, Syria, and Counterterrorism

<sup>2/</sup> In-Conus = In the Continental United States

<sup>3/</sup> Other Mobilization includes the European Deterrence Initiative and Combined Joint Task Force Horn of Africa (CJTF-HOA) troop requirements

The FY 2022 direct war and enduring request reflects a \$28.3 billion decrease from the FY 2021 OCO enacted level of \$70.4 billion to account for projected OFS, OIR, In-Theater Support, and OCO for base requirements. Figure 7.4 shows the trends in OCO funding.

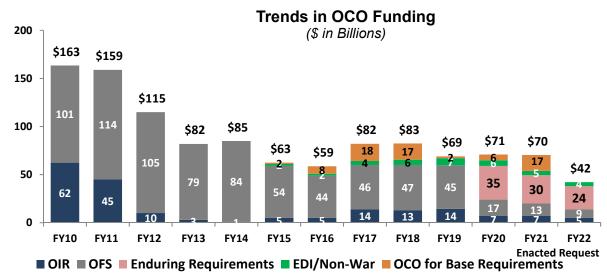


Figure 7.4. OCO Funding Trends

The \$28.3 billion reduction from the FY 2021 enacted amount of \$70.4 billion to the FY 2022 requested amount of \$42.1 billion is due to no OCO-for-base in the FY 2022 request, the withdrawal of troops in Afghanistan, and troop reductions in Iraq and Syria. The withdrawal of in-country forces also impacts in-theater support and in-CONUS/other-mobilization forces. These support costs, further categorized in Figure 7.5, include:

- In-theater support, which includes infrastructure costs like command, control, communications, computers, and intelligence (C4I) and base operations for 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.

# **CONTINGENCY OPERATIONS FUNCTIONAL/MISSION CATEGORY**

Funding in the FY 2022 direct war and enduring requirements budget request is captured by operational support category in Figure 7.5, followed by brief explanations of select activities.

Category	FY 2020 Enacted	FY 2021 Enacted	FY 2022 Request	Delta FY 2021 to FY 2022
Operations/Force Protection	14.4	15.4	8.4	-7.0
In-Theater Support	19.4	21.1	19.3	-1.8
Counter and Deter Threat Network/DTRA	0.5	0.3	0.2	-0.1
Equipment Reset and Readiness	8.7	7.5	5.5	-2.0
Classified Programs	10.3	-	-	-
Afghanistan Security Forces Fund (ASFF)	4.2	3.1	3.3	+0.2
Support for Coalition Forces	0.4	0.3	0.2	-0.1
Counter-ISIS Train and Equip Fund (CTEF)	1.2	0.7	0.5	-0.2
Border Security	0.0	0.3	0.4	+0.1
Security Cooperation	0.8	0.7	0.6	-0.1
European Deterrence Initiative (EDI)	6.0	4.5	3.7	-0.8
OCO for Base Requirements	6.2	16.5	-	-16.5
Subtotal	72.1	70.4	42.1	-28.3
ISR Transfer Fund	0.3	-	-	-
Prior-Year Rescissions	-1.1	-1.9	-	+1.9
Total	71.3	68.5	42.1	-26.4

Figure 7.5. Contingency Operations Functional/Mission Category (\$ in billions)

Numbers may not add due to rounding

**Operations/Force Protection (\$8.4 billion):** This category of incremental cost includes the full spectrum of military operations requirements for U.S. personnel operating in 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;
- Various classes of supplies;
- Deployment and redeployment of combat and support forces;
- Life support and sustainment; and
- Additional body armor and personal protective gear.

**In-Theater Support (\$19.3 billion):** Funds requested in this category provide for critical combat and other support for personnel in Iraq and Syria that comes from units and forces operating outside Iraq and Syria. This category also includes funding to support other operations conducted outside 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 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) (\$30 million): This office is central in carrying out DoD's long-term bilateral security partnership with Iraqi Security Forces (ISF). 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.

**Counter and Deter Threat Network (\$0.2 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 threat networks in conflict and in competition.

**Equipment Reset and Readiness (\$5.5 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 2022 direct war request 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.

**Afghanistan Security Forces Fund (ASFF) (\$3.3 billion):** This request funds the sustainment, infrastructure, equipment, and training requirements for up to 352,000 members of the Afghan National Defense and Security Forces (ANDSF). The Afghan Pay and Personnel Systems validate that approximately 300,000 Ministry of Defense (MoD) and Ministry of Interior (MoI) personnel are currently enrolled and eligible for pay during the current fiscal year. The request supports further development and sustainment of the ANDSF as an effective and sustainable force to combat a resilient insurgency and as a reliable counterterrorism partner with the United States.

**Support for Coalition Forces (\$0.2 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 2022 budget request for support for coalition forces includes \$60 million for the CSF and \$150 million for the Lift and Sustain program. The FY 2022 budget request of \$60 million for CSF reflects a \$40 million decrease from the FY 2021

## Overview – FY 2022 Defense Budget

enacted level of \$100 million. This reduction accounts for the continued suspension of U.S. security assistance to Pakistan based on the President's January 4, 2018, guidance as well as the consolidation of reimbursable border security support in Section 9026 of the FY 2021 Defense Appropriations Act. This consolidation included reimbursements to Jordan which were previously funded by CSF. The FY 2022 Lift and Sustain \$150 million request remains at the FY 2021 enacted level of \$150 million based on forecasted FY 2022 support requirements for coalition troops participating in U.S. military operations in Iraq and Syria.

**Counter-ISIS Train and Equip Fund (CTEF) (\$0.5 billion):** The U.S. Government is committed to the enduring defeat of ISIS. The centerpiece of this effort is DoD's approach to work "by, with, and through" the Government of Iraq's Security Forces and Vetted Syrian Groups and Individuals (VSGI) to build key security force capabilities and create conditions for long-term regional stability. The FY 2022 CTEF budget request strengthens capabilities of DoD's counter-ISIS partner forces to secure liberated territory and counter ISIS threats. The training, equipment, and operational support in this request will secure territory previously held by ISIS and prevent its reemergence. The \$522 million request includes \$345 million to assist the Iraqi Security Forces and \$177 million to assist VSGI.

**Border Security (\$0.4 billion):** Border Security funding provides support to key allies and partner nations on a reimbursement basis for expenses incurred by these countries to increase security and sustain increased security along their borders adjacent to conflict areas in an effort to prevent the free movement of weapons, narcotics, as well as ISIS and other violent extremist organizations. Section 9026 of the FY 2021 Defense Appropriation Act consolidated funding previously appropriated in the CSF and CTEF for border security reimbursements into a single appropriation. The \$370 million FY 2022 request is a \$120 million increase from the FY 2021 \$250 million enacted level. This request includes \$150 million for Jordan and \$220 million for the remaining countries based on forecasted FY 2022 claims for reimbursement for eligible border security expenses. The Department adjusted the FY 2022 CSF and CTEF requests appropriately to reflect the consolidation of border security funding in Section 9026.

Security Cooperation (\$0.6 billion): Security Cooperation (SC) funding and authorities enable the United States to build partner capacity to address shared national security threats and conduct operations in tandem with or in lieu of U.S. forces. The International Security Cooperation Programs (ISCP) account, previously the Security Cooperation account, serves as a vital tool in strategic competition. Activities funded through the ISCP account support GCC efforts pursuant to Sections 333 (Train-and-Equip) and 332 (Institutional Capacity Building) of Chapter 16, and 10 U.S. Code, and P.L. 114-92 section 1263 (Indo-Pacific Maritime Security Initiative). Permissible DoD activities under Section 333, 332, and 1263 authorities include training, capacity building and education, and equipping of national security forces. Through these authorities, the ISCP account assists the GCCs to conduct building partner capacity in their individual areas of responsibility. Building partner capacity with allied and partner nation security forces enables allies and partners to counter transnational threats and promote regional and global stability. Beginning in FY 2022, the ISCP account will fund all Institutional Capacity Building (ICB) program activities previously funded out of the Institute for Security Governance and Defense Institute of International Legal Studies accounts. The addition of these programs to the ISCP account reflects the Department's continued efforts to consolidate funding for SC authorities into a single appropriation, which focuses the programming, coordination, and execution of available resources to meet the Department's objectives.

## **Overview – FY 2022 Defense Budget**

**European Deterrence Initiative (\$3.7 billion)**: The FY 2022 budget request continues to trend towards steady state as the right capabilities are placed in key locations throughout Europe to deter adversarial threats. The FY 2022 budget request of \$3.7 billion for EDI supports rotational force deployments, the phased implementation of the multi-year activities funded in previous budgets, and improved infrastructure throughout the European theater. The FY 2022 EDI budget request includes \$250 million for the 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:

- 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.

# 8. THE DEPARTMENT OF DEFENSE AUDIT

The Department has actionable and achievable plans in place and is steadily progressing toward an unmodified audit opinion. Work to correct findings is resulting in more reliable information for decision-making, improved inventory management, and enhanced cybersecurity.

The financial statement annual audit regimen continues to be a foundational element of defense reform. 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 invaluable and are a catalyst for long-term, sustainable reform leading to improved efficiency, better buying power, and increased public confidence in Department of Defense's (DoD) stewardship of funds.

# **Sections**

- 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.

"There's more to be done—and you have my commitment that we will lean into this and continue to push to make sure we can get a clean audit in the not too distant future."

> -Secretary of Defense Lloyd J. Austin January 19, 2021, Confirmation Hearing U.S. Senate Committee on Armed Services

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

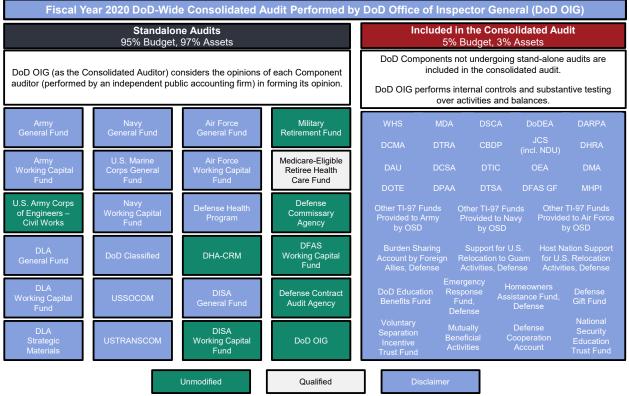
this. The DoD consolidated financial audit will continue year after year and provide independent, actionable feedback. The DoD owes accountability and transparency to the American people, as the taxpayers deserve a level of confidence that DoD's financial statements present a true and accurate picture 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.

# 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 2020 audit covered the Department's total assets of more than \$3.1 trillion and involved more than 1,400 auditors, who conducted over 100 in-person site visits and approximately 530 virtual site visits to review DoD business processes and activities. 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.

IPAs conducted 24 standalone audits of DoD reporting entities. The DoD OIG oversaw the work of the IPAs and issued the overarching consolidated audit opinion. The 8 reporting entities received unmodified (clean) opinions in the FY 2020 audits, and 1 received a qualified (modified) opinion.

All other DoD reporting entities and the DoD consolidated audit 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. Receiving a disclaimer of opinion in the initial years under audit is consistent with the experience of other large federal agencies.



#### Figure 8.1. DoD Consolidated Audit Structure

# 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 2020, the Department successfully resolved over 20 percent of the Notices of Findings and Recommendations (NFRs) issued during the FY 2019 audit, allowing auditors to not re-issue those findings. This closure rate was particularly notable against the COVID-19 pandemic backdrop, which brought a multitude of logistical challenges to the audit. Additionally, the FY 2019 audit had a higher volume of NFRs for Components to address in FY 2020 than the prior year audit. In February 2021, the DoD Office of Inspector General released a report, written for non-auditors, explaining the results and the progress DoD made in FY 2020. The report underscores the value of audits beyond the audit opinion.

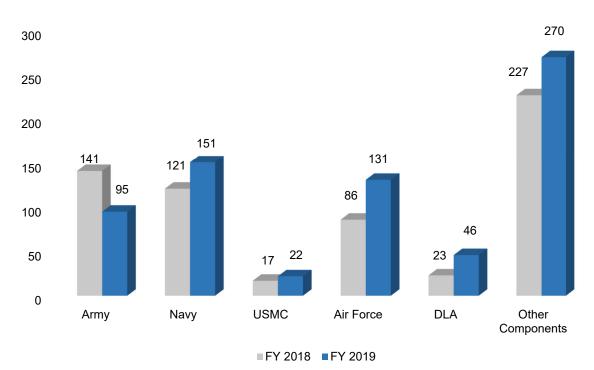
The Department anticipates NFRs closing at increased rates over time as the audit and related remediation efforts mature. As the closings of these NFRs grow, the related material weaknesses (MWs) are expected to be downgraded or resolved as the effect of implemented corrective actions continues to manifest.

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 reissuing 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 8.2 provides a visual of how most Components improved the number of NFR closures during the FY 2020 audit.





The Department has actionable and achievable plans in place and is making progress toward an unmodified audit opinion. However, achieving an unmodified audit opinion will take many years. Each reporting entity under standalone audit with a disclaimer is managing to an audit roadmap. Each roadmap details corrective action completion dates by fiscal year and financial statement line-item or audit focus area. Leadership has been actively engaged in overseeing the progress. 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

The Department expects to spend \$1.281 billion in FY 2022 in support of the DoD Audit; with approximately 18 percent of these resources required to pay the independent auditors; 17 percent representing the cost of supporting the audit to include responding to auditors' request for information; and 64 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. Approximately 64 percent supports enterprise-wide initiatives for remediating audit findings, sustaining improvements, and advancing the audit roadmaps developed by the Army, Navy, and Air Force. Each audit roadmap establishes specific, measurable events to resolve or downgrade auditor-identified material weaknesses and address limitations.

The FY 2022 budget request includes an additional \$295 million to address emerging needs related to the audit roadmaps. The Services will use this funding to support Information Technology access controls and Identity, Credential, and Access Management Systems (ICAM) implementation; Enterprise Resource Planning (ERP) system enhancements required to achieve

a target business systems environment that minimizes the number of General Ledgers; Treasurydirect disbursing implementation; and business process changes related to implementing G-Invoicing, which standardizes the processing of intergovernmental transactions.

The benefits of this annual regimen cannot always be quantified, but it will result in long-term savings in 3 areas:

- Increased enterprise visibility of property and financial information, which directly supports improved readiness through improved inventory management and 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

"As we move into an era of data, the Department needs to move there too. And the audit is showing the way to how data can be leveraged to make more sound analytic decisions."

> -Deputy Secretary of Defense Kathleen Hicks February 2, 2021, Confirmation Hearing U.S. Senate Committee on Armed Services

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 Department is transitioning from being just a mission focused organization to one that is capable of also ensuring accountability and accounting of those assets that have been entrusted to us in support of the warfighters. 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 management, and readiness—for the benefit of the warfighter and the American people.

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# 9. REFORMS

The FY 2022 budget reforms focus on increasing efficiency and effectiveness, saving resources to invest in people, priorities and purpose of mission that will renew America's advantages...

The President's Interim National Security Strategic Guidance (Interim Guidance) for *Renewing America's Advantages* and Secretary Austin's *Message to the Force* emphasize the need to make smart disciplined investments in our national defense and to reprioritize and realign resources to Defend the Nation, Take Care of Our People, and Succeed Through Teamwork. As a result, the Department 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 its priorities.

### FY 2022 Reform Savings

The Army, Navy, Air Force, and Defense Health Agency have driven program reforms totaling \$6.1 billion in FY 2022 to realign spending towards the Secretary's priorities to Defend the Nation, Take Care of People, and Succeed Through Teamwork.

Through the FY 2022 budget submission, the Department continues to refine and formalize its process of accounting for reform savings. Additionally, 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 Components are using the following levers (with examples) to achieve these savings:

## Figure 9.1. FY 2022 Defense Reforms

Reform Levers	FY 2022 (\$ billions)
Business Process Improvement	1.3
Business System Improvement	0.2
Policy Reform	1.6
Weapon System Acquisition	0.2
Divestments	2.8
Better Alignment of Resources	<0.1
TOTAL	6.1

Numbers may not add due to rounding

- **Business Process Improvement** Refining actions, personnel, and timelines to increase effectiveness, efficiency, and reliability of the Department's delivery of goods and services.
  - The Air Force implemented a series of Air Education & Training Command (AETC) course reform efforts resulting in significant reductions (savings) in the time to train Airmen. The reform efforts focused on two major areas: Basic Military Training (BMT) and Intel course revisions and reforms. The BMT reforms resulting in an 8-day reduction, with more focused and efficient courses. For the Intel courses, AF created a hybrid approach, using a combination of distance learning, seminars with minimal Sensitive Compartmented Information Facility (SCIF) time, and small group in-person learning. This, together with reforms in the clearance process, resulted in a 50-day reduction to an Airman's total time at Goodfellow AFB. (FY 2022, \$101 million, 1,176 Student Man Years (SMY)).
  - The Army's "People Strategy" has reduced funding requirements through reforming four main efforts: training, recruitment, life cycle management, and mission analysis. First, the Army adjusted the number of officer and enlisted accessions, based on analysis, reducing the accessions and training costs. Second, recruitment operations produced significant savings through an IT cloud migration effort and better data analysis, resulting in more focused recruiting marketing efforts. Next, the JROTC extended the life cycle of

its uniforms, reducing the overall costs of new uniforms. Lastly, though careful mission analysis, the Army was able to transfer the Veterans' claims research mission to the Veterans' Administration. (FY 2022, \$20 million)

- The Navy is implementing a series of Future Readiness Team reform Initiatives aimed at improving reliability and reducing maintenance cost of weapons system components that have the highest maintenance costs. Examples of these efforts include: establishing a fiber optic in-field repair capability; reducing Hybrid Test Station, test bench obsolescence; enhancing HELLFIRE intermediate level maintenance capabilities; and establishing an organic repair capability for F/A-18 autonomous protection systems. All these varied efforts produce significant savings, over \$80 million over 5 years. (FY 2022, \$7 million)
- The Defense Health Agency conducted a comprehensive review that resulted in savings derived from various reform efforts in category management and Service commodity efficiencies within the Defense Health Program appropriation, such as standardizing clinical processes, staffing models, and medical logistics support for the radiology, pharmacy, and direct care product lines, as well as increasing the use of contract standardization, and leveraging the buying power of medical markets as they are brought online. (FY 2022, \$310 million)
- Business System Improvement Innovate and Modernize through 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 and scale that matches the dynamic threat landscape.
  - The Navy is terminating its Business Legacy Accounting System's cost and manpower for the Navy Working Capital Fund (NWCF) activities in order to contribute to the Department's success in meeting auditability standards. (FY 2022, \$5 million, 4 FTEs)
  - The Army is centralizing IT business systems operations and sustainment to gain efficiencies and reduce costs. These reform efficiencies include: consolidation of cloud hosting, from 5 organizations into one; IT help desk consolidation into one enterprise help desk that supports 5 major programs; and consolidating 10 Army Material Command (AMC) contracts into one contract that benefits from economies of scale and shared resources. All of these efforts will be managed by the newly created Army Shared Services Center (ASSC). (FY 2022, \$40 million)
  - SOCOM is divesting its outdated Civil Information Management Data Processing, which was replaced by the Army Distributed Common Ground Systems (DCGS-A). DCGS-A continues to support the 95th Civil Affair's (CA) Civil Information Management (CIM) requirements. (FY 2022, \$2.4 million)
- **Policy Reform** Changing the Department's procedures to best empower the warfighter with the knowledge, equipment, and support systems to fight and win.
  - The Marine Corps continues the implementation of Force Design 2030, begun in PB 2021, which reduces military personnel and empowers the warfighter through reinvestments in modernized training, equipment, and support systems. Overall, this reduces the Active component by approximately 2.8 percent, providing a smaller Marine Corps at a higher state of readiness. (FY 2022, \$513 million)
  - The Navy used an integrated Total Force Management (TFM) approach to civilian and military personnel, and contractors in order to identify workforce requirements and improve organizational productivity. This resulted in a culture of constant performance

improvement and produced a reduction in contracted services, across multiple programs, based on object class data. Additionally, this also resulted in a savings of 12 civilian FTE. (FY 2022, \$256 million, 12 FTEs)

- The Marine Corps continues its Force Design 2030 process resulting in the elimination of some depot maintenance procedures, which will eliminate risk, recapitalize resources, and invest in mission essential support systems to better empower the warfighter. These changes resulted in equipment set reductions to the following systems: M1A1 Combat Tank; M1150 Assault Breacher Vehicle; M88A2 Heavy Recovery Vehicle; Armored Vehicle Launched Bridge, Medium Girder Bridge; and other miscellaneous bridging equipment. (FY 2022, \$53 million)
- Weapon System Acquisition Procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades.
  - The Navy revised its acquisition strategy for the Ford-class aircraft carrier, USS John F. Kennedy (CVN 79) from a two-phase to a single phase delivery. The single phase delivery results in a change in milestone durations (longer construction period, no Post-Delivery Test and Trials (PDT&T) period, and shorter duration Post-Shakedown Availability/Selected Restricted Availability (PSA/SRA) timeframe. This resulted in a significant maintenance savings over what was required under the two phase approach. These savings can be used for other priorities. (FY 2022, \$68 million)
  - The Navy's F-35 program office conducted analysis and moved to a multi-year procurement approach, instead of a traditional one-year contracting. This resulted in cost savings through program stability, and savings to the government in the form of better pricing. The negotiation of F-35C production lots 12-14 resulted in additional per unit savings. (FY 2022, \$75 million)
- **Divestments** Selling equipment or weapon systems, or strategically discontinuing dated acquisition programs to fund purchases in support of the Department's highest priorities.
  - SOCOM is reducing its Contractor Owned Contractor Operated Intelligence, Surveillance and Reconnaissance (ISR) outdated platforms (JAVAMAN, MEUAS, STAMP, and Warrior) in order to modernize ISR capabilities and invest in more cost effective ISR solutions in support of the Department's first line of effort, innovate and modernize. Future investment decisions will be informed by the SOCOM ISR Modernization Investment Strategy (SIMIS), which will provide recommendations based on future operating environments, SOCOM's ISR requirements, and budgeting processes. (FY 2022, \$106 million)
  - The Navy is divesting of its older F/A-18A-D aircraft that support the Naval Air Warfare Development Center (NAWDC)/Operational Test requirements. Originally scheduled for FY 2024, Navy accelerated this divestment to FY 2022, in order to fund higher Interim Guidance priorities. (FY 2022, \$95 million)
  - The Army Joint Technology Center System Integration (JTCSI) divests of a trainer/simulator support program, which provided support for UAS in exercises. This equipment was considered redundant, and its divestment represents little risk to the overall program. (FY 2022, \$4 million)
  - The Air Force will divest of 6 F-16 squadrons, 2 in FY 2022, 3 more in FY 2023, and 1 in FY 2026, all on an accelerated schedule. The divestment squadrons in FY 2022 are at Luke AFB, AZ and Truax, Madison, WI, both a year early than originally planned. The

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next 3 F-16 squadron divestments, in FY 2023, are at Tucson, AZ, Carswell, Fort Worth, TX, and Donnelly, Montgomery, AL, all one year earlier than their planned conversion to the F-35 in FY 2024. The last early F-16 squadron divestment is in FY 2026, at Andrews AFB, MD. This accelerates divestment of legacy platforms, enabling the accelerated investment in future capabilities. (FY 2022, \$31 million)

- The Air Force is divesting some aircraft to invest in technologies and field systems that are both lethal and survivable against a peer threat. The Air Force will divest 137 fighter aircraft, including 42 A-10s, 48 F-15 C/D, and 47 F-16 C/D. The A-10 and F-16 divestments right-size the fleet and the F-15 divestments support the transition to F-35 and F-15 EX airframes. The Air Force will also divest 32 legacy KC-135 and KC-10 tanker aircraft in order to transition critical manpower to the newly fielded KC-46 fleet. Additional aircraft divestments include 20 RQ-4 Block 30 Global Hawk and 4 E-8 (JSTARS) aircraft to increase intelligence, surveillance, and reconnaissance (ISR) and command and control capability in a highly-contested environment and 8 C-130H transport to right-size the fleet for global mobility. (FY 2022, \$1,373 million)
- Navy is divesting of several ships, beginning in FY 2022, among the more significant savings is the decommissioning of the USS ANZIO (CG 68), resulting in a manpower savings in support of maintenance and repair of the ship. (FY 2022, \$361 million)
- **Better Alignment of Resources** Reprioritizing or moving finances and personnel to realign from legacy capability in support of National Security Priorities.
  - The Air Force will repurpose ½ of its Battle Control Centers (BCCs) part-time, redundant drill manpower (17 Officer and 34 Enlisted personnel) in the Air National Guard (ANG) to higher readiness priorities. Based on a 2010 manning construct, the 224<sup>th</sup> and 225<sup>th</sup> Air Defense Groups (ADGs) have excess, part-time drill instructors that have never been activated, even during the Sep 11, 2001 attacks. The risk of deactivating half of this cadre is very low, since half of this backup capability remains, and the benefits to realigning these military personnel to higher mission priorities is a better use of resources. Savings in military personnel in this program will be transferred to other, under-resourced programs, and associated support savings are represented here. (FY 2022, \$0.7 million)
  - The Navy will downgrade the Fleet Logistics Center (FLC) Bahrain from a full FLC Command to a Detachment of FLC Sigonella, without diminished support to the Fleet. Functions will be consolidated with FLC Sigonella, which will reduce overhead costs and 2 FTEs in the first year of implementation. (FY 2022, \$1.7 million, 2 FTEs)
  - The Navy will eliminate/reorganize the Commander, Submarine Group 7 (CSG-7) mission and staff, due to lack of operational tasking. After conduction mission analysis, the Navy determined that it only had requirements and taskings for a total of 9 CSGs, so the elimination of CSG-7 returns the Navy to 9 CSG staffs, a supportable requirement. (FY 2022, \$5.7 million, 92 military personnel)
  - Navy will rephase the implementation of the Naval Community College (NCC) establishment. The purpose of the NCC is to provide a Navy-centric educational opportunity for enlisted sailors, Marines, and Coast Guardsman. The pilot phase began in FY 2021 with 2,500 students, ramping up to the Full Operational Capability (FOC) of 10,000 students in FY 2024. After analyzing several different ramp up and funding scenarios, The FY 2024 FOC profile was selected to ensure the most defendable and executable path to FOC. (FY 2022, \$18 million)

# **10. MILITARY DEPARTMENTS**

"We confront a global pandemic, a crushing economic downturn, a crisis of racial justice, and a deepening climate emergency. We face a world of rising nationalism, receding democracy, growing rivalry with China, Russia, and other authoritarian states, and a technological revolution that is reshaping every aspect of our lives. Ours is a time of unprecedented challenges, but also unmatched opportunity."

- Interim National Security Strategic Guidance

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) 2022 Budget submission for inclusion in the Department of Defense (DoD) Budget Overview. Additional data is contained in Appendix A, Resource Exhibits.

# DEPARTMENT OF THE ARMY OVERVIEW

Discretionary Budget Authority in Thousands Department of the Army	FY 2021 Enacted	FY 2022 Request	Δ FY21 – FY22
Military Personnel	65,020,846	66,157,331	+1,136,485
Operation and Maintenance	66,194,945	65,465,047	-729,898
Procurement	23,706,723	21,270,264	-2,436,459
RDT&E	13,857,750	12,799,645	-1,058,105
Military Construction	1,417,620	1,156,706	-260,914
Family Housing Construction	123,900	99,849	-24,051
Family Housing Operations	372,342	391,227	+18,885
Revolving and Management Funds	201,807	384,711	+182,904
Pass Thru (ASFF, CTEF, & CHEM-DEMIL)*	3,307,412	4,944,162	+1,636,750
Base Realignment & Closure	62,060	65,301	+3,241
Subtotal Department of the Army	174,265,405	172,734,243	-1,531,162
Arlington National Cemetery	81,815	228,000	+146,185
Total Department of the Army	174,347,220	172,962,243	-1,384,977

\* Afghanistan Security Forces Fund (ASFF) – FY 2021 includes \$1.1B prior year rescission

\* Counter-Islamic State of Iraq & Syria Train and Equip Fund (CTEF) – FY 2021 amount includes \$0.4B prior year rescission

\* Chemical Agents & Munitions Destruction (CHEM DEMIL)

#### Introduction

*"The time is now to transform how we take care of our people, our doctrine, our organizations, our training, our equipment, and how we compete around the world."* 

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

The Army continues to provide a trained, fit, disciplined, and ready force that competes globally, and stands ready to fight and win the Nations wars as a member of the Joint Force. The Army is globally engaged with approximately 170,000 Soldiers serving in 140 countries around the world supporting Combatant Command requirements. Simultaneously, over 50,000 Soldiers have supported the nations response to the COVID-19 pandemic across a broad range of activities. Currently, 3,300 Soldiers work to make the Southwest border safe and avert humanitarian challenges; and 15,000 Soldiers stand ready as an augmented emergency service response, to respond to an increasing array of natural disasters. As always, our Soldiers stand at the ready to support local authorities across the Nation.

In the midst of these continuous requirements both abroad and at home, the Army is undergoing its greatest transformation in over 40 years. This transformation includes priortization of both current and future requirements, fostering a "People First" Army culture, and shifting from contingency operations towards large-scale combat and Joint All-Domain operations. The Army is focusing on modernization to address current and evolving adversary capabilities, and continues to focus on building and maintaining strong Alliances and Partnerships; all in alignment with the President's Interim National Security Strategic Guidance.

The Army's priorities are People, Readiness, and Modernization. As the Army pursues these priorities, we will also continue to strengthen our alliances and partnerships, mitigate the impact of climate change, and continue reforms to achieve greater efficiencies. Balancing these priorities requires the Army to balance resources across the force. The Army will continue its reform efforts in business processes, divestment of older equipment, and better alignment of resources to fund our priorities. Through the previous three fiscal years, the Army has conducted extensive "deep-dive" reviews of its programs in order to self-fund its modernization efforts, making tough choices on the future of outdated equipment to develop the capabilities required to meet current and future challenges. The Army has charted a course to introduce these new capabilities and begin replacing systems fielded in the 1970s and 1980s.

### **Fiscal Environment**

FY 2022 marks the first year since 2009 that our budget request consists of only Base funding. Even with this paradigm shift, the Army remains committed to maximizing its purchasing power through deliberate requirements prioritization as it executes a multitude of directed, as well as emerging missions. The Army's topline does come down in FY 2022 primarily as a result of its adjusted posture in the CENTCOM operating environment.

The Army remains prepared, and will always answer the Nations call, whether abroad or to respond during times of need at home. Regardless of the mission, from combatting COVID-19, meeting the demands of strategic competition, providing support to civil authorities, reacting to the reality of a changing climate, responding to crisis or winning in conflict, the Army stands ready. However, supporting these efforts requires resources that the Army needs to ensure it is able to meet its readiness requirements and Army Modernization Strategy – directed by Congress in the 2018 National Defense Authorization Act. Army Senior Leaders took decisive and prudent actions to sustain the Army's readiness levels and to internally resource and jumpstart Army modernization.

### People

"People first, it's a philosophy, when we take care of our people and treat each other with dignity and respect we will have a much stronger and more committed Army. The Army will deliver on our readiness and modernization priorities. When we care about people, we put them in the right jobs at the right time, that is how we win."

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

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 Families, retirees, and veteran Soldiers, all of whom are committed to serving our Nation. The Army's People Strategy aims to promote and build cohesive teams that are highly trained, disciplined, fit, and ready to fight and win. Furthermore, the Army People Strategy focuses on fostering a culture of inclusion where everyone is treated with dignity and respect; improving Quality of Life; and leveraging Talent Management to place the best Soldiers and Civilians in the right place, at the right time, to meet mission requirements.

The Army fosters a culture in which everyone is treated with dignity and respect. The Army's People First Task Force addressed and implemented recommendations from reviews of incidents over the last two years and will build on these efforts into FY 2022. The FY 2022 request resources brigade sized organizations with Sexual Harassment, Assault, Response Prevention (SHARP) personnel and resources; and new SHARP awareness materials for Soldiers, family, and Army civilians. The funding supports a multidisciplinary prevention workforce that addresses the greatest areas of concern for SHARP as well as interpersonal violence and self-harm prevention programs. Resources will be used to develop and evaluate integrated prevention policies and programs focused on the prevention of readiness detracting behaviors that contribute to violence and harm to self and others.

Army leaders, Officers and Non-Commissioned Officers, are stewards of the American people's trust. These women and men lead the sons and daughters of America and setting the standard for an Army culture of dignity and respect. Embracing this trust, the FY 2022 request includes funding for Battalion and Brigade Commander's Assessment Programs, BCAP and CCAP. These commanders occupy the most consequential leadership positions in the Army, and set the tone to take care of our people and drive readiness. Furthermore, the FY 2022 requests funding for "This is My Squad", a program spearheaded by the Sergeant Major of the Army that promotes cohesion by encouraging Soldiers to better know those around them, develop greater compassion, and intervene early to protect others.

The Army's focus on culture also includes a holistic effort to improve diversity, equity, and inclusion across the force, this effort is known as Project Inclusion. Simultaneously, the Army has initiated independent command climate assessment teams to identify, and respond to, systemic problems before they emerge. These assessments are conducted in the same vein as junior leader listening and sensing sessions focused on policy and change to an environment that disallows prevention, and response to, harmful behavior.

Likewise, Army Senior Leaders recognize our Soldiers, civilians and their families should be afforded a Quality of Life commensurate with their quality of service. The FY 2022 request incorporates Army housing and barracks initiatives through the Army Housing Campaign Plan, which is focused on shaping policies, procedures, and processes throughout Army installations. The Army Tenant Bill of Rights in the Residential Community Initiatives (RCI) continues to

progress, as the majority of its tenets have been implemented and the remainder available at most installations by June 1, 2021. Installations are holding privatized companies accountable, hiring additional personnel for oversight, and increasing inspection and quality assurance checks, driving success for the initiative. The FY 2022 request includes funding for these programs.

The FY 2022 request also addresses housing requirements and recapitalization needs, requesting over \$262 million for 5 barracks initiatives across the Army enterprise; \$103 million dollars for barracks and dining facility at Grafenwoehr, Germany; 31 construction projects on various installations; \$9 million to address potable water safety on Army installations; and several other initiatives focused on Army Family Housing construction and repair.

The Army's prioritization of quality of life also includes multiple supporting initiatives, such as a 2.7 percent pay raise which supports the accessions and retention of Soldiers by providing pay commensurate to the private sector. The FY 2022 request also supports healthcare, as Army medicine, in partnership with the Defense Health Agency, has increased focus on Military Health System reforms to deliver the best care for our Soldiers, civilians, and families throughout our installations

Installation Childcare, spouse employment, and permanent change of station (PCS) initiatives are also supported in the FY 2022 request. We implemented revised DoD priorities for childcare to grant more access to military families and continue to invest in fee assistance to buy down the cost of off-post care when on-post care is unavailable. The Army continues to make improvements in spouse employment by reimbursing up to \$1,000 for professional licensing and certification in a new state. Soldiers are now receiving PCS orders an average of 120 days before their report date, an improvement of 30 to 90 days which allows families to better prepare for the transition. Additionally, families can now claim 100 percent of their costs for reimbursement when conducting a personally procured move.

The Army's 21st Century Talent Management System combines new approaches, systems, and processes to help place the right Soldier in to the right job at the right time. This includes the tool to help implement talent management, Integrated Personnel and Pay System – Army (IPPS-A), which will go live across all Army components in 2022. The Army also continues to evolve our marketing and recruiting initiatives, developing and progressing programs such as Army Hiring Days, the "What's Your Warrior?" marketing campaign, which communicates that there are many ways to be a warrior and, through Army service, Soldiers can both contribute to something greater than themselves while improving who they will become.

The Army People Strategy, and its implementation efforts, are foundational to the Army's overall readiness and our ability to meet combatant commander requirements around the world. The most important thing the Army does is to ensure its Soldiers are trained, fit, disciplined, and ready to win in any situation, at home or abroad.

#### Readiness

"This past year was an extremely challenging year for our Nation and for our Army, The Army responded to each of the nation's calls and responded to vastly different missions. And our Soldiers responded masterfully ... Despite the surge in support, your Army remains ready."

-Honorable John Whitley, Senior Official Performing the Duties of 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 to conduct counterinsurgency and counterterrorism operations. This approach was highly successful in measuring tactical readiness, but it failed to account for operational and strategic readiness posture of the Army. The Army defines operational readiness as its ability to provide large-scale ground combat capability and capacity to the Joint Force. Strategic readiness is measured by how rapidly the service can deploy forces in support of Combatant Commanders. In FY 2022, the Army will transition to a new unit lifecycle model that aligns modernization and readiness requirements necessary to build future readiness at the strategic, operational, and tactical levels.

The Army will maintain its operational readiness in FY 2022 while ensuring a balanced approach to leader development and unit training requirements. The Army will focus on exercise efficiencies and prioritize proficient tactical unit training that integrates with battalion and brigade staff exercises. These efficiencies will enable the Army to modify the requirement for brigade and battalion live fire and field training exercises prior to Combat Training Center (CTC) rotations, resulting in a cost savings. To ensure readiness for Joint All-Domain Operations, the Total Army will conduct 20 Combat Training Center rotations in FY 2022 (18 for the Active Component and 2 for the National Guard).

Strategic readiness incorporates all aspects of manning, training, equipping, and sustaining the force, to include installations. Installation readiness and resiliency provides the Army the ability to rapidly move and transition forces in competition, crisis, and conflict. The FY 2022 budget request maintains facility sustainment restoration and modernization at 80 percent of the total requirements across the Total Army and invests \$175 million in Global Force Management Implementation Guidance (GFMIG) Directed Missions. The Army will still be able to maintain its strategic readiness with a total force of 1,010,500 Soldiers (RA, -900 (total of 485,000); ARNG, -500 (total of 336,000); USAR, -300 (total of 189,500)).

Recognizing the necessity to simultaneously maximize modernization and readiness, the Army shifted its focus from contingency operations toward Joint All-Domain operations. To accomplish this, in FY 2022 the Army will implement a new unit lifecycle model, the Regionally Aligned Readiness Modernization Model (ReARMM). The current and future operating environments demand a readiness model that is modern, capitalizes on information, and is multi-domain capable that supports Joint Staff Directed Readiness Tables and Dynamic Force Employment concepts. ReARMM is that model. ReARMM provides a flexible and predictable unit life cycle process in support of the Interim National Security Strategic Guidance by balancing the need to regionally align Army forces against global requirements. The model provides predictable and sustainable scheduling of unit employment for Soldiers and leaders, and delivers deliberate unit modernization periods. These periods allow the Army to regain or sustain overmatch by dedicating time to modernize capabilities and platforms. ReARMM informs leaders about the state of the force in terms of readiness, availability, and capability while simultaneously creating opportunities for deliberate modernization and providing stability for Soldiers and Families. Realizing that the nation expects the Army to win in competition, crisis, and conflict while

exercising prudent stewardship, where resources are limited ReARMM aligns the most modern technologies with those units facing the most potentially dangerous adversaries.

The Army, in support of the Joint Force and USINDOPACOM, is providing \$1.9 billion in support to the Indo-Pacific Theater. As part of the joint force, is building Multi-Domain Task Forces (MDTF), the premier capability for great power competition and warfighting, in the Indo-Pacific Theater. The Strategic Fires Battalion within the MDTF contributes to Multi-Domain Operations by providing Long-Range Precision Fires capabilities through Long-Range Hypersonic Weapons and Precision Strike Missiles. Using the Regionally Aligned Readiness and Modernization Model (ReARMM) will support an improved posture in the Indo-Pacific, while force structure changes in the Theater will provide greater lethality to the combatant commander and enables expansion of MDTF activities.

The Army remains committed to critical investments and actions to build counter-terrorism and security capabilities of Allies and partners in the region, with a specific focus on the Philippines, Thailand, Indonesia, Singapore, and Papua New Guinea. Project Convergence is the Army's contribution to Joint All Domain Command and Control (JADC2), where data will link land, air, sea, cyber, and space capabilities together. Defender Pacific (FY 2021) and Global Defender (FY 2022), in conjunction with other exercises, ties joint, multinational, and bilateral exercises together.

The Army must continue evolving to deliver the speed, range, and convergence required for dominance and overmatch. Army capabilities in the region serve as the forward line to enable the Joint Force to build the defense posture that meets USINDOPACOM's needs.

The Arctic is an area where the Army must be ready to compete. The Arctic is a potential line of attack in conflict, a vital area holding many of our nation's natural resources and it is also a platform for global power projection. The Army Arctic Strategy, *Regaining Arctic Dominance*, uses a Total Army approach to adapt how the Army generates, postures, trains, and equips its forces to execute extended, multi-domain operations in extreme conditions in support of the Joint warfighter. The FY 2022 budget allows for the Army to begin initiating this strategy.

### Modernization

"We remain committed to our modernization priorities...This will be a key period where we have to make tough choices and demonstrate our commitment to monetization or risk entire programs unwinding. That is not going to happen...We are going to continue on the momentum of modernization no matter what."

-Honorable John Whitley, Senior Official Performing the Duties of Secretary of the Army

The Interim National Security Strategic Guidance states "America must reinvest in retaining our scientific and technological edge and once again lead, working alongside our partners to establish the new rules and practices that will allow us to seize the opportunities that advances in technology present", and to meet the challenges of modernization the Army is transforming how we deploy, fight, and win. Modernizing the Army now will enable American land power dominance to meet the demands of strategic competition and great power conflict presented by threats in the Indo-Pacific and European Theaters (China and Russia). New technologies like artificial intelligence, autonomy, and robotics will change the character of warfare, resulting in a faster, more lethal, and more distributed battlefield. In order to support its modernization goals, the Army is focused on being good stewards of taxpayers' dollars, divesting programs to assist in funding Army modernization. The Army Futures Command (AFC), in collaboration with the Rapid Capabilities and Critical Technologies Office (RCCTO), academia, and industry; all recognize the

value of good stewardship and are aligning the six modernization priorities supported by the eight Cross Functional Teams (CFTs) to meet modernization goals.

In support of the Interim National Security Strategic Guidance, the Army allocated resources with the goal of increasing lethality and improving "return on investment." During the last three years the Army has self-funded its modernization efforts through its reform and efficiency initiatives. Army Senior Leaders divested programs, and invested those savings in programs that are essential for success to prevail in strategic competition and future conflicts. In the FY 2022 Budget Request, the Army made difficult, purposeful choices, to fund modernization efforts by cancelling 7 programs and realigning resources from 37 programs, a total adjustment of \$1.6 billion.

Army Futures Command (AFC) is responsible for changing the Army's war fighting doctrine and providing new warfighting capabilities faster and more cost effectively. The Army, utilizing AFC, has a consistent plan to fund our six modernization priorities and to bring unity of effort to The Army Modernization Strategy (AMS). The Army, is delivering results that have reduced a 7 year requirements generation process to 18 months or less, placing systems in the hands of our Soldiers sooner. Investments in the Army's data scientist and data technician programs at Carnegie Mellon University are aggressively pursuing artificial intelligence technologies. The Army Software Factory in Austin will bring the necessary digital expertise to Soldiers, allowing commanders to rapidly adapt to the challenges faced on a very fluid battlefield. The Army investments in research and development aligned to Army priorities.

The Army's developing partnerships with academia and industry have led to achievements with rapid innovation, experimentation, demonstration and rapid prototyping to deliver the next generation of weapons, vehicles, and equipment required to conduct Joint All-Domain Operations. These next generation platforms required for future operational requirements in Joint All-Domain environment have the added benefits of reducing carbon footprint and dependency on fossil fuels that impact climate change. The FY 2022 budget request also includes investments in installation energy expertise, electric vehicles, and climate change research and development.

The Army Modernization Strategy (AMS) focuses on the six modernization priorities; long range precision fires, next generation combat vehicle, future vertical lift, network, air and missile defense, and Soldier lethality. The Army established its eight Cross-Functional Teams (CFTs) focusing on 31+4 signature modernization efforts (see Table 1). To maintain the Army's competitive advantages against its adversary's, CFT's streamline the research, acquisition, and fielding processes by collaborating with representatives from the operations, science and technology, testing, resourcing, costing, sustainment and program management communities. These collaborative efforts ensure the best developing technologies can be rapidly and efficiently delivered to the force.

Cross-Functional Team	Major Modernization Efforts	CFT Location	
	Strategic Fires: Strategic Long Range Cannon (SLRC)		
Long Range Precision Fires	Operational Fires: Precision Strike Missile (PrSM)	Ft Sill Lawton, OK	
	Tactical Fires: Extended Range Cannon Artillery (ERCA)		
	Optionally Manned Fighting Vehicle (OMFV)		
Next Generation Combat Vehicle	Robotic Combat Vehicle (RCV)	Detroit Arsenal	
Next Generation Compativenicle	Armored Multi-Purpose Vehicle (AMPV)	Warren, MI	
	Mobile Protective Firepower (MPF)		
	Future Attack Reconnaissance Aircraft (FARA-CS1)		
Fortune Mantine LLife	Future Unmanned Aircraft Systems (FUAS)	Redstone Arsenal	
Future Vertical Lift	Future Long Range Assault Aircraft (FLRAA-CS3)	Huntsville, AL	
	Modular Open Systems Architecture (MOSA)	1	
	Unified Network		
Network	Common Operating Environment	Aberdeen Proving Ground	
Network	Interoperability	Aberdeen, MD	
	Command Post Mobility/Survivability		
	User Equipment (APNT)	Redstone Arsenal	
Assured Positioning, Navigation, and	Enterprise Enablers (SPACE)	Huntsville, AL	
Timing	Situational Awareness (NAVWAR)		
	Maneuver - Short Range Air Defense (M-SHORAD)		
Air and Missile Defense	Indirect Fire Protection Capability (IFPC)	Ft Sill	
Air and Missile Defense	Lower-Tier Air and Missile Defense Sensor (LTAMDS)	Lawton, OK	
	Army Integrated Air and Missile Defense (AIAMD)		
	Next Gen Squad Weapon-Automatic Rifle (NGSW-AR)		
Colider Lethelity	Next Gen Squad Weapon-Rifle (NGSW-R)	Ft Benning	
Solider Lethality	Integrated Visual Augmentation System (IVAS [HUD 3.0])	Columbus, GA	
	Enhanced Night Vision Goggle-Binocular (ENVG-B)		
	One World Terrain		
	Virtual Collective (Air/Ground) Trainers		
Synthetic Training Environment	Squad Immersive Trainer	Orlando, FL	
	Training Management Tools		
	Training Simulation Software (TSS)		

#### Table 1 – Modernization Efforts

Additionally, there are four lines of effort ("+4") that fall under the Rapid Capabilities and Critical Technologies Office (RCCTO). These additional efforts are essential to the future of Joint All-Domain Operations and competition with great powers:

- 1. Long Range Hypersonic Weapon (LRHW): The 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 future years.
- 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 in support of Air Defense Artillery Operations.
- Indirect Fire Protection Capability High Energy Laser (IFPC-HEL) and High Power Microwave (IFPC-HPM): Funding supports a 300KW HEL mobile, ground based laser integrated onto a Family of Medium Tactical Vehicles (FMTV) and an HPM system by FY 2024 in support of the Joint Force in multi-domain environments.
- 4. Medium Range Capability: Funding supports the fielding of a prototype mid-range operational capability, which includes munitions, a launcher, and command & control, by FY 2024 at the battery-level as part of the Strategic Fires Battalion in support of Joint All-Domain Operations in the Indo-Pacific and European theaters and around the globe.

The Army is achieving successes as the prototypes that began in FY 2018 through FY 2021 are now maturing. The FY 2022 budget aims to increase momentum, advancing these efforts with continued investments of time and resources to achieve our goal of adversarial overmatch. The Army is integrating its "31+4" efforts to enable a holistic approach to modernization, and through the use of its REARMM model, synchronize these activities over time to build future readiness.

#### **Strengthening Alliances and Partnerships**

"By having forces forwarded, it shows our commitment. It reinsures our partners that we're there with them. It also gives us a chance to improve their capabilities, their capacities. We must work very closely with our allies and partners."

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

America does not fight alone. Alliances and Partnerships are among the greatest sources of our strategic strength. The Army is uniquely suited to foster existing alliances and partnerships while simultaneously building new relationships through our global landpower network. Through Security Force Assistance Brigades (SFAB) and tactical unit partnerships, the Army will continue building relationships and interoperability with allies and partners.

Last year, the Army completed the activation of all 6 SFABs, 5 in the Regular Army and 1 in the Army National Guard. The 5th SFAB, the last active component SFAB to standup, has already completed missions with multiple partners across the Indo-Pacific theater, including elements of the Thai, Indonesian, and Indian armies. Later this year, many of those partners will join their American counterparts in combined exercises at the National Training Center. Engagements such as these are vital, not only for interoperability, but in recognition that Cold War-era exclusive allegiance to a single great power no longer exists. Many if not all of our allies and partners maintain concurrent relationships with both the United States and our competitors and potential adversaries. Therefore, we cannot take for granted these strategic opportunities to build and enhance relationships and the critical access and presence they provide the United States.

The Army also manages funding in the Afghan Security Forces Fund (ASFF) and the Counter-ISIS Train and Equip Fund (C-TEF). These are "pass-through accounts" and comprise of nearly \$3.8 billion in military support to partner nations in combating terrorism. With the withdrawal of U.S. Soldiers from Afghanistan, support to the Afghan Security Forces remains key in maintaining our ongoing national security objectives in the region.

#### 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 assessed programs to realign \$1.6 billion in FY 2022 to support the Army Vision 2028 and the Army Modernization Strategy. The Army applied \$133 million in savings towards its "People Strategy", and \$1.3 billion in savings towards modernization strategy, supporting the Interim National Security Strategic Guidance while operating in a fiscally constrained environment. Of the \$1.6 billion in total FY 2022 savings, the Department of Defense recognized \$73.1 million as Reforms: \$20.0 million for "Business Process Improvement", \$40.1 million for "Business System Improvement", and \$13.0 million for "Divestments".

Army reforms are not just focused on process and funding adjustment decisions. The Army has several other ongoing policy initiatives under its reform umbrella, including: Criminal Investigation Division (CID) restructure, Army Command Accountability & Execution Review (CAER), Contract Reviews, and achieving auditability. Following an organizational review of the Army CID in 2021, Senior Leaders are changing the organizational structure and policies to create a more efficient organization that can better support Soldiers and their Families. This budget request also provides resources to improve the Army Special Victim Units.

The CAER initiative continues to assist leaders and Commanders to improve their fiscal stewardship by maximizing their purchasing power and minimizing inefficiencies. This program has helped identify and remedy several process issues that impact the Army and the DoD. In its first full year since implementation, the Army focused on current and expired year de-obligations across key problem areas, including supply chain, transportation, and contracts. During FY 2020, the CAER program saved over \$90 million annually through adjusting policies for transportation billing alone. CAER is also leading changes to the Army's logistics and sustainment Enterprise Resource Planning tools, the Global Combat Support System – Army (GCSS-A), resulting in a 76 percent reduction in supply chain de-obligations, saving approximately \$140 million annually. Additionally, the Army realized nearly \$35.5 million in energy savings during FY 2020 through CAER inspired analysis.

The Army entered its fourth year of full financial statement audits in FY 2021, building upon the momentum generated from each previous audit. In FY 2020, Army successfully participated in the first ever fully virtual audit caused by the COVID environment. Although the Army received a disclaimer of opinion, the auditors noted that we continue to make steady progress to improve business processes and accountability each year. For example, Army remediated 30 percent of Information Technology General Controls (ITGC) Notification of Findings and Recommendations (NFRs), more than any other Military Service. During FY 2021, Army will continue to focus on remediation of high-risk material weaknesses, business process standardization, and improvements to our internal controls. These activities align with the Secretary of Defense audit priorities and accelerates the path to more accurate financial reporting in the coming years.

### Conclusion

The Army's FY 2022 Budget Request prioritizes resources to take care of its people, build and maintain current readiness, strengthen our alliances and partnerships, and modernize for the future fight. None of this is possible without timely, adequate, predictable, and sustained funding levels. All of these efforts are critical and need to be balanced and synchronized, in order for the United States to prevail in competition, crisis, and conflict.

Notwithstanding this remarkable range of activity, the Total Army remains strong, ready and focused on winning against any adversary, anytime, and anywhere, in support of the Nation's interests.

## PEOPLE FIRST, WINNING MATTERS, ARMY STRONG

"When the Nation calls on the Army, we don't go to participate. We don't go to try hard, we go to win. There is no second place or honorable mention in combat."

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

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Discretionary Budget Authority in Thousands Department of the Navy	FY 2021 Enacted	FY 2022 Request	Δ FY21 – FY22
Military Personnel	54,653,608	56,571,638	+1,918,030
Operation and Maintenance	68,864,233	71,198,017	+2,333,784
Procurement	60,933,463	58,175,963	-2,757,500
RDT&E	20,054,386	22,639,362	+2,584,976
Military Construction	2,164,324	2,551,311	+386,987
Family Housing	409,390	434,957	+25,567
Revolving and Management Funds	-	150,000	+150,000
Total Department of the Navy	207,079,404	211,721,248	+4,641,844



As identified in *Advantage at Sea: Prevailing with Integrated All-Domain Naval Power*, the United States is a maritime nation and our security and prosperity depend on the seas. Since its inception, the United States has relied on safe and reliable access to the world's oceans. America's naval Service defends our Nation by preserving freedom of the seas, deterring aggression, and winning wars. The increasingly aggressive world actors that threaten the freedom of the world's waterways, intimidate U.S. allies, and seek a more hostile international order, reinforce the need to maintain a potent, integrated Navy and Marine

Corps that maximized our naval contribution to the joint force. In a world more interconnected and interdependent than ever before, a fully integrated and forward maneuverable Navy-Marine Corps Team has never been more important to the security of our Nation and the preservation of rules-based international order. Seapower provides mobile, self-reliant, survivable, and distributable forces perfectly suited to combat the contemporary threats the nation faces. Competition from an ascendant China and a disruptive Russia is spurring a period of rapid transformation in the strategic environment. Though the U.S. still maintains far more tonnage than China, China's navy has more ships than the U.S. Navy, and they are building ships at a much greater rate. Such trends necessitate an acceleration of investment by the DON to reverse

the erosion of U.S. military advantages from China's and Russia's aggressive naval growth and modernization. We must maintain resolve to compete with, deter, and, if necessary, defeat our adversaries while we accelerate development of a modernized, integrated all-domain naval force for the future.

The Navy's FY 2022 Budget Request maintains operational concepts, capabilities, and plans to bolster deterrence and improve our competitive advantage. It supports readiness through sustained investment and performance improvement. The budget accelerates investments in more lethal, networked capabilities and concepts, integrated with



the joint force. PB22 provides the nation with a robust, sustainable, and balanced, all-domain fleet. The budget funds key personnel initiatives, reflecting a continued commitment to the Sailors and Marines that volunteer to serve our nation. Finally, PB22 continues a commitment to budgetary reform and fiscal accountability, ensuring good stewardship of taxpayer dollars.

### **Strategic Guidance and Themes**

#### Acting Secretary of the Navy Strategic Vision

Following the issuance of the President's *Interim Guidance* and the Secretary's *Message to the Force*, the Acting Secretary of the Navy Thomas Harker issued his strategic vision which details operating...

"as one to protect the American people and our interests in the most effective and efficient way possible. We will invest in the health, readiness, and capability of our force of today, and the force of the future, to maintain our Nation's forward maneuverability and



decisive maritime advantage, while strengthening our force-multiplying alliances and partnerships with the interagency, across industry, throughout the joint force, and around the world."

The Secretary promotes his "enduring priorities" of "One Navy-Marine Corps Team," "Put People First," and "Maritime Dominance – Now and In the Future".

<u>One Navy-Marine Corps Team</u>. The Department of the Navy (DON) will strive to "achieve seamless integration, communication, and collaboration across the DON." The DON will achieve this goal through building "a strong culture of communication, collaboration, trust and transparency across the department, supported with appropriate tools and processes." The DON will prioritize the modernization of business systems, driving towards a more data-driven decision-making culture. We will strive for a "common understanding of maritime challenges" and the DON's contribution to joint operations. The DON will strengthen relationships with our military allies and partners to optimize operational integration.

<u>Put People First</u>. The DON will "build and sustain a strong, diverse, healthy, sustainable force that is ready when called upon." The DON will achieve this goal by responding to COVID-19 with a "robust, proactive, and coordinated response" to minimize the impact to Sailors, Marines, and civilians (keeping readiness high) and by contributing to the national effort to combat the disease. We will cultivate "the talent and unique insights of personnel from diverse personal, cultural, and professional backgrounds," and "build the workforce of the future" through investments in professional development, training, and education. The DON team will create a positive work environment devoid of sexual assault, sexual harassment, racism, and violent extremism. The Department will take care of Sailors, Marines and their families through fairness in promotion practices and programs to improve quality of life.

<u>Maritime Dominance – Now and In the Future</u>. The DON will "develop and maintain the strategic concepts and warfighting capabilities, readiness, and sustainment necessary to ensure U.S. dominance of the maritime domain against an evolving threat environment." The Department will achieve this goal through properly positioning global forces to ensure

the proper capabilities can be brought to bear in sufficient force to ensure victory against great power, regional, and other aggressors, while maintaining a degree of operational flexibility. The design of the future force will enable the Navy and Marine Corps to "effectively engage in strategic competition and sustain maritime supremacy against the full spectrum of potential threats while remaining financially viable and operationally sustainable." To combat climate change, the DON will invest in technologies to reduce our carbon footprint, and concurrently, the Department will adapt itself as necessary to mitigate any potential negative effects resulting from the changing climate. We will take advantage of emergent, game-changing technologies through targeted investments in artificial intelligence, cyber weapons, unmanned technologies, directed energy, and hypersonics. Further, investments in facilities, infrastructure, and systems are necessary to properly support our naval forces.

## Chief of Naval Operations (CNO) Strategic Guidance

Chief of Naval Operations Gilday recently issued the "CNO Navigation Plan 2021," in which the Chief establishes the Navy's strategic priorities. The end state of this plan follows:

"Our Navy will be manned, trained, and equipped to control the seas and project power. Our fleet will be a potent, formidable force that can decisively win at sea, deter our competitors, and assure our allies and partners. Joining with the Marine Corps and Coast Guard, we will deliver Integrated All-domain Naval Power to prevail in day-to-day competition, in crisis, and in conflict."

The guidance emphasizes the critical balance of maintaining readiness while transforming the fleet. By maintaining forward presence, the Navy adds credibility to our national influence abroad and is postured to respond to threats or crises involving our regional allies, to protect freedom of navigation in international waterways, and to otherwise protect our national interests abroad. While maintaining readiness, and within fiscal limitations, the Navy



must prioritize in order to deliver the cutting edge capabilities it needs to win against strategic competitors. The explosive rate of technological change complicates this management of force readiness and force modernization efforts. The CNO's guidance emphasizes Sailors, readiness, capabilities, and capacity as reflected in the excerpt below:

"<u>Develop a Seasoned Team of Naval Warriors</u>. Develop a dominant naval force that can outthink and outfight any adversary. Our Sailors will remain the best trained and educated force in the world. We will cultivate a culture of warfighting excellence rooted in our core values.

<u>Deliver a More Ready Fleet</u>. Deliver a Navy that is manned, trained, and equipped to deploy forward and win in day-to-day competition, in crisis, and in conflict. We will consistently deliver maintenance on-time and in full, refurbish our critical readiness infrastructure, master all-domain fleet operations, and exercise with like-minded navies to enhance our collective strength.

<u>Deliver a More Lethal, Better-Connected Fleet</u>. Deliver a Navy capable of projecting synchronized lethal and non-lethal effects across all domains. We will deploy the Naval Operational Architecture by the middle of this decade; an array of counter-C5ISRT

capabilities; weapons of increasing range and speed; and a directed-energy system capable of defeating anti-ship cruise missiles.

<u>Deliver a Larger, Hybrid Fleet</u>. Grow a larger, hybrid fleet of manned and unmanned platforms – under, on, and above the sea – that meets the strategic and operational demands of our force. We will deliver the Columbia-class program on time; incorporate unmanned systems into the fleet; expand our undersea advantage, and field the platforms necessary for Distributed Maritime Operations."

#### Commandant of the Marine Corps (CMC) Strategic Guidance

The U.S. Marine Corps is vigorously redesigning the force for naval expeditionary warfare in actively contested spaces, aligning the Service with strategic guidance.



The future Fleet Marine Force (FMF) requires transformation from a legacy force to a modernized force with new organic capabilities. As outlined in the Commandant's Planning Guidance (CPG) and Force Design 2030, the FMF will enable the Navy and Marine Corps to restore the strategic initiative, and to define the future of maritime conflict by capitalizing on new capabilities to deter conflict and operate persistently inside an adversary's weapon engagement zone (WEZ). The CMC's top three priorities in FY 2022 focus on Force Design, Talent

Management Reform, and Training and Education Reform.

<u>Force Design</u>. This continues to be the CMC's number one priority. The status quo is unacceptable, because within five to ten years our existing legacy force will not be able to maintain a strategic advantage over a peer competitor. The Marine Corps is currently not organized, trained or equipped for the future fight against strategic competitors. The goal of Force Design is to provide the fleets and joint force a naval expeditionary force that will:

- Successfully compete with peer adversaries in the maritime gray zone.
- Deter, and if required, fight and win in support of naval campaigns.
- Facilitate sea denial and sea control.
- Win the reconnaissance and counter-reconnaissance (scouting & counter-scouting) competition.
- Persist inside actively contested spaces.
- Be capable of "rapidly sensing, making sense of, and acting upon information" inside an enemy's weapons engagement zone.

<u>Talent Management Reform</u>. The Commandant's goal is to develop a true talent management system that measures success by our ability to attract, recruit, identify, incentivize, and retain the most talented individuals across the entire force. The objectives of this initiative include:

- Retain the most talented Marines and replace individuals leaving the Marine Corps with even more talented Marines.
- Adopt a model focused on the longer-term "accession to retention," (today's model is focused on accession to end of first enlistment).

• Accommodate the changing interests and needs of the most talented within our force such as change in primary occupational field, marriage and childbirth or adoption, family stability for children in high school, etc.

<u>Training and Education Reform</u>. The Marine Corps cannot assume it will maintain a technical advantage over peer competitors in all areas, all the time. Our advantage erodes over time. This becomes even more critical for our forces to maintain a competitive edge in decision-making at both the individual Marine and unit level of competence. The goal of this initiative is to adopt an "information age approach" in training and education that produces better leaders and warfighters. This approach includes:

- Focus on identifying, developing, and sustaining the unique talents of individual Marines.
- Increase the intellectual standards for all Marines, but particularly officers-at every stage of their selection for and attendance at formal schools.
- Graduate Marines from Initial Military Occupational Specialty (MOS) school prepared to join their first units at a higher level of technical and tactical competence.
- Change how we train and educate, moving away from rote memorization, testing and "perfect" school solutions to practical judgment under pressure.
- Expand use of force training and wargaming and make live-constructive training a normal part of the training continuum.

### Security and Operational Environment

The emergence of China as a great power is the single biggest threat to the United States, its allies, and interests around the world. Though China's navy does not have anywhere near the tonnage of the U.S. Navy, China has surpassed the U.S. in the quantity of ships it possesses, having rapidly grown its Navy from 262 to 350 ships. This fleet is supported by the largest missile force in the world. China's navy continues to invest in larger, more capable surface warfare ships, aircraft carriers, and submarines, and they continue to build ships at a faster rate than the U.S. Navy. By 2023, China expects to launch its third aircraft carrier, and continues its development of cutting edge technologies to include fifth-generation fighter aircraft.

Russia remains a competitor as well. Russia has been modernizing all facets of its military to include warships, aircraft and missiles. Russia is pushing the technological envelope with its development of hypersonic missiles, tactical nuclear weapons, and modern submarines. Both China and Russia have interests in direct conflict with those of the U.S. and its allies, and both countries have in recent years become more aggressive with their threats to the international rules-based order as the growth in their military capabilities have greatly reduced the U.S. military advantage that was once insurmountable to our enemies.

#### Figure 10.1. Security and Operational Environment



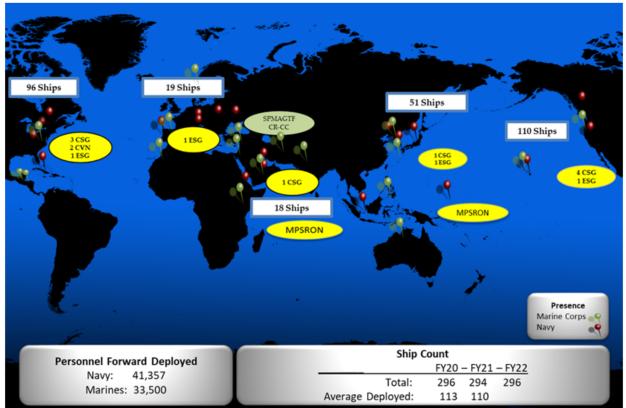
The PRC has the largest navy in the world, with an overall battle force of approximately 350 ships and submarines including over 130 major surface combatants....more than 1,250 ground launched ballistic missiles (GLBMs) and ground-launched cruise missiles (GLCMs) with ranges between 500 and 5,500 kilometers.-/4





Photo Sources: <sup>Ja</sup> Maxar Technologies; <sup>Ja</sup> wenweipo.com; <sup>Ja</sup> Associated Press, <sup>J4</sup> Military and Security Developments Involving the PRC 2020: Annual Report to Congress, <sup>J4</sup> Via Xinhua News Agency The threats the U.S. faces from these potential adversaries exists in multiple domains and geographic locations. The PRC in particular has proven itself a grave concern on multiple fronts. China has challenged international norms and laws at home and abroad, and it has challenged the rights of its neighboring countries and freedom of navigation in the South China Sea. The PRC has become increasing flagrant in their violations of human rights in western China and Hong Kong; their rhetoric and military posture towards Taiwan have worsened; their disregard for the rights of neighboring countries is showcased by their building of artificial islands to claim almost the whole of the South China Sea; and they have worked to wrest territories and resources from countries worldwide by purchase, subversion, or by intimidation. The PRC's and Russia's revisionist approaches at sea threaten U.S. interests, undermine alliances and partnerships, and degrade the free and open international order. Their aggressive naval growth and modernization are eroding U.S. military advantages.

Both China and Russia are actively waging a cyber war against the U.S. and its allies. In addition to China and Russia, enemies of a much smaller scale could also threaten the U.S. asymetrically, and potential nuclear or biological threats cannot be ignored. The threats to the U.S. encompass all domains: on land, in the sea, in the air, in space, and in the cyber realm. The Navy and Marine Corps team must have the ships, aircraft, weapons, facilities, equipment, manning, and training necessary to effectively cooperate with the other services and international allies and partners to counter and defeat all threats to the U.S. and its allies in multiple domains simultaneously.

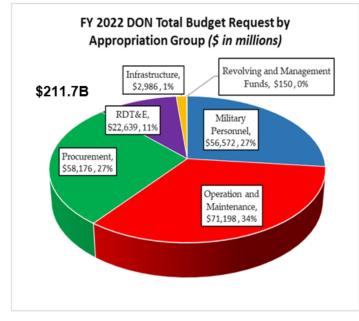


#### Figure 10.2. Operational Context

Today 90 percent of the world's manufactured goods are transported on the world's oceans, and critical lines of communication span the ocean floor, hosting most of the world's internet traffic. Both China and Russia have chosen to posture themselves to project military power into the maritime domain. China, for reasons mentioned above, is already asserting itself against its maritime neighbors, slowly progressing towards its goal of total domination of the South China Sea. As climate change continues, the Arctic becomes more navigable, and Russia increases its presence in the Arctic sea, seaking control of resources and corridors of navigation there. In addition, 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. Figure 10.1 displays the prodigious presence of both China and Russia in the world's oceans, and exemplifies the need for a counterbalance of U.S. and allied naval forces in these regions in particular, but also throughout the world, to ensure the freedom and security of the world's waterways.

To meet the challenges discussed, the Navy and Marine Corps provide forward postured seabased forces (Figure 10.2), including 41,357 Sailors and 33,500 Marines currently deployed or underway on 112 ships, to include four Carrier Strike Groups, and two Expeditionary Strike Groups. In addition, the Navy maintains cyber mission teams across the globe conducting cyber operations in support of naval forces. 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 2022 President's Budget Overview



The budget ensures that the DON will be ready for the global challenges before us with the personnel, platforms, and technology to secure vital sea lanes, stand together with our allies, and protect the United States of America. The total FY 2022 President's Budget request for the Department of the Navy (DON) is \$211.7 billion, providing the resources needed to effectively defend the nation and take care of our people while leveraging teamwork for success. This budget represents a \$4.6 billion increase over our FY 2021 enacted Our procurement accounts budget. decrease by 4.5 percent to fund the increases in operation & maintenance (up 3.4 percent), military personnel (up 3.5 percent), research and development

(up 12.9 percent), and infrastructure accounts (up 16.0 percent) as we seek to innovate and modernize the force while maintaining and enhancing readiness and people-focused programs.

### **DEFEND THE NATION**

The FY 2022 President's Budget reflects hard choices to divest of less capable platforms and systems to invest in a powerful and superior future force. Throughout the budget process and in all aspects of capability acquisition, design, construction, and deployment, the Department balances the urgent readiness needs of our force today with investments in the future force and effective business process reforms in order to ensure our Sailors and Marines are always ready to fight and win in any climate or place.

To maintain dominance, the United States needs a balanced Naval force, capable of striking targets from all domains. The force design must emphasize distributed awareness, lethality and survivability in high-intensity conflict. This budget provides a balanced approach to growing capacity, equipping Sailors and Marines to deliver synchronized lethality across all domains of the future conflict.

#### Procurement

Shipbuilding procurement funding decreases from \$23.3 billion in FY 2021 to \$22.6 billion in

FY 2022, for a reduction of 3.0 percent. However, the Department carefully balanced resources and requirements, weighing the effects of our program decisions on the industrial base to ensure our nation maintains the skills, capabilities, and capacities critical to defending our nation. In FY 2022, we fund eight battle force ships.

The Department continues to prioritize building a capable and lethal submarine fleet, with incremental funding for the FY 2021 Columbia class submarine and procurement of two Block V Virginia class fast attack



submarines (SSBNs). The one Arleigh Burke class destroyer (DDG-51) will be a Flight III ship equipped with the Advanced Air and Missile Defense Radar and the AN/SLQ 32 Surface Electronic Warfare Improvement Program Block III. One Constellation class guided missile frigate (FFG) is requested, which is a more lethal and survivable multi-mission small surface combatant to address increasingly complex threats in the global maritime environment, as well as advance procurement for two future ship. The budget also requests one John Lewis class oiler (T-AO 205) and advance procurement funds for a future oiler. The John Lewis class oiler will recapitalize the existing Henry J. Kaiser class oilers to supply fuel and dry cargo to Navy ships at sea. Two towing, salvage, and rescue ships (T-ATS) are requested which will be the functional replacement for the T-ATF class fleet tugs and the T-ARS class salvage ships. One ocean surveillance ship (T-AGOS(X)) is requested to gather underwater acoustical data to support the Integrated Undersea Surveillance System mission by providing a ship platform capable of theater antisubmarine passive and acoustic surveillance.



Aviation procurement funding decreases from \$19.5 billion in FY 2021 to \$16.5 billion in FY 2022, a 15.6 percent decrease. This decrese is attributable to the end of procurement for F/A-18, P-8A, VA-92A, and E-6B. The budget funds procurement of 107 aircraft (fixed-wing, rotary-wing, and unmanned) in FY 2022. Fixedwing aviation investments are comprised of 17 F-35B and 20 F-35C Lightning IIs, five E-2D Advanced Hawkeyes, and six KC-130J Super Tankers. FY 2022 continues the ramp-up of CH-53K King Stallion helicopter production with

nine helicopters, and a multi-year procurement of the CMV-22 Osprey, Carrier Onboard Delivery (COD) variant (three aircraft) and MV-22B Osprey (five aircraft). The budget also purchases the TH-73A Advanced Helicopter Training System with a buy of 36. Unmanned aircraft investments include six Medium Altitude Long Endurance-Tactical (MALE-T) Unmanned Aerial Systems (UASs). The procurement of MQ-4C Tritons is paused in 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.

Weapons procurement funding decreases from \$4.5 billion in FY 2021 to \$4.2 billion in FY 2022, a 0.6 percent decrease, while funding key ship and aviation weapons. FY 2022 ship weapons 60 Block V procurement includes: Tactical Tomahawks, 300 navigation and communications kits. 156 recertification kits, and 39 Maritime Strike Tomahawk kits; 125 Standard Missile-6s; 100 Rolling Airframe Missiles; 108 Evolved Sea Sparrow Missiles; 58 MK-48 Advanced Capability heavyweight torpedoes and 30 kits; 91 MK-54 anti-submarine torpedoes; 34 Naval Strike Missiles; and 14 Littoral Combat Ship Surface-to-Surface Missile Modules. Aircraft includes: 178 AIM-9X/Sidewinders. weapons procurement 54 Advanced Anti-Radiation Guided Munitions-Extended Range;



164 Joint Air-to-Ground Missiles; 18 Miniature Air Launched Decoys; 48 Long-Range Anti-Ship Missiles; 25 Joint Air-to-Surface Standoff Missiles Extended Range; 120 Hellfire Captive Air Training Missiles; and 180 Small Diameter Bombs Increment II.



#### **Research and Development**

Marine Corps procurement increases from \$2.7 billion in FY 2021 to \$3.0 billion in FY 2022, an increase of 11 percent. This reflects the Marine Corps investment in modernization and innovation in support of the Commandant's Force Design 2030 initiatives to build the future force. Key efforts funded include: 613 Joint Light Tactical Vehicles; 92 Amphibious Combat Vehicles; and 8 Ground/Air Task-Oriented Radar systems.

Shifting from today's procurements to future force investments in lethality, our budget request provides continued research and development (R&D) efforts to insert critical technologies to deliver asymmetric capabilities and technological advantages against adversaries in all environments and across all spectrums. Research and development funding increases 12.9 percent to \$22.6 billion. This budget sustains ship, aircraft, and weapons development efforts. We recapitalize our strategic nuclear deterrent through the Columbia class submarine development program, and we provide R&D funds for other shipbuilding efforts such as the Ford class carrier, SSN(X) future attack submarine, the Constellation class guided missile frigate, and DDG(X). The budget provides funds to continue development of unmanned surface vessels, unmanned undersea vehicles, and unmanned aerial systems. The DON continues to advance capabilities in the F-35 Lightning II 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 including 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/Air Task Oriented Radar, CH-53K King Stallion helicopter, and the Amphibious Combat Vehicle.

#### Readiness

Navy and Marine Corps forces remain deeply engaged, forward deployed, and at a high operational tempo providing National Command authority immediate options, assuring allies and deterring our adversaries. This budget request supports requirements for our carrier strike groups, amphibious ready groups, and Navy and Marine aviation units to train and respond to persistent and emerging threats. The Navy deploys full spectrum-ready forces to further security objectives in support of U.S. interests. The Navy and Marine Corps forward-postured, sea-based forces provide immediate response options and assure our allies of our commitment.

The budget maintains naval operational readiness. The Navy continues its commitment to ship maintenance, leveraging data analytics in maintenance management and funding repairs,



overhauls, and refueling of submarines, aircraft carriers, and surface ships at the Navy's four public shipyards, regional maintenance centers, intermediate maintenance facilities, and private shipyards. This account increased by \$0.5 billion from the FY 2021 enacted position, which funds 97 percent of our full requirement. Ship

maintenance improvements include better contracting strategies, increasing dry dock capacity, optimizing facility and pier layout, level load port workloads, and more accurate availability duration planning. These efforts will provide industry with a stable and predictable demand signal to encourage maintenance capacity growth to match our growing fleet. We continue to capitalize on the OPN pilot program for funding private contractor shipyard maintenance in the Pacific by extending it to both Fleets. Similarly, ship operations funding increases 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.

The Marine Corps is redesigning the force for naval expeditionary warfare in actively contested spaces. Marine Corps readiness is focused on building a more lethal force by training for advanced and persisent threats; growing cyberspace activities; and optimizing depot maintenance to achieve 80 percent serviceability of reportable expeditionary ground equipment. These efforts will help ensure the Marine Corps is prepared to operate inside actively contested maritime spaces in support of Fleet and Joint Force operations.

Aircraft depot maintenance and logistics funding increases as we seek to maximize readiness by prioritizing funding based on criticality and impact to sustain our higher mission capable rates for strike fighters. Funding for the Flying Hour Program increases to meet our tactical air (TACAIR) requirement, increases aviation costper-hour for some of our newer aircraft, and allows for the increased contract maintenance for training aircraft. TACAIR proficiency is critical to winning the high-end fight.



Our budget request appropriately prioritizes shore investments to increase fleet readiness. For FY 2022 facilities sustainment, restoration, and modernization funding overall decreases 6 percent to \$4.2 billion. We slightly increase DON sustainment funding over FY 2021, with the Navy and Marine Corps funded to 80 percent of the facilities sustainment model. Restoration and Modernization funding is reduced 34.7 percent compared to FY 2021, but that reduction is driven by one-time natural disaster costs for critical infrastructure projects that artificially inflated the FY 2021 budget. Base operating support funding in FY 2022 increases 4.1 percent over FY 2021, and prioritizes people programs such as sexual assault prevention, suicide prevention,

and childcare, as well as funding traditional requirements like utilities, security, transportation, and port and airfield operations.

### TAKE CARE OF OUR PEOPLE

The greatest source of readiness and strength for our force will always be the people who wear the uniform and comprise our civilian workforce, as well as the families that serve alongside them.

We are committed to ensuring our Sailors, Marines, and Civilians are trained and equipped to execute the mission and return home safely, and that their families are provided with the housing, medical attention, and education they deserve.

Sailors and Marines are our greatest asset and comprise the foundation of operational readiness. This budget takes care of our people, providing a 2.7 percent pay raise to uniformed and civilian



personnel. The FY 2022 budget aligns our military manpower size and composition with the force structure decisions to ensure proper manning for new and existing platforms and capabilities. Our active Navy military manpower decreases by 1,600 from the FY 2021 authorized level to 346,200 as the Navy actively manages personnel to match the needs of the fleet. This budget sustains Sailor 2025 and personnel system transformational objectives, and it supports new platforms and new capabilities, while reducing overall strength due to planned decommissionings of several ships. Our reserve Navy military manpower (58,600) decreases slightly from FY 2021. This number of Selected Reservists and full-time support personnel will provide critical strategic depth aligned with the needs of the force. In this budget request, the DON continues its commitment to education, sexual assault prevention and response (SAPR), mental health, child and youth programs, and morale, welfare and recreation programs.

Our active Marine Corps military manpower of 178,500 end strength in FY 2022 represents a reduction of 2,700 from the FY 2021 enacted budget. This end strength decrease aligns with force structure changes and enables the Marine Corps' Force Design 2030 modernization initiatives. The reduction of active duty end strength is part of the larger effort to modernize the Marine Corps by divesting of older defense programs and the force structure that supports those capabilities, such as tanks, bridging and law enforcement, along with a reduction of surge capacity, with the intent of investing in modernization. Our Selected Reserve Marine Corps military manpower (36,800) maintains a "Ready-Relevant-Responsive" force capable of seamlessly operating as a part of the Total Force to fulfill combatant command and service rotational and emergent requirements.

The FY 2022 budget requests funding for 223,113 civilians including foreign national indirect hires, recognizing the key role the civilian workforce has in the Department. This increase of less than one percent from FY 2021 represents sustained and targeted growth necessary for mission success. Our civilians supplement our uniformed service members, and provide critical support in a wide range of areas. While the bulk of these civilians are critical enablers for functions such as ship maintenance, research and development, and installation management, the DON maintains emphasis on audit accuracy and adds personnel for Sexual Assault Prevention and

Response Office (SAPRO). Our civilian workforce supports a larger, more capable and agile naval force.

### SUCCEED THROUGH TEAMWORK

A dominant naval force is central to the effective execution of our strategic goals. We must be ready at all times to execute as one integrated naval force – Navy and Marine Corps seamlessly linked at every level – with common logistics, infrastructure, practices and support networks – executing a fleet-wide emphasis on resilient and combat ready forces. These integrated connections must extend beyond the DON as well, encompassing our vital partners across the joint force and the whole of government, as well as our industry partners, shipyards, and allies and partners around the world.

As shown in Figure 10.3, the Navy and Marine Corps are engaged in joint, integrated operations around the globe, providing immediate response options, assuring allies and deterring our adversaries. The strategic maritime defense partnerships we maintain today with our partners and allies extend the reach and power of our force.

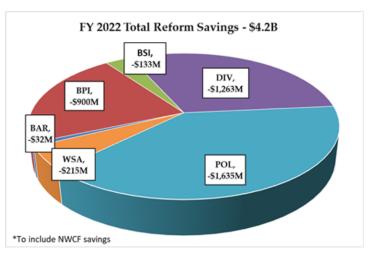
The DON is also working alongside our partners, we are aligning our efforts to produce the right platforms and capabilities for the warfighter, and ensure maximum availability and throughput from design to production to maintenance. We're working closely with our partners and suppliers in the defense industrial base to ensure the continued viability of the crucial businesses and infrastructure needed to ensure our ships, aircraft, and ground equipment are available when needed for the defense of our nation.



#### Figure 10.3. Secure Maritime Advantage with Allies and Partners

#### Reform

Successful implementation of strategic guidance in a constrained budgetary environment requires maximizing the use of every dollar. We continued the practice of rigorously reviewing the Department's budget, scrutinizing each line item's net contribution to strategic direction. This included prioritizing the allocation of dollars based on alignment to strategy, return on investment, relative value, portfolio optimization and specific outcome metrics. The continued use of data-driven process reforms like performance-to-plan have helped



illuminate the highest leverage points and areas where we can accelerate learning. We identified resources that are categorized by: better alignment of resources (BAR); business process improvements (BPI); business system improvements (BSI); divestment of outdated systems and programs (DIV); policy reform (POL); and weapons systems acquisition process (WSA). The DON achieved reform savings of \$4.2 billion in FY 2022 that were reapplied within the department.

#### Audit

The Navy and Marine Corps have benefitted greatly from audit, and our team is aggressively working to remediate the root causes of the discrepancies found by our auditors. Auditor findings highlight opportunities for operational and process improvements, and we are capitalizing on them. The leadership of the Navy and Marine Corps embrace the lessons learned from the audit as a means of improving our warfighting capability and readiness and demonstrating excellence. We are collectively making progress to address the auditors' findings and supporting the USMC's goal of attaining a positive opinion next year. A DON Audit Roadmap was created to identify key milestones for each priority area, targets resources for maximum impact, helps manage risk, and delineates a clear path to a clean opinion.

### Conclusion

This Department of Navy budget request implements overarching guidance in a responsible and effective way, balancing the need to sustain readiness today with investments in future capabilities to field a current and future force capable of deterring and defeating any threat to our Nation, our allies, and our interests.

Our budget reflects our resolve to compete, deter, and – if necessary – defeat our rivals, while accelerating the development of a more lethal fleet and having the Navy and Marine Corps generate an integrated all-domain naval power. Only by working as a team and taking care of our people will we be able to defend the nation in the years ahead.

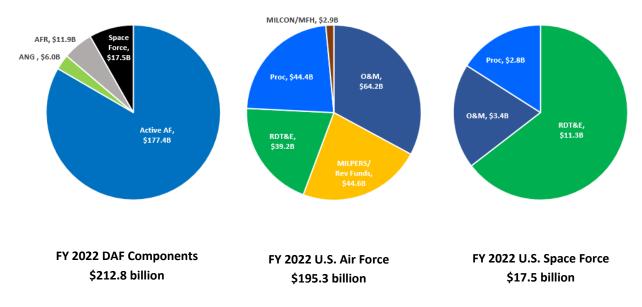
### DEPARTMENT OF THE AIR FORCE

Discretionary Budget Authority in Thousands Department of the Air Force	FY 2021	FY 2022 Request	Δ FY21 – FY22
Military Personnel	42,595,057	44,556,126	+1,961,069
Operation and Maintenance	64,359,199	67,545,081	+3,185,882
Procurement	48,553,319	47,210,639	-1,342,680
RDT&E	46,649,102	50,450,715	+3,801,613
Military Construction	1,314,803	2,483,050	+1,168,247
Family Housing	434,235	441,161	+6,926
Revolving and Management Funds	95,712	77,453	-18,262
Total Department of the Air Force	204,001,427	212,764,225	+8,762,795
Numbers may not add due to rounding			ot add due to rounding

#### Introduction

In 2022, the Department of the Air Force (DAF) will celebrate its 75th birthday. Over the past seven decades much has changed, but two things remain constant: our mastery of technology and selfless service of the men and women who serve our great Nation. Nearly 700,000 Airmen and Guardians currently dedicate their lives to defending democracy.

Our Nation faces several challenges: the rise of strategic competition with China and Russia, the increasing complexity of threats that emanate from several domains simultaneously, fiscal pressures, the rapidly increasing pace of change, and the fact that our forces and equipment are being threatened in previously benign domains.



Program (Quantities)	FY21 Enacted	FY22 PB
Aircraft		
F-35A Lightning II	60	48
HH-60W Combat Rescue Helicopter	19	14
KC-46A Pegasus	15	14
F-15EX	12	12
MC-130J Commando II	4	3
Munitions		
Joint Direct Attack Munition (JDAM)	16,800	1,919
AGM-114 Hellfire	4,517	1,176
Small Diameter Bomb - II	743	985
Small Diameter Bomb - I	2,462	998
AGM-158 JASSM-ER	400	525
AIM-9X Sidewinder	331	243
AIM-120D AMRAAM	268	168
ARRW		12
Space		
National Security Space Launch	3	5
GPS III Follow-On	2	2

#### **Empowered Airmen and Guardians**

Our Nation's defenders must be empowered, resilient, agile, innovative, free from sexual assault and preiudice. and well-led. Tomorrow's environment requires multicapable professionals who optimize a diverse set of ideas, leverage digital tools, and can outmaneuver our adversaries. While aircraft and systems will change, the men and women of the Department of the Air Force remain the core of our ability to deter and, if necessary, defeat our competitors. As a Department, we continuously strive to increase diversity, build resiliency, and develop empowered women

The three charts above display the budget by Service (Air Force and Space Force), appropriation and our total force components (Active Duty Air Force, Space Force, Air Force Reserve (AFR), and Air National Guard (ANG)).

The DAF puts forward a \$212.8 billion budget request in FY 2022, a 4.3 percent or \$8.8 billion increase from the FY 2021 enacted budget. This budget invests in our Airmen and Guardians, resources the Air Force core functions, and enables Space Force priorities in support of the President's *Interim Guidance*.

Specific dollar amounts and details are listed in the following sections, but the chart to the left provides procurement quantities for our major aircraft, space, and munition programs.



and men through a culture of dignity and respect. In FY 2022, we accelerate that momentum while strengthening a lethal and ready force. We must ensure our people have both high quality of service and high quality of life. This starts with ensuring our leaders represent the Nation with our Core Values of Integrity First, Service Before Self, and Excellence in All We Do.

A diverse and inclusive force is a warfighting imperative. The DAF must attract, recruit, and retain talented Americans from all backgrounds to leverage diverse ideas and experiences. This budget invests in our future force with a \$68 million increase for training programs and diversity and inclusion initiatives. A portion of these additional funds will go towards unconscious bias diversity training and increasing aviation scholarships for underrepresented universities Reserve Officers' Training Corps cadets.

This budget includes \$876 thousand for suicide prevention. Our goal is to never lose an Airman or Guardian to suicide. The prevention of suicide and personal violence remains a difficult challenge. We support our people by implementing guidance from the Centers for Disease Control and Prevention to foster relationships and protective environments, continuing gun safety campaigns to mitigate suicide by firearm, and bolstering support for chaplain programs and family training that reduces stress.

Additionally, this budget funds \$105 million in Military Family Housing projects to continue our focus on safe and habitable homes. We must continue to protect the safety, health, and welfare of our members and their families.

America's Air and Space Forces must reflect America—a diverse population of creative, resilient, empowered people. We recognize that Airmen and Guardians are our greatest resource. We strive to provide the best environment possible as we recruit, retain, and leverage our strategic advantage – our people. Advancing technology and developing weapon systems are necessary tools to empower our personnel to outthink and outwit our adversaries.

#### UNITED STATES AIR FORCE

#### Air Superiority

The Air Force cannot successfully fight tomorrow's conflicts with yesterday's weapons. The FY 2022 budget request for our Air Superiority portfolio is \$9.5 billion.

Next Generation Air Dominance (NGAD) ensures we maintain air superiority in the future by introducing game-changing technology now. This budget adds \$623 million towards this critical initiative. NGAD is not a single platform—it is focused on fielding capabilities to mitigate



identified gaps, not on creating a "next generation" aircraft. We will complement NGAD and currently fielded 4<sup>th</sup> and 5<sup>th</sup>-generation fighters such as the F-22 and F-35 with the F-15EX. The F-15EX is a cost effective and rapid way to recapitalize the F-15C/D inventory. This budget funds the procurement of 12 F-15EX.

While we need NGAD to defend America tomorrow, the F-35 Joint Strike Fighter is the cornerstone of air superiority. This budget builds our fighter capability adding 48 F-35s for a total aircraft inventory of 376. The FY 2022 F-35 program is \$8.4 billion which includes funding to modernize our existing aircraft with the capabilities needed to counter rapidly evolving threats. Our fighter force design outpaces key competitors and is fully committed to the F-35 aircraft and its 5th-generation capabilities. It is important to manage our F-35 fleet in an intelligent and deliberate way to ensure we remain ready to deter adversaries, support our international allies and partners, and meet our Nation's security commitments worldwide.

#### **Global Strike**

Global strike is critical to our national power and an enduring airpower capability. To support this core function, the FY 2022 budget requests \$21.9 billion. As China and Russia develop new weapons and defenses, we must modernize and develop capabilities to maintain a competitive advantage. Nuclear deterrence allows the Nation to negotiate from a position of power.

This budget adds \$1.1 billion to fully fund the Ground Based Strategic Deterrent (GBSD). The GBSD capitalizes on the strengths of a land-based triad



component (e.g. survivable, efficient, and geographically dispersed) while replacing aging

components and addressing asset attrition associated with the Intercontinental Ballistic Missile (ICBM) force's declining infrastructure.

The Air Launched Cruise Missile (ALCM) is more than 25 years beyond its intended design life and faces evolving threats and availability challenges. Recapitalization of these missiles via the Long-Range Standoff Weapon (LRSO), funded at \$609 million in FY 2022, is vital to our nuclear deterrence capability.

To bolster conventional munitions, funding for the Joint Air-to-Surface Standoff Missile-Extended Range (JASSM-ER) is increased by \$211 million to grow production line capacity. This increases our procurement quantities from 400 to 525 in FY 2022.

Over the past two years, the B-21 program quickly transitioned from design to physical manufacturing of aircraft. This budget increases the B-21 program by \$474 million to \$3.3 billion. In parallel, beddown preparations at Ellsworth Air Force Base, South Dakota, remain on their projected timeline. The first B-21s are projected to arrive at Ellsworth AFB in the mid-2020s and the base infrastructure will be ready to support the Nation's newest bomber aircraft.

Additionally, this budget includes an addition of \$200 million for the most comprehensive modernization of the B-52 in its history, including new engines and new radar systems. These efforts will extend this 1950s era bomber as a credible deterrent through 2050.

Hypersonic weapon development increases by \$52 million to fund the Southern Cross Integrated Flight Research Experiment (SCI-FIRE), an air-breathing prototype in partnership with Australia, and the Hypersonic Attack Cruise Missile prototype while continuing to fund the Air Launched Rapid Response Weapon (ARRW) for an early operational capability in 2022. ARRW is funded to \$238 million and is on track to be the Nation's first operational hypersonic weapon. This cutting-edge technology increases the Nation's rapid strike capabilities and ensures America will have an additional response option to deter adversaries and reassure allies.

### **Rapid Global Mobility**



Rapid global mobility is foundational to power projection and this request includes \$19 billion for this core function. The ability to extend the range and persistence of air platforms provides a decisive advantage and deterrent against adversaries. To maintain our air refueling edge, the Air Force must continue investment in the KC-46 while moving beyond legacy aircraft. In FY 2022, the Air Force will procure 14 KC-46 aircraft bringing the total procured to 71.

We are training Airmen and developing concepts and practices that allow for

dispersed, defendable, and mobile logistics networks. We are also establishing agreements with allies and partners that give us access to key aerial ports, seaports, storage nodes, and associated connections. To be successful in future high-end conflict we need to be able expand our access to these facilities, if needed. Resilient and persistent logistics networks will be critical to match the demanding operational environment at the speed of relevance (through the Advanced Battle Management System's architecture), respond to threats, and rapidly transition to conflict operations.

#### **Command and Control**



Inherent to outthinking adversaries is the ability to command and control (C2) the joint force. The FY 2022 budget includes \$6.8 billion for this core function. Combatant commanders require an agile military that operates seamlessly across domain boundaries at both speed and scale. The Air Force's current C2 structure is based on a Cold War-era design that is vulnerable and slow—a roadblock to the goal of rapid and agile decision making. C2 must be resilient to attack, responsive to rapid changes, integrated across all domains, and secure from

exploitation. This core mission allows the joint force to create an advantage by converging units and capabilities at a time and place of our choosing.

This budget funds \$204 million towards the Advanced Battle Management System (ABMS), an increase of \$46 million from FY 2021. ABMS is the Air Force contribution to Joint All-Domain Command and Control (JADC2). This resourcing improves information sharing across 5th generation Tactical Aircraft and C2 nodes. Additionally, our Nuclear Command, Control, and Communication (NC3) programs are increased by \$97 million. Our NC3 architectures and modernization plans will be adaptable, look beyond the near-term, and will be enabled by ABMS. The Air Force is pursuing communication capability enhancements with respect to our bomber force. Likewise, the GBSD will be fully integrated into our current NC3 systems and has flexibility to adapt as NC3 systems are modernized. Moreover, we understand that the strategic environment evolves and is increasingly dynamic. While ABMS will enable conventional forces, it will also provide nuclear forces with rapid, multi-path transmissions that will transform NC3 from a Cold War-era relic into a C2 network operating at speeds our adversaries cannot match.

NC3 systems act as the central nervous system of our nuclear deterrent. They link the President and national leaders to the nuclear force—all day, every day, under all conditions, without fail.

The FY 2022 request increases Enterprise Information Technology (EIT), to include EIT-as-a-Service, to \$811 million enabling the AF to modernize IT infrastructure with resilient solutions and cloud services to deliver capabilities that further support JADC2.

#### Intelligence, Surveillance, and Reconnaissance (ISR)

The Air Force conducts ISR missions to analyze, inform, and provide joint force commanders with the knowledge needed to achieve decision advantage. The ISR portfolio is \$8.8 billion in FY 2022.

This ISR sensing grid consists of a robust multi-layered network of sensors, platforms, people, devices, and services with the goal of delivering a holistic, accurate, predictive, and timely characterization of the operating environment. This real-time understanding of the environment, known as domain awareness, is critical to the future of warfare. ISR underpins the ABMS architecture and allows joint force commanders to achieve an accurate, real-time understanding of the environment. This approach accelerates decision making, improves command and control, and achieves decision advantage ahead of competitors.

We must account for the interactive nature of competition and continuously assess ourselves relative to our adversaries' adaptations. For instance, the RQ-4 Block 30 Global Hawk has provided crucial ISR in its previous engagements. However, this platform cannot compete in a contested environment. The Air Force must transition ISR capabilities to survivable fleets that support tomorrow's joint warfighter. Moving beyond the RQ-4 Block 30 allows us to bring the ISR enterprise into the digital-age by using sensing grids and fielding advanced technology that includes penetrating ISR



platforms. Overall, intelligence collection will transition to a family of systems that includes non-traditional assets, sensors in all domains, commercial platforms, and a hybrid force of 5<sup>th</sup>- and 6<sup>th</sup>-generation capabilities.

We must also look at the demand signal for persistent, high-altitude collection and prioritize collection missions to meet the most important requirements in the near- and mid-term. These changes allow us to successfully compete against peer competitors while providing domain awareness to the joint force.

#### UNITED STATES SPACE FORCE

The Space Force budget continues to mature as it grows from \$15.4 billion in FY 2021 to \$17.5 billion in FY 2022. We have long understood that the Nation is strongest economically, militarily, and diplomatically when we have access to, and freedom to maneuver in space. Unfortunately, potential adversaries have taken note of the United States' reliance on space, and this vital national interest can no longer be taken for granted. It must be secured. Competitors like China and Russia are challenging America's advantage in space by aggressively developing offensive weapons to deny or destroy U.S. space capabilities in conflict.

With a projected near-term end strength of 16,500 military and civilians, the Space Force will be the leanest armed Service, charged with safeguarding the most expansive security landscape, which covers every international boundary and is vital to the operations of every combatant command around the world.

In year two of the Space Force, we are aggressively integrating the Service into the fabric of national and international security by collaborating across the Department of Defense,



interagency, commercial industry, and our allies and partners. As the Space Force creates independent military options for decision makers, we are preparing a force presentation model to optimize integration and delivery of space capability to the joint force. We are working to streamline acquisition processes to increase decision speed and expedite capability development, creating an integrated test enterprise, doing the analytical and and developmental work to create the most

effective and efficient force design for the domain to bring unity of effort across the department. Lastly, we have initiated planning for a National Space Intelligence Center to provide scientific and technical intelligence as well as foundational space intelligence to the Service and the Intelligence Community. These initiatives make us more resilient and competitive, and they will put us in a better position to sustain continuing advantage.

#### Value of Partnerships

An independent service focused on space has already provided greatly expanded opportunities for partnerships with civil and commercial space organizations within the United States and with allies and partners around the world. Close cooperation with the National Aeronautics and Space Administration (NASA) and the Department of State has ensured a unified U.S. voice in discussions about responsible behavior in space with foreign governments. We continue to work hand in hand with Department of Commerce on shared interests including space traffic management and position, navigation, and timing programs. We are working to expand cooperation with commercial partners using both traditional and innovative development pathways; seeking means for tighter fusion to take advantage of the enthusiasm and energy in the commercial space sector.

Internationally, our partnerships have historically been built around one-way data sharing agreements with a small number of countries. As the proliferation and importance of space capabilities increase around the world, we are fostering greater cooperation with international partners across the board. For example, a hosted payload agreement with the government of

Norway will save us more than \$900 million and help us get capability on orbit 2 years faster. We are also working with NATO to further integrate space capabilities and knowledge in that alliance, including the stand-up the first NATO Space Operations Center within NATO Air Command. Cooperation with allies and partners, on both capability development and operations. continues to provide opportunities to decrease cost and increase speed and innovation.



#### **Creating a Digital Service**

Founded in the Information Age, the Space Force was "born digital." We are harnessing modern era advancements and tools to accelerate innovation and ensure our military advantages in, to, and from space. Under the leadership of the newly established Technology and Innovation Office, the Space Force focuses on partnering with government, science and technology industries, and academia to build a digital Service to support Space Force missions and business operations.

We will focus on building digital headquarters, operations, and workforce. Leaders at every echelon of the force require access to data analytics in order to make informed decisions with speed and precision. A new data analytic environment and automation tools will streamline headquarters processes, enable seamless data sharing, increase decision space, and accelerate warfighting outcomes. Commanders and unit-level Guardians are empowered to innovate inside their mission operations, explore novel concepts for space domain awareness, JADC2, collaborate with small business innovators, and align innovation efforts for transition into operations. These initiatives require a digitally-fluent military and civilian workforce. Therefore,

we are funding software-coding training for military and civilian personnel (up to 90 Guardians in FY 2022) and leveraging Department-wide digital training efforts to improve digital literacy using industry-leading commercial courseware.

#### Accelerating Capability Design, Decision, and Delivery

The Space Force must modernize its architecture to survive and execute space power missions in a contested domain and do so at speed. To this end, the Space Force is engaged in an end-to-end transformation of organizations and processes to accelerate delivery of operationally-relevant capabilities.

The FY 2022 budget includes \$43.2 million to establish the Space Warfighting Analysis Center (SWAC) to lead analysis, modeling, wargaming, and experimentation to generate new operational concepts and force design options for the Department of Defense. The SWAC integrates domain expertise with unique analytic tools, datasets, and intelligence to develop operational architecture options to fulfill space missions. The SWAC has already led a collaborative effort with Space Force acquisition organizations, the Space Development Agency, the Missile Defense Agency, and the National Reconnaissance Office to complete an initial force design for an integrated approach to missile warning/missile tracking for the joint force. By driving unity of effort, we reduce cost, minimize duplication of effort, and increase our speed of decision and action.

Finally, in the summer of 2021, the Space Force will stand up the Space Systems Command (SSC) to provide for cooperation across space acquisition within the Department of the Air Force. Initially comprised of the former Space and Missile Systems Center (SMC) and the Service's launch enterprise, SSC will also have a limited administrative support relationship with the Space Rapid Capabilities Office (SpRCO) and—as of the beginning of FY 2023, per statute—the Space Development Agency (SDA). By aligning three organizations with a pedigree in traditional acquisition, disruptive acquisition, and commercial acquisition, the Department of the Air Force can access best-of-breed solutions. Because SSC acquirers will receive digital models with traceable requirements, Program Managers and Program Executive Officers will be equipped to make faster, more agile decisions and trades. In addition, the space acquisition enterprise will continue to improve both commercial and allied integration.

#### Missile Warning and Missile Tracking

Strategic and theater missile warning and missile tracking capabilities provide indications and warning to protect the homeland, joint forces and allies abroad. The evolution of threats to onorbit systems force us to re-think both how we protect and defend our strategic assets, and how future strategic capabilities should be designed to mitigate threats. The Space Force is partnering with combatant commands, the Missile Defense Agency, National Reconnaissance Office, and the Space Development Agency to design and build a resilient missile warning architecture for the collective defense of our nation, joint force, and allies.

We are designing and developing the future architecture for missile warning and missile tracking. Next-Generation Overhead Persistent Infrared (OPIR) will succeed the current Space Based Infrared System (SBIRS) and will provide increased missile warning, missile defense, battlespace awareness, and technical intelligence capabilities with resiliency and defensive features to counter emerging threats. The ground system for Next-Gen OPIR, also known as Future Operationally Resilient Ground Evolution (FORGE), migrates satellite command and control to the Space Force's Enterprise Ground Services (EGS), modernizes Mission Data Processing to implement an open framework, and upgrades Relay Ground Stations to meet United States Space Command's operational requirements. The FY 2022 request increases development of Next-Generation OPIR by \$132 million for missile warning, missile defense, battlespace awareness, and technical intelligence satellites. We are using Middle Tier Acquisition authorities

to rapidly prototype solutions. This expedited pathfinder approach delivers the first resilient geosynchronous satellite and associated ground system in FY 2025 and the first polar satellite in FY 2028.

### Position, Navigation, and Timing

The Global Positioning System (GPS) remains the "gold standard" for positioning, navigation, and timing for the United States and the world. GPS underpins the global economy and our way of war. Adversaries have long recognized our dependence on GPS and have proliferated technologies to degrade, deny, and spoof GPS signals for civil and military users. We are pursuing modernization efforts across the entire GPS architecture to include upgrades in space, ground, and user segments. The Space Force's future GPS architecture provides more robust position, navigation, and timing to the joint force, ensuring at least one technical generation advantage over any adversary.

Military GPS User Equipment (MGUE) will modernize user equipment to enable precision fires, safe navigation, and time coordination across multiple platforms in GPS-degraded environments. Military-code receiver cards embedded in weapon systems enable cyber-secure, anti-jam, and anti-spoof precision, navigation, and timing for the joint force and our partners. MGUE Increment one (1) completed developmental testing of the Army and Marine Corps lead platforms in FY 2020. Funding in FY 2022 supports finalization of card design, testing, and integration with Navy and Air Force lead platforms. MGUE Increment two (2) leverages the MGUE Increment one (1) technology to the maximum extent while addressing the production of M-Code integrated circuits far into the future. This budget grows the MGUE program by \$54 million to \$437 million.

### Command and Control

Our top priority is to develop a Joint All Domain Command and Control System to ensure United States Space Command and their joint and coalition warfighting partners have the capability they require to command and control in a contested domain. We have made considerable gains this year, fully integrated in, and helping lead, the Advanced Battle Management System effort. In recognition that older space command and control capabilities are insufficient for us to prevail in future conflict, we have prioritized the delivery of space command and control capabilities using a development, security, and operations (DevSecOps) approach to acquisitions. Leveraging the agile approaches of commercial software developers, we are seeking to develop cyber-resilient capabilities. Additionally, the Space Force budget request builds and sustains the infrastructure required to connect "sensors" to "shooters" using machine-to-machine planning and tasking of warfighting capabilities.

The Space Force built and delivered the Unified Data Library (UDL), a cloud-based, cyberaccredited, multi-classification data store that facilitates universal data access and serves as the foundational element of the ABMS data architecture in partnership with the USAF. UDL provides all-domain secure Space Domain Awareness (SDA) data sharing from all Services and sensors to support space-focused Battle Management and Command and Control; it is also extensible to fit the needs of Joint All Domain Command and Control. This effort adds long-term access to a wide variety of space domain awareness data sources including commercial, allies, and academia. The UDL creates unified, agile procurement of commercial products to bolster Combined Space Operations Center and National Space Defense Center operations. Additionally, it protects satellite tracking data by seamlessly integrating defensive cyber operations. The UDL is funded at \$17.12 million in FY 2022.

Space System Prototype Transition (SSPT) is a portfolio of programs that rapidly advance nextgeneration space capabilities to the warfighter at the speed of relevance. The portfolio is \$102 million in FY 2022 and leverages the commercial industrial base and demonstrates common defense through partnerships to enhance resiliency. One example is the development and integration of space domain awareness payloads on two Japanese Quasi-Zenith Satellite System spacecraft. The hosted payloads will increase sensor diversity and enable space surveillance and event detection over USINDOPACOM in the geosynchronous orbit regime.

As part of Department of Defense's efforts to modernize the nuclear triad, the Space Force will provide and modernize the space and mission control segments for worldwide, secure, jam-resistant, and survivable communications. We are pursuing digital development efforts for the future disaggregated strategic and tactical satellite communications systems to meet emerging threats in the 2030-timeframe. Evolved Strategic SATCOM (ESS) will continue the strategic mission of the Advanced Extremely High Frequency (AEHF) satellite program with improved on-board resilience features, upgraded satellite capabilities, and cybersecurity features. The FY 2022 budget increases funding to ESS by \$89 million.

### Assured Access to Space

National Security Space Launch (NSSL) provides assured access to space for the nation's most critical warfighting and intelligence capabilities. To meet the full set of National Security Space requirements, we must continue to competitively invest in domestic launch providers' development of new launch systems. The Space Force, National Reconnaissance Office (NRO), and the National Aeronautics and Space Administration (NASA) have a coordinated strategy to certify new entrants to launch payloads, and continue to work with different launch providers to reliably meet our national requirements. The Space Force recently completed a 5-year strategy to bolster a commercially competitive market and transition to domestic launch systems by awarding the NSSL Phase Two procurement contract. Leveraging this strategy, we are procuring five National Security Space Launches in FY 2022 to deliver warfighting capabilities on time. Following the outcomes of our Phase Two launch procurement strategy, we will continue to engage with industry partners regarding emerging launch requirements and technologies to invest in continued assured access to space. The FY 2022 budget increases NSSL funding by \$15 million.

We are investing in multiple public-private partnerships to develop enabling technologies for future space access, mobility, and logistics. Targeted investments in orbital transfer, on-orbit servicing, digital engineering, and novel on-orbit propulsion technologies will increase U.S. access and freedom to operate in space. We will continue to invest in providers of domestic launch services enabling our transition from non-Allied space launch engines to domestic rocket propulsion systems. We will also continue technical maturation, risk reduction, and public-private partnership investment to expand domestic and cost-effective solutions for assured access to space. Additionally, the USSF's research and development standards must reflect both the mission areas and the threat environment. The USSF is building a more defensible and resilient space defense architecture by disaggregating on-orbit capabilities. We are building agile and threat responsive systems to complicate targeting. Additionally, we are building redundancy and resiliency countermeasures into the spacecraft and payload designs of our systems.

### AUDIT

A clean set of books is a top priority for the DAF in driving reform and eliminating duplication within our business processes and systems. The DAF will perform over 150 robust walk through site visits in FY 2022 to accelerate remediation of audit findings. Airmen and Guardians at every level, to include COCOMS, are engaged to ensure we eliminate material weaknesses and significant deficiencies that create vulnerabilities in our processes and expose the enterprise to greater cyber risk. The DAF will execute its Audit Roadmap and Information Technology Roadmap to eliminate wasteful processes and sunset outdated systems. We will leverage automation to modernize and provide accurate, reliable, and timely information to decision makers. We are well on our way to modernization as we sunset the outdated systems for Munitions and Real Property. Modernization drives accuracy of cost information and eliminates manual processes, critical to DAF financial statements passing audit.

The execution of the annual budget is reported on as part of the DAF financial statements, which includes the Statement of Budgetary Resources (SBR). In FY 2022, \$135 million is added to audit remediation for enterprise initiatives related to efforts associated with meeting established roadmap timelines. DAF is prioritizing financial improvements and audit requirements to enhance financial operations through accelerated remediation of audit findings, establishing and implementing compliant business processes and controls to enable financial reporting improvements, and modernizing accounting systems to increase financial data visibility. Audit achievements improve insights into where and how the American taxpayers' hard-earned dollars are spent and it increases transparency into funding available for the warfighter to execute the mission.

#### CONCLUSION

Air and Space dominance is not guaranteed; we must be postured to fight and win in these domains. Without control of the air and space, no military mission can enjoy full freedom of maneuver. The DAF faces increasing budget pressure based on growing costs of sustainment for current and aging force structure, continuous combat operations, and long-deferred modernization. Continued prioritization is necessary in the context of our key competitors over time. Decisions and trade-offs are framed with both a near and long-term view of what value our capabilities provide throughout the lifecycle of performance. We must continue to divest, taking risk in legacy missions and capabilities. This will allow us to provide greater value at an affordable cost. With this budget, the Department takes action to modernize, strengthen ties with our partners, and build a culture of trust for our people and their families to achieve success and secure our future.

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# 11. PERFORMANCE PLAN AND ANNUAL PERFORMANCE REPORT

#### Introduction and Executive Summary

In FY 2020, the Department was successful in meeting or exceeding many of the Annual Performance Plan (APP) performance targets, including those related to achieving efficiency, effectiveness, and cost savings; audit remediation; and reforming the Department's business operations. Notable accomplishments and updates are summarized below, and additional detail can be found in the 2020 Annual Performance Report (APR). The website for the 2020 APR is <a href="https://cmo.defense.gov/Publications/Annual-Performance-Plan-and-Performance-Report/">https://cmo.defense.gov/Publications/Annual-Performance-Plan-and-Performance-Report/</a>.

#### Looking Back: A Selection of Our Recent Accomplishments and Updates

#### DoD Financial Audit

The DoD financial statement audit continues to include a focus on reforming the Department for greater performance and accountability. The audit includes 24 standalone audits and one consolidated audit conducted by the Department of Defense Office of Inspector General (DoD OIG). So far, 8 organizations received unmodified (clean) opinions, the highest grade; and one received a qualified (modified) opinion, which means that data is right with some exceptions. All other reporting entities received a disclaimer of opinion, which means the auditors did not have enough evidence to provide an opinion. The Defense Information Systems Agency (DISA) Working Capital Fund progressed from a disclaimer for FY 2019 to an unmodified opinion for FY 2020.

#### Key Audit Take Aways:

- The audit is helping to galvanize change that advances cybersecurity, property management, inventory control, and readiness.
- It enables faster insights to develop focused, sustainable solutions for the Department's complex business data problems.
- It results in better data that supports management, decision-making, and the warfighter.

Furthermore, every Component that achieved an unmodified opinion in FY 2019 sustained a clean opinion in FY 2020. Components representing 44.5 percent of DoD's more than \$3.1 trillion in total assets and 12.3 percent of DoD's \$1.3 trillion in total budgetary resources received unmodified or qualified opinions. Our FY 2020 consolidated Departmental financial statement audit also improved over FY 2019, with the downgrading of two DoD material weaknesses and no new identified issues.

#### IT & Business Systems

The Military Departments (MILDEPs) and the Office of the Deputy Chief Financial Officer (ODCFO) recently worked together to develop a General Ledger (GL) system consolidation plan. This plan showed the DoD's commitment to improving, standardizing, and simplifying our business systems environment by providing a complete inventory and timeline for consolidation across DoD. The end result was a plan that will reduce the number of GLs within DoD from 31 to 14 by FY 2028.

In FY 2021, the Deputy Secretary of Defense (DSD) named Advana as the "single enterprise authoritative data analytics and visualization platform used by the Secretary of Defense, DSD, and the Principal Staff Assistants (PSAs)." By continuing to increase the number of systems providing data to Advana and improving data access and quality, the DoD is building a single source of truth to optimize IT portfolio management, improve financial management, capture lost buying power, and provide enterprise wide visibility that drives to action.

A major IT reform effort DoD has underway is the Fourth Estate Cloud and Data Center Optimization Initiative, which is migrating Defense Agencies and DoD Field Activitites (DAFA) applications and systems to alternate cloud and data center hosting environments to enable the closure of legacy data centers and facilitate the transition to a cloud-enabled future. In FY 2020, the DoD migrated or decommissioned 201 systems totaling 552 over the lifespan of the initiative. Additionally, the enterprise-wide Data Center Optimization Initiative (DCOI) continued making strides towards efficiencies by closing 187 data centers and saving \$178.5 million during FY 2020. The effort received the DoD's first A within the Federal DCOI, under the Federal Information Technology and Acquisition Regulation Act Scorecard for Q4 FY 2020.

#### Contracting and Category Management

Financial savings achieved, demonstrated, and validated for all DoD Components, in accordance with Services Requirements Review Bord (SRRB) Senior Review Panels, amounted to \$441 million for FY 2020. The annual SRRB review cycle focused on evaluation of bridge contracts, which resulted in a significant reduction in bridge contracts in the DoD Services arena. Organizations have active plans for reductions and are implementing them successfully.

The FY 2019 – FY 2020 category management pilot initiatives evaluated over \$77 billion of spend with over 394,000 contracts impacted. These reviews pointed to substantial benefits that can be obtained by improving processes, opportunity cost avoidance, and finding savings across the Department in all 19 Government Services Agency (GSA) defined subcategories.

#### Travel

In FY 2020, more than 2,000 users were added onto the Defense Travel Modernization Prototype and over 800 trips were completed. Quarterly reports identified a 4.3 percent improvement in improper payment rates as well as increased customer satisfaction rates. Despite delays in deployment as a result of the DoD travel ban in response to the COVID-19 pandemic, reforms related to this effort saved \$119 million in FY 2020.

#### Regulatory Reform

Executive Order 13777 required each agency to establish a Regulatory Reform Task Force (RRTF) to review existing agency regulations for retention, repeal, replacement, or modification, as appropriate. As of January 20, 2021, 518 of the 716 RRTF recommendations were completed, resulting in approximately \$121 million of regulatory cost savings to the public.

#### Human Resources

The Department has made tremendous strides to improve both the timeliness and quality of its hires into the civilian workforce. Since FY 2018, the overall civilian time to hire (TTH) has decreased 17 days, ending FY 2020 with an average TTH of 83 days; in FY 2020 alone TTH was reduced by 11 days. FY 2020 is also the first time the Department has promoted and reported hiring managers' customer satisfaction, achieving the goal of 75 percent satisfaction. This score is up from 69 percent in FY 2019. As the quantity of completed surveys continues to increase across the Department quarter after quarter, the satisfaction score is expected to continue to increase in the next fiscal year.

Additionally, continued efforts to configure the Defense Civilian Human Resource Management System (DCHRMS), a cloud-based human resources personnel system that is integrating six different databases into one. In FY 2020, thousands of business processes and rules were reengineered, reducing system roles by 30 percent, decreasing the number of data fields by 45 percent, and reducing the number of interfaces down to 36 from 42 in FY 2019.

#### Looking Ahead: Where We Are Heading

As stated in Secretary Austin's "*Message to the Force*" on March 4, 2021, our future performance focus areas will align to three priorities: defending the nation, taking care of our people, and succeeding through teamwork. The strategic goals supporting these priorities are in the process of being developed and fully operationalized, and will be influenced by initiatives in the President's Management Agenda (PMA), and recommendations from the Government Accountability Office (GAO) and the DoD Inspector General (IG), among others. A performance management framework and approach is forthcoming pursuant to the requirements of all applicable laws and policies.

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# APPENDIX A: RESOURCE EXHIBITS

### Table A-1. DoD Total Budget by Appropriation Title (\$ in millions)

Total Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Military Personnel	162,270	167,285	5,015
Operation and Maintenance	283,395	290,361	6,966
Procurement	141,672	133,640	-8,032
RDT&E	106,447	111,964	5,517
Revolving and Management Funds	1,394	1,902	508
Defense Bill	695,178	705,153	9,975
Military Construction	7,144	8,423	1,279
Family Housing	1,401	1,424	23
Military Construction Bill	8,545	9,847	1,302
TOTAL	703,723	715,000	11,277

Source: Comptroller Information System \*FY 2021 reflects enacted. Numbers may not add due to rounding.

# Table A-2. DoD Total Budget by Military Department (\$ in millions)

Total Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Army	174,265	172,734	-1,531
Navy	207,079	211,721	4,642
Air Force	204,001	212,764	8,763
Defense-Wide	118,377	117,780	-597
TOTAL	703,723	715,000	11,277

Source: Comptroller Information System \*FY 2021 reflects enacted. Numbers may not add due to rounding.

# Table A-3. DoD Total Budget by Military Department and Appropriation Title (*\$ in millions*)

Department of the Army Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Military Personnel	65,021	66,157	1,136
Operation & Maintenance	68,453	69,315	862
Procurement	24,757	22,365	-2,392
RDT&E	13,858	12,800	-1,058
Military Construction	1,480	1,222	-258
Family Housing	496	491	-5
Revolving and Management Funds	202	385	183
ARMY TOTAL	174,265	172,734	-1,531

Department of the Navy Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Military Personnel	54,654	56,572	1,918
Operation & Maintenance	68,864	71,198	2,334
Procurement	60,933	58,176	-2,757
RDT&E	20,054	22,639	2,585
Military Construction	2,164	2,551	387
Family Housing	409	435	26
Revolving and Management Funds		150	150
NAVY TOTAL	207,079	211,721	4,642

Department of the Air Force Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Military Personnel	42,595	44,556	1,961
Operation & Maintenance	64,359	67,545	3,186
Procurement	48,553	47,211	-1,342
RDT&E	46,649	50,451	3,802
Military Construction	1,315	2,483	1,168
Family Housing	434	441	7
Revolving and Management Funds	96	77	-19
AIR FORCE TOTAL	204,001	212,764	8,763

Defense-Wide Budget	FY 2021*	FY 2022	Δ FY21 – FY22
Military Personnel			
Operation & Maintenance	81,719	82,303	584
Procurement	7,429	5,889	-1,540
RDT&E	25,885	26,074	189
Military Construction	2,185	2,167	-18
Family Housing	61	56	-5
Revolving and Management Funds	1,096	1,290	194
DEFENSE-WIDE TOTAL	118,377	117,780	-597

DEPARTMENT OF DEFENSE TOTAL	703,723	715,000	

Source: Comptroller Information System \*FY 2021 reflects enacted.

Numbers may not add due to rounding.

11,277

# Table A-4. Combat Force Structure Overview

Table A-4. Combat Force Otractare Overview				
Service	FY 2021	FY 2022	Δ FY21 – FY22	
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	294	296	+2	
Carrier Strike Groups	10	10	-	
Marine Corps Active				
Marine Expeditionary Forces	3	3	-	
Infantry Battalions	23	22	-	
Marine Corps Reserve				
Marine Expeditionary Forces	-	-	-	
Infantry Battalions	8	8	-	
Air Force Active				
Combat Coded Squadrons	40	40	-	
Aircraft Inventory (TAI)	4,205	4,155	-50	
Air Force Reserve				
Combat Coded Squadrons	3	3	-	
Aircraft Inventory (TAI)	322	336	+14	
Air National Guard				
Combat Coded Squadrons	21	20	-1	
Aircraft Inventory (TAI)	1,010	1,014	+4	

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

Service	FY 2021 <sup>1</sup>	FY 2022	Δ FY21 – FY22	
Army	486.0	485.0	-1.0	
Navy	348.4	346.2	-2.2	
Marine Corps	181.2	178.5	-2.7	
Air Force	329.1	328.3	-0.8	
Space Force	6.4	8.4	+2.0	
TOTAL	1,351.0	1,346.4	-4.6	

<sup>1</sup>FY 2021 reflects projected end strength levels.

Numbers may not add due to rounding.

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

Service	FY 2021 <sup>1</sup>	FY 2022	Δ FY21 – FY22
Army Reserve	189.8	189.5	-0.3
Navy Reserve	59.0	58.6	-0.4
Marine Corps Reserve	36.2	36.8	+0.6
Air Force Reserve	70.6	70.3	-0.3
Army National Guard	336.5	336.0	-0.5
Air National Guard	108.1	108.3	+0.2
TOTAL	800.2	799.5	-0.7

<sup>1</sup>FY 2021 reflects projected end strength levels.

Numbers may not add due to rounding.

# **APPENDIX B:** Acronym List

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

AC ACEM AEA	Active Component Automated Continuous Endpoint Monitoring Airborne Electronic Attack
AEA	
	Airborne Electronic Attack
AEHF	Advanced Extremely-High Frequency
AFC	Army Future Command
AI	Artificial Intelligence
ALCM	Air Launched Cruise Missile
AMDR	Air and Missile Defense Radar
AMPV	Armored Multi-Purpose Vehicles
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 National Guard
ARRW	Advanced Rapid Response Weapon
A&S	Acquisition and Sustainment
ASFF	Afghanistan Security Forces Fund
AUR	All-Up Round
AVDLR	Aviation Depot Level Reparable
ВСТ	Brigade Combat Team
BMD	Ballistic Missile Defense
C2	Command and Control
C2C	Comply-to-Connect
C4I	Command, Control, Communications, Computers, and Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance
CABs	Combat Aviation Brigades
CAER	Command Accountability & Execution Review
CAF	Combat Air Force
CAPs	Corrective Action Plans
CARES	Coronavirus Aid, Relief, and Economic Security Act
CCDR	Combatant Commanders
CCLTF	Close Combat Lethality Task Force
CCMD	Combatant Command
CE2	Combatant Command Exercise and Engagement
CE2T2	Combatant Command Exercise and Engagement/ Training Transformation

CFTs	Cross-Functional Teams
СНО	Chief Housing Officer
CI/KR	Critical Infrastructure and Key Resources
CID	Criminal Investigation Division
CIO	Chief Information Officer
CIRCM	Common Infrared Countermeasures
CJTF	Combined Joint Task Force
CJTF-HOA	Combined Joint Task Force-Horn of Africa
CMC	Commandant of the Marine Corps'
CMF	Cyber Mission Force
СМО	Chief Management Officer
CNO	Chief of Naval Operations
COD	Carrier Onboard Delivery
CONUS	Continental United States
CPG	Commandant's Planning Guidance
CPS	Conventional Prompt Strike
CS/CSS	Combat Service/Combat Service Support
CSA	Combat Support Agencies
CSF	Coalition Support Fund
CSGs	Carrier Strike Groups
СТ	Counterterrorism
CTC	Combat Training Center
CTE	Culminating Training Exercise
CTEF	Counter-ISIS Train and Equip Fund
CTR	Cooperative Threat Reduction
CV	Carrier Variant
CVEO	Combating Violent Extremists
CWMD	Countering Weapons of Mass Destruction
CWS	Command Weapons Station
DAFA	Department of Defense Field Activities
DASD	Deputy Assistant Secretary of Defense
DA/ULO	Decisive Action in support of Unified Land Operations
DCA	Dual-Capable Aircraft
DCEO	Defensive Cyber Effects Operations
DCIP	Defense Community Infrastructure Pilot
DCOI	Data Center Optimization Initiative
DE-MSHORAD	Directed Energy Mobile Short-Range Air Defense System
DevSecOps	Development, Security, and Operations
DFE	Dynamic Force Employment
DHA	Defense Health Agency
DHP	Defense Health Program
DCHRMS	Defense Civilian Human Resource Management System
DIB	Defense Industrial Base
DISA	Defense Information Systems Agency

DR	Disaster Relief
DLA	Defense Logistics Agency
DMO	Distributed Maritime Operations
DMS	Digital Modernization Strategy
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
DON	Department of the Navy
DPA	Defense Production Act
DSD	Deputy Secretary of Defense
DTF	Dental Treatment Facilities
DTRA	Defense Threat Reduction Agency
EABO	Expeditionary Advanced Base Operations
EDI	European Deterrence Initiative
EDRE	Emergency Deployment Readiness
EDBP	Enterprise Data and Business Performance
EELV	Evolved Expendable Launch Vehicle
EEO	Equal Employment Opportunity
EFMP	Exceptional Family Member Program
EGS	Enterprise Ground Services
EIT	Enterprise Information Technology
EMD	Engineering and Manufacturing Development
EPAWSS	Eagle Passive Active Warning Survivability System
ERCIP	Energy Resiliency and Conservation Investment Program
ERP	Enterprise Resource Planning
ESPC	Energy Savings Performance Contracts
ESS	Evolved Strategic SATCOM
EUA	Emergency Use Authorization
FERS	Federal Employees Retirement System
FHP	Flying Hour Program
FMF	Fleet Marine Force
FMS	Foreign Military Sales
FMTV	Family of Medium Tactical Vehicles
FNIH	Foreign National Indirect Hire
FOC	Full Operational Capability
FORGE	Future Operationally Resilient Ground Evolution
FORGEN	Force Generation
FSRM	Facilities Sustainment, Restoration, and Modernization
FTEs	Full-Time Equivalents
FVL	Future Vertical Lift
FY	Fiscal Year
GSA	General Services Administration
GAO	Government Accountability Office

GBI	Ground-Based Interceptors
GBSD	Ground Based Strategic Deterrent
GCCs	Geographic Combatant Commands
GCSS-A	Global Combat Support System – Army
GF	Green Flag
GFMAP	Global Force Management Allocation Plan
GFMIG	Global Force Management Implementation Guidance
GHE	Global Health Engagement
GHSA	Global Health Security Agenda
GMD	Ground-Based Midcourse Defense
GPS	Global Positioning System
H2F	Holistic Health and Fitness
HBTSS	Hypersonic and Ballistic Tracking Space Sensor
HA	Humanitarian Assistance
IAMD	Integrated Air and Missile Defense
IBCS	Integrated Air and Missile Defense Battle Command System
ICAM	Identity and Credential Access Management
ICB	Institutional Capacity Building
ICBM	Intercontinental Ballistic Missiles
IE	Installation Energy
IFC 4.0	Integrated Functional Capability-4
IFPC-HEL	Indirect Fire Protection Capability - High Energy Laser
IFPC-HPM	Indirect Fire Protection Capability - High Power Microwave
IG	Inspector General
IIP	Indian Incentive Programs
IMET	International Military and Education Training
IMSC	Maritime Security Construct
INF	Intermediate-Range Nuclear Forces
IPA	Independent Public Accounting
IPPS-A	Integrated Personnel and Pay System – Army
IRBM	Intermediate Range Ballistic Missiles
IRST	Infra-Red Search and Track
ISCP	International Security Cooperation Programs
ISF	Iraqi Security Forces
ISIS	Islamic State of Iraq and Syria
ISR	Intelligence, Surveillance, and Reconnaissance
IT	Information Technology
ITGC	Information Technology General Controls
ITX	Integrated Training Exercise
IVAS	Integrated Visual Augmentation System
IW	Irregular Warfare
JADC2	Joint All-Domain Command and Control
JAIC	Joint Artificial Intelligence Center
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
JKO	Joint Knowledge Online
JLVC	Joint Live, Virtual, and Constructive
JNTC	Joint National Training Capability
JT	Jaded Thunder
JTAC	Joint Terminal Attack Control
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	Layered Homeland Defense
LOCE	Littoral Operations in a Contested Environment
LPD	Landing Platform Dock
LPD	Landing Platform Dock
LRASM	Long-Range Anti-Ship Missile
LRDR	Long Range Discrimination Radar
LRHW	Long Range Hypersonic Weapon
LRSO	Long Range Stand-Off
LSCO	Large Scale Combat Operations
LSGE	Large Scale Global Exercise
MAGTF	Marine Air Ground Task Forces
MAJCOM	Major Command
MALE-T	Medium Altitude Long Endurance-Tactical
M-Code	Military code
MDA	Missile Defense Agency
MDD	Missile Defeat and Defense
MDS	Missile Defense System
MDO	Multi-Domain Operations
METL	Mission Essential Task List
MERS	Middle East Respiratory Syndrome
MGUE	Military GPS User Equipment
MHPI	Military Housing Privatization Initiative
MHS	Military Health System
MILCON	Military Construction
MILDeps	Military Departments
MILSATCOM	Military SATCOM
MIR	Military Installation Resilience
MRBM	Medium Range Ballistic Missiles
MISO	Military Information Support Operations

MTF	Military Treatment Facility
MTX	Mountain Exercise
MW	Material Weaknesses
MWR	Morale, Welfare, and Recreation
NAE	Naval Aviation Enterprise
NASA	National Aeronautics and Space Administration
NATO	North Atlantic Treaty Organization
NC3	Nuclear Command, Control, and Communications
NDAA	National Defense Authorization Act
NFR	Notices of Findings and Recommendations
NGAD	Next Generation Air Dominance
NGCV	Next Generation Combat Vehicle
NG OPIR	Next-Generation Overhead Persistent Infrared
NGI	Next Generation Interceptor
NGJ	Next Generation Jammer
NNSA	National Nuclear Security Administration
NORAD	North American Aerospace Defense Command
NRO	National Reconnaissance Office
NSSL	National Security Space Launch
OCEO	Offensive Cyber Effects Operations
000	Overseas Contingency Operations
ODCFO	Office of the Deputy Chief Financial Officer
OFS	Operation Freedom's Sentinel
OIR	Operation Inherent Resolve
OMB	Office of Management and Budget
O&M	Operation & Maintenance
OPIR	Overhead Persistent Infrared
OPN	Other Procurement Navy
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
PCS	Permanent Change of Station
PDI	Pacific Deterrence Initiative
PED	Processing, Exploitation, and Dissemination
PEO	Program Executive Office's
PIO	Chief Performance Improvement Officer
PMA	President's Management Agenda
PNT	Positioning, Navigation, and Timing
POTFF	Preservation of the Force and Family
PPA	Power Purchasing Agreements
PPE	Personal Protective Equipment

PR	Personnel Recovery
PRC	People's Republic of China
PSA	Principal Staff Assistants
PTS	Protected Tactical SATCOM
R2F	Readiness Recovery Framework
RA	Regular Army
RC	Reserve Components
RCCTO	Rapid Capabilities and Critical Technologies Office
RCI	Residential Community Initiatives
RCIED	Radio-Controlled Improvised Explosive Devices
RDA	Research, Development and Acquisition
RDT&E	Research, Development, Test, and Evaluation
ReARMM	Regionally Aligned Readiness and Modernization Model
REPI	Resource and Environmental Protection Integration Program
R&E	Research and Engineering
RF	Radio Frequency
RRTF	Regulatory Reform Task Force
SAPRO	Sexual Assault Prevention and Response Office
SATCOM	Satellite Communication
S&T	Science and Technology
SBIR	Small Business Innovation Research
SBIRS	Space Based Infrared System
SBR	Statement of Budgetary Resources
SC	Security Cooperation
SCI-FIRE	Southern Cross Integrated Flight Research Experiment
SDA	Space Development Agency
SDB	Small Diameter Bomb
SEWIP	Surface Electronic Warfare Improvement Program
SFAB	Security Force Assistance Brigade
SHARP	Sexual Harassment, Assault, Response Prevention
SLBM	Submarine-Launched Ballistic Missile
SMC	Space and Missile Systems Center
SM-3	Standard Missile-3
SM-6	Standard Missile-6
SOC	System and Organizational Control
SOF	Special Operations Forces
SpRCO	Space Rapid Capabilities Office
SRBM	Short Range Ballistic Missiles
SRRB	Service Requirements Review Board
SSAE	Statement on Standards for Attestation Engagements
SSBN	Submersible, Ballistic, Nuclear (submarine)
SSPT	Space System Prototype Transition
STEM	Science, Technology, Engineering and Mathematics
STOVL	Short Take Off and Vertical Landing
	5

STTR	Small Business Technology Transfer
SWAC	Space Warfighting Analysis Center
T2	Training Transformation
TACAIR	Tactical Air
THAAD	Terminal High-Altitude Area Defense
TKA	Tail Kit Assembly
TLAMs	Tomahawk land-attack cruise missiles
TMRR	Technology Maturation and Risk Reduction
TSS	Training Support Systems
TTPs	Tactics, Techniques, and Procedures
UAS	Unmanned Aerial Systems
UDL	Unified Data Library
UESC	Utility Energy Savings Contracts
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
USAID	U.S. Agency for International Development
USAR	United States Army Reserve
USCENTCOM	U.S. Central Command
USCYBERCOM	U.S. Cyber Command
USD(C)	Under 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 Vessels
VEO	Violent Extremist Organization
VCS	VIRGINIA Class submarines
VPM	VIRGINIA Payload Module
VSGI	Vetted Syrian Groups and Individuals
WCF	Working Capital Fund
WEZ	Weapon Engagement Zone
WFX	Warfighter Exercises

