Highlights of the Department of the Navy

FY 2023 Budget

Office of Budget - 2022

The BOTTOM LINE

Fiscal Year 2023 Department of the Navy Budget Submission

The Department of the Navy's (DON) FY 2023 President's Budget (PB23) request is $230.8B, an increase of $9.1B from the FY 2022 enacted budget (with supplementals). The budget is aligned with the draft National Security Strategy and defense priorities. It resources a Navy and Marine Corps Team that supports Secretary Austin's vision of integrated deterrence, campaigning, and building enduring advantages, with an agile and ready joint force. Moreover, Secretary of the Navy Del Toro's enduring priorities of strengthening maritime dominance in defense of our nation, empowering our warfighters, and strengthening strategic partnerships is nested under this guidance and resourced to achieve these effects.

Soundly aligned with strategy, the budget implements concepts articulated in the Chief of Naval Operations' *Navigation Plan* to expand our fleet capabilities for distributed operations while building upon the Commandant of the Marine Corps' *Force Design 2030* to rapidly modernize the expeditionary posture of the Marine Corps.

The budget prioritizes Columbia Class construction and balances readiness, capability, capacity across the near term and future. PB23 continues investments in more lethal, networked capabilities and concepts, integrated with the joint force. It funds critical warfighter training and education to grow talent, build resilience, and ensure an environment of accountability. The budget covers a once-in-a-century requirement to recapitalize our national ship repair infrastructure as part of our Shipyard Infrastructure Optimization Program (SIOP). Finally, this budget continues reformative efforts throughout the Department, maintaining fiscal accountability and propriety of taxpayer dollars.

PB23 builds, trains, and equips the world's most powerful naval force to protect U.S. national security and economic interests

HIGHLIGHTS:

- Provides for a deployable battle force of 285 ships in FY 2023.
- Procures 9 battle force ships in FY 2023 (2 SSN 774, 2 DDG 51, 1 FFG, 1 LHA-6, 1 LPD-17, 1 T-AO 205, and 1 T-ATS 6) and 51 over the FYDP. Funds 4 other construction efforts (2 LCAC SLEPS and 2 ship-to-shore connectors).
- Aircraft procurement funds 96 fixed-wing, rotary-wing, and unmanned aircraft in FY 2023 (13 F-35C, 15 F-35B, 5 E-2D, 10 METS, 5 KC-130J, 10 CH-53K, 26 TH-73A, 3 MQ-4C, 4 MQ-25, 5 MQ-9A) and 420 over the FYDP.
- Funds Force Design priorities of USMC equipment modernization, talent management reform, and training and education reform to optimize the force for naval expeditionary warfare in the maritime littorals supporting Fleet operations.
- R&D funds science and technology efforts and develops key technologies including advanced and networked weapons, unmanned systems, hypersonic weapons, cyber technology, and Columbia class submarines.
- Readiness funds improve over FY 2022: ship maintenance ($11.3B)/98% of requirement; ship operations ($6.5B)/96% of requirement and 58 days deployed/qtr & 24 days non-deployed/qtr; flying hours ($10.1B)/91% of requirement; air depot maintenance ($1.7B)/87% of requirement; USMC ground equipment ($0.2B)/80% of requirement; and facilities sustainment, restoration and modernization ($4.9B)/85% (Navy sustainment) & 56% (USMC sustainment) of requirement.
- Funds a 4.6% pay increase for both military and civilian personnel.
- Military construction ($3.8B) funds 28 projects (15 Active Navy/13 Active MC), planning and design, and unspecified minor construction for Guam buildup, shipyards, DON Posture, Darwin, training, quality of life, and new platforms.
- Family housing ($706M) funds 3 construction/1 improvement projects and maintains 8,800 government owned units.
- Sexual Assault Prevention and Response ($240M) funds violence prevention program including staffing and training enhancements to improve four lines of effort: accountability, prevention, climate and culture, and victim care and support.
- Training and education ($3.5B) funds enhancements for naval warfighting capabilities, the flagship institutions, and modernization of training curriculum.

Key Messages

- Strengthening maritime dominance in defense of our nation through integrated deterrence and campaigning:
  - Columbia recapitalization: most survivable leg of the nuclear triad
  - Force Design to transform USMC naval expeditionary capabilities
  - Deliver a ready force now and in the future
  - Deliver modernization and capabilities required to pace the threat
  - Deliver capable capacity that matters
  - Marine Corps as the Joint Force's *Stand-In-Force* inside an adversary's weapon engagement zone, completing Naval and Joint kill webs
- Building enduring advantage by empowering our warfighters:
  - Implementing Marine Corps 21st Century Learning initiatives
  - Creating positive/safe work environment (SAPR/training investments)
- Strengthening strategic partnerships through prudent investments in tackling the climate crisis and supporting our key industrial base partners

FY 2023 Budget $230.8B Facts

FY 2023 amount or quantity

- $58.4B Military Personnel
- $77.7B Operation & Maintenance
- $66.0B Procurement
- $24.1B Research and Development
- $4.6B MILCON/Family Housing
- 346,300 Active Navy end strength
- 177,000 Active Marine Corps end strength
- 57,700 Reserve Navy end strength
- 33,000 Reserve Marine Corps end strength
- 225,992 Civilian full-time equivalents

Highlights of the Department of the Navy FY 2023 Budget
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All DON budget materials are available at
https://www.secnav.navy.mil/fmc/fmb/Pages/Fiscal-Year-2023.aspx

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INTRODUCTION

OVERVIEW

The United States is a maritime nation: our security and prosperity depend on the seas. Since the end of World War II, the U.S. has built and advanced a rules-based international system through shared commitments with our allies and partners. Free and open access to the world's oceans ensure the delivery of the resources required to protect America's economy and security. Today, competitors and adversaries challenge our nations' prosperity and security. For over 200 years, our Navy and Marine Corps team has safeguarded our territorial waters and lands, as well as projected power across the globe to protect the interests of the U.S. and its allies. In recent years, major strategic competitors to the U.S. and its allies have grown in capability and capacity, challenging the rules based order while forging closer ties with each other. These developments threaten to rebalance global power and influence, creating a more hostile international order, reinforcing the need for a potent, integrated, forward-maneuverable Navy and Marine Corps as a key contributor to the joint force and the preservation of rules-based international order. Seapower's strength comes from its inherent and pervasive mobility, self-reliance, survivability, and distributability: our ability to strategically position overwhelming lethal naval force across the globe poses a uniquely effective deterrent to adversaries. Strategic competition with China and Russia takes on more of a military nature with each passing year. As Russia invades Ukraine, positioning overwhelming military force in and around Ukraine on land and in the Black Sea, China continues to menace Taiwan and other countries in the region. Both countries continue advancements in weapons

technology, and China in particular is building all domain capabilities at a capacity to challenge U.S. influence in the Pacific. America needs a flexible, forward deployed, engaged fleet that keeps the seas open and free, generates credible deterrence at sea, and provides quick response options for U.S. leadership. It needs to be a fleet that can control the seas and project power across all domains at a time and place of our choosing. For the Department of the Navy, our mission is to deliver combat ready naval forces to campaign, deter, and as necessary, win conflicts and wars while we accelerate the development of a modernized, integrated all-domain naval force for the future. To overcome threats and achieve this mission we must maintain maritime dominance by strengthening our strategic partnerships and empowering our incredible warfighters.

The Department continues to optimize resources to develop, produce, field, operate, and maintain capabilities in support of the Joint Force. The budget builds on the Secretary of Defense's vision of integrated deterrence, campaigning, and building enduring advantages, with an agile and ready force. The budget is aligned with the Secretary of the Navy's priorities of strengthening maritime dominance in defense of our nation, empowering our warfighters, and strengthening strategic partnerships. The budget builds on the Commandant of the Marine Corps' Force *Design 2030* to modernize the expeditionary posture of the Marine Corps. The budget implements the Chief of Naval Operations' *Navigation Plan* to expand our fleet capabilities for distributed operations. The budget prioritizes Columbia class construction, a strategic deterrent, and balances readiness, capability, and capacity across the near term and future. President's Budget 2023 (PB23) continues investments in more lethal, networked capabilities and concepts, integrated with the joint force. It funds critical warfighter training and education to grow talent, build resilience, and ensure an environment of accountability. The budget covers a once-in-a-century requirement to recapitalize our national ship repair infrastructure as part of our Shipyard Infrastructure Optimization Program. Finally, this budget continues reformative efforts throughout the Department, maintaining fiscal accountability and propriety of taxpayer dollars.

STRATEGIC GUIDANCE AND THEMES

President's Interim National Security Strategic Guidance

The FY 2023 President's Budget is aligned to the President's Interim National Security Strategy (NSS) Guidance. The three key goals of the interim NSS are:

1. *Defend and nurture the underlying sources of American strength, including our people, our economy, our national defense, and our democracy at home;*
2. *Promote a favorable distribution of power to deter and prevent adversaries from directly threatening the United States and our allies, inhibiting access to the global commons, or dominating key regions; and*
3. *Lead and sustain a stable and open international system, underwritten by strong democratic alliances, partnerships, multilateral institutions, and rules.*

National Defense Strategy

The current defense strategy stresses the need for the Department to act urgently to sustain and strengthen U.S. deterrence, with the Peoples's Republic of China (PRC) as "the Department's pacing challenge." The key priorities are:

1. *Defending the homeland, paced to the growing multi-domain threat posed by the PRC*
2. *Deterring strategic attacks against the U.S., allies, and partners*
3. *Deterring aggression while being prepared to prevail in conflict when necessary, prioritizing the PRC challenge in the Indo-Pacific, then the Russia challenge in Europe*
4. *Building a resilient Joint Force and defense ecosystem*

The Department will advance these priorities through integrated deterrence (working seemlessly across warfighting domains), campaigning (conducting logically linked military initiatives aimed at advancing well-defined priorities over time), and

building enduring advantages (modernize the joint force making its supporting systems more resilient and agile).

Secretary of the Navy Strategic Guidance

In October 2021, the Secretary of the Navy Carlos Del Toro issued his priorities in *One Navy-Marine Corps Team: Strategic Guidance from the Secretary of the Navy*. His vision is:

> *"All Sailors, Marines, and Civilians in the Department of the Navy will operate as one team to protect the American people and our interests in the most effective and efficient way possible, with our actions guided always by our core values. We will invest in the health, readiness, capability, and the leadership ability of our force. We will maintain forward maneuverability, build our maritime advantage, and strengthen partnerships across government and the joint force, with industry, and around the world."*

The Secretary identifies three enduring priorities: Strengthening Maritime Dominance in Defense of Our Nation, Empowering Our Warfighters, and Strengthening Strategic Partnerships.

> Strengthening Maritime Dominance in Defense of Our Nation. *"The DON will build, train, and equip the world's most powerful naval force in order to defend the Nation, our allies, our values, and our interests. We will build toward more integrated all-domain power within the Navy, Marine Corps, and Coast Guard."* To accomplish this priority, we will expand forward presence, enhance warfighting readiness, innovate and modernize, and combat climate change. In the PB23 request we enhance warfighter readiness by financing investments in industrial capability and infrastructure to improve maintenance and logistics responsiveness and capacity; by making investments in training methods, ranges, and facilities; by investing in cybersecurity and systems that are critical in supporting combat forces; and by developing a climate-cognizant force.

Empowering Our Warfighters. *"Our people provide the foundational strength for this Department. We will build and sustain a strong, diverse, and healthy force, ready at all times and focused on warfighting and leadership at every level."* Our PB23 request supports this by eliminating harmful behaviors; leveraging naval education to enable the warfighter; cultivating talent and teamwork through recruiting, retaining, and promotion; and taking care of our warfighters through review of promotion practices and getting senior leaders more involved in quality of life programs and mental health readiness.

Strengthening Strategic Partnerships. *"The Department of the Navy's partnerships – internally, across the U.S. Government, and among our global network of naval allies and partners – provide an unmatched and irreplaceable advantage. We will work to sustain and expand that advantage by seeking to achieve seamless integration, communication, and collaboration with each of our partners."* Leaders across the Department will strive to build a culture of trust, leading to a unity of purpose and teamwork which will provide a warfighting advantage. The DON will modernize business systems, enhancing our ability to utilize data-driven decision-making to achieve savings and enhance effectiveness, responding to audit results, improving overall efficiency and public trust. Finally, the DON will continue to work closely with allies and partners, operating side-by-side with allied forces, integrating operations to deter those hostile to us.

Chief of Naval Operations (CNO) Strategic Guidance

"For America to retain control of the seas, we must maintain a clear-eyed resolve to compete, deter, and win today while accelerating the development of a more lethal fleet. We must do so while integrating more closely with the Marine Corps and Coast Guard to generate Integrated All-Domain Naval Power." - Admiral Michael Gilday

The Chief of Naval Operations (CNO) strategic priorities outlined in the *CNO Navigation Plan (NAVPLAN) 2021* are focused on the Navy's efforts across four main priorities: Readiness, Capabilities (Modernization), Capacity, and Sailors. The direction in the *NAVPLAN 2021* remains valid and relevant. An update is being prepared to build on this strong foundation.

Readiness touches all elements of our Navy – from our shipyards and aviation depots to the steaming and flying hours our Sailors use to hone their skills. Over the last several years, the Navy has improved its readiness through sustained funding and a relentless focus on reform. We will sustain these gains and increase the speed of our recovery to field a more ready, lethal force.

Delivering emerging capabilities at speed and scale requires every member of our Navy team, including our industry, academic, and research partners, to embrace the urgency of the moment: our maritime supremacy is being challenged. This means developing innovative systems, modernizing legacy ones, and rigorously aligning our acquisition enterprise with operational requirements. It also requires coordinating capabilities with our robust network of allies and partners.

For capacity, sea control and sea denial from beneath the seas is one of our core advantages – we will not yield any ground to our competitors. Unmanned platforms play a vital role in our future fleet. Successfully integrating unmanned platforms—under, on, and above the sea—gives our commanders better options to fight and win in contested spaces.

Our Sailors—active and reserve, and the civilians who enable them—are the true source of our naval power. Controlling the seas and projecting power requires our Sailors to operate seamlessly in all domains and across the competition continuum. We recognize the strength we gain from a diverse force and actively pursue combat-minded Sailors with varied sets of knowledge, skills, and experiences to operate, sustain, and maintain the fighting power of the Navy. We will accelerate their development and harness their talents to keep America safe and prosperous.

Commandant of the Marine Corps (CMC) Strategic Guidance

"We cannot accept or accede to recommendations for incremental change or better versions of legacy capabilities, but must pursue transformational capabilities that will provide Naval Fleets and Joint Force Commanders with a competitive advantage in the gray zone and during contingency."

- General David H. Berger in United States Marine Corps Force Design 2030

Aligned with emerging joint and naval operating concepts, such as Littoral Operations in a Contested Environment (LOCE), Expeditionary Advanced Base Operations (EABO), Distributed Maritime Operations (DMO), and a Concept for Stand-in Forces, the Marine Corps is aggressively redesigning the force to deter conflict and actively persist as the Nation's Stand-in Force inside an adversary's weapons engagement zone (WEZ). The Fleet Marine Force (FMF) is in the process of transforming into a modernized force with new organic capabilities organized, trained, equipped, and postured to meet the demands of the rapidly evolving future operating environment, and optimized for the challenges of naval expeditionary warfare in the maritime littorals.

As delineated in the *Commandant's Planning Guidance* (CPG) and *Force Design 2030*, the Commandant's Force Design initiatives encompass a comprehensive modernization effort to transform the organization through a threat informed, concept based approach. The future FMF will enable the Navy and Marine Corps to restore the

strategic initiative and to define the future of maritime conflict by capitalizing on innovative capabilities to operate persistently inside actively contested spaces as part of a naval expeditionary force. Force Design in FY 2023 maintains focus on three overarching priorities: Equipment Modernization, Talent Management Reform, and Training and Education Reform.

Equipment Modernization. The Marine Corps continues to aggressively adapt, organize, train, and equip to meet the demands of the increasingly competitive future operating environment, developing new capabilities and modernizing equipment in order to deter malign behavior, fight inside peer-threat weapon sensors and weapons engagement zones, and facilitate sea denial and sea control in support of fleet operations and the joint force. Supported by a campaign of analysis, to include wargaming, modeling and simulation, the Marine Corps has continued to identify and divest of legacy capability and excess capacity that is not best aligned to meet the future threat. The ability to reinvest divested savings into investments in long range precision fires and anti-surface warfare capabilities, networks, sensors, intelligence platforms, air defense, ground combat lethality and science and technology programs will sustain the velocity of modernization efforts, the speed of which has been set by strategic competitors. Through prioritized investments in warfighting capabilities, the Marine Corps will contribute to the joint force by providing naval expeditionary forces actively persisting inside contested spaces, leveraging all-domain tools as the eyes and ears of the fleet and joint force, completing naval and joint kill webs, competing with peer adversaries in the maritime gray zone, and complicating an adversary's decision calculus while maintaining its role as America's force in readiness, deterring adversaries and responding to crisis globally.

Talent Management Reform. First and foremost, the strength of the Marine Corps is still Marines. To be successful in the competitions and conflicts of the 21st century, the Marine Corps must take full advantage of the talents, strengths, skills and perspectives of every Marine. The Commandant has identified that the Marine Corps' current industrial age manpower management processes and systems require fundamental changes to support *Force Design 2030* and the requirements of the future operating environment. As articulated in *Talent Management 2030*, the Marine Corps

will implement new models for recruiting talent, establish an assignment process consistent with the Marine Corps' warfighting philosophy, introduce new measures to increase career flexibility, and adopt modern digital tools, processes and analytics consistent with industry standards, human resource research and best practices of adjacent services. The Commandant's goal is to develop a talent management system that measures success by an ability to attract, recruit, identify, incentivize, and retain the most talented individuals across the entire force. By recruiting, developing and retaining the right Marines, modern Marine Corps operational concepts will be able to reach their full warfighting potential. This talent management system will enable the Marine Corps to better harness and develop the unique skills and strengths of Marines, improve the performance of units in competition and combat, and ensure the Marine Corps remains 'most ready when the Nation is least ready,' today and into the future.

Training and Education Reform. The complexity and change of the modern battlefield requires a highly trained and educated force. The Marine Corps is changing the Training and Education Continuum from an industrial age model to an information age model. The warfighting impact of all future capabilities is directly tied to the level of commitment made to training and education modernization. The Marine Corps cannot assume it will maintain a technical advantage over peer competitor military forces. As such, it is even more critical 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" toward training and education that produces better leaders and warfighters. This approach includes focusing on identifying, developing, and sustaining the unique talents of individual Marines, increasing intellectual standards, focusing training and education on critical thinking and practical judgement under pressure, expanding the use of wargaming and force-on-force training, making Live-Virtual-Constructive training a normal part of the training continuum, and incorporating more naval education and training within the existing service-centric architecture.

SECURITY AND OPERATIONAL ENVIRONMENT

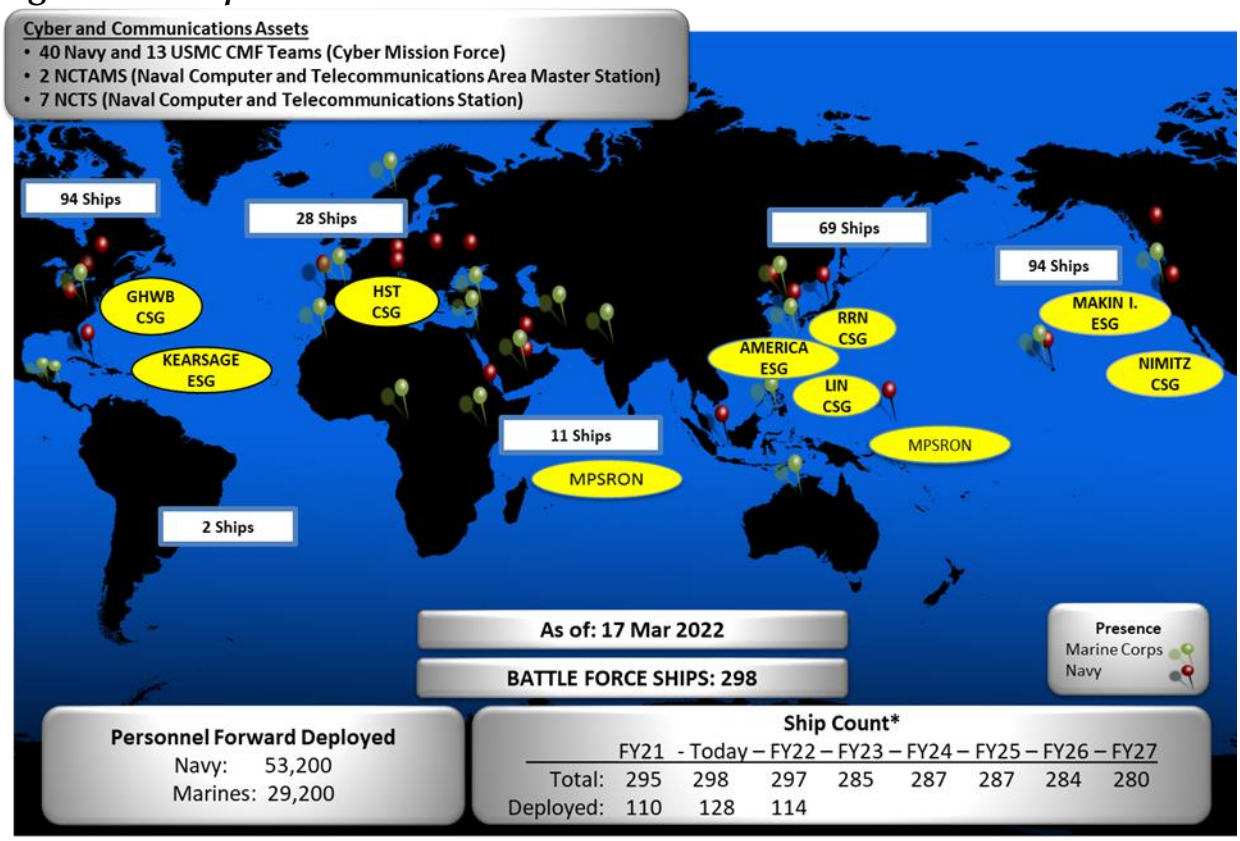
China's ascendance as a great military power poses the most serious potential threat to the U.S. and its allies. For the first time since the defeat of the Soviet Union, we have a strategic competitor with naval capabilities and capacities that rival, and in some areas, surpass, our own. Though the People's Liberation Army Navy (PLAN) has only about half the tonnage of the U.S. Navy, it has 355 ships, constituting the largest navy in the world. In addition, the PLAN's overall battle force is expected to grow to 460 ships by 2030. Given its narrower scope of operations and geographic commitments than our Navy, the PLAN has enough ships to pose a serious challenge to the U.S. Navy. This reality becomes particularly stark when one considers the likely areas of aggression lie close to the Chinese mainland, home to the largest missile force in the world. China is rapidly developing new capabilities. In October 2021, the Chinese tested a hypersonic vehicle that partially circumnavigated the globe. They are building next-generation strategic missile submarines, fifth-generation fighter aircraft, and by 2023, China expects to launch its third aircraft carrier.

As China ascends, the DON must remain ready to respond to threats from Russia, North Korea, and Iran, as well as non-state actors such as those in the Middle East, Africa, and South and Central Asia. The Russian Federation continues to modernize its forces and is pushing the technological envelope with its development of hypersonic missiles, tactical nuclear weapons, and modern submarines. Recent events in Eastern Europe highlight Russia's willingness to leverage its military to achieve its objectives. Threats to the security of the U.S., its allies, and the international rules-based order abound with Russia and the PRC headlining the potential aggressors.

Figure 1.1 – Security and Operational Environment

China challenges international norms and laws at home and abroad. It has trodden the rights of its neighboring countries by its territorial claims and challenge to freedom of navigation in the South China Sea. The PRC uses every advantage in a coercive, extractive, and dangerously irresponsible manner. Beijing uses economic leverage like predatory lending to force governments from Asia to Africa to South America to cede critical infrastructure and natural resources. It uses diplomatic leverage to exact political retribution against other countries and to expand its sphere of influence. It leverages technology to steal personal information and intellectual property, and subvert the free flow of communication around the world. And finally, it uses military leverage to threaten its neighbors, challenge established norms, and attempt to control international waters as its own. The PRC threatens U.S. interests, undermines alliances and partnerships, and degrades the free and open international order.

Figure 1.2 – Operational Context



* FY22 and out represent end of fiscal year ship counts from the latest Shipbuilding Plan

The spectrum of potential conflict the U.S. must prepare for is wide. Potential adversaries can attack in multiple domains and geographic locations. The U.S. and its allies currently defend against offensive cyber operations on multiple fronts, to include regular operations from both China and Russia. Even small-scale actors have potential to threaten the U.S. with asymetric attacks. The DON must have the capability to defend the country and our allies in multiple domains to include the sea, air, and the cyber realm. It must be able to do this in cooperation with sister services and allies, and it must be able to succeed in multiple domains simultaneously.

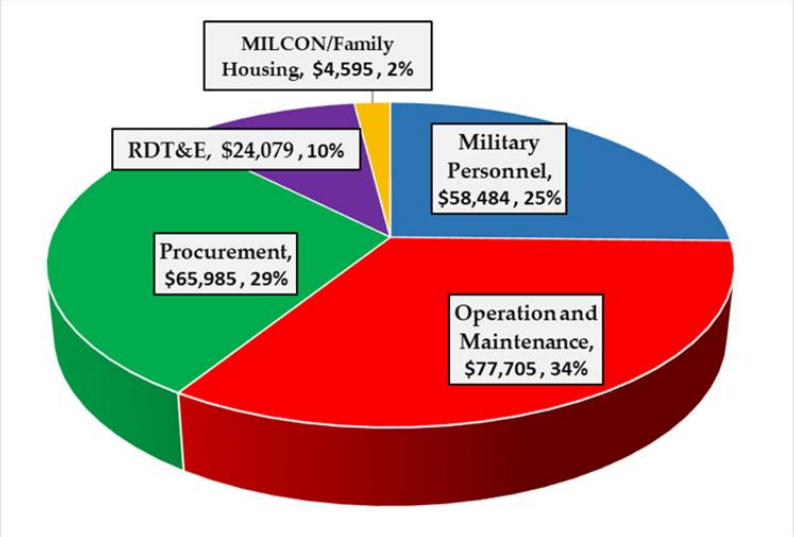
Since the time of the Barbary pirates, our Navy and Marine Corps team has protected the seaways that are the lifeblood of U.S. global economic activity. The vast majority of the world's manufactured goods are transported by ocean freight, a substantial amount of the world's internet traffic traverse seafloor communication lines, and a large amount of natural resources reside in ocean environments. With so much depending on safe access to the world's oceans, priority must be given to the sea-going military services. China, in particular has chosen to enhance its ability to project military power into the maritime domain. From more aggressive overflight of Taiwan airspace, to the militarization of reefs and islands in the South China Sea, China grows

more aggressive in asserting territorial claims as its military power grows. In the north, Russia has invaded Ukraine while badgering neighboring nations to solidify its grip on its near abroad while being a global disrupter. Meanwhile, Iran, North Korea, and non-state actors represent potential asymmetric threats to global maritime commerce and transportation. Figure 1.1 displays examples of the Chinese and Russian expansion around the world.

In light of this global security environment, the Navy and Marine Corps are postured globally to quickly respond to any contingency. Forward deployed sea-based forces shown in Figure 1.2, consist of 53,200 Sailors and 29,200 Marines currently deployed or underway on 114 ships, to include two carrier strike groups, and two expeditionary strike groups. Additionally, the DON maintains cyber mission teams across the globe conducting cyber operations in support of naval forces. Our joint Navy and Marine Corps role is clear: provide a flexible, forward-deployed, engaged fleet and fleet marine force that keeps the seas open and free, generates credible deterrence at sea, and provides quick response options for U.S. leadership, thus assuring allies and deterring our adversaries.

FY 2023 PRESIDENT'S BUDGET OVERVIEW

Figure 1.3 – FY 2023 Total Budget Request by Appropriation Group



The FY 2023 President's Budget delivers the resources necessary to build a potent, integrated, forward-maneuverable Navy and Marine Corps capable of defending our nation, preserving freedom of navigation, deterring aggression, and winning wars. Figure 1.3 breaks out the $230.8 billion budget by major appropriation group. This budget will enable the DON to maintain maritime dominance while empowering our warfighters to succeed and strengthening strategic

partnerships. This budget represents a $9.1 billion increase over our FY 2022 enacted President's Budget (including supplementals for disaster relief funding, Red Hill, and Operation Allies Welcome funding). Our procurement accounts increase by 4 percent, operation & maintenance increases 4.5 percent, military personnel increases 3.6 percent, research and development increases 8.7 percent, and military construction/family housing accounts decrease 10.5 percent, overall providing much needed relief from over a decade of flat budgets, allowing the funds to successfully pursue our strategic objectives for FY 2023.

Strengthening Maritime Dominance in Defense of Our Nation

The FY 2023 President's Budget provides the funding needed to build, train, and equip the world's most powerful naval force in order to defend the Nation, our allies, our values, and our interests. PB23 expands our forward presence, enhances warfighter readiness, innovates and modernizes our capabilities, and combats climate change.

Procurement

The shipbuilding procurement request is $27.9 billion in FY 2023 and includes nine battle force ships. The Department continues to invest in modern capabilities while stabilizing the industrial base. Incremental funding for the FY 2021 Columbia class ballistic missile submarine (SSBN) maintains a credible, survivable, and modern sea-based strategic deterrent. Two Block V Virginia class fast attack submarines (SSNs) will ensure we maintain the SSN force structure needed to deliver the undersea capabilities required to operate effectively in anti-access and area-denial environments. The two Arleigh Burke class destroyers (DDG-51) with the Flight III upgrade are centered on the Advanced Air and Missile Defense Radar system which satisfies the Navy's critical need for an enhanced surface combatant Integrated Air and Missile Defense capability. With the one guided missile frigate (FFG), the Navy will maximize the small surface combatant capabilities in the anti-surface warfare, anti-submarine warfare, electromagnetic maneuver warfare, and anti-air warfare mission areas, while keeping the ship affordable and as part of a 'high-low' mix of surface ships. The budget supports

amphibious warships with the request of one San Antonio class amphibious transport dock (LPD 17 Flight II) and one America class amphibious assault ship (LHA 6) to support the embarkation, deployment, and landing of a Marine landing force and supporting forces. The request also includes logistics platforms with one Navy fleet replenishment oiler, T-AO 205, to provide fuel for ships and their embarked aircraft at sea. Lastly, one T-ATS towing salvage and rescue ship is requested to operate as the primary open ocean towing for all U.S. vessels, and will have salvage operations and submarine rescue mission support capabilities.

The aircraft procurement request is $16.8 billion in FY 2023 and includes 96 fixed-wing, rotary-wing, and unmanned aircraft to build a modernized and tactically diverse fleet. Robust, technologically superior naval airpower has long been and will continue to be a critical deterrent to aggression against the U.S. and its allies and partners. This budget funds 48 fixed-wing aircraft to include 15 F-35B and 13 F-35C Lightning IIs with a multi-role to form the backbone of air combat superiority; five E-2D Advanced Hawkeyes designed to extend task force defense perimeters; new start for ten Multi-Engine Advanced Training Systems to replace the aging T-44C fleet and modernize multi-engine aircraft training; and five KC-130J Super Tankers for cargo, tanker, and troop carrier operations. The request also funds 36 rotary-wing aircraft to include ten CH-53K King Stallions as the Marine Corps' only heavy-lift helicopter and 26 TH-73A Advanced Helicopter Training Systems to provide the capability to train advanced rotary-wing and intermediate tilt-rotor students. Unmanned aircraft system (UAS) investments include three MQ-4C Tritons to provide persistent maritime ISR of nearly all of the world's high density sea-lanes, littorals, and areas of national interest; four MQ-25 Stingrays to provide an unmanned capability to embark on aircraft carriers; and five MQ-9A Marine Corps' Medium-Altitude Long Endurance (MALE-T) UASs. The account also decreases in FY 2023 due to end-of-purchase for V-22 Osprey.

The President's Budget for FY 2023 provides $4.7 billion for the Weapons Procurement, Navy appropriation. This provides for continued modernization of our weapons inventory with critical capabilities to enhance warfighter readiness. FY 2023 ship weapons procurement includes: 53 Block V Tactical Tomahawks to provide an attack capability against fixed and mobile targets; 166 recertification kits, 274 navigation and communications (NAV/COMMs) kits, and 72 Maritime Strike Tomahawk (MST) kits; 125 Standard Missile-6s; 100 Rolling Airframe Missiles; 136 Evolved Sea Sparrow Missiles; 28 MK 48 Advanced Capability heavyweight torpedoes; 82 MK 54 anti-submarine torpedoes; 154 Naval Strike Missiles; and 30 Littoral Combat Ship Surface-to-Surface Missile Modules. Aircraft weapons procurement includes: 128 AIM-9X/Sidewinders, 337 Advanced Medium Range Air-to-Air Missiles; 69 Advanced Anti-Radiation Guided Munitions-Extended Range; 293 Joint Air-to-Ground Missiles; 61 Miniature Air Launched Decoys; 60 Long-Range Anti-Ship Missiles; 31 Joint Air-to-Surface Standoff Missiles Extended Range; 110 Hellfire Captive Air Training Missiles; and 481 Small Diameter Bombs Increment II.

The FY 2023 budget reflects the Marine Corps' investment in modernization and innovation in support of *Force Design 2030*. Force Design investments enable the Marine Corps to be a more collaborative and equipped naval expeditionary force in readiness, prepared to operate inside actively contested maritime spaces in support of fleet operations. The FY 2023 Procurement, Marine Corps budget is $3.7 billion. Major procurements include: 413 Joint Light Tactical Vehicles to perform multiple mission roles that provide protected, sustained, networked mobility for personnel and payloads across the full range of military operations; 74 Amphibious Combat Vehicles as the next-generation vehicle designed to move Marines from ship to shore; 115 Naval Strike Missiles with the Ground Based Anti-Ship Missile capability for a ground based anti-access/area-denial, anti-ship capability; twelve Marine Air Defense Integrated Systems for ground based air

defense capability; and Marine Air-Ground Task Force Electronic Warfare Ground Family of Systems.

Research and Development

This budget request of $24.1 billion for the Research, Development, Test and Evaluation, Navy (RDTE,N) appropriation places a heavy emphasis on development of future capabilities, targeting key emerging technologies, and making the right investments which will lead to enduring advantages for the future fleet. The Science and Technology efforts are focused on maintaining technological superiority, avoiding technological surprise, fostering knowledge expansion, and spurring innovative technological breakthroughs to ensure our Sailors and Marines have the decisive technological advantage. The request recapitalizes the survivable leg of the nuclear triad with funding for Take Charge and Move Out (TACAMO) recapitalization, Columbia class ballistic missile submarine as the country's sea-based nuclear deterrent, Trident D5 Life Extension, and nuclear command control and communications. Research and Development (R&D) ship efforts include development of the SSN(X) future attack submarine which will be designed for multi-mission capability and have greater transit speed under increased stealth conditions in all ocean environments while carrying a larger inventory of weapons and diverse payloads, as well as the Next-Generation Large Surface Combatant (DDG(X)) which will feature increased missile capacity, sensor growth, long range offensive anti-surface capability, high power lasers, increased survivability, and an Integrated Power System. R&D aircraft efforts include furthering F-35 Joint Strike Fighter capabilities as a multi-role, 5th generation, stealthy strike fighter, as well as advancing the USMC CH-53K program, as a next-generation fly-by-wire heavy-lift helicopter providing significant improvements in range, payload, performance, and maintainability over current systems. The budget also continues development of unmanned vehicles such as MQ-4 Triton, large and extra-large unmanned undersea vehicles, and MQ-9A. In the area of weapons development, we are providing for longer range, and hypersonic weapons to include investments in the Conventional Prompt Strike program and our Standard Missile family of missiles. The budget request continues investment in key Marine Corps

development programs such as funding Initial Operational Test and Evaluation for the Navy/Marine Expeditionary Ship Interdiction System which is a Force Design priority central to the Marine Corps' contribution to the naval expeditionary force's anti-surface warfare campaign. The budget also funds the Ground Based Air Defense, an umbrella program which includes multiple Force Design priority programs including the Marine Air Defense Integrated System Family of Systems and the Medium Range Intercept Capability. PB23 also continues development and testing of the Amphibious Combat Vehicle and funds prototyping efforts for the Advanced Reconnaissance Vehicle, the replacement for the Light Armored Vehicle (LAV).

Readiness

The Navy and Marine Corps team must be ready to generate and bring to bear integrated, all-domain naval power against evolving threats to secure and protect our homeland, allies, and economic interests. To reduce the time our platforms are offline for maintenance and repairs, this budget invests in sustainment, critical readiness infrastructure, and the industrial workforce, while adopting the best practices of private industry to increase overall efficiency and reduce preventable mishaps.

This budget request supports requirements for our carrier strike groups (CSGs), amphibious ready groups (ARGs), and Navy and Marine aviation units to train and respond to persistent and emerging threats. PB23 funds public and private depots, global ship, air, amphibious, and cyber operations, and prioritizes critical shore investments to increase fleet readiness and ensure maritime dominance. The FY 2023 budget improves upon FY 2022 funding to sustain current readiness in key accounts including ship maintenance, ship operations, flying hours, and aviation depot maintenance.

This budget funds ship maintenance at $11.3 billion (98 percent of the requirement) at the Navy's four public shipyards, regional maintenance centers, intermediate maintenance facilities, and private shipyards. In addition to continued support for ongoing maintenance availabilities, the FY 2023 budget funds various ship maintenance improvements and continues to expand the use of the Other Procurement, Navy appropriation for private contracted maintenance. Ship operations is the Navy's core capability and the foundation of maritime dominance. The budget provides $6.5 billion (96 percent of the requirement)

to support ship operations for a battle force of 285 ships at the end of FY 2023. This level of operational funding supports 11 aircraft carriers and 9 large deck amphibious ships that serve as the foundation upon which our strike groups and amphibious readiness groups are based. Ship operations funding supports a target deployment length of seven months, allowing for 58 days underway while deployed and 24 days underway while non-deployed per quarter to conduct training.

The FY 2023 budget continues to prioritize the Marine Corps' commitment to remain the Nation's naval expeditionary force in readiness, capable of responding to any crisis at any time. With continued focus on *Force Design 2030*, the request reflects the Commandant's guidance to organize, train, equip, and posture to meet the demands of the rapidly evolving and increasingly competitive future operating environment. To achieve objectives within fiscal constraints, the Marine Corps continues divestment of legacy capabilities and excess capacity and reallocates savings for initiatives that support readiness and modernize the force. This budget provides $0.2 billion for Marine Corps ground equipment, supporting material readiness of the Fleet Marine Force and funding 80 percent of the depot maintenance requirement. The Marine Corps readiness accounts are funded to $4.0 billion, building a more lethal force through innovation, training, and modernization.

The Flying Hour Program is funded to $10.1 billion, improving naval aviation's ability to meet operational availability demands. The FY 2023 budget increases flying hours over PB22 levels to support greater operational availability, additional F-35s entering in the fleet, and the ongoing strike fighter pilot production recovery, and meets 91 percent of the executable requirement. Continued investments will support strike fighter pilot production recovery. Aircraft depot maintenance and logistics funding of $1.7 billion (87 percent of the requirement) provides for improvement in high-end readiness, funding repairs, overhauls, and inspections of aircraft and aircraft components to ensure sufficient quantities are available to meet fleet requirements to decisively win combat operations.

The FY 2023 budget prioritizes critical shore investments, creating enduring advantages that increase fleet readiness. Facilities Sustainment, Restoration, and Modernization (FSRM) funding for the Navy is $3.5 billion (85 percent), while the

USMC FSRM funding is $1.3 billion (56 percent). The lower percentage for the Marine Corps is due to a new Facilities Investment Strategy to shift the focus from sustainment to restoration and modernization of critical infrastructure coupled with demolition of failing facilities in order to improve the overall portfolio. The FY 2023 budget also includes funding to address impacts to facilities and installations caused by climate change and to reflect the major effort to modernize naval shipyards under the Shipyard Infrastructure Optimization Program (SIOP) with an investment of $1.7 billion. Base Operating Support (BOS) funding for the Navy is $5.5 billion and the USMC BOS is $2.7 billion to prioritize taking care of our warfighters through emphasis on childcare and youth programs; ensuring the fifteen dollar minimum wage for federal employees and contractors; morale, welfare and recreation programs; sexual assault prevention; as well as funding traditional requirements like utilities, security, transportation, and port and airfield operations.

Military Construction

The mission of the Department could not be achieved without high quality facilities that support our Sailors and Marines. Further, our ability to rapidly deploy around the globe is directly connected to an effective home and forward-postured shore infrastructure. The DON will enhance the readiness of our warriors through targeted investments in facilities on naval installations, particularly those in support of our increasing responsibilities in the Indo-Pacific region. Through affordable investments in facilities and infrastructure, PB23 helps expand our forward presence and strengthen maritime dominance. The FY 2023 budget request of $3.8 billion supports the Department's critical goals, financing 28 military construction baseline projects. Of these, 15 are for the active Navy and 13 for the active Marine Corps. The key facilities investments within the FY 2023 request include the Guam Defense Policy Review Initiative, the Shipyard Infrastructure Optimization Plan, as well all other investments in new platforms, new technology, and the replacement of aging infrastructure.

Empowering Our Warfighters

People provide the foundational strength for the DON. This budget empowers our warfighters, works toward elimination of harmful behaviors, cultivates teamwork, prioritizes education, and takes care of our warfighters and their families. PB23 recognizes naval education as a critical warfighting enabler and an enduring advantage, providing the minds of naval leaders with the capability to attain strategic advantage over competitors and global adversaries. To enhance the quality of life for individuals and families, the Department will provide excellent support programs, ensuring Sailor, Marine, and family readiness. In the FY 2023 budget request, the DON continues its commitment to education, sexual assault prevention and response (SAPR), child and youth programs, and morale, welfare, and recreation programs.

Maritime dominance is founded on the quality of our people. The budget funds recruitment and retention programs, aligns manpower to force structure to meet mission objectives, and focuses on a culture of excellence to promote innovation, leadership, diversity, and inclusion. This budget takes care of our people, providing a 4.6 percent pay raise to uniformed and civilian personnel.

For the Navy, the PB23 budget request provides $38.6 billion for a force of 346,300 and active Sailors and $2.6 billion for almost 57,700 Selected Reservists and full-time support personnel. The active Navy end strength request is 100 more than PB22, aligning with force structure requirements and maintaining a force necessary to meet mission objectives. The FY 2023 request includes strength changes for the decommissioning of ships. These reductions are offset by the retention of medical personnel. In FY 2023, the Navy Reserve will decrease by 900 end strength. This accounts for reductions in personnel tied to force structure changes and shifts reserve strategic depth from some shore and installation support activities toward fleet operations and operational units focused on great power competition.

For the Marine Corps, the PB23 budget request provides $16.4 billion for an active duty end strength of 177,000 Marines and $933 million for 33,000 reservists. The Marine Corps continues to reduce active duty end strength as part of a larger effort to modernize. This end strength represents a reduction of 1,500 from PB22. However,

the end strength levels emphasize forward posture and enhanced multilateral exercises to strengthen alliances and attract new partners. 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. The Marine Corps Reserve maintains a "Relevant-Ready-Responsive" force capable of seamlessly operating as a part of the total force to fulfill combatant command (COCOM) and service rotational and emergent requirements. The reserves support each COCOM by providing forces capable of regional security cooperation, crisis response and prevention activities, and major combat operations.

The FY 2023 budget requests funding for 225,992 civilians, including foreign national indirect hires, an increase of less than one percent from PB22. The DON civilian workforce includes a wide range of specialties, including scientists, engineers, and cyber experts. They complement our Sailors and Marines, serving in a variety of capacities to include designing, acquiring, and maintaining the weapons and equipment that enable generation of all-domain naval power that is critical to maritime dominance. This budget includes growth in the ship maintenance workforce to meet scheduled maintenance, reduce backlogs, and increase maintenance availabilities through the FYDP. Additional personnel for the Sexual Assault Prevention and Response Office (SAPRO) will provide support services for at-risk populations to reduce incidents of destructive behavior. The DON continues to protect our Sailors and Marines with increased security at our bases and facilities, including experts to assess the physical security and incident response at our installations.

For family housing, the budget request of $700 million invests in three construction projects in Guam, one improvement project in Japan, and maintains 8,800 government owned units.

Strengthening Strategic Partnerships

Throughout our history, the United States Navy and Marine Corps team have been joined by our allies and partners in the effort to keep the world's seas open and free. Together, we have helped sustain a maritime order based on international law that has benefitted the whole of humankind. Today, after more than three quarters of a century of relative maritime

stability, that order is in jeopardy. The People's Liberation Army Navy (PLAN) of China has radically expanded both its size and capabilities, growing to become the world's largest fleet. Russia, Iran, and other authoritarian states use aggression and coercion to challenge the rules-based international order. The Department of the Navy will be expected to contribute our unique warfighting potential to compete in the gray zone, deter further aggression, and prepare to prevail in conflict as part of an integrated warfighting approach with our fellow Services. PB23 strengthens strategic partnerships, building trust, modernizing business systems, and strengthening alliances and partnerships.

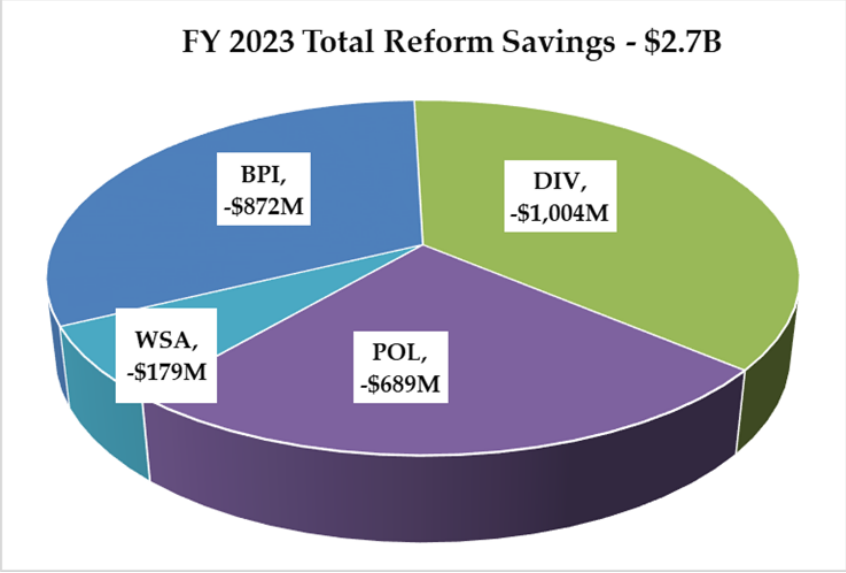
As shown in Figure 1.4, the Navy and Marine Corps are engaged in joint, integrated operations around the globe, deterring aggression from competitors and assuring our allies by projecting power through our forward presence. Additionally, expanding our industrial base partnerships is critical to our strength and capacity.

Figure 1.4 Secure Maritime Advantage with Allies and Partners

Reform

The DON continues its pursuit of meaningful reform to gain budget efficiencies in order to overcome budget shortfalls and maximize its ability to implement strategic objectives. As in past years, the Navy and Marine Corps through program reviews, and the DON through budget reviews, have rigorously reviewed budget submissions scrutinizing alignment to strategic objectives and pursuing efforts to gain more efficiency and cost effectiveness in management and operations. Through these processes, leaders have made difficult decisions, weighing the risk of retiring or scaling back certain capabilities against the need to develop or expand other capabilities. Identified resources are categorized by: business process improvements (BPI), divestment of legacy systems and programs/optimization initiatives (DIV), policy reform (POL), and weapons systems acquisition process (WSA). The DON saved $2.7 billion in FY 2023 through reform initiatives as shown in Figure 1.5 which were reinvested within the department.

Figure 1.5 FY 2023 Budget Reform Savings



Audit

The Department of the Navy (DON) must produce annual financial statements that are audited and demonstrate progress toward a clean audit opinion. Without a DON clean audit opinion, the Department of Defense, and the U.S. Government, cannot achieve a clean audit opinion on the financial statements. The DON developed an Audit Roadmap to strategically identify remediation priorities, dependencies with other DoD Entities and industry, legacy systems for consolidation, and other financial

management transformation efforts as the critical path to an audit opinion by FY 2028. The roadmap gives leadership visibility into audit remediation efforts to measure progress and assess the impact of delays to the timeline. The Marine Corps is undergoing a two-year continuous audit for FY 2022 and FY 2023. This two-year audit will provide additional time for necessary year-end testing of both balances and internal controls to support an audit opinion. The DON is committed to promoting a business culture in which all stakeholders understand their roles in obtaining an opinion, from senior leaders, business managers, and operators who directly support the warfighter.

RESOURCE SUMMARY

The combined base and Overseas Operations Costs in the FY 2023 President's Budget request is $230.8 billion. Figure 1.6 displays the total request by appropriation and service, providing comparisons to FY 2021 actual and FY 2022 enacted values to add context at a more detailed level. This budget request increases major accounts, such as operation and maintenance, shipbuilding, research and development, and military construction.

Figure 1.6 – FY 2023 DON Total Budget Request by Appropriation $230.8B

(In millions of Dollars)	FY 2021	FY 2022*	FY 2023
Military Personnel, Navy	34,184	35,614	36,629
Military Personnel, Marine Corps	14,440	14,613	15,330
Reserve Personnel, Navy	2,184	2,297	2,411
Reserve Personnel, Marine Corps	786	803	850
Medicare-Eligible Retiree Health Fund Contribution, Navy	1,673	1,884	1,986
Medicare-Eligible Retiree Health Fund Contribution, MC	905	993	1,027
Medicare-Eligible Retiree Health Fund Contribution, Res Navy	146	160	168
Medicare-Eligible Retiree Health Fund Contribution, Res MC	82	86	83
Operation and Maintenance, Navy	58,996	63,318	66,152
Operation and Maintenance, Marine Corps	8,414	9,207	9,661
Operation and Maintenance, Navy Reserve	1,113	1,174	1,228
Operation and Maintenance, Marine Corps Reserve	290	295	304
Environmental Restoration, Navy	-	390	359
Aircraft Procurement, Navy	19,436	17,799	16,848
Weapons Procurement, Navy	4,466	3,983	4,739
Shipbuilding and Conversion, Navy	18,756	26,665	27,918
Other Procurement, Navy	10,884	11,073	11,747
Procurement, Marine Corps	2,725	3,094	3,682
Procurement of Ammunition, Navy/Marine Corps	865	845	1,052
National Sea-Based Deterrence Fund	4,122	-	-
Research, Development, Test, and Evaluation, Navy	20,151	22,152	24,079
Military Construction, Navy and Marine Corps	1,936	4,367	3,752
Military Construction, Naval Reserve	71	72	30
Family Housing, Navy (Construction)	43	91	337
Family Housing, Navy (Operations)	404	357	368
National Defense Sealift Fund	361	-	-
Consolidated Prior BRAC	208	246	107
Navy Working Capital Funds	654	150	-
TOTAL	**208,297**	**221,727**	**230,848**
Navy	***163,659***	***172,256***	***180,506***
Marine Corps	***44,638***	***49,471***	***50,342***

*FY 2022 Enacted President's Budget plus supplementals for Disaster Relief, Red Hill, and Operation Allies Welcome

The DON PB23 budget request implements the strategic guidance in order to maintain maritime superiority by strengthening integrated deterrence and campaigning to achieve strategic objectives today while building enduring advantages for the future fleet. It transforms the future force, makes the right technological investments, creates climate resiliency, and empowers our warfighters to succeed. This budget funds readiness for the fight today and invests in the future Navy and Marine Corps needed

to protect our national interests and assure our allies against future strategic competitors.

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Strengthening Maritime Dominance

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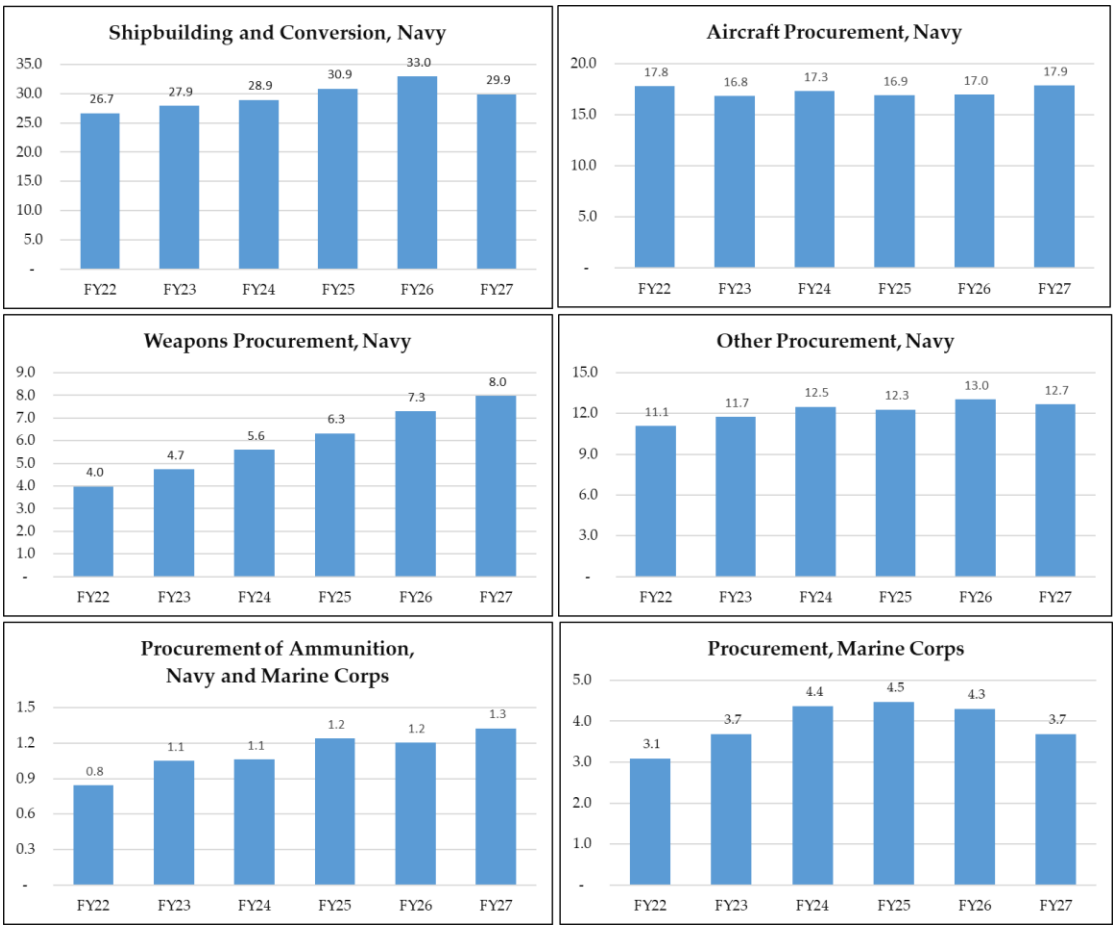
SECTION II: PROCUREMENT

OVERVIEW

To strengthen maritime dominance, the United States needs a balanced naval force, capable of striking targets from all domains. The Department plans to procure nine battle force ships in FY 2023. The FY 2023 budget continues investments in F-35 strike fighter aircraft, and we increase our preferred munitions inventory, building capacity for the high-end fight. We also invest in unmanned vehicles, cybersecurity, command, control, communications, computers, and intelligence, addressing the multiple dimensions of conflict the Department faces. This budget provides a balanced approach to growing capacity, equipping Sailors and Marines to deliver synchronized lethality across all domains of the future conflict. Figure 2.1 displays procurement funding streams in FY 2022 (enacted) and FY 2023 through FY 2027.

Figure 2.1 – Procurement, FY 2022 – FY 2027 (Dollars in Billions)



SHIPBUILDING AND CONVERSION, NAVY

To compete and win, 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. The force must be adaptable, able to perform missions on the high and low spectrum of combat, and be capable of projecting power by delivering precision effects at long ranges. The Navy's FY 2023 shipbuilding budget procures nine battle force ships, including two Virginia class submarines, two Arleigh Burke class destroyers, one Constellation class guided missile frigate, one America class amphibious assault ship, one San Antonio class amphibious transport dock, one John Lewis class fleet replenishment oiler, and one Navajo class towing, salvage, and rescue ship. The plan from FY 2022 to FY 2027 is shown in Figure 2.2.

Aircraft Carriers

The next-generation aircraft carrier, the Ford class, is the centerpiece of the carrier strike group. Taking advantage of the Nimitz class hull form, the Ford class will feature an array of advanced technologies designed to improve warfighting capabilities and allow significant manpower reductions. With $2.5 billion requested in FY 2023, the Department will finance the sixth increment of detailed design and construction for the third Ford class carrier, USS Enterprise (CVN 80), and the fifth increment for the fourth Ford class carrier, USS Doris Miller (CVN 81).

Figure 2.2 – Shipbuilding Procurement Quantities and Total Funding

	FY22	FY23	FY24	FY25	FY26	FY27	FY23-27
New Construction:							
Columbia Class Submarine (SSBN 826)	-	-	1	-	1	1	3
Virginia Class Submarine (SSN 774)	2	2	2	2	2	2	10
Arleigh Burke Class Destroyer (DDG 51)	2	2	2	2	2	2	10
Constellation Class Guided Missile Frigate (FFG 62)	1	1	2	1	2	1	7
America Class Amphibious Assault Ship (LHA 6)	-	1	-	-	-	-	1
San Antonio Class Amphib. Transp. Dock (LPD 17) (Flight II)	-	1	-	-	-	-	1
Lewis B. Puller Class Expeditionary Sea Base (ESB 3)	1	-	-	-	-	-	-
Spearhead Class Expeditionary Fast Transport (EPF 1)	2	-	-	-	-	-	-
Light Amphibious Warship	-	-	-	1	1	2	4
John Lewis Class Oiler (T-AO 205)	2	1	2	1	1	1	6
Next Generation Logistics Ship	-	-	-	-	1	1	2
Submarine Tender Replacement (AS(X))	-	-	-	1	1	-	2
Navajo Class Towing, Salvage, Rescue Ship (T-ATS 6)	2	1	-	-	-	-	1
T-AGOS(X)	1	-	-	1	2	1	4
Total New Construction Quantity	**13**	**9**	**9**	**9**	**13**	**11**	**51**
Total New Construction ($B)	**$22.0**	**$24.8**	**$25.2**	**$26.9**	**$28.7**	**$27.3**	**$132.9**
Other Construction:							
LCAC SLEP	2	2	3	3	3	3	14
Ship to Shore Connector	5	2	2	2	2	2	10
LCU 1700	4	-	2	3	3	3	11
Nimitz Class Aircraft Carrier (CVN 68) RCOH	-	-	-	1	-	-	1
T-ARC Cable Laying/Repair Ship	-	-	1	-	-	-	1
Auxiliary Vessels (Sealift used)	5	2	2	2	2	2	10
Total Other Construction Quantity	**16**	**6**	**10**	**11**	**10**	**10**	**47**
Total Shipbuilding Quantity	**29**	**15**	**19**	**20**	**23**	**21**	**98**
Total Shipbuilding ($B)	**$26.7**	**$27.9**	**$28.9**	**$30.9**	**$33.0**	**$29.9**	**$150.6**

Unmanned:							
Large Unmanned Surface Vessel[1]	-	-	-	1	2	3	6
Extra Large Unmanned Undersea Vehicle[2]	-	-	1	1	2	2	6
Total Unmanned Quantity	**-**	**-**	**1**	**2**	**4**	**5**	**12**

1) FY22-FY24 numbers financed in RDTEN. FY25 & later financed in SCN (Unmanned not included in the battle force count).

2) FY22-FY23 financed in RDTEN. FY24 and later in OPN.

Submarine Programs

The Navy continues to prioritize building a capable and lethal submarine fleet. The FY 2021 budget funded the first Columbia class submarine, which will provide continuous sea-based strategic deterrence into the 2080s. The FY 2023 request of $5.9 billion will provide the third and final year of incremental full funding for this ship. Additionally, the FY 2023 advance procurement funding request will continue continuous missile tube production and advanced construction and procurement of major hull components and propulsion systems for the future Columbia class submarines, as well as efforts to fund the industrial base. These efforts help stabilize the manufacturing base and reduce cost and schedule risk for the entire submarine program.

Virginia class fast attack submarines continue to join the existing fleet of Los Angeles and Seawolf class submarines to provide covert force application throughout the world's oceans. The FY 2023 budget request of $6.6 billion includes funds for two Block V Virginia class fast attack submarines and advance procurement funds for the two FY 2024 and two FY 2025 Virginia class ships. All hulls in Block V will include Acoustic Superiority, a step improvement in acoustic stealth and on-hull sensors. The FY 2023 hulls will include the Virginia Payload Module (VPM), a hull section with four additional payload tubes capable of carrying an additional 28 Tomahawk cruise missiles which increases the Tomahawk capacity from 12 to 40 per ship.

Surface Ship Programs

The Navy continues to invest in capabilities to modernize all-domain lethality and build a ready maritime force postured for long-term competition and warfighting. The FY 2023 budget requests $5.0 billion for two Arleigh Burke class destroyers and economic order quantity funds for a planned FY 2024 through FY 2027 multi-year procurement. These destroyers will be

Flight III ships equipped with the advanced Air and Missile Defense Radar (AMDR) and the AN/SLQ 32 Surface Electronic Warfare Improvement Program (SEWIP) Block III. The FY 2023 budget request also contains $1.2 billion to procure the fourth Constellation class guided missile frigate and advance procurement for two future ships. This is a more lethal and survivable multi-mission small surface combatant to address increasingly complex threats in the global maritime environment.

Amphibious Warships

The FY 2023 budget requests $1.1 billion to procure one America class amphibious assault (LHA) ship. The America class replaces the Tarawa class (LHA 1) and the retiring Wasp class amphibious assault ship (LHD). The America class ensures the amphibious fleet remains capable of expeditionary warfare and provides a forward presence and power projection as an integral part of joint, interagency, and multinational maritime expeditionary forces. The FY 2023 budget requests $1.7 billion to procure one amphibious transport dock ship (LPD). This LPD Flight II ship will functionally replace the Whidbey Island class ships and Harpers Ferry class ships for embark, transport, control, insert, sustainment, and extract of Marine Air-Ground Task Force elements and supporting forces by helicopters, landing craft, and amphibious vehicles.

Logistics Platforms

The FY 2023 budget includes $794.7 million for one John Lewis class oiler (T-AO 205). 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. The FY 2023 budget request includes $95.9 million for one towing, salvage, and rescue ship (T-ATS). T-ATS class will be the functional replacement for the

Powhatan class fleet ocean tugs (T-ATF) and the Safeguard class rescue and salvage ships (T-ARS). As the Navy continues to deliver prior year ship-to-shore connectors, FY 2023 requests $190.4 million for two additional connectors. These connectors serve as the functional replacement for the landing craft, air cushion (LCAC), which is reaching the end of service life and provides the capability to rapidly move USMC assault forces from amphibious ships to the beach.

AIRCRAFT PROCUREMENT, NAVY

Robust, technologically superior naval airpower has long been and will continue to be a critical deterrent to aggression against the U.S. and its allies and partners. PB23 provides $16.8 billion for aircraft procurement in FY 2023. The Aircraft Procurement, Navy (APN) account will decrease in FY 2023 due to end-of-purchase for V-22 Osprey and reduction in aircraft quantity for F-35 Lightning II. There are two new procurements starting in FY 2023: the MQ-25 Stingray and Multi-Engine Training System. The aviation program is shown in Figure 2.3.

Figure 2.3 – Aircraft Procurement Quantities and Total Funding

	FY22	FY23	FY24	FY25	FY26	FY27	FY23-27
Fixed Wing:							
FA-18E/F	12	-	-	-	-	-	-
F-35C (CV)	20	13	19	19	19	18	88
F-35B (STOVL)	17	15	16	16	16	17	80
E-2D	5	5	-	-	-	-	5
T-45TS (Trainer)	-	-	-	7	12	12	31
Multi-Engine Training System	-	10	24	24	-	-	58
KC-130J	6	5	2	-	-	-	7
Rotary Wing:							
CH-53K	11	10	15	21	21	21	88
MV-22B/CMV-22B	12	-	-	-	-	-	-
TH-73A	36	26	-	-	-	-	26
UAV:							
MQ-4	2	3	4	-	-	-	7
MQ-25	-	4	4	4	4	4	20
MQ-9A	8	5	5	-	-	-	10
Total Major Aircraft Quantity	**129**	**96**	**89**	**91**	**72**	**72**	**420**
Total Aircraft Procurement ($B)	**$ 17.8**	**$ 16.8**	**$ 17.3**	**$ 16.9**	**$ 17.0**	**$ 17.9**	**$ 85.9**

Fixed-Wing

Our multifaceted strategy to sustain and recapitalize the strike fighters is reliant on fully funding sustainment accounts, reducing strike fighter utilization, and procurement of additional F-35B/C Lightning II aircraft. The F-35C Carrier Variant (CV) provides the Navy and Marine Corps with a multi-role stealthy strike fighter to complement the F/A-18 Hornet. The F-35B Short Takeoff and Vertical Landing (STOVL) variant is a multi-role strike fighter replacing the AV-8B Harrier and the F/A-18 Hornet for the Marine Corps.

The E-2D Advanced Hawkeye program is the next-generation, carrier-based early warning, command, and control aircraft that provides improved battle space detection, supports theater air missile defense, and offers improved operational availability. FY 2023 is the final year of a five-year multi-year procurement (MYP).

The KC-130J Super Hercules aircraft is designed for cargo, tanker, and troop carrier operations. The mission of the KC-130J is to provide tactical in-flight refueling and assault support transport. FY 2023 is the final year of a five-year MYP.

Rotary-Wing

The CH-53 Sea Stallion is the DoD's only ship-board compatible heavy-lift helicopter. The Marine Corps has been operating the CH-53E Super Stallion since the early 1980s and is replacing this legacy aircraft with the upgraded and more capable CH-53K King Stallion. The new CH-53K will have heavy-lift capabilities

that exceed all other DoD rotary-wing platforms.

The V-22 Osprey shifts procurement to the CMV-22B variant, which will replace the C-2A Greyhound Carrier Onboard Delivery (COD) aircraft. The MV-22B variant fills a critical capability role with the Marine Corps by incorporating the advantages of a vertical/short takeoff and landing aircraft that can rapidly self-deploy to any location in the world. FY 2022 is the fifth year of a five-year MYP awarded in FY 2018. The Department completes aircraft procurement of V-22 in FY 2022 with a total of 403 aircraft.

FY 2020 was the first year that the Department of the Navy procured TH-73A, which is the Advanced Helicopter Training System (AHTS) that replaced the TH-57B/C Sea Ranger Training System. The AHTS is a family-of-systems that provides the capability to train advanced rotary-wing and intermediate tilt-rotor students for designations as aviators in the Navy, Marine Corps, and Coast Guard. The Department completes aircraft procurement of TH-73A in FY 2023 with a total of 130 aircraft.

Unmanned Aerial Vehicles (UAVs)

The FY 2023 budget continues procurement of unmanned platforms in support of joint force and combatant commander demands for increased Intelligence, Surveillance, Reconnaissance (ISR) capability and capacity.

MQ-4C Triton is a High Altitude Long Endurance Unmanned Aircraft System (UAS) designed to provide persistent maritime ISR of nearly all of the world's high-density sea lanes, littorals, and areas of national interest. The FY 2023 budget resumes procurement of MQ-4C Triton in FY 2023, which was paused in FY 2021 and FY 2022 to allow the Integrated Functional Capability-4 (IFC4.0) design to mature. This will eliminate concurrency risk and minimize retrofit cost.

Marine Group 5 Unmanned Aircraft System (UAS) is a Medium Altitude Long Endurance Tactical (MQ-9A) UAS that supports USMC capability requirements as identified within the Marine Air-Ground Task Force Unmanned Aircraft System Expeditionary (MUX) Initial Capabilities Document (ICD). The MQ-9A program

supports a subset of capabilities identified within the MUX overall requirements roadmap. MQ-9A is proposed to be a land-based UAS that provides direct support to the Marine Littoral Regiment (MLR) in peer-to-peer conflict. It will provide stand-off sensing and Command, Control, Communication, and Computers (C4) capabilities, while supporting numerous low-cost stand-in Marine Air-Ground Task Force (MAGTF) assets. It will enhance the MLR's domain awareness and survivability, while broadening its sea-control/sea-denial capabilities. FY 2023 provides funding to support the procurement of MQ-9A Extended Range UAS, communications relay sensors and various payloads.

The MQ-25 Stingray provides an unmanned capability to embark on aircraft carriers as part of the carrier air wing (CVW) to conduct aerial refueling as a primary mission and provide ISR capability as a secondary mission. MQ-25 extends CVW mission effectiveness range, partially mitigates the current carrier strike group (CSG) organic ISR shortfall and fills the future CVW-tanker gap, mitigating strike fighter shortfall and preserving F/A-18E/F fatigue life for its primary missions. FY 2023 is the first year of procurement for Low-Rate Initial Production (LRIP) Lot 1 of four aircraft.

WEAPONS PROCUREMENT, NAVY

The President's Budget for FY 2023 provides $4.7 billion for the Weapons Procurement, Navy appropriation. This level of funding represents an increase over FY 2022, allowing for continued modernization of our weapons inventory with critical capabilities to enhance warfighter readiness. Investments in Figure 2.4 shows quantities in the FY 2023 request for specific weapons programs.

Figure 2.4 – Weapons Procurement Quantities and Total Funding

	FY22	FY23	FY24	FY25	FY26	FY27	FY23-27
Ship Weapons:							
TACTOM (USN)	70	40	-	26	58	58	182
TACTOM (USMC)	48	13	65	48	52	66	244
TACTOM Recert	156	166	274	260	260	260	1,220
TACTOM Mod	166	274	260	260	260	260	1,314
TACTOM- MST	24	72	51	50	52	54	279
TACTOM- M-Code	-	-	-	260	260	260	780
TACTOM- JMEWS	-	-	12	40	40	40	132
SM 6	125	125	125	155	195	144	744
RAM Blk II	70	100	120	120	120	120	580
ESSM Blk II	108	136	146	280	286	293	1,141
MK 48 HWT	58	28	56	58	80	65	287
MK 48 CBASS KITS	20	-	-	-	-	-	-
MK 48 TI-1	-	-	-	30	30	30	90
MK 54 LWT MOD 1	91	82	107	104	105	103	501
ADVANCED LWT	-	-	20	12	6	6	44
NSM (USN)	32	39	15	20	24	22	120
NSM (USMC)	69	115	104	106	66	105	496
LCS SSMM	14	30	18	12	10	10	80
Aircraft Weapons:							
SIDEWINDER (AIM-9X)	152	128	165	180	232	205	910
AMRAAM	-	337	282	267	76	73	1,035
AARGM-ER	54	69	97	185	204	190	745
JAGM	153	293	269	269	325	326	1,482
MALD-N	18	61	155	80	81	80	457
LRASM	48	60	61	46	47	46	260
JASSM	-	31	58	52	52	51	244
HELLFIRE	120	110	-	-	-	-	110
SDB II	164	481	487	389	394	389	2,140
Total Weapons Quantity	**1,760**	**2,790**	**2,947**	**3,309**	**3,315**	**3,256**	**15,617**
Total Weapon Procurement ($B)	**$ 4.0**	**$ 4.7**	**$ 5.6**	**$ 6.3**	**$ 7.3**	**$ 8.0**	**$ 31.9**

	FY22	FY23	FY24	FY25	FY26	FY27	FY23-27
Other Weapons:							
JDAM - GPS Tailkits	2,971	3,037	1,958	1,965	1,960	1,967	10,887
APKWS - G&C Section (rocket)	1,038	825	656	656	640	640	3,417

Ship Weapons

The Tactical Tomahawk (TACTOM RGM/UGM-109E) missile provides a premier attack capability against long-range, medium-range, and tactical targets on land and can be launched from both surface ships and submarines. The Block IV/V TACTOM preserves Tomahawk's long-range precision-strike capability while significantly increasing responsiveness and flexibility. The Navy will procure 40 Block V TACTOMs, and the Marine Corps will procure 13 Block V TACTOMs. Additionally, the Navy will procure 166 recertification kits, 274 navigation and communications (NAV/COMMs) kits, and 72 Maritime Strike Tomahawk (MST) kits in FY 2023. FY 2023 is the third year of procurement for the MST kits. MST is a rapid deployment capability which includes seeker kit hardware.

The Standard Missile-6 (SM-6) is the primary air defense weapon for Aegis cruisers and destroyers. The SM-6 Block I possesses an extended range engagement capability to provide an umbrella of protection for U.S. forces and allies against the full spectrum of manned fixed and rotary-wing aircraft, unmanned aerial vehicles, and land attack and anti-ship cruise missiles in flight. The DON has focused on its efforts to integrate the kill chain consisting of the E-2D Advanced Hawkeye, the Cooperative Engagement Capability (CEC), the Aegis Combat System, and the SM-6 missile. The program procures 125 missiles in FY 2023 and is currently under a five-year MYP contract that completes in FY 2023.

The Rolling Airframe Missile (RAM), a cooperative effort with Germany, is a high firepower, low-cost, lightweight ship self-defense system designed to engage anti-ship cruise missiles and asymmetric threats. The production of Block II missiles provides increased kinematic capability against high-maneuvering threats and improved radio frequency (RF) detection against low-probability-of-intercept threats. RAM is investing in the RAM Block II Raid engineering change proposal (ECP) to provide an

upgraded seeker and missile-to-missile Link (MML) capability to counter emerging complex raid threats. The FY 2023 budget supports the procurement of 100 RAM Block II missiles including hardware to support fleet training requirements.

The Evolved Sea Sparrow Missile (ESSM) serves as the primary surface-to-air ship self-defense missile system. ESSM is an international cooperative effort to design, develop, test, produce, and provide in-service support to a new and improved version of the SPARROW missile (RIM-7P) with a kinematic performance to defeat current and projected threats that possess low-altitude, high-velocity, and maneuver characteristics beyond the engagement capabilities of the RIM-7P. ESSM Block II replaces the guidance section with a dual-mode active/semi-active X-band seeker. In FY 2023, the Navy will procure 136 missiles.

The MK 48 Advanced Capability heavyweight torpedo is used solely by submarines and is employed as the primary anti-submarine warfare and anti-surface warfare weapon aboard attack, ballistic missile, and guided missile submarines. A quantity of 28 will be procured in FY 2023. Procurements continue to support the Navy's requirement for additional warshot torpedoes available for pre-combat loadout (Pre-CLO). FY 2023 efforts will continue guidance and control and after body/tailcone modifications to the existing torpedo, optimizing the weapon for both deep and littoral waters, and adding advanced counter-countermeasure capabilities. FY 2023 is the eighth year of procurement.

The MK-54 is an anti-submarine torpedo deployed from surface ships and anti-submarine warfare (ASW) air platforms in littoral scenarios operating in shallow water acoustic and environmental conditions, effective in the presence of threat countermeasures and capable in deep water engagements. The MK-54 Mod 0 Lightweight Torpedo (LWT) maximizes the use of non-developmental item (NDI) technologies, incorporating the proven technologies from existing torpedo programs with state-of-the-art commercial-off-the-shelf (COTS) processors and is a modular upgrade to LWT inventory. MK-54 Mod 1 builds on the MK-54 Mod 0 improvements to expand the torpedo's capability in the shallow water littoral environment and also improves the torpedo's counter-countermeasure capability to allow higher

effectiveness in current and future threat environments. The program fully transitioned to the sole procurement of Mod 1 in FY 2021 and will procure a quantity of 82 in FY 2023.

The Naval Strike Missile (NSM), formerly the Over-the-Horizon (OTH) missile, provides the littoral combat ship/guided missile frigate (LCS/FFG) with long-range, anti-surface offensive capability against surface combatants. The NSM Weapon Systems (WS) consists of a Missile Launch System and a complement of missiles. In FY 2023, the Navy will procure 39 missiles and the Marine Corps will procure 115 missiles.

The Littoral Combat Ship Surface-to-Surface Missile Module (LCS SSMM) combined with the Longbow Hellfire Missile form a segment of the Surface Warfare (SUW) mission package which increases firepower and offensive/defensive capabilities against large numbers of highly maneuverable, fast, small craft threats, giving LCS the ability to protect the sea lanes and move a force quickly through a choke point or other strategic waterway. The FY 2023 budget supports procurement of 30 LCS SSMM.

Aircraft Weapons

Aircraft weapons arm the warfighter with lethal, interoperable, and cost effective weapons systems. The AIM-9X (Sidewinder) missile is a "launch-and-leave" munition that employs passive infrared energy for acquisition and tracking of enemy aircraft. FY 2023 continues procurement of AIM-9X (128 total missiles) Block II and Block II+ missiles which incorporate specialized external materials to enhance aircraft platform survivability.

The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the next-generation, all-weather radar-guided missile designed to counter existing air-vehicle threats having advanced electronic attack capabilities. Upgrades to the missile incorporate active radar in conjunction with an inertial reference unit and microcomputer that make the missile less dependent on the aircraft fire control system. The FY 2023 request procures a quantity of 337 all up rounds (AURs).

The Advanced Anti-Radiation Guided Munition (AARGM) is an upgrade to the legacy High-Speed Anti-Radiation Missiles (HARM), with a multi-mode guidance and targeting capability. AARGM-Extended Range (AARGM-ER) capabilities will provide improved AARGM operational capabilities adding extended range, increased survivability and effectiveness against complex, new and emerging threats. In FY 2021, the Department concluded procurement of AARGM and will procure the AARGM-ER in FY 2023 at a quantity of 69 missiles. FY 2023 is the third year of procurement for this capability.

The Joint Air-to-Ground Missile (JAGM) is the replacement for Hellfire missile. JAGM is an air-launched missile system, which utilizes multi-mode seeker technology providing advanced line-of-sight and beyond-line-of-sight capabilities. FY 2023 funding supports the second JAGM full-rate production contract, purchasing 293 AURs.

Drones and Decoys support the air-launched electronic warfare (EW) systems capability through the integration of a Navy variant of the Miniature Air-Launched Decoy (MALD-N). Initial Operational Capability (IOC) delivery was in FY 2022. FY 2023 funding is the third year of procurement of 61 MALD-Ns, containers, cables, and associated support.

The Long-Range Anti-Ship Missile (LRASM) is the next generation anti-surface warfare missile that is designed to provide precise, discriminating, and lethal long-range air-launched capabilities. LRASM is a semi-autonomous anti-ship missile, which reduces dependence on external platforms and GPS navigation in order to penetrate sophisticated enemy air defense systems. FY 2023 is the seventh year of procurement, during which the DON procures 60 missiles.

The Joint Air-to-Surface Standoff Missile Extended Range (JASSM-ER)/AGM-158B is procured by the DON to enhance long-range strike and offensive anti-surface warfare (OASuW) capability. In FY 2023 the JASSM program will award the 21st production lot in which the Navy, along with the Air Force, will procure 31 assets. This is the second year of Navy procurement of JASSM.

The AGM-114 Hellfire is a family of laser-guided missiles employed against point and moving targets by both rotary and fixed-wing aircraft. The FY 2023 request procures 110 Hellfire Captive Air Training Missiles (CATM).

Small Diameter Bomb Increment II (SDBII) is an Air Force led, acquisition category (ACAT) I, joint program which provides the warfighter a capability to attack mobile targets in all weather conditions from stand-off range. SDBII addresses the requirement to attack mobile targets; achieve multiple kills per pass; carry multiple ordnance; provide all-weather operations; achieve near-precision munitions capability; provide capability against fixed targets; reduce the munitions footprint; increase weapons effectiveness; minimize potential for collateral damage; reduce susceptibility of munitions to countermeasures; and provide a migration path to net-centric operations capability. FY 2023 is the sixth year of procurement for the DON with a procurement of 481 bombs.

PROCUREMENT, MARINE CORPS

The FY 2023 budget reflects the Marine Corps' continued investment in modernization and innovation in support of Force Design 2030. Force Design investments enable the Marine Corps to be a more collaborative and equipped naval expeditionary force in readiness, prepared to operate inside actively contested maritime spaces in support of fleet and joint operations. This includes the establishment of three Marine Littoral Regiments (MLRs) over the next several years with a focus on the Indo-Pacific region. The MLRs are a light, expeditionary, and low signature Stand-in Force built to operate in littoral, or shoreline warfare zones. IOC is scheduled for FY 2023 with 3rd MLR in Hawaii. The FY 2023 Procurement, Marine Corps budget is $3.7 billion; the major procurement programs are listed below.

Ground Based Anti-Ship Missile (GBASM): Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS)

The Ground Based Anti-Ship Missile (GBASM) provides USMC Artillery Battalions an anti-ship missile capability in support of Expeditionary Advanced Base Operations. The Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS) program is the materiel solution to meet this capability. NMESIS is developing a Marine Corps system using the Naval Strike Missile to provide a ground based anti-access/area denial, anti-ship capability. The NMESIS effort will include the development, design, build, and testing of a Remotely Operated Ground Unit Expeditionary (ROGUE) Fires vehicle. ROGUE Fires is an unmanned ground vehicle based on a Joint Light Tactical Vehicle (JLTV) chassis with a mounted missile launcher system. The FY 2023 budget requests $300.7 million for the Low-Rate Initial Production run of NMESIS systems as it transitions from R&D to procurement as well as funding for 115 Naval Strike Missiles.

Marine Air Defense Integrated System (MADIS)

Marine Air Defense Integrated Systems (MADIS) provides the Marine Corps with an organic, upgradable, and state-of-the-art capability to protect maneuver forces, installations and other designated critical assets from Fixed Wing/Rotary Wing (FW/RW) aircraft and Group 1-3 Unmanned Aircraft Systems (UAS). MADIS consists of mission tailored variants designed for sustained operations ashore, afloat, and aboard installations. The program will enhance the Fleet Marine Force's (FMF) ground based air defense capability to rapidly prosecute aerial threats and expand layered defense in depth to the FMF and supported naval forces. The FY 2023 budget requests $156.7 million for MADIS Increment 1 systems on the JLTV and associated integration and support costs.

Radio Systems

The Marine Corps Radio Systems portfolio includes major investments in Tactical Communications Modernization (TCM) and Terrestrial Wideband Transmission Systems (TWTS) requirements for the operational forces. TCM includes the procurement of Multi-Channel Hand Held (MCHH) radios and MCHH vehicle integration kits to replace legacy single-channel radios and meet National Security Agency communications security mandates. TWTS data transmission investments include the procurement of Tactical Elevated Antenna Mast (TEAMS) II Next Generation Troposcatter Systems and Line-of-Sight Radio Systems (LRS) to provide a significantly higher bandwidth communication pathway over longer distances with both shore-to-shore and ship-to-shore connectivity and to modernize the Marine Corps' ability to connect networks in contested and satellite-denied environments. The FY 2023 budget requests $612.5 million to procure TCM MCHH radios and vehicle kits, TWTS TEAMS II communications systems, LRS optical components, and the necessary program and fielding support to field these new technologies to the FMF.

Amphibious Combat Vehicle (ACV)

The Amphibious Combat Vehicle (ACV) will replace the legacy Assault Amphibious Vehicle (AAV) in the Assault Amphibious (AA) battalions within the Marine Divisions. ACV-equipped AA companies will provide protected mobility and general support lift to elements of Marine Infantry battalions. The ACV is an advanced generation, eight-wheeled armored personnel carrier, capable of mitigating capability gaps by providing improved lethality against dismounted enemy troops through more effective land and water tactical mobility, and increased force protection and survivability from blasts, fragmentation, and kinetic energy

threats. The ACV program is structured to be executed in multiple increments. The first increment delivers combat- ready Marines from ship-to-shore connector craft to mass forces at littoral penetration points and continue to maneuver onward to inland objectives. The FY 2023 request of $536.7 million procures the third full-rate production lot of 74 vehicles, production support, systems engineering/program management, engineering change orders, government furnished equipment, and integrated logistics support.

Joint Light Tactical Vehicle (JLTV)

The Joint Light Tactical Vehicle (JLTV) is a joint Army and Marine Corps program. The JLTV is a multi-mission ground combat, tactical, and support vehicle. It is designed to provide protected, sustained, and networked mobility for personnel and payloads across the full range of military operations with two variants, the Combat Tactical Vehicle, and the Combat Support Vehicle. The FY 2023 request of $222.3 million procures 413 vehicles and associated mission kits. The kits will support the baseline vehicle by providing the warfighter the ability to augment the vehicle's configuration to respond to environmental conditions or threat situations.

Marine Air Ground Task Force (MAGTF) Electronic Warfare (EW) Ground Family of Systems (MEGFoS)

The Marine Air-Ground Task Force (MAGTF) Electronic Warfare (EW) Ground Family of Systems (MEGFoS) enables the Expeditionary Advanced Base Operations (EABO) construct and facilitates ground-based EW in support of *Force Design 2030*. Marine Corps EW has evolved from a single function Counter Radio-Controlled Improvised Explosive Device (RCIED) Electronic Warfare (CREW) mission to an advanced multi-function electronic warfare (MFEW) mission focused on supporting the future operating environment. MEGFoS will provide interconnected EW systems that will operate across a range of frequencies to provide the Marine Corps the ability to maneuver efficiently inside the electromagnetic spectrum, and deny, delay, or degrade an adversary's decision making cycle. The FY 2023 request of $160.2 million procures both mounted and

dismounted MFEW systems, and engineering change proposals to retrofit currently fielded systems with advanced networking capabilities and an enhanced graphical user interface.

PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS

The Procurement of Ammunition, Navy and Marine Corps (PANMC) appropriation buys vital munitions and related weaponry for the warfighter. PANMC is paramount for force capability and success in meeting future contingencies. It includes major fleet requirements such as general purpose bombs like the 2,000-pound laser-guided "bunker buster" Penetrator bomb. Airborne rockets purchases include the Advanced Precision Kill Weapon System (APKWS), which provides Marine Corps ground forces greater precision and effectiveness while increasing firing standoff range. Pyrotechnics and demolition purchases reinforce explosive ordnance disposal, the world's premier combat force for countering explosive hazards to include improvised explosive devices and underwater mines.

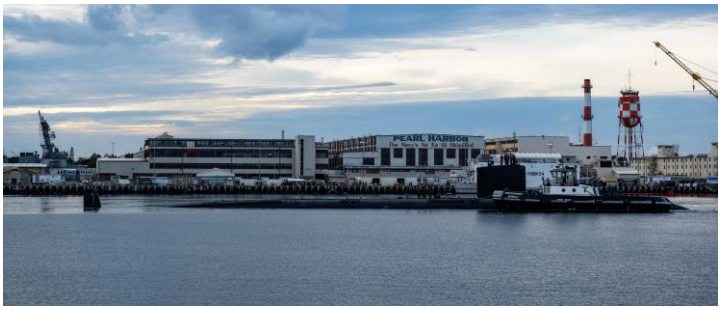
The ammunition portfolio comprises a comprehensive array of capabilities. Five-inch MK 45 guns on cruiser and destroyer combatant ships are used against air, surface, and shore targets. Precision-guided artillery support the Marine Corps and Naval Special Warfare with accurate, first round fire-for-effect capability. Small arms munitions are essential for the Navy Sea, Air, and Land teams, coastal riverine, and security forces. In FY 2023, PANMC's budget of $1.1 billion will fund the procurement of these and other vital ammunitions in support of the warfighter in virtually every aspect of air, land, and sea combat.

OTHER PROCUREMENT, NAVY

The procurement, production, and modernization of equipment (which generally support multiple platforms) not provided for in the previous appropriations, is financed in the Other Procurement, Navy (OPN) appropriation. This equipment ranges from electronic sensors to training equipment to spare parts, and is integral to improving the fleet and shore establishment we need to maintain our critical advantage in supporting and sustaining our combat forces. In addition, since FY 2020, OPN has been used on a limited basis for ship maintenance and repair. The FY 2023 OPN budget is $11.7 billion.

Industrial Plant Equipment Program

The Department's Industrial Plant Equipment (IPE) program supports the Shipyard Infrastructure Optimization Program (SIOP) with capitalized personal property procurements for the naval shipyards (NSYs) and fleet intermediate level (I-level) maintenance activities. Modernizing equipment improves maintenance productivity, eliminates rework costs to the fleet, and contributes toward meeting cost and schedule on aircraft carrier, surface ship and submarine availabilities. These capital improvements are also integral to the nuclear enterprise. The SIOP FY 2023 OPN budget supports the replacement and optimization of obsolete NSY IPE with new and efficient equipment. In addition, this program procures capital equipment for the NSYs in support of mission requirements. SIOP's budget funds equipment needed to support carriers and submarine availabilities at the four NSYs, as well as the manufacturing of Columbia class propulsion equipment at the Naval Foundry and Propulsion Center.



Ship Programs

The FY 2023 OPN budget continues to support surface combatant modernization programs across the fleet in order to keep pace with emerging threats, provide capabilities to maneuver in the electromagnetic spectrum, and maximize surface ship service life. The Consolidated Afloat Networks and Enterprise Services (CANES)

program will fund the procurement of nine Afloat production units (one Force Level, three Unit Level, five Subs), 28 Afloat Technical Insertion units (four Force Level, 17 Unit Level, seven Subs), and two Ashore Technical Insertion units, with integration and associated costs for pre-installation design and the installation of 13 Afloat production units, 28 Afloat Technical Insertion units, and one Ashore Technical Insertion unit that was procured in FY 2022. Additionally, the Shipboard Information Warfare (IW) program will fund seven Ship's Signal Exploitation Equipment (SSEE) systems, 18 Graywing Engineering Change Proposal (ECP) systems, 18 SSEE Next Generation Chassis ECP systems, 16 Spectral Capability Drop ECP systems, nine SSEE Anti-Access Area Denial (A2AD) ECP systems, and 18 SSEE Increment F Backfit Kits. Additionally, Shipboard IW installations include ten SSEE systems, ten Graywing ECP systems, and 12 SSEE Next Generation Chassis ECP systems, ten Spectral Capability Drop ECP systems, and nine A2AD ECP systems. Shipboard electronic warfare procurements include four Surface Electronic Warfare Improvement Program (SEWIP) Block 2 upgrades, and one SEWIP Block 3 upgrade to the AN/SLQ-32.

Ship Maintenance and Repair

The FY 2020 Consolidated Appropriations Act H.R. 1158 appropriated funding in OPN line 23X, ship maintenance, repair and modernization, for a pilot program to fund $1.0 billion in private contracted ship maintenance planned for the Pacific Fleet in FY 2020. The funding in OPN, a three-year appropriation, replaces funding normally in OMN, a one-year appropriation. This change provides two additional years to obligate funding, helping shipyards to manage the complexities of funding ship maintenance more effectively. The pilot program in FY 2020 funded $1.0 billion for 17 Pacific Fleet private contracted availabilities in OPN. The FY 2021 enacted value of $1.2 billion in OPN further improved our ability to take advantage of the potential benefits of using OPN for ship maintenance by funding 21 Pacific Fleet private contracted availabilities. For FY 2022, the program expanded to include Fleet Forces Command. A total of 17 private contracted maintenance availabilities are funded with $1.3 billion in OPN in FY 2022. For FY 2023, a total of 25 private contracted maintenance availabilities in both Pacific Fleet and Fleet Forces Command are funded with $1.2 billion. Ship maintenance is a high priority for the Navy. The OPN trial provides the Navy with an opportunity to establish and capitalize on best practices and evaluate how OPN can benefit the future of Navy readiness.

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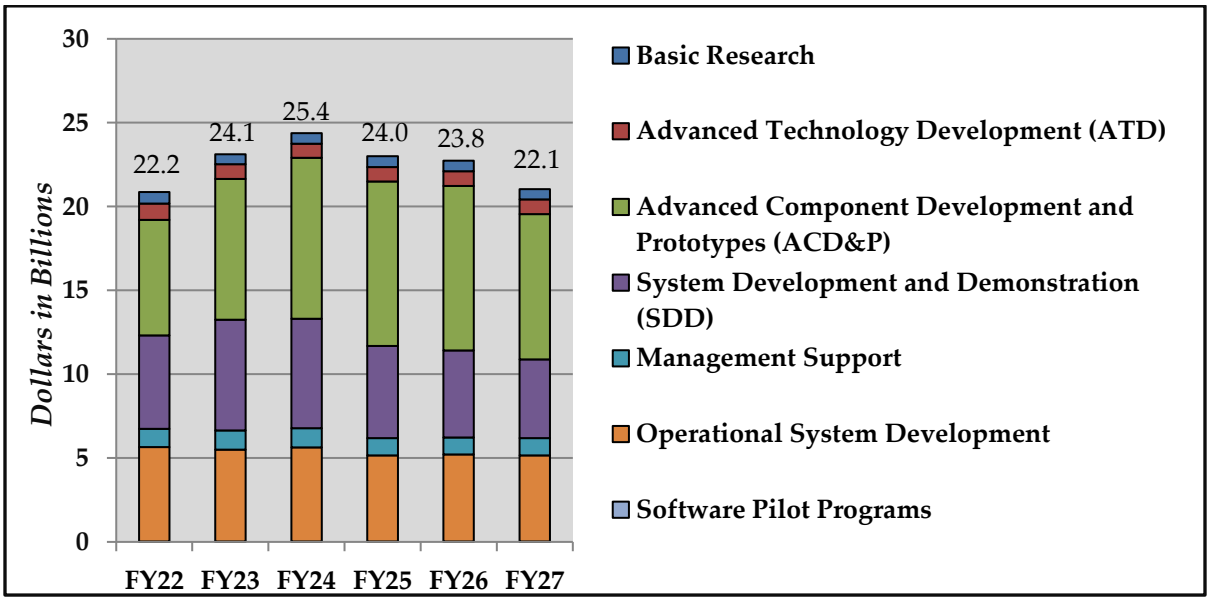
SECTION III: DEVELOPMENT

OVERVIEW

The United States' military advantage has long stemmed from its technological edge. From artificial intelligence and cyber weapons, to unmanned platforms, to directed energy and hypersonic weapons, we are on the cusp of technological breakthroughs that will define future conflict. The Department will selectively make the right investments in key emerging technologies and capabilities to enhance and sustain amphibious battlefield maneuverability, dominance at sea, and information superiority. The DON's Research, Development, Test and Evaluation (RDT&E,N) program supports the DON future force by funding enduring asymmetric and technological advantages against adversaries in all environments and spectrums.

Figure 3.1 – RDT&E,N Funding



Our FY 2023 budget request provides continued investment to deliver the most promising technologies to solve key operational challenges in the near and long-term. Science and technology (S&T) research is vital to provide for future technologies that support innovative capabilities in shipbuilding, aviation, weapons, and expeditionary equipment. Beyond the S&T phase, research and development (R&D) is fundamental to major acquisition programs such as the Columbia class ballistic missile submarine program, which recapitalizes our strategic nuclear deterrent. Other major areas of

R&D effort include investments in future aircraft carrier, surface, submarine, and logistics vessels; unmanned systems; electromagnetic warfare; and cyberspace warfare. The FY 2023 RDT&E,N budget supports the Commandant of the Marine Corps' direction to implement a program of iterative concept refinement, wargaming, analysis and simulation, and experimentation with a strong focus on the new Marine Littoral Regiment (MLR) concept. Marine Corps RDT&E,N programs are focused on developing the force of the future to counter near peer pacing threats. Figure 3.1 shows RDT&E,N funding by budget activity.

SCIENCE AND TECHNOLOGY

The FY 2023 budget requests $2.4 billion for the Navy's S&T programs. The FY 2023 S&T budget request supports the Naval Research and Development Framework that supports multiple Navy and Marine Corps research and development efforts. S&T efforts fall within three categories: basic research, applied research, and advanced technology development (ATD). For FY 2023, the DON requests $589.2 million for university, in-house lab, and defense research sciences work in support of basic research. The DON requests $971.8 million for applied research in order to expand application of new technologies into all facets of naval warfare. Finally, the DON requests $865.8 million for ATD, advancing technologies into prototypes and demonstrations for potential application in naval weapons systems.

SHIP RESEARCH AND DEVELOPMENT

Columbia Class Submarine (SSBN)

The budget requests $392.7 million in FY 2023 for the Columbia class submarine program. FY 2023 R&D efforts continue to focus on propulsion plant and nuclear technology development, common missile compartment design and prototyping, platform development and vendor qualification for technologies such as the propulsor, strategic weapons system, maneuvering and ship control, and addressing obsolescence issues and technology refreshment.

Ford Class Aircraft Carrier (CVN)

The budget requests $162.4 million in FY 2023 to address unique technologies for the Ford class carriers. In FY 2023, research and development efforts continue for the integrated Digital Shipbuilding (iDS) transformation in support of the two-carrier buy, which is a critical affordability initiative to upgrade the digital data environment. Other FY 2023 efforts include continued testing to support the start of the first phase of operational testing and completion of the Electromagnetic Aircraft Launch System (EMALS) depot planning and logistics development.

Virginia Class Submarine (SSN)

Virginia class submarine research and development efforts focus on development of the Tactical Submarine Evolution Plan (TSEP), which encompasses integration of numerous weapons systems, overall ship cost reduction efforts, addressing obsolescence issues, and development of sonar, combat control, electronic support systems. The FY 2023 budget includes $307.6 million to continue efforts to develop future capabilities encompassed in the TSEP, improve electronic systems and subsystems, and reduce total ownership costs for Block V and future submarines.

Future Attack Submarine (SSN(X))

In FY 2023, the Navy will invest $237.0 million for the design and development efforts (including propulsion efforts) for the future attack submarine (SSN(X)). The SSN(X) class submarine is designed for greater transit speed under increased stealth conditions in all ocean environments, and it can carry a larger inventory of weapons and more diverse payloads than the Virginia class. FY 2023 will focus on completing an analysis of alternatives (AoA), propulsion efforts, and continuing technology development.

Constellation Class Guided Missile Frigate (FFG)

The budget requests $118.6 million in FY 2023 to mature combat system and C4I elements in support of ship construction. The Navy intends to maximize FFG's lethality and survivability in surface warfare, air warfare, and anti-submarine warfare

to provide an effective and affordable compliment that enhances Distributed Maritime Operations (DMO).

Next-Generation Large Surface Combatant (DDG(X))

The budget requests $195.5 million to continue development of Next-Generation Large Surface Combatant (DDG(X)), formerly Future Large Surface Combatant. FY 2023 efforts include preliminary design, design analysis, power and propulsion risk mitigation, test planning, land-based testing, and developing detailed design and construction requirements for procurement of the lead ship. DDG(X) will follow the DDG 51 class and provide the future capabilities as a key platform in the Navy's *30-Year Shipbuilding Plan* by integrating non-developmental systems into a new hull design that incorporates platform flexibility and space, weight, power and cooling (SWAP-C) improvements to meet future combat force system requirements.

Unmanned Surface Vehicles/Vessels (USVs)

The FY 2023 budget requests $432.5 million to accelerate the unmanned surface vehicle/vessel (USV) portion of the Navy's Future Surface Combatant (FSC) strategy. This slight decrease in funding from FY 2022 to FY 2023 includes $104.0 million for medium and $146.8 million for large USVs. The request also includes $181.6 million for USV Enabling Capabilities to accelerate future technologies and support steady growth of the USV family-of-systems.

Unmanned Undersea Vehicles (UUVs)

In FY 2023, the Navy will invest $283.9 million toward the research and development of unmanned undersea vehicles (UUVs). The funding includes $116.9 million for the development, fabrication, and testing of the ORCA Extra Large Unmanned Undersea Vehicles and $60.7 million to support UUV core technologies. The FY 2023 funding request also includes $106.3 million for small and medium unmanned undersea vehicles as well as the associated payloads.

AVIATION RESEARCH AND DEVELOPMENT

F-35 Lightning II

The F-35 Lightning II Program will develop and field an affordable, highly common family of next generation strike aircraft for the United States Navy, Air Force, and Marine Corps, as well as international partner countries. The aircraft has three variants: the F-35A Conventional Takeoff and Landing (CTOL) variant; the F-35B Short Takeoff and Vertical Landing (STOVL) variant; and the F-35C Aircraft Carrier (CV) suitable variant. The Initial Operational Capability (IOC) date was in FY 2015 for the F-35B STOVL and in FY 2019 for the F-35C CV variant. Research and development for the Lightning II program is funded at $1,017.7 million and continues development of Block 4 capabilities to support initial fleet availability of Block 4 upgrades.

CH-53K King Stallion

The CH-53 helicopter is the only heavy-lift helicopter specifically configured to support Marine Corps missions. Research and development for the CH-53K is funded at $220.2 million and supports continued air vehicle development and improved integrated logistics support. This will primarily consist of continued software development and the correction of deficiencies discovered during Initial Operational Test and Evaluation (IOT&E) resulting in the establishment of the final deployable configuration.

E-2D Advanced Hawkeye

E-2D Advanced Hawkeye (AHE) research and development is funded at $503.0 million and continues software and hardware development efforts for Hawkeye Cockpit Technical Refresh (HECTR), Theater Combat Identification (TCID), Cooperative Engagement Capability (CEC), and Signal Data Processor (SDP).

HECTR replaces failing and obsolete components in the cockpit to include replacement of the Avionics Flight Management Computer (AFMC), which improves reliability and readiness, and will bring savings in sustainment over the lifetime of the program. HECTR also integrates a Heads-Up Display (HUD) and improved displays, which will mitigate pilot fatigue and safety concerns during carrier landings after longer aerial refueling missions. TCID directly enables the E-2D and the joint force to defend against the growing range and capabilities of adversaries, and will deliver interoperability with DoD's Joint All-Domain Command and Control (JADC2) framework. Without TCID in the E-2D, the joint force's air and missile defense will lag the emergent threat. CEC and SDP will provide processing and cryptographic upgrades for implementation of Naval Integrated Fires Control-Counter Air (NIFC-CA) capabilities into Delta System Software Configuration (DSSC) 5.

VH-92A Presidential Helicopter

The VH-92A Presidential Helicopter research and development is funded at $45.6 million and continues developing product improvements for incremental incorporation to the VH-92A capability baseline to include enhancements to Wide Band Line of Sight (WBLOS) communication capability, cockpit upgrades, government furnished equipment, shipboard interoperability, software upgrades and commences developing product improvements for distributed network communications, and vehicle performance enhancements. Initial Operational Capability (IOC) was declared on December 28, 2021 with Full Operational Capability (FOC) planned for the second quarter of FY 2023.

Next Generation Jammer (NGJ)

The Next Generation Jammer (NGJ) is the next step in the evolution of Airborne Electronic Attack (AEA), and is needed to meet current and emerging electronic warfare gaps, ensure kill chain wholeness against growing threat capabilities and capacity, and to keep pace with threat weapons systems advances and expansion of the AEA mission area. Research and development funding for Next Generation Jammer Mid-Band (NGJ-MB) is $54.7 million and will deliver pod operational flight program software builds to correct deficiencies identified during completion of developmental flight testing. IOC is

scheduled for FY 2023. Initial System Demonstration Test Article (SDTA) pods are being delivered for final developmental test efforts, tactics development, operational testing, and IOC. Research and development funding for the Next Generation Jammer Low-Band (NGJ-LB) is $301.7 million and is focused on the Engineering and Manufacturing Development (EMD) phase, to develop and build four NGJ-LB test pods (two aeromechanical and two mission systems) for developmental testing, and ultimately deliver eight operational prototypes. NGJ-LB successfully completed Milestone B on December 8, 2020, designating NGJ-LB as an Acquisition Category (ACAT) 1B Major Defense Acquisition Program.

Take Charge and Move Out (TACAMO)

The Take Charge and Move Out (TACAMO) Modernization research and development is funded at $554.2 million and completes funding of three test assets, first full year funding for Very Low Frequency (VLF) aircraft integration and mission system risk reduction contracts. The E-6 Recapitalization Program (E-XX) provides for air vehicle replacement and mission systems modernization for the aging E-6B aircraft. The TACAMO mission provides airborne capability for survivable, endurable and reliable airborne command, control and communications between the U.S. National Command Authority (NCA) and U.S. strategic forces. Milestone B is scheduled for FY 2024.

Unmanned Aerial Systems

The Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) program is funded to $265.6 million. The program was restructured with near-term focus on the new Unmanned Carrier Aviation (UCA)/MQ-25 Stingray program and accelerated fielding timelines. The MQ-25 Stingray program rapidly develops an unmanned capability to embark on CVNs as part of the Carrier Air Wing (CVW) to conduct aerial refueling as a primary mission and provide some intelligence, surveillance, and reconnaissance (ISR) capability as a secondary mission. MQ-25 Stingray extends CVW mission effectiveness range, partially mitigates the current Carrier Strike Group (CSG) organic ISR shortfall, and fills the future CVW-tanker gap, mitigating strike fighter shortfall and preserving F/A-

18E/F fatigue life. As the first carrier-based, group 5 Unmanned Aircraft System (UAS), MQ-25 Stingray will pioneer the integration of manned and unmanned operations, demonstrate mature complex sea-based C4I UAS technologies, and pave the way for future multifaceted multi-mission UAS's to pace emergent threats. In FY 2024 the program will conduct IOT&E. IOC is scheduled for FY 2025.

WEAPONS RESEARCH AND DEVELOPMENT

Conventional Prompt Strike

In FY 2023, the Navy will invest $1,205.0 million for research and development for Conventional Prompt Strike (CPS). The CPS program develops warfighting capability to enable precise and timely strike capability in contested environments across surface and sub-surface platforms. The Navy's CPS program will design a missile comprised of a Common Hypersonic Glide Body (C-HGB) and a 34.5 inch two-stage booster. The program will support initial Army fielding in FY 2023, and initial Navy fielding on ZUMWALT class Guided Missile Destroyers (DDGs) in FY 2025 and BLOCK V VIRGINIA class Nuclear Attack Submarines (SSNs) in FY 2028. In FY 2023, testing continues to mature integration objectives to support on-time Army deployment by the end of the fiscal year and Navy integrated system demonstration in the following year. Additionally, the CPS program will initiate the incremental funding for three all up rounds (AURs) and five advanced payload modules (APMs). The program will procure long-lead material to enable continued assembly, integration, and test for joint flight campaign test articles, missile simulator test articles, and safety test articles with tests occurring in FY 2023.

Navy Laser Family of Systems (NLFoS)

The FY 2023 budget requests $35.3 million for the Navy Laser Family of Systems (NLFoS), which is designated an accelerated acquisition initiative to provide near-term, ship-based laser weapon capabilities. The NLFoS efforts form the foundation of an incremental strategy for increased laser weapon capability as it is matured. NLFoS includes the Surface Navy Laser Weapon System (SNLWS) and the Solid State Laser Technology Maturation (SSL-TM). SNLWS addresses anti-surface warfare and counter-intelligence, surveillance and reconnaissance (C-ISR) gaps with the ability to dazzle and destroy Unmanned Aerial Systems (UASs) and defeat fast inshore attack craft (FIAC). SNLWS includes the development of an advanced prototype laser weapon system in the 60 kW or higher class. The FY 2023 budget supports execution

of at-sea testing following the successful completion and installation of Mk 5 Mod 0 High Energy Laser with Integrated Optical-dazzler and Surveillance (HELIOS) on DDG 88, USS Preble. SSL-TM will develop an advanced 100kW High Energy Laser (HEL) weapon demonstrator that supported laser development with system capability demonstrations on LPD 27, USS Portland. The FY 2023 budget supports Laser Weapons System Demonstrator de-installation and hardware disposition after equipment is removed from LPD 27, USS Portland.

GROUND EQUIPMENT RESEARCH AND DEVELOPMENT

Ground Based Anti-Ship Missile (GBASM): Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS) and Long Range Fires (LRF)

Ground Based Anti-Ship Missile (GBASM) development provides USMC Artillery Battalions an anti-ship missile capability in support of Expeditionary Advanced Base Operations. The Navy/Marine Corps Expeditionary Ship Interdiction System (NMESIS) and Long Range Fires (LRF) programs are the materiel solutions to meet this capability. NMESIS is developing a Marine Corps system using the Naval Strike Missile to provide a ground based anti-access/area denial, anti-ship capability.

The NMESIS effort will include the development, design, build, and testing of a Remotely Operated Ground Unit Expeditionary (ROGUE) Fires vehicle. ROGUE Fires is an unmanned ground vehicle based on a Joint Light Tactical Vehicle (JLTV) chassis with a mounted missile launcher system. The LRF effort is developing and fielding a ground-launched Tomahawk missile capability. The FY 2023 budget requests $43.1 million to continue development of platoon-level mission planning software, conduct fleet and user evaluations to refine initial doctrine and develop new equipment training products, procure ballistic test missiles, conduct electromagnetic environmental effects testing, and continue ballistic and guided flight tests in support of Initial Operational Test and Evaluation (IOT&E).

Ground Based Air Defense Future Weapon System/Marine Air Defense Integrated System (GBAD/MADIS)

The Ground Based Air Defense Future Weapon System/Marine Air Defense Integrated System (GBAD/MADIS) supports the short-range air defense mission to include the sustainment and upgrade of legacy systems as well as a GBAD Future Weapons System (GBAD-FWS). It consists of multiple kinetic and non-kinetic capabilities to defeat the full spectrum of low-altitude, low-observable, and low-radar cross-section air threats, to include Marine Air Defense Integrated System (MADIS). The FY 2023 budget requests $48.7 million to initiate system integration tests and verification tests of MADIS Increment 1, begin Initial Operational Test & Evaluation (IOT&E), and complete the refurbishment of the MADIS Inc 1 Engineering Development Models (EDM) in order to ensure the systems are prepared for IOT&E.

Advanced Reconnaissance Vehicle (ARV)

The Advanced Reconnaissance Vehicle (ARV) is the core capability that underpins next generation mounted reconnaissance capabilities and is a revolutionary modernization initiative to replace the legacy light armored vehicle in the Light Armored Reconnaissance (LAR) battalions within the Marine Divisions. ARV equips LAR Battalions to perform combined arms, all weather, sustained reconnaissance and security missions in support of the Ground Combat Element and the Joint Force. The ARV is a modern combat vehicle system, capable of fighting for information, that balances competing capability demands to sense, shoot, move, communicate and remain transportable as part of the naval expeditionary force. The FY 2023 budget requests $70.6 million to provide an initial operational capability of an advanced reconnaissance vehicle and to expand the ARV capability

to other mission roles and integrate capabilities that emerge from other programs to further develop and enhance LAR operations.

Amphibious Combat Vehicle (ACV)

The Amphibious Combat Vehicle (ACV) is an armored personnel carrier balanced in performance, protection, and payload for employment with the Ground Combat Element across the range of military operations to include a swim capability. The program is structured to be executed in multiple product development increments, which currently includes the ACV Command and Control (ACV-C), ACV Tactical Recovery (ACV-R), and ACV 30-mm gun (ACV-30) mission role variants (MRVs). The FY 2023 budget requests $94.6 million to streamline the design of the ACV-30 combat variant Remote Weapons Station (RWS) in order to meet weight and structural requirements, to procure three ACV-30 Production Representative Test Vehicles (PRTV) to initiate test and evaluation efforts, and to initiate ACV-R design and development.

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SECTION IV: READINESS

OVERVIEW

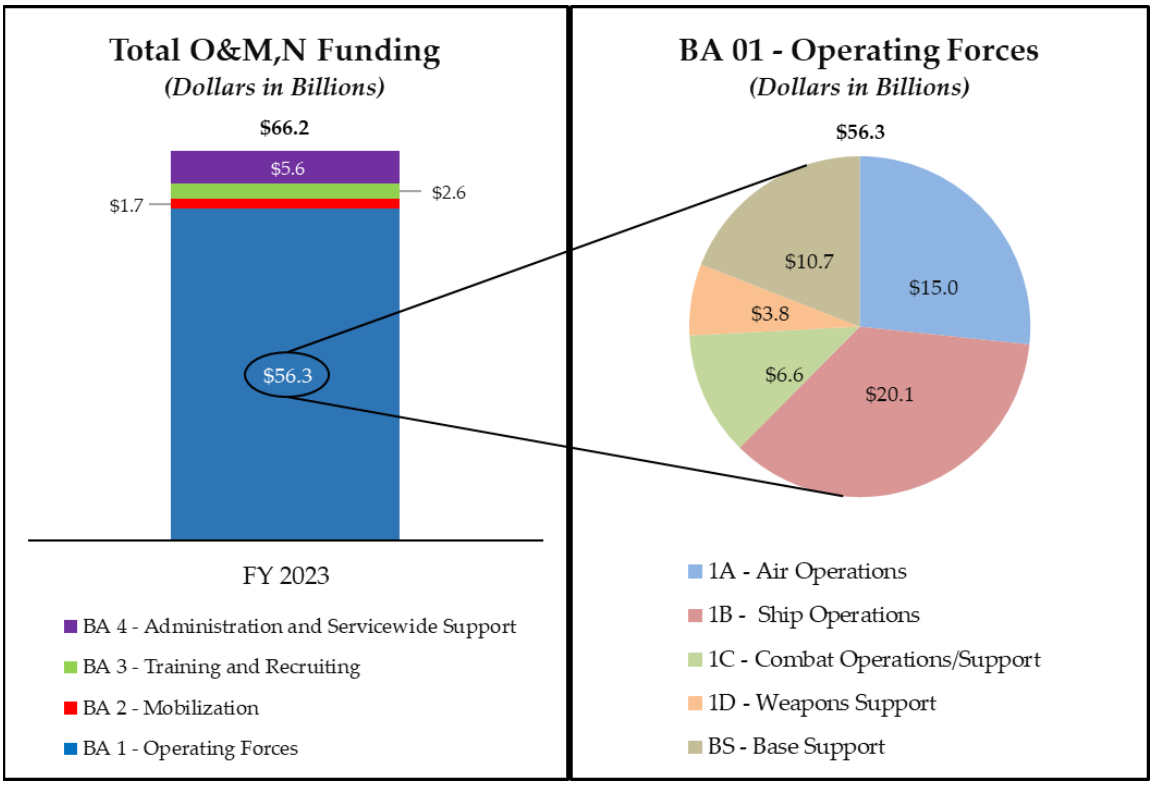
The Navy and Marine Corps Team must be ready to generate and bring to bear integrated, all-domain naval power against evolving threats to secure and protect our homeland, allies, and economic interests. This budget request supports requirements for our carrier strike groups (CSGs), amphibious ready groups (ARGs), and Navy and Marine aviation units to train and respond to persistent and emerging threats. The Marine Corps continues to focus on *Force Design 2030*, implementing the Commandant's guidance to organize, train, equip, and posture to meet the demands of the rapidly evolving and increasingly competitive future operating environment. To reduce the time our platforms are offline for maintenance and repairs, this budget invests in sustainment, critical readiness infrastructure, and the industrial workforce, while adopting the best practices of private industry to increase overall efficiency and reduce preventable mishaps. PB23 funds public and private depots, global ship, air, amphibious, and cyber operations, and prioritizes critical shore investments to increase fleet readiness and strengthen maritime dominance.

NAVY OVERVIEW

Figure 4.1 displays the Operation and Maintenance, Navy (O&M,N) appropriation funding in FY 2023. The largest category of funding for the Navy is Budget Activity 01, Operating Forces. Within this category, the largest activity funded is the ship operations budget, which funds ship operations, operational support, training, ship maintenance, and ship depot operations support. The air operations budget follows in magnitude, funding flight operations, fleet air training, aviation technical data and engineering services, air operations and safety support, air systems support, aircraft depot maintenance, aircraft depot operations support, and aviation logistics. A portion of the O&M,N aviation budget is reserved for USMC aviation. For FY 2023, $6.1 billion of the aviation budget is for USMC aviation. Ship and air operations combined constitute over half of the O&M,N budget. Other major activities funded in this appropriation and budget activity include weapons support, combat operations/support (combat communications, electronic warfare, meteorology and oceanography, warfare tactics, equipment maintenance, surveillance, and cyber among others), base operations (base operating support, facilities restoration and

modernization, and enterprise information technology), The other budget activities in O&M,N fund mobilization, training and recruiting, and administrative activities.

Figure 4.1 – FY 2023 Operation and Maintenance, Navy (O&M,N) Funding



SHIP OPERATIONS

Ship operations is the Navy's core capability and the foundation of maritime dominance. The budget provides for a battle force of 285 ships at the end of FY 2023, as shown in Figure 4.2. This level of operational funding supports 11 aircraft carriers and 9 large deck amphibious ships that serve as the foundation upon which our strike groups and amphibious readiness groups are based. FY 2023 battle force deliveries include: one nuclear attack submarine (SSN), three guided missile destroyers (DDG) (of which one being the first Flight III of the Arleigh Burke class), three littoral combat ships (LCS), one amphibious transport dock (LPD), two fleet replenishment oilers (T-AO), one expeditionary fast transport (T-EPF), and one ocean tug (T-ATS). FY 2023 retirements include: nine LCS, two SSN, five cruisers (CG), four dock landing ships (LSD), two T-AO, and the final two Expeditionary Transfer Docks (T-ESD).

Figure 4.2 – DON Battle Force Ship Inventory Quantities

Category	FY 2021	FY 2022	FY 2023
Aircraft Carrier	11	11	11
Aircraft Carrier Total	**11**	**11**	**11**
Ticonderoga Class Cruiser	22	17	12
Guided Missile Destroyers	70	72	74
Zumwalt-Class Destroyers	1	1	2
Littoral Combat Ship	24	25	19
Mine Countermeasures Ships	8	8	8
Surface Combatant Total	**125**	**123**	**115**
Amphibious Warfare Assault Ships	9	9	9
Amphibious Transport Docks	12	12	13
Dock Landing Ships	11	10	6
Amphibious Ships Total	**32**	**31**	**28**
Nuclear Attack Submarines	53	50	49
Fleet Ballistic Missile Sub	14	14	14
Guided Missile (SSGN) Subs	4	4	4
Submarine Total	**71**	**68**	**67**
Dry-Cargo Ammunition Ships	12	12	12
Fleet Replenishment Oilers	15	16	16
Fast Combat Support Ships	2	2	2
Combat Logistics Ships Total	**29**	**30**	**30**
Submarine Tenders	2	2	2
High-Speed Transport	1	1	1
Amphibious Command Ship	2	2	2
Ocean Surveillance Ship	5	5	5
Prepo Dry-Cargo Ammunition Ships	2	2	2
Salvage Ships	2	2	2
Ocean Tugs T-ATF	2	1	1
Expeditionary Fast Transport	12	13	14
Expeditionary Mobile Base	3	4	4
Expeditionary Transfer Dock	2	2	0
Ocean Tugs T-ATS	0	0	1
Support Ships Total	**33**	**34**	**34**
Total Battle Force Ships	**301**	**297**	**285**

Active Ship OPTEMPO

The FY 2023 budget request supports the *Optimized Fleet Response Plan* (OFRP), enabling ships to surge and reconstitute by maintaining a continuous flow from post-deployment maintenance, through basic phase training, and back to deployable ready assets. This is achieved through a target deployment length of seven months. This concept enables the Department to provide multiple CSGs to meet threats and deliver decisive military force. The Navy will support these goals and respond to global challenges by planning for 58 underway days per quarter for the active operational tempo (OPTEMPO) of our deployed forces and 24 underway days per quarter for non-deployed forces. This provides funding and resources for all aspects of ship operations required to continuously deploy combat ready warships and supporting forces in support of national objectives.

Mobilization

The Navy's mobilization forces, displayed in Figure 4.3, provide transportation capability that enables rapid response to contingencies worldwide. The prepositioning ship squadrons are forward deployed in key ocean areas to provide the initial military equipment and supplies for operation. Most operate in full operating status (FOS) with a few operating in reduced operating status (ROS-5). The number of days indicates the time from ship activation until the ship is available for tasking. (ROS-5) indicates it will take five days to make the ship ready to sail, fully crewed and operational.

The prepositioned response is followed by the surge ships, which are maintained in ROS-5 in

CONUS. The surge ship inventory includes recent used vessel purchases and decommissions as the fleet is modernized.

Figure 4.4 reflects the hospital ships and the capacity measured by the number of operating rooms for both the USNS MERCY (T-AH 19) and USNS COMFORT (T-AH 20).

Figure 4.3 – Strategic Sealift Ship Quantities

	FY 2021	FY 2022	FY 2023
Prepositioning Ships:			
Maritime Prepo Ships (QTY)	14	14	14
National Defense Reserve Fleet:			
Large Medium-Speed RORO Ships (QTY)	10	10	1
Container/RORO Ships (QTY)	5	3	-
Ready Reserve Force Ships (QTY)	46	43	55
New Used Sealift Vessels (QTY)	2	5	2
Total Ships (QTY)	**77**	**75**	**72**

Figure 4.4 – Hospital Ships Quantities

	FY 2021	FY 2022	FY 2023
Hospital Ships (QTY)	2	2	2
Hospital Ship Operating Rooms	24	24	24

Ship Maintenance

The Department's depot and intermediate-level ship maintenance program is mission funded in Operation and Maintenance, Navy (OMN) with a continuing pilot program in Other Procurement, Navy (OPN). It provides funding for 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 via contracts. This account decreased from the FY 2022 enacted budget due to private submarine maintenance availabilities that were funded in FY 2022. In addition to continued support for ongoing maintenance availabilities, the FY 2023 budget continues to invest in sustaining the productivity of the naval shipyard (NSY) workforce of 37,080 FTEs. 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 for our fleet. The Navy funded $1.2 billion in OPN in FY 2023 private contracted ship maintenance for both fleet commands, consistent with FY 2022 appropriations that included $1.3 billion. This investment in OPN allows the Navy to build upon the successes of prior years by providing stability and financial efficiency to our industry partners and continues the more stringent fiscal discipline demonstrated in the execution of the program.

Figure 4.5 – Department of the Navy Ship Maintenance Funding

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Active Forces			
Ship Maintenance (O&M,N)	9,778	10,284	10,038
Private Contracted Ship Maintenance (OPN)	1,216	1,308	1,243
Subtotal, Ship Depot Maintenance	**10,994**	**11,592**	**11,281**
Percent of Requirement Funded	*96%*	*97%*	*98%*
Depot Operations Support (O&M,N)	2,217	2,118	2,422
Total Ship Maintenance	**13,212**	**13,710**	**13,703**

AIR OPERATIONS

Active Tactical Air Forces

The Flying Hour Program (FHP) is the budget to operate and maintain Navy and Marine Corp aircraft and train the pilots needed to enable carrier and expeditionary strike group power projection. The FY 2023 budget provides for the operation, maintenance, and training of nine active Navy carrier air wings (CVWs) and three active Marine Corps air wings, as reflected in Figure 4.6. FY 2023 FHP funding includes an increase for tactical air (TACAIR) to support additional flying hours necessary to meet the greater operational availability set in the *Navy Master Aviation Plan 20-02*. The TACAIR funding increase also covers additional Lightning II (F-35) fuel costs as the number of aircraft in the fleet grows. F-35 maintenance costs, funded in the aviation logistics budget, also grows commensurate with the increase in the number of aircraft. In order to continue recovery of Navy strike pilot production, the Navy increases investments in fleet replacement squadron (FRS) flying hours by 23 percent. The FY 2023 FHP budget is aligned with a renewed emphasis across the Naval aviation enterprise to identify efficiencies, at all levels of the organization, and to resource strategically in order to maximize both readiness and lethality. Figure 4.8 displays aircraft inventories.

Figure 4.6 – DON Aircraft Force Structure Quantities

	FY 2021	FY 2022	FY 2023
Active Forces:			
Navy Carrier Air Wings	9	9	9
Marine Air Wings	3	3	3
Patrol Wings	2	2	2
Helicopter Maritime Strike Wings	2	2	2
Helicopter Combat Support Wings	2	2	2
Reserve Forces:			
Navy Tactical Air Wing	1	1	1
Logistics Air Wing	1	1	1
Marine Air Wing	1	1	1
Total	**21**	**21**	**21**
Primary Authorized Aircraft (PAA) - Active:			
Navy	1,856	1,841	1,813
Marine Corps	1,219	1,204	1,128
Total	**3,075**	**3,045**	**2,941**

Figure 4.7 – DON Flying Hour Program Funding

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Mission & Other Flight Operations (1A1A)			
USN	3,494	3,861	4,420
USMC	2,384	2,573	2,915
Subtotal	**5,878**	**6,434**	**7,335**
Fleet Air Training (1A2A)			
USN	1,636	1,762	2,118
USMC	569	735	676
Subtotal	**2,205**	**2,497**	**2,794**
Total	**8,083**	**8,931**	**10,129**
FHP Executable Requirement	**8,962**	**10,191**	**11,109**
Delta	**(879)**	**(1,260)**	**(980)**
Percent Funded of Total Requirement	*90%*	*88%*	*91%*

Figure 4.8 – DON Aircraft Inventory Quantities

Class Category	**FY 2021**	**FY 2022**	**FY 2023**
Attack	229	222	208
Fighter	55	67	82
In-Flight Refuel	81	84	88
Patrol	142	139	137
Rotary Wing	1,073	1,070	1,074
Strike Fighter	1,013	1,030	1,055
Tilt Rotor	326	340	356
Training Jet	270	260	268
Training Prop	310	310	310
Training Rotary	116	169	167
Transport	98	90	80
Unmanned	136	123	121
Utility	31	32	32
Warning	98	97	102
Total	**3,978**	**4,033**	**4,080**

Note: Figures include both OMN and OMNR.

Aircraft OPTEMPO

Mission and other flight operations include all Navy and Marine Corps TACAIR and anti-submarine warfare (ASW) forces, shore-based fleet air support, and irregular warfare. Funding provides flying hours to maintain required levels of readiness enabling Navy and Marine Corps aviation forces to perform their primary missions as required in support of national objectives. The flying hour support program provides funding for transportation and travel of equipment, squadron staff, and personnel. In addition, it provides funding for aircrew training systems, commercial air services, and various information technology systems. These support accounts enable the training for and execution of primary missions.

The Navy measures aviation readiness using the Defense Readiness Reporting System Navy. CVWs maintain varied training and readiness (T&R) levels in accordance with the OFRP in order to provide adequately trained aircrews across a 36-month deployment cycle. Marine Corps TACAIR readiness differs in approach and requires a steady readiness profile to be maintained in order to be prepared to rapidly and effectively deploy on short notice for operational plans or contingency operations. The Marine Corps Aviation Plan (AVPLAN) directs the T&R requirements and resources to attain readiness levels over a 12-month snapshot of a USMC 36-month squadron training cycle. The AVPLAN aligns with Department requirements by implementing a comprehensive, capabilities-based training system that provides mission skill-proficient crews and combat leaders to the combatant commanders.

The FY 2023 funding improves upon FY 2022 and supports the requirements of deployed units, units training in preparation to deploy, and the requirements of non-deployed units for sustainment and maintenance readiness levels. The budget funds to deployed T-ratings of 2.0 Navy / 2.0 Marine Corps.

Aircraft Depot Maintenance

The aircraft depot maintenance program funds repairs, overhauls, and inspections of aircraft and aircraft components to ensure sufficient quantities are available to meet fleet requirements to decisively win combat operations. To create the mission capable aircraft required to provide aviation operational availability, the FY 2023 budget increases to maximize readiness by prioritizing funding based on criticality and impact. The account also funds the Depot Readiness Initiative (DRI) to improve organizational level maintenance efforts. An increase in aviation logistics provides for maintenance costs associated with more F-35, MV-22, and KC-130J aircraft added to the fleet. Additionally, FY 2023 funding for air depot maintenance requirements and the aviation enabling programs allow for the Navy and Marine Corps to meet readiness goals.

Figure 4.9 - Aircraft Depot Maintenance and Aviation Logistics Funding

Aircraft Depot Maintenance (1A5A)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Airframes	922	833	886
Engines	640	645	777
Components	45	51	83
Depot Readiness Initiative	29	32	6
Total	**1,635**	**1,560**	**1,752**
Percent Funded of Total Requirement	*93%*	*83%*	*87%*

Aviation Logistics (1A9A)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
KC-130J Hercules	100	119	114
MV-22 Osprey	214	251	248
E-6B Mercury	92	91	126
F-35 Joint Strike Fighter	848	999	1,191
Total	**1,254**	**1,461**	**1,679**
Percent Funded of Total Requirement	*89%*	*89%*	*99%*

NAVY RESERVE OPERATIONS

The Reserve Component (RC) supports the Navy, Marine Corps, and joint forces with aircraft, combat equipment and support units, and their associated weapons. The RC provides the strategic depth necessary to deliver capabilities for long-term competition, providing the surge capability and capacity to scale with warfighting demands across all domains. Funding also provides for RC activities and commands across the nation, in Puerto Rico and Guam. This geographical diversity allows the Navy's Selected Reservists the opportunity to train in areas outside of fleet concentration centers. The RC will maintain 115 Navy Reserve Centers, eight hangars, and three naval air station-joint reserve bases in FY 2023.

Reserve Component Air Forces

The Naval Air Reserve Force ensures the Navy and Marine Corps Reserves are always ready to deploy in support of the Department's mission. Figure 4.10 shows force structure, consisting of one tactical support wing (five squadrons), one fleet logistics support wing (12 squadrons), one maritime support wing (four squadrons), and two integrated helicopter mine countermeasures squadrons. The 4th Marine Aircraft Wing (MAW) consists of 12 squadrons and supporting units. Actions in FY 2023 include the transition of active component (AC) FA-18E/Fs and F-16Cs to the RC to replace legacy FA-18C's in support of adversary and training mission requirements. Additionally, the P-3Cs will be transitioning to P-8As in support of anti-submarine warfare, anti-surface warfare, and shipping interdiction roles. Marine Aerial Refueler Transport Squadron 452 will transition from the KC-130T Hercules to the KC-130J Super Hercules in support of aerial refueling services and air transport for personnel, equipment, and supplies.

Figure 4.10 – Reserve Component Aircraft Force Structure Quantities

Reserve Forces Air Wings	**FY 2021**	**FY 2022**	**FY 2023**
Navy Tactical Support Air Wing	76	74	63
Navy Logistics Support Air Wing	46	51	51
Navy Maritime Support Air Wing	25	21	30
Marine Aircraft Wing	133	126	123
Total	**280**	**272**	**267**

Primary Authorized Aircraft (PAA) – Reserve			
Navy	147	146	144
Marine Corps	133	126	123
Total	**280**	**272**	**267**

Flight Operations (1A1A) *(Dollars in Millions)*			
Reserve Forces			
Navy	394	431	475
Marine Corps	207	196	195
Total	**601**	**627**	**670**

Reserve Component Aircraft Depot Maintenance

The RC Aircraft Depot Maintenance program is integrated with the active component (AC) program to fund repairs, overhauls, and inspections. Figure 4.11 displays funding in the RC aircraft depot maintenance portfolio.

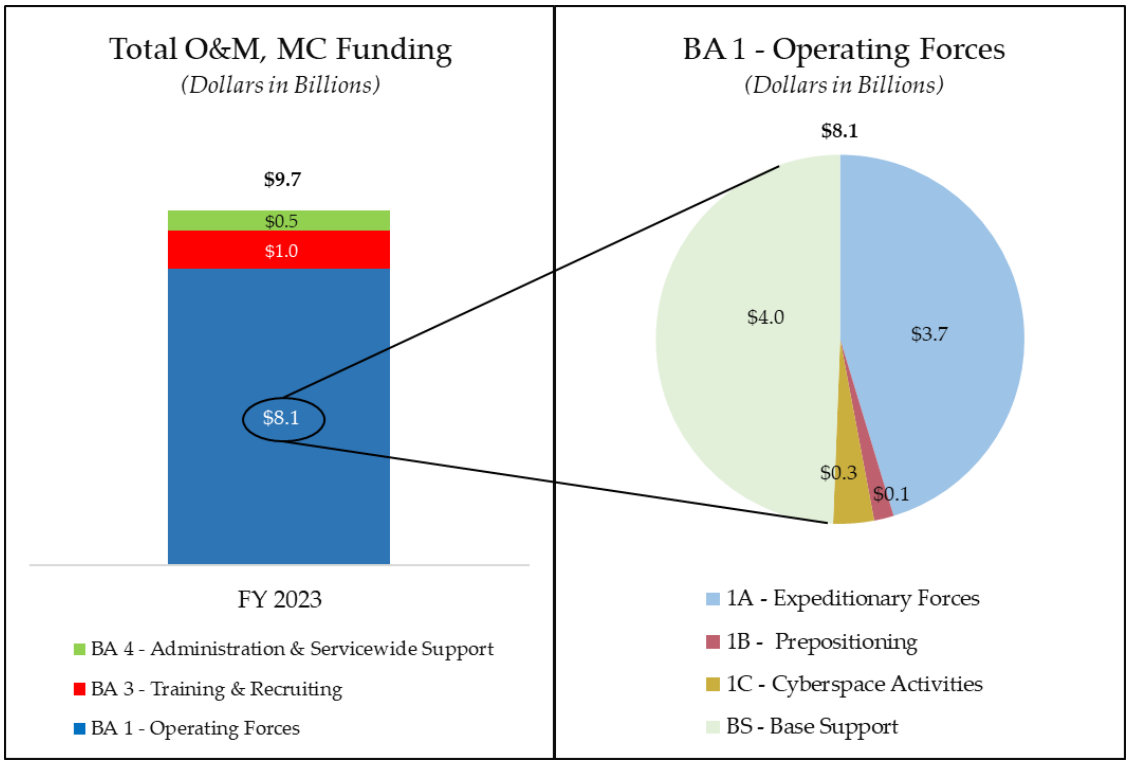
Figure 4.11 - Reserve Component Aircraft Depot Maintenance Funding

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Airframes	97	104	124
Engines	20	30	39
Components	-	1	2
Depot Readiness Initiative	0	-	1
Total	**117**	**135**	**165**

MARINE CORPS OVERVIEW

The FY 2023 budget prioritizes the Marine Corps' commitment to remain the Nation's naval expeditionary force in readiness, capable of responding to any crisis at any time. With continued focus on Force Design 2030, the request reflects the Commandant's guidance to organize, train, equip, and posture to meet the demands of the rapidly evolving and increasingly competitive future operating environment. To achieve objectives within fiscal constraints, the Marine Corps continues divestment of legacy capabilities and excess capacity and reallocates savings for initiatives that support readiness and modernization of the force. This budget provides $0.2 billion for Marine Corps ground equipment, supporting material readiness of the Fleet Marine Force and funding 80 percent of the depot maintenance requirement. The Marine Corps readiness appropriations (excluding funding support in Navy appropriations) increase to $4.0 billion. The budget supports an active force of 177,000 Marines and emphasizes forward posture and enhanced multilateral exercises to strengthen alliances and attract new partners. 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. Figure 4.12 displays active Marine Corps Operation and Maintenance (O&M) funding in FY 2023.

Figure 4.12 – FY 2023 Operations and Maintenance, Marine Corps (O&MMC) Funding



MARINE CORPS OPERATIONS

Active Operations

The Marine Corps continues to build and posture for the 21st century by prioritizing funding aimed at further reinforcing the transformation outlined in the *Commandant's Planning Guidance* and *Force Design 2030* report. The Marine Corps will be trained and equipped as a naval expeditionary force in readiness prepared to operate inside actively contested maritime spaces in support of fleet operations. To do this, the Marine Corps is building a more relevant, lethal and ready force to maintain our military advantage in a fiscally responsible and executable manner, by addressing critical modernization requirements, divesting of legacy or low demand capabilities and investing in key warfighting capabilities needed in the future operating environment without sacrificing near-term warfighting readiness. The Marine Corps readiness accounts continue to support the foundational efforts required to strengthen innovation and experimentation as well as to provide resources to the FMF, including training and field and depot level maintenance across ground and aviation programs. Resources will support the push for greater integration with the Navy-Marine Corps team to enable the joint force, while maintaining the Marine Corps force posture around the globe and enabling the capacity to meet global steady state operations and contingency requirements. Other areas include investment in force lethality to achieve combat overmatch; building information operations capacity, including cyber forces conducting full-spectrum cyber operations as well as supporting the viability and reliability of our network; and supporting key levers of our *Infrastructure Reset Strategy*.

The Marine Corps consistently maintains about one-third of its FMF forward deployed throughout the globe. Over 30,000 forward stationed or deployed forces last year supported fleet operations as part of integrated American naval power. In addition to efforts mentioned previously, the Marine Corps provided tailored military

combat-skills training and advisor support to foreign forces as part of Marine Corps Forces Special Operations Command (MARSOC); and enabled full spectrum cyberspace operations while supporting joint and coalition forces as part of Marine Corps Forces Cyberspace Command (MARFORCYBER).

Ground Equipment Depot Maintenance

The Marine Corps uses a Total Force (active and reserve component) approach for the planning and execution of ground equipment depot maintenance. For Total Force ground equipment depot maintenance, the Marine Corps continues to make strategic choices in the divestiture of legacy programs to reallocate funds toward building a more lethal, modern, multi-domain, naval expeditionary force. The FY 2023 budget was developed through programmatic changes based on a strategy of "divest to deliver" consistent with the *Commandant's Planning Guidance* and *Force Design 2030*. Divestment efforts involve multiple legacy or surge capabilities not optimized for the future operating environment. Figure 4.13 reflects Marine Corps active forces ground equipment depot maintenance. For FY 2023, the changes include a decrease in combat vehicle depot maintenance requirements, and an increase in the construction maintenance activity for various expeditionary equipment sets.

Figure 4.13 – Marine Corps Ground Equipment Depot Maintenance

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Depot Maintenance for Active Forces			
Automotive Equipment	62	33	31
Combat Vehicles	68	87	78
Construction Equipment	14	18	25
Electronics and Communications Systems	30	46	42
Missiles	7	3	12
Ordnance Weapons and Munitions	26	29	34
Total Depot Maintenance for Active Forces	**207**	**216**	**222**

MARINE CORPS RESERVE OPERATIONS

The Marine Corps Reserve is a full partner in the Marine Corps Total Force concept. The reserve component is trained, organized, and equipped to provide reinforcement augmentation and relief to the active component. The reserve provides complementary assets that enable the Marine Corps Total Force to mitigate risk and maximize opportunities. While organized and equipped congruently, we cannot expect our Selected Marine Corps Reserve (SMCR) units to maintain the same levels of readiness as our active component units. What we desire and expect in our SMCR units and Individual Ready Reserve (IRR) are Marines and units "ready for mobilization." Once mobilized, our reserve component forces undergo additional pre-deployment training to achieve the necessary readiness for deployment and employment. Similar to the active component, the Marine Forces Reserve consists of the Marine Forces Reserve headquarters and its subordinate Marine Division, Marine Aircraft Wing, and Marine Logistics Group, all of which are headquartered in New Orleans, Louisiana. The Reserves are unique in that the subordinate regiments/groups, battalions/squadrons, and companies/detachments are located at 158 Reserve Training Centers and sites across the United States. The FY 2023 budget maintains the reserve component's capability.

Reserve Ground Equipment Depot Maintenance

For the reserve force, the FY 2023 budget ensures that the combined repairs and procurement programs provide a balanced level of attainment and maintenance of inventory to meet mission requirements. Though the overall maintenance budget remains constant from year to year, the variations in the categories are driven by the same strategic choices, divestitures, and allocation of funds decisions as stated within the active depot maintenance section. Figure 4.14 reflects Marine Corps Reserve ground equipment depot maintenance for FY 2023. For FY 2023, the changes include a decrease in ordnance weapons and munitions maintenance activity for small arms

weapons, and an increase in the combat vehicles maintenance activity for the Light Armored Vehicle.

Figure 4.14 – Marine Corps Reserve Ground Equipment Depot Maintenance

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Depot Maintenance for Reserve Forces			
Automotive Equipment	3	2	-
Combat Vehicles	-	9	16
Construction Equipment	2	-	1
Electronics and Communications Systems	10	4	2
Ordnance Weapons and Munitions	2	2	-
Total Depot Maintenance for Reserve Forces	**17**	**17**	**19**

FACILITY SUSTAINMENT, RESTORATION, AND MODERNIZATION

The FY 2023 budget prioritizes critical shore investments, creating enduring advantages that increase fleet readiness. Navy and Marine Corps installations enable fleet operations, equipment reconstitution, material sustainment, Total Force training, unit recovery, Sailor and Marine administrative support, and quality of life programs. Continued investment in Facility Sustainment, Restoration, and Modernization (FSRM) is necessary to maintain our shore installations supporting required capabilities. The FSRM program maintains the working order of our facilities inventory and prevents premature condition degradation of mission critical facilities, and strengthens vital infrastructure against impacts of climate change.

Facility Sustainment

The FY 2023 budget funds Navy facility sustainment to 85 percent of the DoD-modeled requirement, meeting the 85 percent minimum set by DoD. Critical projects in support of operational requirements and warfighter readiness are maintained by prioritizing condition-based maintenance of critical facility components.

The FY 2023 budget funds Marine Corps' facility sustainment to 56 percent of the DoD-modeled requirement. The percentage has decreased when compared to FY

2022 due to a new proposed Facilities Investment Optimization Strategy. Critical projects in support of operational requirements and warfighter readiness are maintained by prioritizing condition-based maintenance of critical facility components.

The Marine Corps' focus is on a facilities investment optimization plan, to improve facilities readiness over time beginning with the highest-valued assets. In FY 2023, the facility sustainment decrease supports the Commandant's Force Design 2030 divestment decisions and increases Restoration and Modernization, and Demolition to balance the facilities investment portfolio to maximize facilities readiness. In FY 2023, the emphasis on recapitalization and demolition promotes a tiered facilities approach to achieve and sustain long-term portfolio readiness.

Facility Restoration and Modernization

The Navy continues to refine the *Shore Facilities Investment Model* and implement condition-based maintenance to efficiently prioritize and accurately budget restoration and modernization within the FSRM program. The Navy has focused limited funding on recapitalization of those critical facilities with the biggest impact to warfighter readiness. The FY 2023 budget includes funding to address impacts to facilities and installations caused by Climate Change, and to modernize and improve Naval Shipyards under the Shipyard Infrastructure Optimization Program (SIOP).

The Marine Corps program strives to spend every infrastructure dollar on the right investments with a specific focus on optimization and efficiency across the enterprise. The FY 2023 budget continues to support funding in line with the Marine Corps' *Infrastructure Reset Strategy* and syncronized with *Force Design 2030* efforts, and refocuses funding to optimize facility investments. Restoration and modernization projects include gender integration projects for Marine Corps recruit depots, IT platform and cyber capabilities, training facilities, airfield operation enhancements, barracks improvements, and utilities resiliency upgrades across all Marine Corps installations, as well as the administrative and supply facilities at both the National Capital Region and Marine Corps Installations West, all of which were delayed in FY 2021.

Facility Demolition

Facility demolition accounts for the demolition of obsolete and excess structures, thereby reducing costly upkeep on older structures and eliminating potential fire and safety hazards from installations. This demolition effort removes obsolete and excess structures, reduces upkeep cost, and improves the integrity of installations by eliminating degraded facilities.

With the FY 2023 budget, the Marine Corps aims to divest of 2.3 million square feet (MSF) of older, excess, and obsolete facilities contributing to the consolidation and right-sizing of the Marine Corps' facilities footprint to improve operational readiness, reaching the FY 2023 goal of 11 MSF. With the considerable investments in restoration and modernization, the Marine Corps will be able to target the remaining failing (Q4) condition facilities in the upcoming years, with the goal of eliminating 31 MSF by FY 2028, as directed by the Commandant's Infrastructure Reset Strategy.

The Navy has no dedicated demolition funding in FY 2023. This is a part of the Navy's deliberate targeted investment strategy to focus limited resourcing on projects impacting our most critical facilities with the biggest impact to warfighter readiness. The Navy continues to look for opportunities to reduce footprint when the return on investment is clear.

Marine Corps Infrastructure Reset and Facilities Investment Optimization

Service level initiatives, increasing facility requirements, changes in national defense priorities, as well as delays and incremental funding for military projects such as those impacted by border wall deferments, continue to influence the Marine Corps' ability to effectively implement its *Infrastructure Reset Strategy*. These policy issues continue to increase the Marine Corps' deferred maintenance backlog, which is currently estimated at $13.8 billion.

The Marine Corps continues to invest in improving data quality and analysis, installation master plans, installation network modernization, and security upgrades to support the *Infrastructure Reset Strategy* while ensuring all resources are spent on the highest Marine Corps' priorities at the lowest total lifecycle cost. Through our efforts, we are optimizing investments over the long-term to support Marine Corps' missions and align with the Commandant's *Force Design 2030* priorities.

In support of a key tenet of the Infrastructure Reset Strategy, maximize the value of every facilities dollar, the Marine Corps has proposed a new facilities investment strategy and associated decision support tools. This allows the Marine Corps to implement shared, data-drive support tools to inform facilities investment decisions that maximize enterprise readiness. This tier-based readiness approach to lifecycle management reduces footprint while prioritizing investment in the highest valued facilities, and helps distinguish emerging requirements from lifecycle management requirements during planning and programming.

Base Operating Support

The FY 2023 budget requests funding to support the operation of shore-based installations, ensuring critical support to fleet operations. Services include childcare, Morale, Welfare, and Recreation (MWR), utilities, transportation, environmental, engineering support, base services (custodial, grounds maintenance, etc.), physical security, anti-terrorism and force-protection, and port and airfield operations. It also provides funding to increase installation resiliency against climate change, supporting Energy Savings Performance Contracts (ESPC), Utility Energy Service Contracts (UESC), and the fielding of electric non-tactical vehicles.

ENVIRONMENTAL RESTORATION, NAVY

The Environmental Restoration, Navy (ERN) appropriation provides funds to clean-up sites polluted before 1987. While budgeted as ERN, in the funding year of execution the funds are transferred to the respective appropriation.

SECTION V: MILITARY CONSTRUCTION

OVERVIEW

The mission of the Department could not be achieved without high quality facilities that support our Sailors and Marines. Further, our ability to rapidly deploy around the globe is directly connected to an effective home and forward-postured shore infrastructure. The DON will enhance the readiness of our warriors through targeted investments in facilities on naval installations, particularly those in support of our increasing responsibilities in the Indo-Pacific region. Through affordable investments in multiple ship, aviation, and ground combat training, operations, and maintenance facilities and infrastructure, the President's Budget submission for FY 2023 helps expand our forward presence and strengthen maritime dominance.

MILITARY CONSTRUCTION

The FY 2023 budget request of $3.8 billion supports the Department's critical goals, financing 28 military construction baseline projects. Of these, 15 are for the active Navy and 13 for the active Marine Corps. Figure 5.1 displays the fluctuation of DON military construction funding levels for Navy, Marine Corps, and Base Realignment and Closure (BRAC) projects over time.

Figure 5.1 – Historical Military Construction Funding

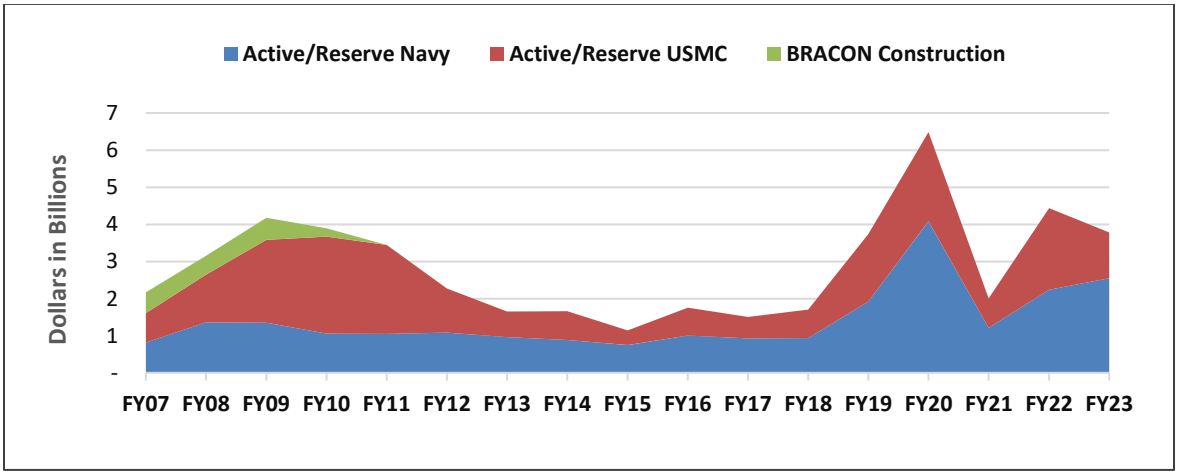


Figure 5.2 – Military Construction Funding Summary

(Dollars in Millions)	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Major Construction	3,620	3,245	5,049	3,130	3,214	2,761
Minor Construction	134	138	58	53	52	79
Planning and Design	686	400	330	256	234	223
Total	**4,439**	**3,783**	**5,438**	**3,439**	**3,500**	**3,064**

Figure 5.2 shows the three functional categories of military construction funding for FY 2022 through FY 2027 for both active and reserve appropriations. The key facilities investments within the FY 2023 request include the Guam Defense Policy Review Initiative (DPRI), the Shipyard Infrastructure Optimization Program (SIOP), as well as other investments in new platforms, new technology, training, quality of life, Darwin, and the replacement of aging infrastructure.

The 2009 Guam International Agreement (amended in October 2013) between the U.S. Government and the Government of Japan, outlined the realignment of Marine Corps forces from Japan to Guam, in order to reduce the U.S. military footprint on Okinawa. The Guam Master Plan was completed in June 2014, and ensures all operational, base support, training, quality of life requirements, support facilities, and infrastructure are identified and sited. The DPRI construction projects on Guam provide facilities to meet current and future training requirements. These projects include: Brown Tree Snake Exclusion Barrier South ($14.5 million), Ground Combat Element Infantry Battalion 1 & 2 Facility ($149.3 million), 9th Engineer Support Operations Facility ($35.2 million), and 9th Engineer Support Equipment & Maintenance Facility ($131.6 million) Finegayan, Guam. The FY 2023 request also includes DPRI Unspecified Minor Construction ($17.6 million) for warfighter construction needs under a legislated threshold of $6.0 million and Planning and Design ($33.2 million) in support of future requirements.

The Navy's four public shipyards: Norfolk, Portsmouth, Puget Sound, and Pearl Harbor, are essential elements of our national defense. The average age of the naval shipyard facilities and related infrastructure is 61 years, while the average dry dock age is 107 years. The Department's Shipyard Infrastructure Optimization Plan will

deliver efficient and modernized shipyards through upgrading existing dry docks and building news ones, reimaging the physical layout of the shipyards, and replacing antiquated capital equipment with modern machines. Successful implementation of SIOP will ensure the four shipyards are ready and able to support the class maintenance plan for the Navy's current and future submarines and aircraft carriers. Naval shipyard infrastructure modernization projects at naval shipyards support submarine force structure and maintenance requirements and include Multi-Mission Dry Dock #1 Extension, Phase 1 Increment 3, Portsmouth Naval Shipyard, Kittery, ME ($503.3 million), Dry Dock 3 Replacement Increment 2, Joint Base Pearl Harbor-Hickam, HI ($621.2 million), Dry Dock Saltwater System for CVN-78, Norfolk, VA ($47.7 million), and Planning and Design ($88.0 million).

Other Department facilities investment strategies for FY 2023 include investment in new platforms and technologies such as F-35C Aircraft Maintenance Hangar & Airfield Pavements, NAS Lemoore, CA ($201.3 million), Marine Corps Barracks Complex, Kadena Air Base, JA ($101.3 million), E/A-18G Aircraft Fleet Readiness Squadron Training Facility, Whidbey Island, WA ($37.5 million), F-35 Flightline Utilities Modernization Phase 2, Cherry Point, NC ($58.0 million), and replacement of aging infrastructure including the Range Simulation Training & Operations Facility, Twentynine Palms, CA ($120.4 million), Nuclear Regional Maintenance Facility, Kings Bay, GA ($213.8 million), and Child Development Center, Point Loma, CA ($56.5 million).

BASE REALIGNMENT AND CLOSURE

The Base Realignment and Closure (BRAC) budget in FY 2023 is $106.7 million. These funds will be used to continue environmental clean-up and monitoring at legacy locations. Figure 5.3 displays the breakout between Operation and Maintenance BRAC and Environmental BRAC funding.

Figure 5.3 – BRAC Funding Summary

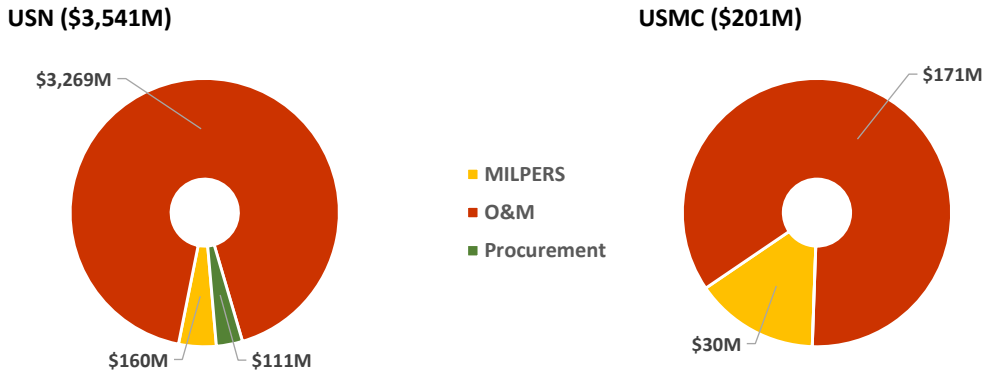
(Dollars in Millions)	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Operation and Maintenance	96	11	11	11	11	12
Environmental	151	96	97	100	102	104
Total	**247**	**107**	**109**	**112**	**114**	**116**

SECTION VI: OVERSEAS OPERATIONS COSTS

OVERVIEW

The FY 2023 budget request includes funding for non-enduring and enduring overseas operations costs. The Navy and Marine Corps' overseas force posture is shaped by ongoing and projected operational commitments. Non-enduring funding accounted for in the FY 2023 base budget totals $0.7 billion. Non-enduring costs are those combat or direct combat support costs that will not continue to be incurred once combat operations end at major contingency locations. Enduring cost funding accounted for in the FY 2023 base budget is $3.0 billion. Enduring costs are enduring requirements in-theater and in the contiguous U.S. (CONUS) that will likely remain after combat operations cease, and have previously been funded in overseas contingency operations (OCO). Both non-enduring and enduring funds are required to reconstitute weapon systems and equipment in use by forward-deployed expeditionary forces operating in extreme environmental and demanding high-tempo operational conditions. Upkeep, overhaul, and warfighter support for this equipment is essential to maintain high demand/low density global operations. FY 2023 continues funding for overseas operations in support of Operation Enduring Sentinel (Afghanistan), Operation Inherent Resolve (Iraq), and other requirements in theater. The FY 2023 request includes incremental funding to sustain operations, manpower, equipment, as well as maintenance. These costs include aviation operations and maintenance, ship maintenance, intelligence, surveillance and reconnaissance, cyber operations, combat support, Marine Corps operations and field logistics, Navy and Marine Corps mobilized reservists, and other special pays. Figure 6.1 shows a breakout of FY 2023 funding by appropriation.

Figure 6.1 – Fiscal Year 2023 Overseas Operations Costs



The level of funding requested in FY 2023 decreases, reflecting the withdrawal of forces from the U.S. Central Command (CENTCOM) area of operation (AOR), while still supporting the interim *National Security Strategy*. Figure 6.2 provides direct war/non-enduring and enduring cost detail for FY 2021 actual obligation, FY 2022 enactment, and the FY 2023 budget request.

Figure 6.2 – DON Overseas Operations Costs Funding

(Dollars in Millions)	FY 2021[1]			FY 2022[3]			FY 2023		
Appropriations	**Direct War**	**Enduring Costs**	**Total**	**Direct War**	**Enduring Costs**	**Total**	**Non Enduring**	**Enduring Costs**	**Total**
Military Personnel									
Military Personnel, Navy	116	250	365	32	243	274	2	155	157
Military Personnel, Marine Corps	13	55	68	4	14	18	2	28	30
Reserve Personnel, Navy	-	11	11	-	12	12	-	2	2
Reserve Personnel, Marine Corps	0	1	1	0	-	0	-	0	0
Subtotal	**129**	**316**	**445**	**36**	**268**	**304**	**4**	**185**	**190**
Operations and Maintenance									
Operations and Maintenance, Navy[2]	886	10,468	11,354	1,007	4,523	5,530	537	2,717	3,255
Operations and Maintenance, Marine Corps	389	583	972	336	649	985	111	60	171
Operations and Maintenance, Navy Reserve	-	20	20	-	12	12	2	13	14
Operations and Maintenance, Marine Corps Reserve	8	1	9	1	1	2	-	-	-
Subtotal	**1,283**	**11,072**	**12,355**	**1,345**	**5,186**	**6,530**	**650**	**2,790**	**3,440**
Procurment									
Aircraft Procurement, Navy	33	-	33	45	8	53	-	6	6
Other Procurement, Navy	86	255	342	8	405	413	14	55	69
Procurement of Ammunition, Navy/Marine Corps	75	-	75	26	0	26	23	0	23
Procurement, Marine Coprs	44	-	44	5	-	5	-	-	-
Weapons Procurement, Navy	6	-	6	8	7	14	7	7	13
Subtotal	**244**	**255**	**499**	**92**	**420**	**512**	**44**	**67**	**111**
Other									
Research, Development, Test, and Evaluation, Navy	43	17	60	26	26	52	-	-	-
Military Construction	-	70	70	-	46	46	-	-	-
Subtotal	**43**	**87**	**130**	**26**	**72**	**98**	**-**	**-**	**-**
DON Total Non Enduring & Enduring Costs	**1,698**	**11,731**	**13,429**	**1,499**	**5,946**	**7,445**	**699**	**3,042**	**3,741**

1) FY 2021 reflects actual cost of war (CoW) report data.

2) FY 2021 Enduring Costs include $5.514 billion of Overseas Contingecy Operations for Base.

3) FY 2022 reflects PB22 Enactment.

Empowering Our Warfighters

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SECTION VII: PERSONNEL

OVERVIEW

Maritime dominance is founded on the quality of our people. The ability to meet the needs of our nation requires the recruitment and retention of the nation's citizens who volunteer to become Sailors and Marines. The success of our team, both active duty and reserve, is balanced with the dedication of our civilian personnel and contractor support.

People remain our number one priority. To protect American interests at home and abroad, we maintain the world's most capable fighting force. Operational readiness is maintained by these amazing individuals through training with initiatives that foster and sustain a high-performance culture. Our military members are supported by the civilian workforce, which provides the resources required to strengthen maritime superiority through forward presence, projecting strength to preserve peace and advance American influence.

To support the entire nation and our interests requires a knowledgeable and diverse force. Our flagship institutions continue to offer more learning opportunities to our service members, that in turn produces a more educated and innovative force. While economic factors related to the COVID-19 pandemic continue to make recruiting more challenging, the FY 2023 Military Personnel appropriations fund a robust and competitive compensation program that continues to attract our nation's best. We continue to seek those individuals that embrace our values and put the nation first, and remain focused on building a force founded on diversity, equity, and inclusion. Mirroring the unique backgrounds of our country, we will maintain a tactical advantage over our adversaries.

The FY 2023 submission funds a military and civilian pay raise of 4.6 percent.

MILITARY PERSONNEL

Active Navy Personnel

America's Navy is comprised of individuals who proudly display the values of courage, honor, and commitment. Our Sailors protect the homeland and guarantee freedom of navigation around the globe. The size of the naval force reflects the needs of the fleet, properly manning both new and existing platforms and capabilities.

The FY 2023 Military Personnel, Navy budget request funds an active duty end strength of 346,300 personnel. Recruitment, development, and retention remain our priority, providing the optimal mix of personnel with the right skills and experience to support the fleet. The naval force attracts the most talented and diverse workforce, recruiting individuals from across broad talent pools, seeking those that value not only health and fitness, but also continuous learning and innovation. The FY 2023 Military Personnel, Navy budget request in terms of end strength is 620 less than FY 2022 enacted. This end strength level aligns with force structure requirements and maintains a force necessary to meet mission objectives.

The FY 2023 request includes strength changes for the decommissioning of twenty-four ships. These reductions are offset by the retention of medical personnel. The Navy continues to assess the work force necessary to provide the care our Sailors and Marines need in light of overall DoD healthcare transformation efforts.

To maintain advantages at sea, our Sailors must be the best in the world. We continue to promote healthy behaviors and enhance warfighting excellence by instilling toughness, trust, and connectedness in our people. Our focus is on four areas. We use Ready Relevant Learning (RRL), which provides timely, relevant training using an agile, multi-path approach to ensure our operators have the knowledge they need to succeed in combat. Second, we have identified ten signature behaviors and are teaching Sailors how to identify and prevent destructive behaviors. Third, the Navy actively includes all perspectives and harnesses the creative power of diversity,

accelerating Navy's warfighting advantage and lethality. Fourth, we will use analytics and strategic communication to continuously evaluate our programs and structure to promote success at all levels.

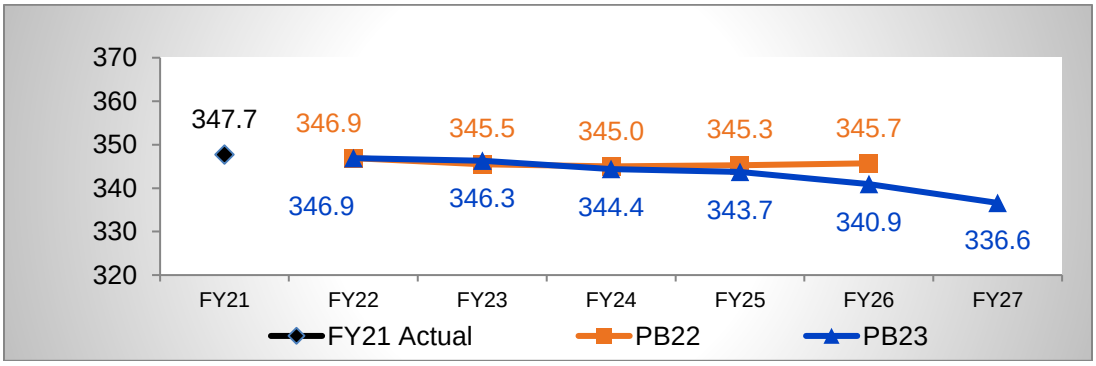
The foundation of our culture increases strength and resiliency across the Fleet. We are promoting inclusivity and representation, and training our Sailors to build mental and physical toughness to prepare them for any challenge. We will call on Sailors to treat others with respect, take responsibility for their actions, and be leaders who instill leadership in others. These efforts span recruiting, career development, and retention. Additionally, we will continue to provide a comprehensive package of pay and benefits that rewards Sailors assigned to deployable units by providing increased sea pay, special and incentive pays for critical skill-sets, and compensation for Sailors underway for extended deployments. We will manage our personnel strength to enable a more effective and lethal warfighting force. Navy active military manpower is reflected in Figures 7.1 and 7.2.

Figure 7.1 – Active Navy End Strength by Type

	FY 2021	FY 2022*	FY 2023
Officers	56,044	56,083	55,845
Enlisted	287,179	286,487	286,105
Midshipmen	4,454	4,350	4,350
Total Strength	**347,677**	**346,920**	**346,300**

*The FY 2022 column displays the enacted value.

Figure 7.2 – Active Navy End Strength Trend



Reserve Navy Personnel

The FY 2023 Reserve Personnel, Navy budget request supports 57,700 Selected Reservists and full-time support personnel to first and foremost provide strategic depth, rapidly increasing the agility and lethality of the Navy Total Force and providing relevant operational capability. To that end, the Navy Reserve's top priority in FY 2023 is warfighting readiness.

The Navy Reserve supports the active component (AC), an integrated force multiplier, leveraging experience in warfighting, industry, and innovation. Maintaining a strong, diversified reserve component (RC) enables the Navy to leverage prior active duty experience and training, critical civilian skill-sets not resident in the AC, and industry and academic partnerships related to our reservists civilian careers. In response to the COVID-19 pandemic, for example, reservists were mobilized to augment the overburdened U.S. medical workforce and the Naval public shipyards, which had fallen behind critical ship maintenance schedules.

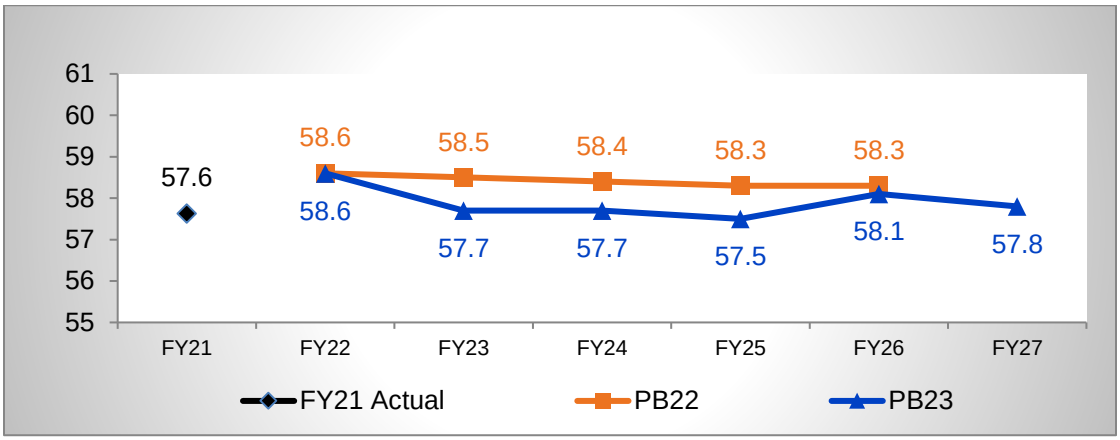
In FY 2023, the Navy Reserve will decrease by 900 end strength as shown in Figures 7.3 and 7.4. The drivers of the decrease include reductions in the capacity of littoral combat ships, special operations helicopter squadron, shore support and headquarers activities, and historically gapped billets, offset by increases in fleet maritime operations centers, destroyer squadrons and helicopter mine countermeasures sustainment. The changes shift reserve strategic depth from some shore and installation support activities toward fleet operations and operational units focused on great power competition.

The Navy Reserve remains a combat-ready, agile and committed force of citizen Sailors who are ready to win.

Figure 7.3 – Reserve Navy End Strength by Type

	FY 2021	FY 2022	FY 2023
Drilling Reserve	47,491	48,307	47,623
Full Time Support	10,141	10,293	10,077
Total Strength	**57,632**	**58,600**	**57,700**

Figure 7.4 – Reserve Navy End Strength Trend



Active Marine Corps Personnel

The Marine Corps, as the Nation's naval expeditionary force-in-readiness, will be prepared to operate inside actively contested maritime spaces in support of fleet operations. In crisis prevention and crisis response, the Fleet Marine Force – acting as an extension of the fleet – will be first on the scene, first to help, first to contain a brewing crisis, and first to fight if required to do so. The Marine Corps also provides expeditionary forces within the adversaries' weapons engagement zone in support of sea control and to defeat a "fait accompli" gambit should deterrence fail.

The FY 2023 Military Personnel, Marine Corps (MPMC) budget request funds an active duty end strength of 177,000 Marines. The Marine Corps continues to reduce active duty end strength as part of a larger effort to transform the Marine Corps with the intent of investing in modernization. The institutional changes and modernization decisions are based on a long-term view of strategic competition with peer adversaries. This competition requires the warfighting potential of all Marines and a talent management system that recruits, develops and retains the right Marines.

Central to our role in providing a lethal force is recruiting the most qualified individuals within our nation who are willing to raise their hand, affirm an oath, and wear the Eagle, Globe, and Anchor. The Marine Corps will ensure we recruit the right people, devoted to upholding the values of honor, courage, and commitment.

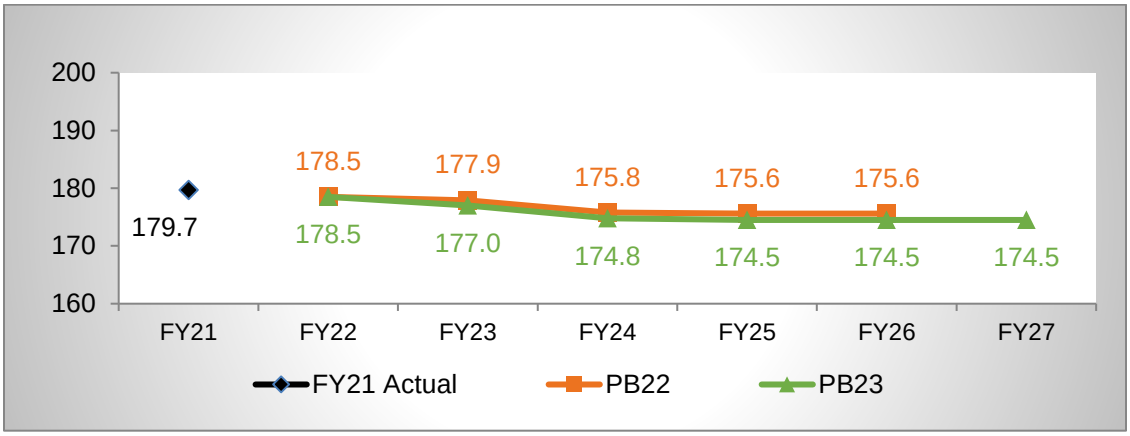
In the past year, the Marine Corps conducted activities in support of 18 named operations, participated in 11 amphibious operations, engaged in nine theater security cooperation events / programs, participated in 89 named exercises, supported three response efforts associated with Defense Security Cooperation Agency (DSCA) requests, and executed seven response efforts associated with the Coronavirus 2019 (COVID-19) pandemic. Amphibious Ready Groups / Marine Expeditionary Units (ARG/MEU) conducted operations in support of combatant commands (COCOMs) along-side regional partners providing a range of deliberate and crisis response options. Joint Task Force – Crisis Response, led by Task Force 51 / 5th Marine Expeditionary Brigade, deployed over 2,000 Marines from the 24th Marine Expeditionary Unit and the Special Purpose Marine Air Ground Task Force - Crisis Response - Central Command (SPMAGTF-CR-CC) to Kabul, Afghanistan in support of non-combatant evacuation operations. The Marine Corps provided crisis response and contingency operations for AFRICOM, EUCOM, and INDOPACOM. In an effort to deepen partner alliance with the United Kingdom (UK), Marine Fighter Attack Squadron (VMFA) 211 deployed ten F-35B Lightning II Joint Strike Fighters onboard Her Majesty's Ship Queen Elizabeth in support of the first operational deployment of the UK Carrier Strike Group since 2011. The Marine Corps also provided defense support to civil authorities in the homeland this year in response to the COVID-19 pandemic vaccine

effort and the reception, temporary housing, sustainment, and support of Afghan special immigrant visa applicants and their family members.

Figure 7.5 – Active Marine Corps End Strength by Type

	FY 2021	FY 2022	FY 2023
Officers	21,701	21,850	21,750
Enlisted	157,977	156,650	155,250
Total Strength	**179,678**	**178,500**	**177,000**

Figure 7.6 – Active Marine Corps End Strength Trend



Reserve Marine Corps Personnel

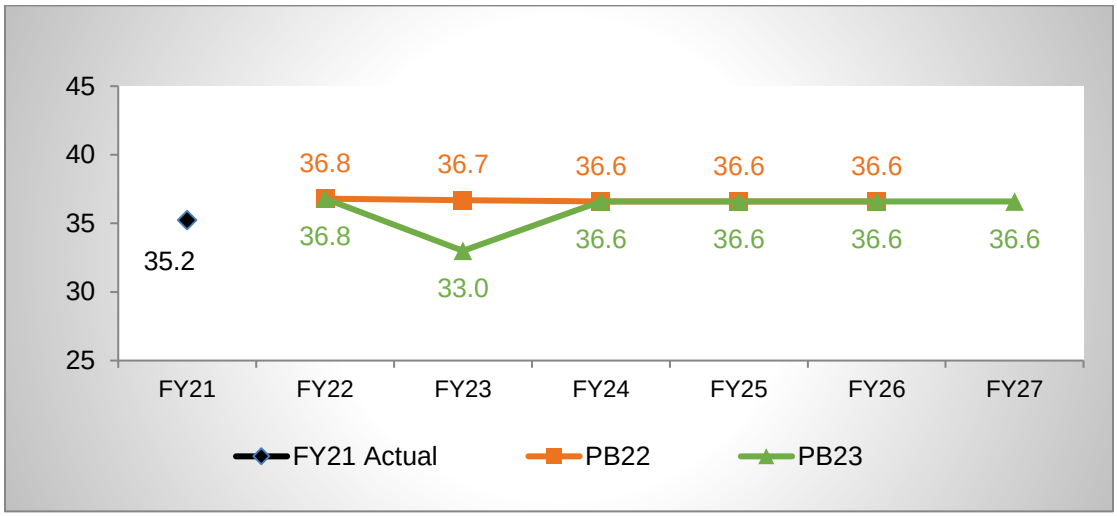
The FY 2023 Budget Request supports a Marine Corps Selected Reserve end strength of 33,000. The Marine Corps Reserve maintains a "Relevant-Ready-Responsive" force capable of seamlessly operating as a part of the Total Force to fulfill combatant command (COCOM) and service rotational and emergent requirements. The reserves support each COCOM by providing forces capable of regional security cooperation, crisis response and

prevention activities, and major combat operations. The Marine Corps Reserve maintains a robust operational tempo while providing critical capabilities essential in sustaining lasting national security at the strategic level. Global deployments, along with participation in service-level, joint, and multilateral exercises, develop the depth of experience necessary to ensure the Marine Corps Reserve is relevant and ready to meet the COCOM needs for highly trained, experienced and motivated general-purpose forces. The budget provides pay and allowances for drilling reservists, personnel in the training pipeline, and full-time active reserve personnel.

Figure 7.7 - Reserve Marine Corps End Strength by Type

	FY 2021	FY 2022	FY 2023
Drilling Reserve	32,851	34,414	30,612
Full Time Support	2,389	2,386	2,388
Total Strength	**35,240**	**36,800**	**33,000**

Figure 7.8 – Reserve Marine Corps End Strength Trend



CIVILIAN PERSONNEL

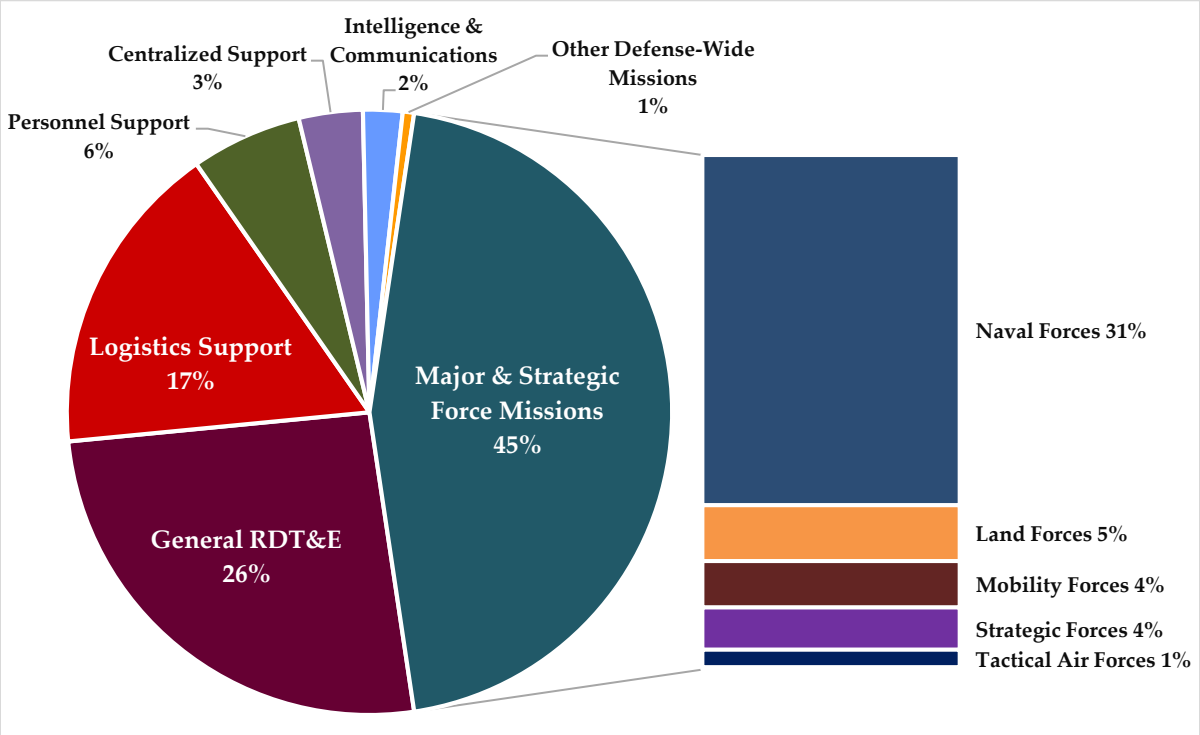
The FY 2023 budget requests funding for 225,992 civilians, including foreign national indirect hires, an increase of less than one percent from FY 2022. The DON civilian workforce includes a wide range of specialties, including scientists, engineers, and cyber experts. They complement our Sailors and Marines, serving in a variety of capacities to include designing, acquiring and maintaining the weapons and equipment that enable generation of all-domain naval power that is critical to maritime dominance. The DON continuously reviews the civilian personnel portfolio to ensure we have the right mix of skills to support new strategies, tactics, and capabilities. The workforce is in direct support of the DON mission; its size reflects the needs of the fleet and the ability to increase capability and lethality.

Starting with the FY 2023 President's Budget, civilian workforce is displayed using the Defense Mission Categories. This is a change from prior budget cycles where civilian workforce was shown using internally defined work areas. Defense Mission Categories are OSD defined and align program elements to mission related activities to allow for consistency across DoD. Figure 7.9 displays the Defense Mission Category definitions. Figure 7.10 shows the civilian workforce by defense mission category.

Figure 7.9 –Defense Mission Category Definitions

Defense Mission Category	Defense Mission Category Definition
Naval Forces	Consists of all Naval tactical air forces, sea based ASW air forces, surface combat ships and submarines, maritime patrol and undersea surveillance forces, non-strategic nuclear forces, amphibious and mine warfare forces and the programs that directly support them.
Land Forces	Consists of all Army and Marine Corps ground forces and Army special mission forces and the programs that directly support them.
Mobility Forces	Consists of all multimode and intermodal lift forces, airlift forces, sealift forces, land mobility forces and the programs that directly support them.
Strategic Forces	Consists of all strategic offensive, defensive and Command, Strategic Control and Communications (C3) forces and the programs that directly support them.
Tactical Air Forces	Consists of air-to-air/air-to-ground combat aircraft squadrons, defense suppression, tactical reconnaissance, C3, tanker/cargo and other tactical air warfare forces and the programs that directly support them.
Other Forces	Consists of all other mission forces such as Counterdrug Support, General Purpose Support, Special Operations Forces and Theater Missile Defense.
General RDT&E	Consists of all science and technology and development programs.
Logistics Support	Consists of all central supply and maintenance operations and other logistics support activities.
Personnel Support	Consists of personnel acquisition, training, medical, individual and federal agency support, and other personnel support.
Centralized Support	Consists of departmental headquarters, retired pay, and undistributed adjustments.
Intelligence & Communications	Consists of intelligence and communications mission activities and the programs that directly support them.
Other Defense-Wide Missions	Consists of the geophysical sciences, space launch support, nuclear weapons support and international support.

Figure 7.10 – Civilian Manpower by Defense Mission Category, FY 2023



This budget reflects a balance between strengthening readiness, building the fleet of the future, and taking care of our people. To accomplish this, the budget includes growth in the ship maintenance workforce to meet scheduled maintenance, reduce potential backlogs, and increase maintenance availabilities through the FYDP. The DON is committed to increasing their investment in climate by increasing energy efficiency expertise within our energy offices to assist with resiliency to climate change while minimizing adverse impacts on the climate. Additionally, the DON is committed to providing support services for at-risk populations to reduce incidents of destructive behavior by increasing personnel for the Sexual Assault Prevention and Response Office. In addition, this budget includes a Federal $15 minimum wage to provide a livable wage for our workforce. Figure 7.11 displays total civilian Full-Time Equivalent personnel (FTEs) by component, type of hire, appropriation, and defense mission category.

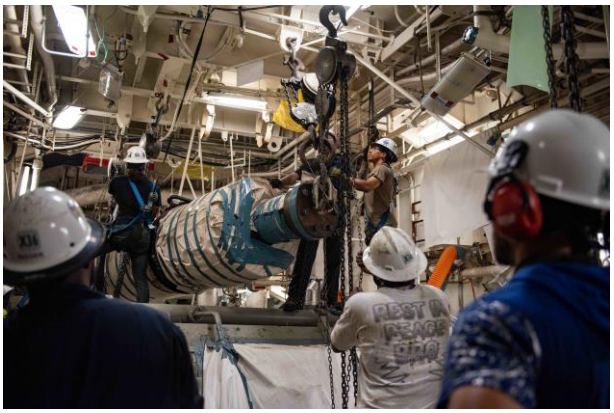


Figure 7.11 – DON Civilian Manpower in Full-Time Equivalent Personnel

	FY 2021[1]	FY 2022[2]	FY 2023
Total Department of the Navy	223,588	224,636	225,992
By Component:			
Navy	200,872	201,898	203,222
Marine Corps	22,716	22,738	22,770
By Type Of Hire:			
Direct Hire, US	211,154	210,679	211,938
Direct Hire, Foreign National	1,852	1,998	2,139
Indirect Hire, Foreign National	10,582	11,959	11,915
By Appropriation/Fund:			
Operation and Maintenance, Navy	116,670	118,843	120,170
Operation and Maintenance, Navy Reserve	932	900	935
Operation and Maintenance, Marine Corps	20,638	20,769	20,906
Operation and Maintenance, Marine Corps Reserve	233	268	284
Total Operation and Maintenance	**138,473**	**140,780**	**142,295**
Base Closure and Realignment	55	54	54
Family Housing (Navy/Marine Corps)	844	921	951
Research, Development, Test, and Evaluation, Navy	1,057	782	776
Total Other	**1,956**	**1,757**	**1,781**
Total Working Capital Funds	**83,159**	**82,099**	**81,916**
By Defense Mission Category:			
Naval Forces (e.g., Fleet Activities/Operations)	63,887	68,729	69,635
Land Forces (e.g., Marine Ground Forces)	12,878	12,352	11,110
Mobility Forces (e.g., Transportation, Sealift)	8,795	9,229	9,222
Strategic Forces	12,816	7,321	8,402
Tactical Air Forces	3,349	3,461	3,502
Other Forces (e.g., Counterdrug)	345	430	443
Total Major & Strategic Force Mission	**102,070**	**101,522**	**102,314**
General RDT&E (e.g., Warfare Centers/Labs)	59,188	58,260	58,364
Logistics Support (e.g., Depots, Supply Mgmt)	36,747	38,192	38,082
Personnel Support (e.g., Training, Quality of Life, SAPR)	12,991	12,856	13,394
Centralized Support (e.g., Departmental)	7,050	7,703	7,719
Intelligence & Communications	4,324	4,757	4,760
Other Defense-Wide Missions (e.g., Geophysical Sciences)	1,218	1,346	1,359

Notes:

1) FY 2021 foreign national amounts differ from official numbers reported to OUSD (Comptroller) due to timing of reports

2) FY 2022 includes adjustments for enactment and changes from the FY 2022 President's Budget

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SECTION VIII: MILITARY FAMILY HOUSING

OVERVIEW

The Department of the Navy is committed to ensuring excellence in all aspects of quality of life for our military families, including housing. The DON will affordably invest in facilities to maintain our critical advantage in supporting and sustaining our combat forces, seeking opportunities to increase efficiency and resiliency as we do so.

FAMILY HOUSING

The Family Housing FY 2023 budget request of $705.5 million includes the operation, maintenance, recapitalization, leasing, and privatization oversight of the Department's family housing worldwide. The Department is fully committed to ensuring our service members and their families have access to safe, quality, well-maintained homes by continuing to improve our privatized housing program through building residents' trust, reinforcing oversight, and exercising active leadership. The budget request represents the funding level necessary to provide safe and adequate housing either through the community or in government quarters.

The Department's FY 2023 budget request includes $337.3 million in new construction, construction improvements, and planning and design efforts. These efforts include three new construction projects on Naval Support Activity (NSA) Andersen Guam ($248.6 million), construction improvements for 96 enlisted family housing units at Commander Fleet Activities Yokosuka Japan ($74.5 million), and three planning and design efforts for projects in Guam and the District of Columbia ($14.1 million). The budget includes $368.2 million for the operation and maintenance of approximately 8,800 government-owned units and approximately 1,700 leased units located worldwide. The level of funding translates to 93 percent of the government-owned inventory meeting adequate standards, which is above the DoD goal of 90 percent. Figures 8.1 and 8.2 display resources and units for Family Housing.

For Navy projects, the Department's FY 2023 budget request includes $310.2 million for the operation and maintenance of approximately 6,900 government-owned units and over 1,600 leased units located worldwide. The level of funding translates to 95 percent of the government-owned inventory meeting adequate standards.

For the Marine Corps, the budget includes $58.0 million for the operation and maintenance of approximately 1,900 government-owned units and 14 leased units located worldwide. The level of funding translates to 87 percent of the government-owned inventory meeting adequate standards.

Figure 8.1 – Family Housing Funding Summary

(Dollars in Millions)	**FY 2022**	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Construction	91	337	370	374	388	396
Operations	357	368	214	282	209	193
Total	**448**	**706**	**584**	**656**	**597**	**589**

Figure 8.2 – Navy & Marine Corps Family Housing Units

(Quantities)	**FY 2021**	**FY 2022**	**FY 2023**
Privatized Inventory (End of FY)	62,057	62,057	62,333
Government-Owned Inventory (Average)	8,607	8,582	8,753
Leased Inventory (Average)	1,682	1,682	1,682
Total	**72,346**	**72,321**	**72,768**

SECTION IX: PEOPLE PROGRAMS

OVERVIEW

People provide the foundational strength for the DON. This budget empowers our warfighters, works toward elimination of harmful behaviors, cultivates teamwork, prioritizes education, and takes care of our people and their families. The President's Budget for FY 2023 (PB23) recognizes naval education as a critical warfighting enabler and an enduring advantage, providing the minds of naval leaders with the capability to attain strategic advantage over competitors and global adversaries. To enhance the quality of life for individuals and families, the Department will provide excellent support programs, ensuring Sailor, Marine, and family readiness. In the FY 2023 budget request, the DON continues its commitment to education, sexual assault prevention and response (SAPR), child and youth programs, and morale, welfare, and recreation programs.

EDUCATION

The Department of the Navy continues to examine its education strategy and seeks to address the balance between future force structure, current readiness requirements, and warfighter development. The FY 2023 budget ensures the flagship institutions (United States Naval Academy, Naval War College, Naval Post Graduate School, and Marine Corps University) are funded at or above FY 2022 enacted levels. The DON funds the Marine Corps Voluntary Education Program (VolEd), which includes high-quality advisory services and access to undergraduate, graduate, and vocational opportunities to assist Marines in achieving their personal and professional goals.

Figure 9.1 – Higher Education Funding

(Dollars in Millions)	**FY 2021**	**FY 2022***	**FY 2023**
Education	396	426	452

* FY 2022 figure represents FY22 Enacted.

Other key educational programs funded include the Naval Reserve Officers Training Corps (NROTC), Naval Junior Reserve Officers Training Corps (NJROTC), Marine Corps Junior Reserve Officers Training Corps (MCJROTC), Tuition Assistance (TA) Program, and Naval Community College. The NROTC program produces unrestricted line Navy

and Marine Corps officers. Training is conducted at civilian colleges and universities providing instruction to highly qualified baccalaureate degree students who, upon graduation, receive a commission in the Navy or Marine Corps. Both the NJROTC and the MCJROTC programs are congressionally sponsored youth citizenship programs mandated by Public Law 88-647. Both of these programs enhance the image of the military in the eyes of the community by providing a chance for success to the nation's youth. NJROTC and MCJROTC are intended to instill in students in American high schools the values of citizenship, service to the United States, personal responsibility, and provide a sense of accomplishment. The TA Program is the primary method by which active duty Sailors pursue higher education during off-duty hours. TA pays 100 percent of tuition and fees up to the Defense Department maximum of $250 per semester hour. In the FY 2023 budget submission, TA was increased to support Sailors' and Marines' educational needs. The Naval Community College will be a fully accredited, on-line learning delivery system, capable of conferring Associate Degrees in Science in fields that both complement warfighter occupations in the Navy and Marine workforce and bridge Sailors and Marines to the global knowledge economy. Additionally, the Joint Services Transcript (JST) is an academically accepted document approved by the American Council on Education (ACE) to validate a Marine or Sailor's military occupation, training, and corresponding ACE college credit recommendations.

Figure 9.2 – Other Education Funding

(Dollars in Millions)	**FY 2021**	**FY 2022***	**FY 2023**
Reserve Officers Training Corps (ROTC)	154	167	171
Naval Junior ROTC	64	57	55
Marine Corps Junior ROTC	28	26	28
Navy Tuition Assistance	70	67	78
Marine Corps Tuition Assistance	49	49	52
Naval Community College	3	13	23
Total	**368**	**379**	**407**

* FY 2022 figures represent FY22 Enacted.

SEXUAL ASSAULT PREVENTION AND RESPONSE (SAPR)

DON leaders at all levels are committed to a culture that does not tolerate, condone, or ignore sexual assault. The DON's Sexual Assault Prevention and Response (SAPR) program continues to focus on increasing reporting and decreasing prevalence of sexual assault through primary prevention, refined response capabilities, treating victims with compassion, providing quality care, and addressing the barriers uniquely associated with male reporting of sexual assault.

The FY 2023 budget submission increases SAPR funding to implement the Independent Review Commission (IRC) recommendations on sexual assault in the military. Furthermore, the DON is aligned with DoD's Implementation Roadmap to execute the recommendations of the IRC. The objectives of the roadmap are to apply these key actions in a tiered approach as rapidly as possible while ensuring we can deliver durable and meaningful outcomes. The implementation of the IRC recommendations builds the basic foundation and infrastructure for a best-in-practice sexual assault accountability, prevention, and response program. In addition, the plan allows for a deliberate implementation strategy to include iterative evaluations throughout the process to assess effectiveness and progress of early actions, and modify as required to ensure impact.

Figure 9.3 – Sexual Assault Prevention and Response Funding

(Dollars in Millions)	**FY 2021**	**FY 2022***	**FY 2023**
SAPR	78	127	240

* FY 2022 figure is FY22 Enacted.

CHILD AND YOUTH PROGRAMS

DON child and youth programs support the mobile military family's readiness and ability to meet the mission by providing affordable, high quality child and youth development and school transition programs that substitute for the long-time support systems that non-military/non-DoD families generally have. Affordable, high quality commercial childcare capacity shortages nation-wide exacerbate wait times for Navy childcare especially in the fleet concentration areas such as Norfolk, VA; San Diego, CA; Bremerton, WA; Pearl Harbor, HI; and the National Capital Region. The Navy has programmed $56 million for a new Child Development Center at Naval Base Point Loma and is working on several innovative approaches to expand funded childcare capacity through commercial leasing, repurposing under-utilized facilities, expanding fee assistance, increasing childcare options for activated/drilling Reservists, procurement of Mobile Learning Centers and contracts for remote childcare outside the contiguous U.S. (OCONUS). Similarly, the Marine Corps has seen notable waitlists at Camp Pendleton, CA, Hawaii, Quantico, VA, and Camp Lejeune/New River, NC. The Marine Corps is addressing these issues by hiring new staff for unfilled classroom spaces, submitting new military construction projects, and implementing a non-competitive child care employee transfer program. The Navy and Marine Corps have also added $19.4 million in PB23 to increase funding for the Childcare Fee Assistance Program and raised the individual monthly cap for that program from $1,500 to $1,700, and added $34 million to support implementation of Executive Order (EO) 14003, ensuring a $15 per hour minimum wage for federal employees. Overall, the DON budget for Childcare increases by 23 percent, or $104.5 million, to support these expanded services.

MORALE, WELFARE, AND RECREATION

The Navy Morale, Welfare, and Recreation (MWR) program focuses on creating and maintaining resilient, ready Sailors. MWR's Navy Operational Fitness and Fueling System (NOFFS) provides online fitness programs packaged to remove the guess work and help Sailors progress from any fitness level to operational readiness with particular

focus on injury prevention and operational effectiveness. The Deployed Forces program enhances the quality of life for Sailors and Marines at sea and at forward deployed Navy locations through fitness and sports programs. MWR enriches fitness programs at the command level through Navy-wide initiatives such as Command Fitness Leaders (CFL) Certifications. MWR certified a total 965 CFLs in FY 2020 through training provided by MWR professional trainers at every shore installation. Marine Corps Community Services (MCCS) is a comprehensive set of programs that support and enhance the operational readiness, warfighting capabilities, and life quality of Marines, their families, retirees and civilians. MCCS delivers goods and services at over 2,250 facilities with a staff of more than 12,000 employees worldwide. In support of these MWR programs, the DON budget includes $57 million to support implementation of EO 14003 ensuring a $15 per hour minimum wage for federal employees, and meeting the President's guidance to pay all of our employees a living wage while also enhancing the quality of our workforce by enhancing recruitment and increasing retention.

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Strengthening Strategic Partnerships




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SECTION X: ALLIES AND PARTNERS

OVERVIEW

Finding ways to expand industrial base partnerships is critical to our strength and capacity. Likewise, campaigning forward, operating alongside allies and partners, changes the cost and risk calculations of our adversaries, and is an advantage China and Russia can never match.

When we work hand-in-hand with our allies and partners, we are stronger and more secure than we could ever be on our own. Every partner nation has a role to play from upholding international maritime governance and providing disaster relief to deterring and confronting our rivals in the high-end fight.

Our Sailors, Marines, and Civilians in the Department of the Navy operate as one team to protect the American people and national interests in the most effective and efficient way possible, with our actions guided always by our core values. We are investing in the health, readiness, capability, and the leadership ability of our force to strengthen partnerships across government and the joint force, industry, and around the world. The Department of the Navy and industry are aligning our efforts to produce the right platforms and capabilities for the warfighter, to 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.

INTERNAL U.S. PARTNERS

Internal partners, to include other services, DoD agencies such as the Defense Logistics Agency and the Defense Intelligence Agency, other federal agencies, and the commercial partners that make up our national industrial base, are key enablers to maritime operations, providing ancillary functions as well as logistics, maintenance, research and development, production, and more to support our Sailors and Marines. For the Navy, shipbuilding is foundational to the vitality of the service. In demonstration of the importance of the Department's partnership with the shipbuilding industry, this year, the Department has funded significant investments to improve the infrastructure at the

submarine construction yards, stabilize the supply chain, and develop the ship construction workforce. As another example of the DON's support for the industrial base, this year's budget request includes a $79.7 million investment for special tooling and test equipment to support a combined Standard Missile-6 (SM-6) production capacity as well as investments in the Columbia class nuclear-powered, ballistic missile submarine (SSBN) and Virginia class nuclear-powered attack submarine (SSN) construction capabilities.

INTERNATIONAL COOPERATION

International cooperation in exercises and operations is a critical aspect of building alliances and partnerships as emphasized in the interim National Security Strategy (NSS). Operating and exercising together with allies and partners, our fleet commanders will focus on full interoperability at the high end of naval warfare. We will prioritize strategic competitive advantage over China and Russia by expanding our global posture to ensure the presence of naval forces with the right mix of platforms, capability, and capacity to maintain freedom of the seas, support international law and norms, stand by our allies and continue to fly, sail, and operate wherever international law allows. We will continue to promote sustained, persistent mobile operations forward. We will make tough decisions to maximize precious resources, ensuring our future naval supremacy against the full spectrum of potential threats, while seeking additional resources to support our increasing responsibilities in the Indo-Pacific region. It will be essential for us to set our naval posture forward to be able to effectively transition from competition to crisis to conflict as needed. We will build on existing maritime intelligence and logistics partnerships with allied nations, and expand relationships with partner nations to broaden and strengthen global maritime awareness and access.

Allies and partners are an enduring strategic advantage over rivals that would seek to undermine the free and open rules based order. They generate key capabilities, increase capacity, provide access to valuable strategic positions, and uphold the international

system. Acting with unity of effort, like-minded nations generate enormous power to modify malign behavior in the maritime domain.

We must prevail in day-to-day competition and be ready to win a potential war. In order to prepare for such situations, exercising and operating with partner nations provides the experience, knowledge, interoperability and understanding of roles of each participant to meet expected and unanticipated challenges. From confronting and exposing malign behavior to conflict, combined operations with allies and partners add capability, capacity and legitimacy to our collective efforts to deter and defeat aggressors. We need to increase our emphasis on controlling the seas. We can no longer assume we will have unfettered access to the oceans. Every ally and partner can contribute to collective sea control and power projection efforts in ways ranging from providing all-domain fires, to contributing to maritime domain awareness. Knowledge of partner capabilities, as exhibited in exercises and operations, enables us to plan better and utilize available resources in the most efficient and effective manner.

The interim NSS prioritizes Indo-Pacific, Europe, and the Western Hemisphere. It indicates our alliances with NATO, Australia, Japan, and the Republic of Korea are America's greatest strategic assets and that the U.S. will work to deepen partnership with India and work alongside New Zealand, Singapore, Vietnam, and the Association of Southeast Asian Nations. The interim NSS's focus on supporting a rules-based international system depends on allies and partners. Our efforts to engage and exercise with our allies and partners, particularly those in the U.S. Indo-Pacific Command region, is a major aspect of both relationship and capability building. The Navy is uniquely positioned to support the interim NSS through its network of allies and partners to enforce international rules and norms at sea throughout the full spectrum of competition.

Although not an exhaustive list, examples of the many important operations and exercises that the Navy and Marine Corps team participate in include:

- Tri-Carrier Response. Elements of the French, Italian, and U.S. aircraft carrier strike groups strengthen maritime integration by allowing naval crews and aircraft to operate in relatively close water and airspace.

- Exercise UNITAS 2022. UNITAS is the longest-running multinational maritime exercise in the world featuring in-port and at-sea events, culminating in a multi-day, multi-threat advanced scenario that allows the participants to work together as a multinational force.

- International Maritime Exercise (IMX) and Exercise Cutlass Express. IMX and Cutlass Express are designed with more than 60 nations and international organizations to demonstrate global resolve to preserve the rules-based international order and collaborate with like-minded allies and partners. (January-February 2022)

- BALTOPS. BALTOPS is a maritime-focused exercise in the Baltic Sea where participating nations work together to exercise air defense, maritime interdiction, anti-submarine warfare, and mine countermeasures. (Summer 2022)

The strategic maritime defense partnerships we maintain today with our partners and allies extend the reach and power of our force. These critical partnerships generate key capabilities, increase our capacity, provide access to strategic positions, and defend the rules-based international order. With allies and partners we are stronger and more secure than we could ever be on our own.

SECTION XI: REVOLVING FUND

NAVY WORKING CAPITAL FUND (NCWF) OVERVIEW

The Navy Working Capital Fund (NWCF) is a revolving fund that finances DON activities, providing products and services on a reimbursable basis. Below are the NWCF business areas:

- Supply Management. Performs inventory oversight functions that result in the sale of aviation and shipboard components, ship's store stock, repairable and consumable items to a wide variety of customers.
- Depot Maintenance. Provides worldwide maintenance, engineering, and logistics support through mobilization; repair of aircraft, engines, components, and weapons systems; and the manufacture of parts and assemblies.
- Transportation. Provides over-ocean movement of supplies and provisions to deployed forces, and maintains prepositioned equipment and supplies.
- Research and Development. Supports weapons systems, facilities, and equipment for the air, land, sea, and space operating environments through development, engineering, acquisition, in-service support, and repair and maintenance.

Unlike for-profit commercial businesses, whose financial goal is to maximize profit, the NWCF activities' financial goal is to break even over the budget cycle. The NWCF provides stabilized pricing to customers and acts as a shock absorber to fluctuations in market prices during the year of execution; fluctuations are recovered from customers in future years. The wide range of goods and services provided by NWCF activities are crucial to maintaining readiness, increasing lethality, and modernizing capability.

The FY 2023 NWCF budget request reflects the DON's continued focus on balancing demands to ensure the right blend of goods and services are provided when the operational signal is received. The FY 2023 NWCF maintains a workforce of 81,916 civilian and 1,131 military personnel. The value of goods and services provided by NWCF activities in FY 2023 is projected to be approximately $33.0 billion, as shown in Figure 11.1. The $0.3 billion increase from FY 2022 to FY 2023 is driven by an increase in costs mainly for the research and development business area due to the civilian pay raise aligning to expected customer demand, and offset by completion of projects for base operating support which was removed as a business area in FY 2020.

Figure 11.1 – Summary of NWCF Costs

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Operating Costs:			
Supply - Obligations	7,553	8,327	8,049
Depot Maintenance - Marine Ground & Aircraft	2,939	3,101	3,324
Transportation	3,237	3,500	3,474
Research and Development	16,771	17,733	18,198
Base Support	57	58	-
Total	**30,556**	**32,719**	**33,045**

CASH MANAGEMENT

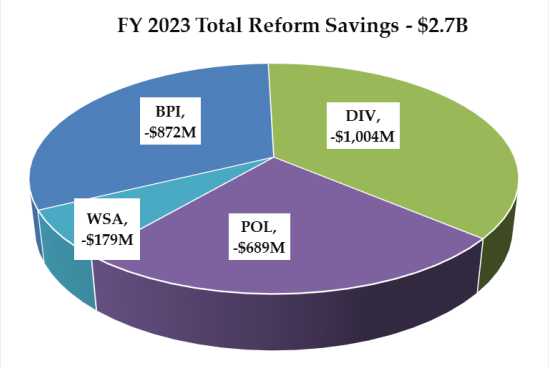
The DON's goal is to maintain the overall NWCF cash balance within an upper and lower operational range. The operational range is determined using a number of factors to include the Working Capital Fund (WCF) activity rate of disbursements, range of operations, risk mitigation, and cash reserves to determine the acceptable upper and lower bounds for a healthy cash balance. The DON continues to implement process improvements and exert management controls to operate with efficiency. The Department will continue its efforts to reduce cost through process reformation and the Supply Cash War Room efforts to review contracts of long lead items and evaluate the return on investment relative to risk and anticipated need. The various efforts that the DON has taken during the last couple of years have led to a healthy FY 2023 cash position which will execute within the operational bounds.

SECTION XII: REFORM

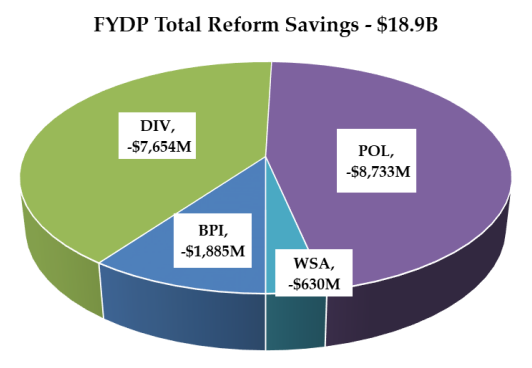
OVERVIEW

Finding budgetary efficiencies through reform efforts and legacy divestments remains a strategic imperative for the DON as we seek to fund programs and activities that will enable us to strengthen maritime dominance to safeguard U.S. and allied interests and maintain freedom of the seas against aggressive malefactors. As in past years, the Navy and Marine Corps have rigorously reviewed budget submissions, ensuring alignment to strategic objectives and pursuing gains in efficiency and cost effectiveness in management and operations. Leaders have made difficult decisions, weighing the risk of retiring or scaling back certain capabilities against the need to develop or expand other capabilities. The following pages detail the major results of the DON reviews. The DON achieved reform savings of $2.7 billion in FY 2023 and $18.9 billion across the Future Years Defense Program (FYDP). Figure 12.1 illustrates our reform efforts by category and dollar amount.

Figure 12.1: FY 2023 & FYDP Budget Reform Savings



- Business Process Improvement (BPI)
- Divestments (DIV)



- Policy Reform (POL)
- Weapon Systems Acquisition Process (WSA)

The DON has been tracking efficiencies and reform savings since the FY 2012 President's Budget. Figure 12.2 identifies historical DON reform savings in order to demonstrate trends over time as well as the impact of historic reform efforts through the current FYDP. Details of reforms decided in the FY 2023 President's Budget process for FY 2023 through FY 2027 are described in the Categories of Reform section.

Figure 12.2: Summary of DON Efficiencies for the FY 2012 - FY 2023 Budgets and FYDP ($B)

($B)	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FYDP
FY12 PB: Efficiencies	-4.2	-5.4	-7.1	-8.5	-9.8												-35.0
FY13 PB: MDUR		-1.2	-1.9	-1.9	-2.3	-2.2											-9.5
FY13 PB: Other Efficiencies		-8.1	-11.4	-8.7	-10.2	-10.1											-48.5
FY14 PB: MDUR			-0.6	-1.7	-1.2	-1.6	-2.0										-7.1
FY15 PB: MDUR				-5.5	-4.7	-4.8	-5.3	-4.7									-25.1
FY16 PB: Efficiencies					-0.4	-0.4	-0.5	-0.3	-0.3								-1.9
FY17 PB: Efficiencies						-1.4	-1.2	-1.4	-1.5	-1.7							-7.2
FY18 PB: Efficiencies							-0.8	-0.7	-0.7	-0.9	-1.0						-4.1
FY19 PB: Efficiencies								-1.5	-0.9	-1.0	-1.2	-1.2					-5.8
FY20 PB: Efficiencies									-2.0	-1.6	-1.7	-2.6	-1.4				-9.4
FY21 PB: Efficiencies										-1.4	-1.3	-2.8	-3.2	-3.6			-12.3
FY22 PB: Efficiencies											-4.2	-4.3	-4.4	-4.9	-4.8		-22.5
FY23 PB: Efficiencies												-2.7	-3.0	-3.7	-4.5	-4.9	-18.9
Grand Total	**-4.2**	**-14.6**	**-21.1**	**-26.4**	**-28.6**	**-20.4**	**-9.8**	**-8.6**	**-5.4**	**-6.8**	**-9.4**	**-13.6**	**-12.1**	**-12.2**	**-9.3**	**-4.9**	**-207.4**

CATEGORIES OF REFORM

Divestments (DIV)

Financial Table	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FYDP
Savings ($M)	-1,004	-1,552	-1,757	-1,911	-1,430	-7,654
Military (ES) Savings	-3,092	-4,024	-4,041	-5,128	-8,147	
Civilian (FTE) Savings	-84	-101	-119	-126	-126	

The Divestment category of reform refers to strategically discontinuing legacy acquisition programs to realign funding in support of the Department's highest priorities. The DON continues to drive a data-centric, transparent, and outcome-oriented culture for fiscal responsibility during our budget build, focusing on valuation and prioritization of requirements to improve the allocation of resources. Program deep dives are performed to better inform corporate decisions intended to maximize naval power. Divestment decisions are made to retire less capable platforms, reduce costs, and realign funds to source higher priority efforts. The DON continues to scrutinize the portfolio and divest where appropriate to field the strongest balance of capabilities. The specific Divestment initiatives include:

- Eliminate Sea-Launched Nuclear Cruise Missile (SLCM-N). Divests of the SLCM-N program, which was in the research and development phase of acquisition. The program was cost prohibitive and the acquisition schedule would have delivered capability late to need. (FY 2023: -$199.2M/ FYDP: -$2,102.7M)

- Eliminate Snakehead Large Displacement Unmanned Undersea Vehicle (LDUUV) Program. Misalignment of Snakehead LDUUV design and procurement efforts with submarine hosting interfaces resulted in limited availability of host platforms to conduct Snakehead operations. Cost and schedule delays associated with LDUUV development and Virginia Class SSN integration prohibited further investment. Alternative submarine launch and recovery interface is limited to Modernized Dry Deck Shelter (Mod DDS). Three, are scheduled to complete modernization between FY 2022-FY 2026 and become available for fleet use in FY 2022, FY 2023, and FY 2026. This divestment cancels the FY 2022 Phase 2 contract award and all planned procurements in the FYDP. (FY 2023: -$185.9M/ FYDP: -$516.8M)

- Retire USS Nimitz (CVN 68) in FY 2025. This initiative reverses a PB22 decision to extend the life of the aircraft carrier, USS Nimitz (CVN 68) to gain about a year of operational use. The life extension would have required over $300 million in maintenance costs for a small return on investment. The carrier will now retire in FY 2025, at 50 years' service life. (FY 2023: -$74M/ FYDP: $339.4M)

- Divest Virginia Class External Hull Treatment (XHT). Reoptimizes XHT backfit portion of Acoustic Superiority (AS) package on Virginia class (VACL) Block III/IV nuclear-powered attack submarines (SSNs) in the FYDP. Updated analysis indicates better return on investment through prioritizing other sustainment efforts for all submarine classes. This action retains a more predictable maintenance schedule for targeted Virginia class submarines. (FY 2023: -$70.6M/ FYDP: -$242.8M)

- Ship Decommissionings and Associated Program Changes. As a result of the ship inactivation decision/ship disposition review (SID/SDR) process to codify components of the *30-Year Shipbuilding Plan*, savings were obtained by the accelerated decommissioning of several battle force ships. These decisions were based on the Navy's strategic valuation process, bounded by fiscal constraints. In order to resource higher priority capabilities and capacity in the FYDP, a number of lower priority ships had to be decommissioned early. The decisions include:

    - Decommission Six Littoral Combat Ships (LCSs). This decision decommissions LCS 5, 11, 13, 15, 17, and 19 across the FYDP due to fiscal constraints and based on the DON strategic valuation process. This decision increases the total

number of LCS decommissionings in FY 2023 to nine ships (three were decisions made in prior years). The replacement capability is the guided missile frigate (FFG) 62, Constellation class of ships. (FY 2023: -$152.0M/ FYDP: -$1,421.5M)

- Single Crew and Decommission of Littoral Combat Ships (LCSs) 6 and 8. Reduces LCSs 6 and 8 to single crews in FY 2023, followed by decommissioning in FY 2024. Shift from dual to single crew for LCS assigned the SUW mission. Ships assigned as single crew will be manned with approximately 25 more billets than each of the dual crews had. This allows the ships to maintain similar readiness levels as they no longer are able to be supported by the second off-hull crew. (FY 2023: -$125.8M/ FYDP: -$490.0M)

- Eliminate Littoral Combat Ship (LCS) Anti-Submarine Warfare (ASW) Mission Package (MP). Divests of the LCS ASW Mission Package (MP) and transitions LCS currently assigned the ASW mission to either the Surface Warfare (SUW) or Mine Countermeasures (MCM) missions. This divestment is aligned to the decision to divest of 11 LCS ships, and focusing the remaining ships on the MCM and SUW missions. The ASW mission is a foundational mission set for the FFG 62 program, which is a more suitable platform and Variable Depth Sonar (VDS) capability will be added to the fleet through the FFG 62 class. (FY 2023: $82.5M/ FYDP: -$273.2M)

- Decommission Littoral Combat Ship (LCS) Organizational Units. Decommissions Anti-Submarine Warfare (ASW) Divisions in FY 2023 associated with the reduction of the LCS Program to 15 mine countermeasures (MCM) mission package (MP) ships and the divestment of the ASW mission for LCS. Decommissions MCM Division Two Two in FY 2023, since the MCM mission will no longer be performed by East coast based ships. Decommissions Surface Warfare (SUW) Division Eleven in FY 2023, since the SUW mission will no longer be performed by West coast based ships. (FY 2023: -$18.8M/ FYDP: -$177.2M)

- Decommission Littoral Combat System (LCS) Training Facility Atlantic. Divests of the LCS Training Facility Atlantic in FY 2023 to include manpower and operations associated with the reduction of the LCS program to 15 Mine Countermeasure Mission (MCM) Mission Package (MP) and 6 Surface Warfare (SUW) ships. Navy force structure reductions results in a mission excess to need for this organization. (FY 2023: -$12.3M/ FYDP: -$95.5M)

- Decommission Guided-Missile Cruisers (CGs). Decommissions CGs 63-65, 69 and 71 across the FYDP. Cruiser modernization costs have grown to 90 to 200 percent more than the initial estimates. Divestment enables the Navy to prioritize investment in higher priority capability and capacity. (FY 2023: -$30.5M/ FYDP: -$703.5M)

- Decommission Amphibious Command Ship (LCC 20). Decommissions the USS Mount Whitney (LCC 20) in FY 2026. This ship serves as the afloat command ship for Commander SIXTH Fleet (C6F), with an Area of Responsibility of Europe and Africa. This decision is mitigated by staff operating ashore. (FY 2023: -$9.9M/ FYDP: -$179.7M)

- Inactivate Two Expeditionary Transfer Docks (ESDs). Inactivates Expeditionary Transfer Dock (ESD)-1 and ESD-2 in FY 2023. The ESD ships were designed for non-contested environment to support ship-to-shore craft movements. They support Maritime Prepositioning Ships Squadron (MPSRON) 2 which has been placed into ROS. ESBs use the same hull form and are the follow-on to T-ESDs. PB23 retains five of five ESBs in full operating status. (FY 2023: -$9.2M/ FYDP: -$151.6M)

- Decommission Dock Landing Ship (LSD) 46. Accelerates the decommissioning of the Whidbey Island class dock landing ship USS Tortuga (LSD 46) from FY 2028 to FY 2023. This decision reduces traditional amphibious force structure to invest in enabling capabilities for USMC *Force Design 2030*. The lead ship for the Light Amphibious Warship (LAW) is planned for FY 2025 and the lead ship for the Next Generation Logistics Ship (NGLS) planned for FY 2026. (FY 2023: $0.0M/ FYDP: -$219.8M)

- Decommission Four Legacy Mine Countermeasures (MCM) Ships. Decommissions MCMs 7, 9, 10, and 14 in FY 2027. This decision is aligned to the transition of legacy to MCM platforms to the new capabilities provided by the MCM mission package (MP). (FY 2023: $0.0M/ FYDP: -$21.7M)

- Divest Helicopter Sea Combat Squadron (HSC) 85. This decision disestablishes HSC-85, an MH-60S Sea Hawk expeditionary helicopter squadron supporting Naval Special Warfare and other special operations forces training and readiness. Manpower savings will begin in FY 2023, full Flying Hour Program (FHP) divestment will begin in FY 2024, and depot maintenance and spares will be

reduced in the FYDP. Divestment also adds storage costs in FY 2023 and FY 2027 if MH-60's are not utilized elsewhere. (FY 2023: -$21.6M/ FYDP: -$312.5M)

- USMC Elimination of RQ-21A Blackjack. The RQ-21A does not meet the capabilities required to support the Expeditionary Advanced Base Operations and Littoral Operations in a Contested Environment Concepts, and is no longer operationally relevant. Divestment will be complete by FY 2025. (FY 2023: -$7.8M/ FYDP: -$108.3M)

- Disestablish Commander, Amphibious Squadron 3 (COMPHIBRON THREE). The dissolution of Commander, Amphibious Squadron 3 optimizes the Navy organizational framework in light of the BONHOMME RICHARD (LHD-6) decommissioning. This decision does not impact amphibious ready group deployments. This decision maintains alignment of having one less Amphibious Squadron (PHIBRON) than LHA/LHD Amphibious Assault ships in inventory. Prior to the LHD-6 fire, there were four rotational West Coast PHIBRONs (CPR-1, CPR-3, CPR-5, and CPR-7) for five West Coast ships (LHD-2, LHD-4, LHD-6, LHD-8, and LHA-7). With the loss of LHD-6, deployment schedules require only three rotational PHIBRONs. Alignment also matches current East Coast alignment of three rotational squadrons for four LHD/LHAs. (FY 2023: -$3.7M/ FYDP: -$36.5M)

- Cancel Headquarters Navy Fleet Architecture Integration Tool (FAIT) Program. The Navy divests of this legacy digital decision support program, which has become redundant in light of newer capabilities. FAIT is being divested due to capability that is redundant to other programs such as the Office of Secretary of Defense Advana data analytics platform. (FY 2023: -$0.4M/ FYDP: -$14.1M)

- Decommission Five Active Component Expeditionary Electronic Attack Squadrons (VAQs). Divests of all non-carrier-based EA-18G Growler support of joint force requirements for tactical airborne electronic attack (AEA) capability and capacity. Divestment involves decommissioning five Growler squadrons, collectively consisting of 25 airframes and approximately 1,020 associated officer and enlisted billets. Military end strength will be reduced by half in FY 2024 and fully in FY 2025. Associated aircraft will be placed in long term preservation at the Aerospace Maintenance and Regeneration Group (AMARG). Half of the aircraft will be inducted in FY 2024 and the remainder in FY 2025. (FY 2023: $0.0M/ FYDP: -$807.8M)

- Accelerate Inactivation of Two Fleet Replenishment Oilers (T-AOs) by FY 2027. This initiative accelerates the inactivation of the fleet replenishment oiler (T-AO) 195 in FY 2026, and T-AO 187 in FY 2027. (FY 2023: $0.0M/ FYDP: -$67.5M)

- Divest of Counter-Fast Attack Craft (FAC) and Fast InShore Attack Craft (FIAC) Mission. Divestment of Counter-FAC/FIAC mission set and associated High Speed Maneuverable Surface Targets (HSMSTs) for fleet training in order to realign resources to Great Power Competition capabilities. (FY 2023: $0.0M/ FYDP: -$50.9M)

Business Process Improvement (BPI)

Financial Table	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FYDP
Savings ($M)	-872	-7	-139	-422	-446	-1,885
Military (ES) Savings	-645	-1,483	-1,518	-1,547	-1,547	
Civilian (FTE) Savings	-67	-67	-67	-67	-67	

While continuing to scrutinize our operational force and capabilities, the DON is also pursuing efficiencies within our business processes. Examples of Business Process Improvement initiatives include:

- Execution Reviews. The DON budget staff reviews the execution of programs to ensure the timely and appropriate execution of appropriated funds. Program execution is measured against established execution benchmarks. Failure to meet these benchmarks due to cost, schedule, or performance issues provides cause to realign program funding to higher priority requirements. The following savings were recouped from programs that failed to execute to standards:

    - Navy Under-Execution Review. Funding in Research, Development Test and Evaluation, Navy (RDT&E,N) and Procurement appropriations was reduced where FY 2021 program execution has not met established benchmarks. Execution reviews provide a critical forum for ensuring the DON's total funding is managed efficiently. (FY 2023: -$498.9M/ FYDP: $7.3M)

    - Marine Corps Military Personnel (MILPERS) Execution Review. Historic under-execution/over-programming within the MILPERS accounts has resulted in lost funding opportunities over the last decade. This reform initiative makes recommendations to improve the current MILPERS Planning,

Programming, Budgeting, and Execution (PPBE) business practices. (FY 2023: -$169.2M/ FYDP: -$836.5M)

- Marine Corps Under-Execution Review. Funding was reduced for Marine Corps programs where FY 2021 execution has not met established procurement obligation benchmarks. (FY 2023: -$106.9M/ FYDP: -$22.2M)

- Reduce Operating Status of Maritime Prepositioning Ships Squadron (MPSRON) 2. Places five container ships (T-AK / T-AKRs) assigned to MPSRON 2 into reduced operating status (ROS) due to an assessment of operational needs which found these to be a lower priority in light of the current strategic environment. Placing these ships in ROS preserves the reversibility of the decision. The hub for MPSRON 2 is Diego Garcia. (FY 2023: -$30.1M/ FYDP: -$307.1M)

- University Affiliated Research Center (UARC) Cost Control. This initiative leverages Business Intelligence analysis of historical data to identify areas of opportunity for cost savings in University Affiliated Research Centers (UARCs). The analysis culminated in a targeted reduction to FY 2023 UARC customers as the beneficiaries of cost saving measures. (FY 2023: -$29.8M/ FYDP: -$29.8M)

- Reduce Littoral Combat Ship (LCS) Efforts Associated with LCS Decommissionings. Savings include:
  - Reduce LCS Maintenance Execution Teams (METs). Savings includes a reduction in military end strength. (FY 2023: -$16.2M/ FYDP: -$195.3M)
  - Reduce LCS Program Executive Office Support. Savings include a reduction in civilian full-time equivalents. (FY 2023: -$5.3M/ FYDP: -$28.0M)
  - Reduce LCS Logistics Support. Reduce LCS logistics support teams and contracting officers. Savings includes reductions in military end strength and civilian full-time equivalents. (FY 2023: -$5.2M/ FYDP: -$30.9M)

- Consolidate Navy Operational Support Centers. Eliminates ten small Navy Operational Support Centers (NOSCs) through consolidation between FY 2023 and FY 2025. The Navy achieves efficiencies including manpower and projected sustainment savings. (FY 2023: -$3.0M/ FYDP: -$63.5M) Closure scheduling is as follows:
  - FY 2023 Peoria IL, Syracuse NY, Saginaw MI, & Harlingen TX
  - FY 2024 Plainville CT, Erie PA, Springfield MO, & Roanoke VA
  - FY 2025 Greenville SC & Green Bay WI

- Reduce Navy Headquarters Reserve Support. Eliminates reserve component force structure that lacks a direct connection to Great Power Competition (GPC). Eliminates all Headquarters Navy part-time Selected Reserve unit billets with a few critical exceptions. (FY 2023: -$2.2M/ FYDP: -$22.7M)

- Reduce Fifteen Mine Countermeasures (MCM) LCS to Single Crew. This initiative reduces 15 Littoral Combat Ships (LCSs) configured for MCM missions to single-crew manning starting in FY 2024. (FY 2023: $0.0M/ FYDP: -$294M)

- Convert Two Patrol Squadrons (VPs) to Reserve Component in FY 2026. One active component squadron each from Fleet Forces Command and from Pacific Fleet will be divested and converted to reserve squadrons in FY 2026. This force structure change supports the move to integrate the reserve component more towards a "total force" solution in meeting steady state demands. (FY 2023: $0.0M/ FYDP: -$55.5M)

Policy Reform (POL)

Financial Table	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FYDP
Savings ($M)	-689	-1,283	-1,624	-2,088	-3,050	-8,733
Military (ES) Savings	-950	-1,370	-1,907	-2,246	-3,419	
Civilian (FTE) Savings	-877	-1,308	-1,854	-2,200	-3,366	

The Policy category of reform represents changing the Department's procedures to best empower the warfighter with the knowledge, equipment, and support systems to fight and win. Examples of Policy reform initiatives are provided below.

The FY 2023 budget incorporates key policy reforms for the Marine Corps based on the *Force Design 2030* strategy. With the shift in their primary focus to Strategic Competition and a renewed focus on the Indo-Pacific region, the Marine Corps determined that capabilities needed to support emerging joint, naval, and Marine Corps operating concepts must be resourced from certain existing capabilities, including:

- USMC Major Defense Acquisition Program (MDAP) Reduction. The Marine Corps reduced its planned Joint Light Tactical Vehicle

(JLTV) procurement quantities across the FYDP in order to support Force Design implementation. (FY 2023: -$176.8M/ FYDP: -$1,501.9M)

- USMC End Strength Reduction. This initiative continues the implementation of *Force Design 2030* from the FY 2021 and FY 2022 President's Budgets. The USMC reduces its planned end strength in Active Component Marines by 1,500 in FY 2023 (4,000 in the FYDP) and 100 Reserve Component Marines in FY 2023 (200 in the FYDP) as part of its *Divest to Deliver* strategy to self-fund the Commandant's *Force Design 2030* initiatives. (FY 2023: -$59.2M/ FYDP: -$543.1M)

- USMC Installations Optimization. As part of the *Divest to Deliver* strategy, Marine Corps Enterprise reviewed facilities infrastructure in order to identify savings across the FYDP to support *Force Design 2030*. Specific budgetary reductions include facilities sustainment, facilities demolition, and collateral equipment. (FY 2023: -$40.4M/ FYDP: -$1,191M)

- USMC Civilian Personnel and Contractor Reduction. As part of the *Divest to Deliver* strategy, the Commandant of the Marine Corps directed the USMC to reduce headquarters staffing and formations that do not align with the near peer fight. This initiative provides FYDP funding to sustain *Force Design 2030* investments. Specific budgetary impacts include reducing 2,468 FTEs with a savings of $643.0M across the FYDP and reducing contract support with a savings of $228.5M across the FYDP. (FY 2023: -$33.3M/ FYDP: -$871.5M)

- USMC Reduce Permanent Change of Station Moves. This decision reduces Military Personnel, Marine Corps (MPMC) Permanent Change of Station (PCS) moves by ten percent annually throughout the FYDP based on execution and policy changes. (FY 2023:-$17.0M/ FYDP: -$88.6M)

- USMC Force Design Supporting Cuts. HQ USMC Programs and Resources (P&R) led a team of subject matter experts known as the "Strategic Choices Operational Planning Team (OPT)" in an effort to recoup and reallocate funding from the directed divestments toward Force Design 2030 and other modernization efforts. The team identified savings in depot maintenance, advertising, enterprise logistics support systems, Flight Hour Program, the Amphibious Combat Vehicle Program, and garrison transportation. (FY 2023: -$15.4M/ FYDP: -$1,123.8M)

- Total Force Manpower Savings. As part of a Total Force Management (TFM) review of civilian personnel and contractual services, the Navy identified efficiencies through grade shaping, strategic shift in new hires, reassignment to lower cost areas and workload reductions through elimination of workload tied to divestment, automation and increased workforce proficiency. (FY 2023: -$338.7M/ FYDP: -$3,353.2M)

- Reduce Surface Full-Time Support (FTS) Reserve Sailors. Reduces Reserve full-time support (FTS) on cruisers, destroyers, and amphibious ships by 12 percent by the end of the FYDP. (FY 2023: -$3.4M/ FYDP: -$31.5M)

Weapon Systems Acquisition Process (WSA)

Financial Table	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FYDP
Savings ($M)	-179	-114	-197	-123	-17	-630
Military (ES) Savings	0	0	0	0	0	
Civilian (FTE) Savings	0	0	0	0	0	

The Weapon Systems Acquisition Process category of reform includes procuring and sustaining weapon systems differently to prioritize speed of delivery, continuous adaptation, and frequent modular upgrades. The DON has achieved savings and gained efficiencies through improved contracting and multi-year procurement efforts. Specific Weapon System Acquisition Process initiatives include:

- Guided-Missile Destroyer (DDG) MOD 2.0 Upgrade. As a result of an assessment of technical complexity and execution risk, DDG Mod 2.0 execution schedule was revised and spread out over time to accommodate organizational learning; this revised execution schedule was within program controls, and all funding above requirements is available for higher priority capability and capacity. (FY 2023: -$178.5M/ FYDP: -$629.9M)

Reform Summary

In summary, the DON has leveraged multiple reform efforts in order to free scarce resources to provide towards integrated deterrence against Russian and Chinese competitors and other malign world actors, to include both conventional and nuclear. Reform also helps direct funds toward campaigning to advance U.S. strategic

priorities. Finally, funds generated by reform help the DON build enduring advantages in our technology, our people, and our systems.

SECTION XIII: AUDIT AND BUSINESS SYSTEMS

AUDIT BUSINESS TRANSFORMATION

The Navy and Marine Corps have benefitted greatly from annual financial statement audits, and our team is aggressively working to remediate the root causes of the discrepancies found by our auditors. We embrace auditor findings that highlight opportunities for operational and process improvements and, as professionals, capitalize on them unafraid of the scrutiny. Navy and Marine Corps leaders use the lessons learned from the audit as a means of improving our warfighting capability and readiness and demonstrating excellence. As an example, the Marine Corps will be undergoing a one-time two-year audit cycle for FY 2022 through FY 2023. The two-year audit cycle will give auditors sufficient time to complete necessary year-end testing and focus on design, implementation, and evaluation of key internal controls, so that a positive opinion may be rendered.

By complying with the Federal Accounting Standards Advisory Board (FASAB) and generally accepted accounting principles (GAAP), which must be in place to receive a favorable audit opinion, business managers are becoming increasingly stronger stewards of public funds, and able to properly account for every taxpayer dollar spent. The FASAB is the body of experts designated to set U.S. generally accepted accounting principles for the U.S. Government and its component entities.

Leaders at every echelon are taking responsibility for ensuring that strengthened internal controls over business processes and systems are in place. The primary pillar in the DON's audit remediation strategy is reforming the Department's business systems environment. Initiatives are underway to consolidate and reduce the number of accounting systems used; to expand the capabilities of the target finance, accounting, and logistics Enterprise Resource Planning (ERP) system; and to strengthen the key internal controls governing business processes, including entity level monitoring, financial management, and business systems (e.g., security, access, and interface controls).

To date, these transformation efforts are yielding significant, measurable impacts in the areas of asset accountability and traceability; enhanced cybersecurity and modernized IT systems; and improved fiscal discipline. For instance, the DON

completed an inventory clean-up initiative, spanning from FY 2018 to FY 2021, and identified $4.3 billion in previously untracked materiel.

Additionally, the DON shut down five general ledger systems (GLs) in FY 2021: the Defense Industrial Financial Management System (DIFMS), the Defense Working Capital Fund Accounting System (DWAS), the Information Management/Processing System (IMPS), the Military Sealift Command Financial Management System (MSC-FMS), and the Standard Accounting and Reporting System-Headquarters Claimant Module (STARS-HCM). The DON is on schedule to shut down an additional GL by the end of FY 2022 (the Standard Accounting and Reporting System, Field Level (STARS-FL)); and Standard Accounting, Budgeting, and Reporting System (SABRS) by FY 2023. These changes will save approximately $70 million cumulatively across the Future Years Defense Program. Notably, the Marine Corps completed the migration of its GL to the Defense Agencies Initiative (DAI) system in FY 2021. Additionally, the DON Enterprise-Wide Automation Center of Excellence has deployed 74 automations to date, and 79 are in development to pivot the DON workforce from repetitious data crunching to value-laden data analytics.

These actions, in addition to business process improvements, will require an investment in resources to complete them. This investment will yield dividends – ultimately resulting in a favorable opinion on yearly financial statement audits. The most beneficial return on investment will be greater data accuracy and transparency for decision makers when public funds are spent. This will boost confidence that taxpayers and Congress have in the Department as its managers spend dollars in support of our warfighters.

AUDITABILITY PROGRESS

At the end of its FY 2022 audit, the Navy will have completed its fifth full-scope financial statement audit. The Marine Corps will complete its sixth full-scope financial statement audit at the end of FY 2023. Results will highlight specific deficiencies in systems and processes directly impacting readiness, and allow the DON to target root causes. The audit is more than a financial tool - it is a management

tool forcing the DON to evaluate how effective our collective team is in both small and large ways.

To prioritize the remediation of audit deficiencies, in FY 2020 the DON developed the *Audit Roadmap* and Integrated Master Schedule which provided an integrated, comprehensive plan to help the DON achieve an audit opinion by FY 2028. We are executing against the *Audit Roadmap* to integrate systems improvements and consolidation efforts with budgetary reform and business process transformation. The plan has helped the DON to identify and track dependencies and has been monitored to identify risks and mitigation approaches, ensuring unity of effort across the enterprise, and simplifying progress tracking and reporting.

In executing against the *Audit Roadmap* during the FY 2021 audit the Navy surmounted the obstacles presented by the COVID-19 pandemic to:

- Successfully downgrade its Real Property Utilities material weakness (MW). It also sustained remediation of previously closed or downgraded MWs in General Fund Real Property; Working Capital Fund Real Property; Contract Authority; Ability to Provide Complete, Timely, and Sufficient Evidence; and Contingent Legal Liabilities. To date, the Department of the Navy has downgraded more material weaknesses than any other Military Department or Defense Agency;
- Consolidate and/or decommission seven financially-relevant systems to shed legacy systems; automate, clean, and standardize data; and shift efforts from a transactional-orientation to high-value analytics;
- Transition the Marine Corps to a modern, enterprise resource planning accounting system. The Marine Corps also attained full accountability of its real property and military equipment assets.
- Realize and maintain DoD's lowest improper payment rate (less than one percent), covering both military and civilian pay;
- Validate 100 percent accountability of all afloat Trident missiles;
- Implement controls to sustain Uninstalled Aircraft Engines (UAE) accountability, which positions the Navy to assert to the valuation of UAE as early as FY 2022;
- Expand the use of streamlined disbursing to vendors, which removes cumbersome reporting requirements; and

- Implement key reconciliations and controls in our Jupiter data-analytics platform, which significantly improves the timeliness and accuracy of our "checkbook" reconciliations with Treasury.

In FY 2022, the DON will continue executing against a rebaselined *Audit Roadmap*, but measure audit progress in terms of the percentage of assets and liabilities that are considered auditable from the auditor's perspective. As such, our FY 2022 remediation efforts prioritize high-dollar balance sheet line items for the greatest impact to auditability. The DON has had a lot of success in addressing material weaknesses; however, not all material weaknesses have to be addressed to earn an audit opinion. In fact, two of the Navy's highest priorities for FY 2022 address a significant portion of the Balance Sheet.

- Remediation efforts will fully establish auditability of Navy's Environmental and Disposal Liabilities, which account for over 50 percent of the Navy General Fund's total liabilities.
- By completing remediation on Construction in Progress, the General Property, Plant, and Equipment line item will become auditable. This accounts for 60 percent of the Navy General Fund's total assets.

The Navy is on track to downgrade these two material weaknesses--Environmental and Disposal Liabilities and Construction in Progress--in FY 2022.

Another focus area for FY 2022 is Fund Balance with Treasury, which equates to balancing Navy's checkbook with the Treasury. We have partnered with the Office of the Under Secretary of Defense (Comptroller) and implemented a modern and reliable process to reconcile our cash activity with the Treasury. We are operationalizing internal controls that will be tested by our auditor in FY 2022. We are also partnering with the Defense Finance and Accounting Service to improve process times for identifying and resolving differences.

Of course, one of the Navy's top priorities in FY 2022 is to robustly support the Marine Corps in its two-year audit cycle to achieve an audit opinion in FY 2023. This is reflective of the Navy-Marine Corps "one-team" mentality, our strategy and guidance from the Secretary of the Navy, and our overall *esprit de corps*.

The Navy-Marine Corps team is meeting audit remediation challenges head-on with full awareness that financial auditability is not a one-time achievement--rather, it can

only be sustained by a progressively changing business environment in which improvements are continuously incorporated into work processes throughout FY 2022 and beyond. The DON is committed to promoting a business culture in which all participants own and understand their respective roles in achieving and sustaining financial auditability, from senior leaders down to the business managers who support our warfighting team each day. The result will be strengthened stewardship of public funds, institutionalized by performing effective internal controls over business processes and systems, and by making business policies, procedures, and decisions more data-driven to maintain financial management excellence.

BUSINESS SYSTEMS

Building on the findings of the audit process and other evaluations, our Department will foster a culture that encourages innovation, solves problems, and achieves results to get the most out of every dollar entrusted to us by the American people. Leaders in every functional unit and discipline will take action to enforce business systems modernization on an accelerated and integrated path that is sufficiently resourced and supported. We will use data-driven decision-making to achieve tangible savings while consistently working to become more effective and efficient as a core element of our warfighting discipline.

Navy Maritime Maintenance Enterprise Solution (NMMES)

The Navy Maritime Maintenance Enterprise Solution (NMMES) is the fully deployed and operational Information Technology (IT) toolset currently utilized to execute ship and submarine maintenance in the Naval Shipyards (NSY), Regional Maintenance Centers (RMC), Ship Repair Facility (SRF), Intermediate Maintenance Facilities (IMF), and commercial industrial sites worldwide. NMMES enables fleet readiness through the execution of maritime shore maintenance supporting over $8.9 billion yearly in ship, submarine, and aircraft carrier maintenance and modernization and a military/civilian workforce of over 40,000 personnel.

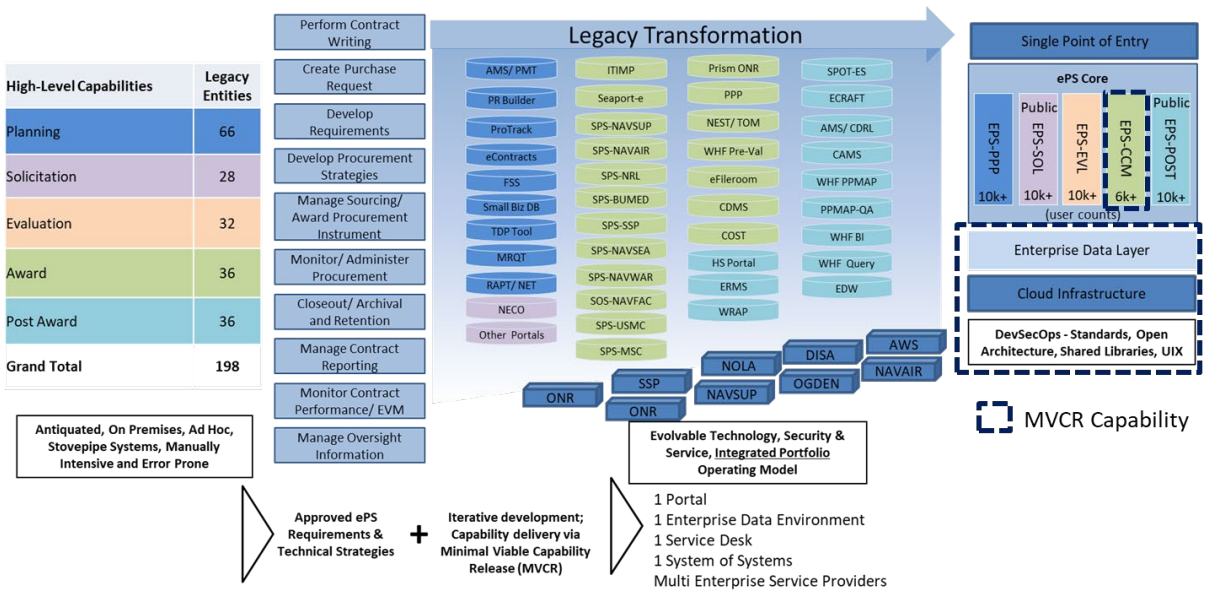
Successful execution of the Fleet Response Plan for fleet readiness to meet the political and military objectives of the United States is executed utilizing the present operational NMMES solution for maritime shore maintenance. Rotation of ships and submarines through scheduled maintenance periods, many of which have been critically compressed with the work pre-programmed to multiple levels of interdependency, requires an extensive solution to address the numerous complexities encountered on a daily basis in the NSY, RMC, and SRF facilities.

The maintenance systems and applications within the NMMES program require selective modernization and/or enhancements to address technological obsolescence, remove cumbersome work practices, align with industrial processes, gain efficiencies, meet regulatory and statutory mandates, and provide cybersecurity upgrades. NMMES provides a proven, scalable, secure solution that enables maintenance planning, execution, workload control, quality control, certification, timekeeping in association with work progression, and project closeout. Additionally, it supports process standardization, auditability, and enables the data center consolidation requirement.

Electronic Procurement System (ePS)

The Electronic Procurement System (ePS) is the Department of the Navy's (DON) End-to-End (E2E) Contract Writing System (CWS). It provides the Navy and Marine Corps contracting community with a full contract writing management capability and facilitates integration with federally mandated systems, DON financial systems, and industry. As shown in Figure 13.1, the ePS utilizes a portfolio approach to integrate Department of Defense (DoD) standards, support auditability, and maximize re-use of existing DON systems either through integration or incorporation into ePS. The ePS addresses existing CWS challenges including outdated architecture, limited capabilities, scalability concerns, and existing legacy systems.

Figure 13.1 - DON Procurement Portfolio Approach



Full deployment of the ePS ensures compliance of the DON's contracting abilities with the following legislative mandates: the writing and management of all contracts must now occur in congressionally approved computer systems (Section 862 of the National Defense Authorization Act (NDAA) of 2013); all DoD business must have central management and oversight (10 U.S. Code (U.S.C.) Section 2222); and all contracting actions must be fully auditable and traceable (Section 1003 of the NDAA 2010 & Office of the Secretary of Defense (OSD) Financial Improvement and Audit Readiness (FIAR) Guidance).

The ePS uses DoD data exchange capabilities (e.g., Procurement Data Standard (PDS) and Purchase Request Data Standard (PRDS)) in order to achieve standardized data interoperability with external systems. The Navy Enterprise Service Bus (NESB) serves as the hub to relay procurement data to various finance and other systems of record, such as Navy Enterprise Resource Planning (Navy ERP) and Defense Agencies Initiative (DAI). The expectation of ePS is to enable the retirement of all legacy systems to include Standard Procurement System (SPS), Integrated Technical Management and Procurement (ITIMP), Naval Sea Systems Command Support Services Acquisition Program Office, and Electronic Platform (SeaPort-e). The result of a successful ePS implementation will be a contracting process workforce well informed and completely empowered to writing accurate and timely contracts in

support of the warfighter, including management of the data flows into and out of the deal making space.

Navy Enterprise Resource Planning (ERP)

The Navy Enterprise Resource Planning (Navy ERP) Program was established to transform and standardize Navy business processes for key acquisition, financial, and logistics operations. Navy ERP combines business process reengineering (BPR) and industry best practices, supported by commercial off-the-shelf software, and integrates all facets of a business, using a single database to manage shared common data. Navy ERP is a major component of the Navy's Global Combat Support System family of systems and provides a critical link between operating forces and support activities. Navy ERP reduces the Navy's overall costs by applying proven industry best practices and processes and replacing legacy IT systems; facilitates an end-to-end supply chain solution; integrates financial management, workforce management, inventory management, and material operations; and enables rapid response to operating force logistics needs. Benefits of the system include standardization of business processes, audit readiness, financial transparency, improved asset visibility, labor efficiency, data integrity, business intelligence, and retirement of 83 legacy systems. The Navy ERP Program Full Deployment Decision (FDD) was December 2013.

Defense Agencies Initiative (DAI)

Defense Agencies Initiatives (DAI) has replaced legacy Marine Corps financial systems, such as the Standard Accounting, Budgeting, and Reporting System (SABRS), and provides a unified, web-based platform that modernizes financial transactions, financial reporting, audit-related data, and management of civilian personnel to include time-keeping. DAI provides an environment where financial managers, budget analyst, comptrollers, and human resource personnel can access real-time data utilizing a common interface. While the transition of financial-related data from legacy systems to DAI continues to cause some transactional issues, overall DAI is proving to be a substantial improvement to the Marine Corps business system environment. Future enhancements will include the evaluation of external capabilities such as the Program Budget Information System (PBIS), the Marine Corps Financial Integrated Analysis System (MCFIAS) and Acquire to Retire (A2R) business process events.

SECTION XIV: CYBER

OVERVIEW

Cybersecurity is a top priority with regard to our goal of strengthening maritime dominance, calling for the DON to treat information as a strategic asset and increase our lethality, improve readiness, and sustain resilience in cyberspace. Cybersecurity and cyber operations fall within the scope of information warfare. Information warfare is multi-domain, crosses multiple appropriations, and influences outcomes across the spectrum of competition from day-to-day operations through lethal combat. The DON delivers a range of programs from enterprise networks and cybersecurity to satellite communications that link together multi-domain sensors, electromagnetic maneuver and fires capabilities in a tactical grid to improve the effectiveness of our weapons and defeat enemy C4ISR and targeting systems.

The Department is growing investments that increase lethality of legacy platforms through both system modernization and the addition of new capabilities. These investments include supporting Project Overmatch efforts to seamlessly network sensors, platforms (manned and unmanned) and weapons for decision advantage. The DON will also accelerate electronic warfare (EW) capabilities to counter anti-ship missiles, advancing counter C4ISR capabilities and electromagnetic spectrum operations, and increasing cyber operations and mission forces. Similarly, the Marine Corps continues to grow and mature cyber capabilities through Marine Forces Cyber Command with an expansion of cyber mission forces teams who support operations across the globe. Enterprise network modernization will increase cybersecurity and teleworking as a DON improvement versus Navy or Marine Corps effort. Major information warfare program funding is reflected in Figure 14.1.

Figure 14.1 – Funding for Major Information Warfare Programs

(Dollars in Millions)	**FY 2022[1]**	**FY 2023**
Assured Command & Control:		
Satellite Communications Systems	483	651
Enterprise Networks	1,195	1,378
Command & Control Systems	586	610
Maritime Operation Centers	242	244
Battlespace Awareness:		
ISR Sensors/Processor Development	196	171
Resilient Precision Navi. & Timing Sys.	109	128
Meteorology & Oceanography	124	136
Integrated Fires:		
Electronic Warfare Systems	553	546
Counter C4ISR Systems	362	409
Tactical Data Link Systems	179	143
Cyber:		
Cybersecurity	1,028	1,084
Cyber Operations	668	764
Cyber Mission Forces	474	548
MARFORCYBER	47	93
Total	**6,247**	**6,904**

Note: Funding spans multiple appropriations.

1) FY 2022 numbers represent enacted amounts.

CYBERSECURITY

According to Department of Defense Instruction (DoDI) 8500.01, cybersecurity is the prevention of damage to, protection of, and restoration of computers, electronic communications systems, electronic communications services, wire communication, and electronic communication, including information contained therein, to ensure its availability, integrity, authentication, confidentiality, and nonrepudiation. Under this definition, cybersecurity covers all computers/laptops, cell phones, e-mail accounts and servers that we may use in performing our various job duties each day. Another way of describing cybersecurity is information assurance efforts that defend cyberspace. The following cybersecurity elements are included in the IT/CA budget:

- Cyber intelligence surveillance and reconnaissance ($6.9M)
- Cyber threat detection and analysis ($151.9M)

- Joint Information Environment ($30.5M)
- Information assurance ($2.3M)
- Information system security ($196.5M)
- Meteorological and navigation systems ($11.1M)

CYBERSPACE OPERATIONS

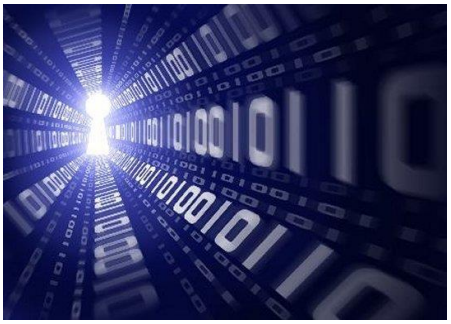
Cyberspace operations are efforts and initiatives that use cyberspace capabilities to achieve cyberspace objectives. There are three types of cyberspace operations:

- Offensive cyberspace operations
- Defensive cyberspace operations
- Department of Defense Information Networks operations

Types of cyberspace operations organizations include cyber mission forces and USCYBERCOM. Cyber mission teams have three main purposes:

- **Cyber national mission teams** - To help defend the nation against a strategic cyberattack on US interests.
- **Cyber combat mission teams** - Aligned with regional and functional combatant commanders to support their objectives.
- **Cyber protection teams** - To help defend the DoD information environment and the military cyber terrain.

The Commander, U.S. Cyber Command (USCYBERCOM) has the mission to direct, synchronize, and coordinate cyberspace planning, and operations, to defend and advance national interests, in collaboration with domestic and international partners.



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SECTION XV: CLIMATE

OVERVIEW

The FY 2023 budget prioritizes investments to mitigate the impacts of climate change. It is a national security and warfighting imperative for the Department of the Navy to address the impact of climate change on our readiness, operations, and ability to fight and win. Climate change increases risk and exposes vulnerabilities to our people, installations, platforms, and operations, and it impacts and expands the mission set our naval forces must support. Our Department will stand as a global leader in taking action on and adapting to climate change. Figure 15.1 below details the Department of the Navy's climate investments for FY 2022 Enacted and the FY 2023 request.

Figure 15.1 – DON Climate Investment

(Dollars in Millions)	**FY 2022**	**FY 2023**
Navy		
Installation Resiliency and Adaptation	256	385
Operational Energy and Buying Power	12	114
Science and Technology	267	120
Contingency Preparedness	8	8
Total Navy (OMN, RDTEN, MCN, OPN)	**542**	**626**
Marine Corps		
Installation Resiliency and Adaptation	444	56
Operational Energy and Buying Power	11	21
Science and Technology	15	16
Contingency Preparedness	0	0
Total USMC (OMMC,RDTEN,MCN,PMC)	**470**	**92**
Total DON	**1,012**	**719**

NAVY CLIMATE INVESTMENT

Shore Investment

The FY 2023 request provides increased funding for multiple priorities across the shore to increase the organizational capability in support of execution of climate and energy resilience initiatives. It continues funding for non-tactical electric vehicle leases and the construction of new electric vehicle charging stations, provides funding to increase installation energy and physical resiliency via Energy Savings Performance Contracts (ESPCs), Utility Energy Service Contracts (UESCs), and the Readiness and Environmental Protection Integration (REPI) program, and funds natural resource carbon sequestration projects such as wetland and forest restoration that provide natural carbon sequestration.

Next-Generation Guided-Missile Destroyer (DDG(X)) Integrated Power System (IPS)

The FY 2023 request includes Research, Development, Test and Evaluation, Navy (RDTEN) funding for the next-generation guided-missile destroyer DDG(X) Integrated Power System (IPS). In an IPS, all engines generate electric power, which can then be distributed to both the propulsion system and the ship's service electrical systems. With an IPS, the most efficient combination of engines (diesel or gas turbine) can be placed online to supply the total electric power required for the combined propulsion and ship's service loads, which provides for greater fuel efficiency in comparison to a mechanically driven ship propulsion system.

Operational Energy and Science & Technology

The FY 2023 request includes development of Next Generation Integrated Power and Energy System (NGIPES) technology aboard Navy Ships to enable current and future weapons and sensor systems. Investments also support applied research for programs such as the Electric Ship Research and Development Consortium (ESRDC), newly established Combat Power and Energy Systems (CPES); and activities in support of digital twin, heat transfer/thermal management, distribution/control of power and energy storage and power management. In addition, funding addresses advancing design tools focused on climate resilience and predicting emissions from platforms to develop variable geometry and adaptive cycle gas turbine engine technology for next generation air dominance aircraft.

USMC CLIMATE INVESTMENT

Medium Tactical Vehicle Replacement (MTVR) Program

Procurement, Marine Corps (PMC) funding for the Medium Tactical Vehicle Replacement (MTVR) program in FY 2023 includes Fuel Efficiency (FE) upgrades to be installed on the entire MTVR fleet of vehicles. FE upgrades improve the warfighter's combat effectiveness by reducing the logistical footprint, increasing expeditionary capability and extending the operational range of fuel-powered equipment. Research, Development, Test and Evaluation, Navy (RDTEN) funding will support Technology Demonstration (TD) efforts for a Medium Tactical Vehicle (MTV) that will determine maturity of technology advancements within the scope of industry production capabilities and address DoD energy efficiency goals.

Family of Mobile Power Systems (MPS)

The Family of Mobile Power Systems (MPS) consists of a wide range of current and emerging technologies for mobile power generation, storage, and distribution systems and environmental control equipment necessary to provide continuous, uninterrupted electrical power and climate control in austere and Expeditionary Advanced Base Operations (EABO) environments. RDTEN funding in FY 2023 continues developmental efforts to produce a new hybrid Environmental Control Unit (ECU) capability that will consolidate two legacy materiel solutions, resulting in lower ownership costs, reduced fuel consumption, a smaller logistical footprint, and utilization of refrigerants that are less impactful on the environment.

Expeditionary Energy Office (E2O)

The Expeditionary Energy Office (E2O) is a top priority for the USMC and one of the six pillars of Modernization for the Corps identified by the Commandant to analyze, develop, and direct the Marine Corps' energy strategy in order to optimize expeditionary capabilities across all warfighting functions. RDTEN funding in FY 2023 continues to accelerate the support of fielding power and energy solutions for EABO, supports the Marine Corps' Expeditionary Energy Strategy and Implementation Plan, as well as the USMC Expeditionary Energy Water and Waste Initial Capabilities Document.

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APPROPRIATION TABLES

MILITARY PERSONNEL, NAVY (MPN)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Pay and Allowances of Officers	9,229	9,582	9,974
Pay and Allowances of Enlisted	22,454	23,388	24,091
Pay and Allowances of Midshipmen	99	96	103
Subsistence of Enlisted Personnel	1,333	1,393	1,439
Permanent Change of Station Travel	946	1,039	917
Other Military Personnel Costs	123	117	107
Total MPN	**34,184**	**35,614**	**36,629**

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY (DHAN)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Health Accrual	1,673	1,884	1,986

RESERVE PERSONNEL, NAVY (RPN)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Reserve Component Training and Support	2,184	2,297	2,411

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY RESERVE (DHANR)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Health Accrual	146	160	168

MILITARY PERSONNEL, MARINE CORPS (MPMC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Pay and Allowances of Officers	3,307	3,394	3,570
Pay and Allowances of Enlisted	9,873	9,987	10,504
Subsistence of Enlisted Personnel	744	770	784
Permanent Change of Station Travel	457	422	419
Other Military Personnel Costs	60	40	53
Total MPMC	**14,440**	**14,613**	**15,330**

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, MARINE CORPS (DHAMC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Health Accrual	905	993	1,027

RESERVE PERSONNEL, MARINE CORPS (RPMC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Reserve Component Training and Support	786	803	850

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, MARINE CORPS RESERVE (DHAMCR)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Health Accrual	82	86	83

OPERATION AND MAINTENANCE, NAVY (O&MN)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Operating Forces:			
Air Operations	12,316	13,371	14,985
Ship Operations	18,590	19,689	20,099
Combat Operations/Support	6,177	6,557	6,694
Weapons Support	3,291	3,550	3,809
Base Support	9,670	10,883	10,700
Total Operating Forces	**50,043**	**54,051**	**56,287**
Mobilization:			
Ready Reserve and Prepositioning Forces	921	1,103	1,152
Activations/Inactivations	280	343	364
Mobilization Preparedness	92	170	155
Total Mobilization	**1,292**	**1,617**	**1,671**
Training and Recruiting:			
Accession Training	341	354	376
Basic Skills and Advanced Training	1,528	1,658	1,825
Recruiting & Other Training and Education	425	461	419
Total Training and Recruiting	**2,294**	**2,472**	**2,621**
Administration and Servicewide Support:			
Servicewide Support	2,129	2,309	2,530
Logistics Operations and Technical Support	1,849	1,525	1,623
Investigations and Security Programs	1,354	1,344	1,420
Cancelled Activities	19	-	-
Sprectrum/Telecommunications	16	-	-
Total Administration and Servicewide Support	**5,367**	**5,178**	**5,573**
Total O&MN	**58,996**	**63,318**	**66,152**

OPERATION AND MAINTENANCE, MARINE CORPS (O&MMC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Operating Forces:			
Expeditionary Forces	3,272	3,398	3,662
USMC Prepositioning	102	108	140
Combatant Commander Direct Mission Support	219	233	289
Base Support	3,336	3,888	3,992
Total Operating Forces	**6,928**	**7,627**	**8,082**
Training and Recruiting:			
Accession Training	38	26	24
Basic Skills and Advanced Training	595	665	707
Recruiting & Other Training and Education	292	302	305
Total Training & Recruiting	**925**	**993**	**1,037**
Administration and Servicewide Support:			
Servicewide Support	558	587	542
Cancelled Activities	1	-	-
Spectrum/Telecommunications	2	-	-
Total Administration and Servicewide Support	**561**	**587**	**542**
Total O&MMC	**8,414**	**9,207**	**9,661**

ENVIRONMENTAL RESTORATION, NAVY (ERN)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Environmental Restoration Activities	0	390	359

OPERATION AND MAINTENANCE, NAVY RESERVE (O&MNR)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Operating Forces:			
Air Operations	755	802	872
Combat Operations/Support	156	157	152
Base Support	187	198	188
Total Operating Forces	**1,098**	**1,156**	**1,212**
Administration and Servicewide Support:			
Servicewide Support	13	14	15
Logistics Operations and Technical Support	2	3	2
Cancelled Activities	0	-	-
Total Administration and Servicewide Support	**15**	**17**	**17**
Total O&MNR	**1,113**	**1,174**	**1,228**

OPERATION AND MAINTENANCE, MARINE CORPS RESERVE (O&MMCR)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Operating Forces:			
Expeditionary Forces	130	121	128
Base Support	149	160	164
Total Operating Forces	**279**	**281**	**292**
Administration and Servicewide Support:			
Servicewide Support	11	14	12
Total Administration and Servicewide Support	**11**	**14**	**12**
Total O&MMCR	**290**	**295**	**304**

SHIPBUILDING AND CONVERSION, NAVY (SCN)

	FY 2021		FY 2022		FY 2023	
(Dollars in Millions)	QTY	$	QTY	$	QTY	$
New Construction:						
Columbia Class Submarine [1/]	1	4,122	-	4,777	-	5,858
CVN 78	-	2,565	-	2,350	-	2,534
SSN 774	2	6,776	2	6,340	2	6,560
DDG 51	2	3,379	2	3,796	2	4,995
DDG 1000	-	78	-	57	-	73
FFG	1	1,053	1	1,091	1	1,160
LHA	-	500	-	69	1	1,085
LPD Flight II	1	1,128	-	311	1	1,673
Expeditionary Fast Transport	1	260	2	590	-	-
Expeditionary Sea Base	-	73	1	577	-	-
T-AO 205	-	20	2	1,464	1	795
T-AGOS Surtass Ship	-	-	1	434	-	-
T-ATS	2	158	2	184	1	96
Total New Construction	**10**	**20,113**	**13**	**22,038**	**9**	**24,828**
Other:						
CVN RCOH	-	1,549	-	2,490	-	618
LCU 1700	5	87	4	68	-	-
LCAC SLEP	3	56	2	33	2	36
Outfitting/Post Delivery	-	752	-	615	-	707
Ship to Shore Connector	-	-	5	392	2	190
Service Craft	-	244	-	68	-	68
Sealift (used)	2	60	5	300	2	141
Completion of PY Shipbuilding Programs [2/]	-	16	-	661	-	1,328
Total Other	**10**	**2,765**	**16**	**4,626**	**6**	**3,090**
Total SCN	**20**	**22,878**	**29**	**26,665**	**15**	**27,918**

[1/] Columbia Class appropriated in SCN is executed in the National Sea-Based Deterrence Fund (NSBDF

[2/] FY 2021 does not include $407M appropriated and transferred to prior year programs; amount does include a $16M reprogramming action.

AIRCRAFT PROCUREMENT, NAVY (APN)

(Dollars in Millions)	FY 2021 QTY	FY 2021 $	FY 2022 QTY	FY 2022 $	FY 2023 QTY	FY 2023 $
Combat Aircraft:						
CH-53K (Heavy Lift)	9	1,309	11	1,669	10	2,028
E-2D AHE	5	909	5	869	5	842
FA-18E/F	24	1,725	12	977	-	91
F-35C Carrier Variant	26	3,076	20	2,275	13	2,051
F-35B STOVL Variant	10	1,441	17	2,406	15	2,110
P-8A Poseidon	9	1,575	-	45	-	42
UH-1Y/AH-1Z	-	4	-	1	-	-
V-22 (Medium Lift)	13	1,277	12	1,064	-	32
Total Combat Aircraft	**96**	**11,316**	**77**	**9,305**	**43**	**7,195**
Trainer Aircraft:						
TH-73A	36	186	36	163	26	120
Multi-Engine Training System (METS)	-	-	-	-	10	123
Total Trainer Aircraft	**36**	**186**	**36**	**163**	**36**	**243**
Other Aircraft:						
KC-130J	5	443	6	580	5	469
MQ-25	-	-	-	47	4	748
MQ-4 TRITON	1	257	2	483	3	663
MQ-8 UAV	-	35	-	49	-	-
STUASLO	-	30	-	13	-	3
VH-92A Executive Helo	5	578	-	-	-	-
MQ-9A	-	-	8	273	5	104
E-6B	1	16	-	-	-	-
Total Other Aircraft	**12**	**1,358**	**16**	**1,446**	**17**	**1,986**
Modification of Aircraft	-	3,606	-	3,675	-	4,398
A/C Spares & Repair Parts	-	2,203	-	2,296	-	1,872
A/C Support Equip & Facilities	-	767	-	914	-	1,154
Total APN	**144**	**19,436**	**129**	**17,799**	**96**	**16,848**

WEAPONS PROCUREMENT, NAVY (WPN)

	FY 2021		FY 2022		FY 2023	
(Dollars in Millions)	**QTY**	**$**	**QTY**	**$**	**QTY**	**$**
Ballistics and Other Missile:						
TRIDENT II Mods	-	1,156	-	1,120	-	1,125
Evolved Sea Sparrow Missile (ESSM)	99	213	108	249	136	282
Tomahawk (USN)	122	225	70	140	40	160
Tomahawk Mods	-	144	-	172	-	435
AMRAAM	122	204	-	-	337	336
Sidewinder	240	105	152	79	128	63
Standard Missile	125	486	125	561	125	489
Standard Missile Mods	-	67	-	130	-	71
Rolling Airframe Missile (RAM)	100	91	70	73	100	92
Aerial Targets	-	163	-	141	-	183
Joint Air Ground Missile (JAGM)	150	44	153	47	293	78
LRASM	43	134	48	161	60	226
JASSM	-	-	-	-	31	58
AARGM	16	124	54	110	69	131
Harpoon Mods	-	-	-	-	-	-
Small Diameter Bomb (SDB II)	248	58	164	34	481	108
Naval Strike Missile (NSM)	15	32	32	52	39	59
Hellfire	95	6	120	8	110	7
Drones and Decoys	12	20	18	30	61	63
Ordnance Support Equipment	-	199	-	143	-	41
Total Ballistics and Other Missile	**1,387**	**3,468**	**1,114**	**3,250**	**2,010**	**4,009**
Torpedo & Related Equipment:						
MK-48 Torpedo	105	277	58	131	28	151
MK-54 Torpedo Mods	-	103	-	94	-	107
MK-48 Torpedo ADCAP Mods	-	56	-	28	-	19
Torpedo Support Equipment	-	94	-	91	-	87
Total Torpedo & Related Equipment	**105**	**530**	**58**	**344**	**28**	**363**
Other Weapons:						
Close-In Wpns Sys (CIWS) Mods	-	41	-	6	-	3
Gun Mount Mods	-	102	-	94	-	82
LCS Module Weapons	32	4	14	2	30	5
Other	-	179	-	131	-	107
Total Other Weapons	**32**	**326**	**14**	**233**	**30**	**196**
Spares and Repair Parts	**-**	**142**	**-**	**156**	**-**	**170**
Total WPN	**1,524**	**4,466**	**1,186**	**3,983**	**2,068**	**4,739**

PROCUREMENT, MARINE CORPS (PMC)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Weapons and Combat Vehicles:			
AAV7A1 PIP	87	37	6
Amphibious Combat Vehicle Family of Vehicles	437	521	537
LAV PIP	37	22	57
155MM Ltwt Towed Howitzer	0	0	2
Artillery Weapons System	50	221	144
Other	38	31	11
Total Weapons and Combat Vehicles	**650**	**832**	**756**
Guided Missiles and Equipment:			
Tomahawk	-	-	43
Naval Strike Missile (NSM)	-	-	174
Ground Based Air Defense (GBAD)	18	9	174
Anti-Armor Missile-Javelin	20	1	18
Family Anti-Armor Weapon Systems (FOAAWS)	22	20	21
Anti-Armor Missile-TOW	34	10	1
Guided MLRS Rocket (GMLRS)	151	76	8
Total Guided Missiles and Equipment	**244**	**117**	**439**
Communication and Electronic Equipment:			
Radio Systems	339	401	612
Ground/Air Task Oriented Radar (G/ATOR)	277	339	62
Marine Corps Enterprise Network	74	91	277
Items under $5 million (Comm & Elec)	70	103	83
Intelligence Support Equipment	59	62	183
Cyberspace Activities	44	25	18
Comm & Elec Infrastructure Supt	44	96	26
Comm Switching & Control Systems	31	42	52
Distributed Common Ground System (DCGS-MC)	38	29	48
Common Computer Resources	33	77	40
Common Aviation Command and Control System (CAC2S)	35	18	30
Other	157	149	242
Total Communication and Electronic Equipment	**1,198**	**1,433**	**1,673**
Support Vehicles:			
Commercial Cargo Vehicles	21	18	35
Motor Transport Modifications	27	18	18
Joint Light Tactical Vehicle	369	322	222
Other	3	10	3
Total Support Vehicles	**419**	**367**	**278**
Engineer and Other Equipment	186	311	500
Spares and Repair Parts	27	33	35
Total PMC	**2,725**	**3,094**	**3,682**

PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS (PANMC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
BA 01 Procurement of Ammunition, Navy	573	497	633
BA 02 Ammunition, Marine Corps	292	348	420
Total PANMC	**865**	**845**	**1,052**

OTHER PROCUREMENT, NAVY (OPN)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Ship Support Equipment	3,758	4,190	4,302
Communications and Electronics Equipment	3,457	3,331	3,351
Aviation Support Equipment	768	737	964
Ordnance Support Equipment	1,095	1,045	1,213
Civil Engineering Support Equipment	134	157	171
Supply Support Equipment	693	691	652
Personnel and Command Support Equipment	621	501	561
Spares and Repair Parts	358	421	532
Total OPN	**10,884**	**11,073**	**11,747**

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY (RDT&E,N)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Basic Research	629	698	589
Applied Research	1,139	1,283	972
Advanced Technology Development	812	976	866
Advanced Component Development	5,315	6,882	8,405
System Development and Demonstration	5,735	5,575	6,607
RDT&E Management Support	1,469	1,079	1,133
Operational Systems Development	5,027	5,630	5,483
Software Pilot	24	29	24
Total RDT&E,N	**20,151**	**22,152**	**24,079**

FAMILY HOUSING, NAVY (Construction) (FHCON)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Construction of New Housing	-	-	249
Construction Improvements	37	85	75
Planning and Design	6	6	14
Total FHCON	**43**	**91**	**337**

FAMILY HOUSING, NAVY (FHOPS)

(Dollars in Millions)	FY 2021	FY 2022	FY 2023
Utilities	43	56	42
Operation	82	89	92
Leasing	57	63	66
Maintenance	107	95	105
Housing Privatization Support	114	55	62
Total FHOPS	**404**	**357**	**368**

MILITARY CONSTRUCTION, NAVY AND MARINE CORPS

ACTIVE AND RESERVE (MCN, MCNR)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Significant Programs:			
Major Construction	1,618	3,556	3,245
Minor Construction	39	131	110
Planning and Design	280	680	397
Total MCN	**1,936**	**4,367**	**3,752**
Navy Reserve Military Construction:			
Major Construction	65	63	-
Minor Construction	3	2	28
Planning and Design	3	6	3
Total MCNR	**71**	**72**	**30**

BASE REALIGNMENT AND CLOSURE ACCOUNTS (BRAC)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
Consolidated Prior BRAC	208	246	107

NAVY WORKING CAPITAL FUND (NWCF)

(Dollars in Millions)	**FY 2021**	**FY 2022**	**FY 2023**
NWCF	654	150	-

LIST OF ACRONYMS

A

A2/AD – *Anti-Access/Area-Denial*
AA – *Assault Amphibious*
AABoD – *Accelerated Acquisition Board of Directors*
AAG – *Advanced Arresting Gear*
AAO – *Approved Acquisition Objective*
AARGM – *Advanced Anti-Radiation Guided Munition*
AARGM-ER – *Advanced Anti-Radiation Guided Munition – Extended Range*
AAV – *Assault Amphibious Vehicle*
AC – *Active Component*
ACAT – *Acquisition Category*
ACD&P – *Advanced Component Development and Prototypes*
ACE – *American Council on Education*
ACV – *Amphibious Combat Vehicle*
ACV-30 – *Amphibious Combat Vehicle – 30-mm*
ACV-C – *Amphibious Combat Vehicle – Command and Control*
ACV-P – *Amphibious Combat Vehicle - Personnel Carrier*
ACV-R – *Amphibious Combat Vehicle - Tactical Recovery*
ADC – *Air Defense Commander*
AEA – *Airborne Electronic Attack*
AFMC – *Avionics Flight Management Computer*
AFRICOM – *U.S Africa Command*
AFSB – *Afloat Forward Staging Base*
AHE – *Advanced Hawkeye*
AHTS – *Advanced Helicopter Training System*
ALPS – *AEGIS Linear Processor System*
AMARG – *Aerospace Maintenance and Regeneration Group*
AMCM – *Airborne Mine Countermeasures*
AMDC – *Air and Missile Defense Commander*
AMDR – *Air and Missile Defense Radar*
AMRAAM – *Advanced Medium Range Air-to-Air Missile*
AoA – *Analysis of Alternatives*
AOG – *Aircraft on the Ground*
AOR – *Area of Responsibility*
AP – *Advance Procurement*
APKWS – *Advanced Precision Kill Weapon System*
APN – *Aircraft Procurement, Navy*
ARG – *Amphibious Ready Group*
ARG/MEU – *Amphibious Ready Group / Marine Expeditionary Unit*
ARV – *Advanced Reconnaissance Vehicle*
AS – *Acoustic Superiority*
AS – *Submarine Tenders*
ASAP – *Advanced Sensor Application Program*
ASW – *Anti-Submarine Warfare*
ATD – *Advance Technology Development*
AT/FP – *Anti-Terrorism/Force Protection*
ATSP – *Advanced Technology Support Program*
AUR – *All Up Round*
AV – *Air Vehicles*
AVPLAN – *Aviation Plan*
AWS – *Aegis Weapon System*

B

BA – *Budget Authority*
BAMS-D – *Broad Area Maritime Surveillance Demonstrator*
BAR – *Better Alignment of Resources*
BL – *Baseline*
BMD – *Ballistic Missile Defense*
BOS – *Base Operating Support*
BPI – *Business Process Improvement*
BRAC – *Base Realignment and Closure*
BRS – *Blended Retirement System*
BSI – *Business Systems Improvement*
BSO – *Budget Submitting Office*

C

C2 – *Command and Control*
C3 – *Command, Control, and Communications*
C4 – *Command, Control, Communications, and Computers*
C4I – *Command, Control, Communications, Computers, and Intelligence*

C4ISR – *Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance*
C5ISRT – *Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, Reconnaissance, and Targeting*
CBASS – *Common Broadband Advanced Sonar System*
C-HGB – *Common Hypersonic Glide Body*
C-ISR – *Counter-Intelligence, Surveillance and Reconnaissance*
C-UAS – *Counter-Unmanned Aircraft (or Aerial) System*
CA – *Cyberspace Activities*
CAINS – *Carrier Aircraft Inertial Navigation System*
CANES – *Consolidated Afloat Networks and Enterprise Services*
CAOCL – *Center for Advanced Operational Culture Learning*
CAPE – *Cost Assessment and Program Evaluation*
CATM – *Captive Air Training Missile*
CBARS – *Carrier Based Aerial Refueling System*
CBM – *Condition Based Maintenance*
CCDR – *Combatant Commander*
CCMD – *Combatant Command*
CDD – *Capabilities Development Documentation*
CEC – *Cooperative Engagement Capability*
CENTCOM – *U.S. Central Command*
CFAO - *Commander, Fleet Activities Okinawa*
CFL – *Command Fitness Leaders*
CG – *Guided-Missile Cruiser*
CLO – *Combat Loadout*
CMC – *Commandant of the Marine Corps*
CMOSS – *C5ISR/EW Modular Open Suite of Standards*
CNIC – *Commander, Navy Installations Command*
CNO – *Chief of Naval Operations*
CNRJ - *Commander, Navy Region Japan*
CO – *Cyberspace Operations*
COCOM – *Combatant Command*
COD – *Carrier Onboard Delivery*
COMFRC – *Commander Fleet Readiness Centers*
COMPHIBRON – *Commander, Amphibious Squadron*
COMSEC – *Communications Security*
CONOPS – *Concept of Operations*
CONUS – *Continental U.S.*
COTF – *Commander, Operational Test & Evaluation Force*
COTS – *Commercial-Off-The-Shelf*
COVID-19 - *Coronavirus 2019*
CoW – *Cost of War*
CPES – *Combat Power and Energy Systems*
CPG – *Commandant's Planning Guidance*
CPS – *Conventional Prompt Strike*
CREW – *Counter Radio-Controlled Improvised Explosive Device - Electronic Warfare*
CSG – *Carrier Strike Group*
CSG – *Commander, Submarine Group*
CV – *Carrier Variant*
CVN – *Nuclear Aircraft Carrier*
CVW – *Carrier Air Wing*
CWO – *Chief Warrant Officer*

D

DAI – *Defense Agencies Initiative*
DDCIO – *Deputy Department of the Navy Chief Information Officer*
DDG – *Guided-Missile Destroyer*
DDG(X) – *Next-Generation Large Surface Combatant*
DDS – *Dry Dock Shelter*
DHAMC – *Medicare-Eligible Retiree Health Fund Contribution, Marine Corps*
DHAMCR – *Medicare-Eligible Retiree Health Fund Contribution, Marine Corps Reserve*
DHAN – *Medicare-Eligible Retiree Health Fund Contribution, Navy*
DHANR – *Medicare-Eligible Retiree Health Fund Contribution, Navy Reserve*
DIFMS – *Defense Industrial Financial Management System*
DIV – *Divestments*
DLA – *Defense Logistics Agency*
DLR – *Depot Level Repairable*
DMO – *Distributed Maritime Operations*
DoD – *Department of Defense*
DoDI - *Department of Defense Instruction*
DoDIN - *Department of Defense Information Networks*
DON – *Department of the Navy*

DPRI – *Guam Defense Policy Review Initiative*
DRI – *Depot Readiness Initiative*
DRRS-N – *Defense Readiness Reporting System - Navy*
DSG – *Defense Strategic Guidance*
DSSC – *Delta System Software Configuration*
DWAS – *Defense Working Capital Fund Accounting System*

E

E2O – *Expeditionary Energy Office*
E&C – *Existence & Completeness*
E-XX – *E-6 Recapitalization Program*
EA – *Electronic Attack*
EABO – *Expeditionary Advanced Base Operations*
EBC – *Enhanced Budgetary Control*
EC – *Environmental Compliance*
ECC – *Emergency Control Center*
ECP – *Engineering Change Proposal*
ECU – *Environmental Control Unit*
EDI – *European Deterrence Initiative*
EDM – *Engineering Development Model*
ELMP – *Enterprise Lifecycle Maintenance Program*
EMALS – *Electromagnetic Aircraft Launch System*
EMD – *Engineering and Manufacturing Development*
EOD – *Explosive Ordinance Disposal*
EOQ – *Economic Order Quantity*
EPF – *Expeditionary Fast Transport*
EPS – *Electronic Procurement System*
ER – *Extended Range*
ERN – *Environmental Restoration, Navy*
ERP – *Enterprise Resource Planning*
ES – *End Strength*
ESB – *Expeditionary Sea Base*
ESD – *Expeditionary Transfer Dock*
ESG – *Expeditionary Strike Groups*
ESPC – *Energy Saving Performance Contract*
ESRDC – *Electric Ship Research and Development Consortium*
ESSM – *Evolved Sea Sparrow Missile*
EUCOM – *U.S. European Command*
EW – *Electronic Warfare*
EXWC – *Engineering and Expeditionary Warfare Center*

F

F3R – *Form Fit Function Refresh*
FAC – *Fast Attack Craft*
FAIT – *Fleet Architecture Integration Tool*
FD – *Force Design*
FE – *Fuel Efficiency*
FEC – *Facilities Engineering Command*
FERS – *Federal Employees Retirement System*
FFG – *Guided Missile Frigate*
FFRDC – *Federally Funded Research and Development Centers*
FHCON – *Family Housing, Navy and Marine Corps (Construction)*
FHOPS – *Family Housing, Navy and Marine Corps (Operations)*
FHP – *Flying Hour Program*
FIAC – *Fast Inshore Attack Craft*
FLC – *Fleet Logistics Center*
FM – *Financial Management*
FMB – *Navy Budget Office*
FMC – *Full Mission Capable*
FMF – *Fleet Marine Force*
FMR – *Financial Management Regulation*
FMS – *Foreign Military Sales*
FOC – *Full Operational Capability*
FOD – *Foreign Object Damage*
FOS – *Full Operating Status*
FoV – *Family of Vehicles*
FRC – *Fleet Readiness Center*
FRC-FT – *Future Readiness Cross-Functional Team*
FRP – *Full Rate Production*
FRS – *Fleet Replacement Squadron*
FRTP – *Fleet Response Training Plan*
FSC – *Future Surface Combatant*
FSRM – *Facility Sustainment, Restoration, and Modernization*
FSST – *Full Ship Shock Trials*
FTE – *Full-Time Equivalent*
FTS – *Full-Time Support*
FUSL – *Full Up System Level Test*
FWS – *Future Weapons System*
FX – *Facilities Services*
FY – *Fiscal Year*
FYDP – *Future Years Defense Program*

G

G/ATOR – *Ground/Air Task-Oriented Radar*
GAAP – *Generally Accepted Accounting Principles*
GBAD – *Ground Based Air Defense*
GBAD/C-UAS – *Ground Based Air Defense/ Counter-Unmanned Aerial System*
GBAD/FWS – *Ground Based Air Defense - Future Weapon System*
GBASM – *Ground Based Anti-Ship Missile*
GCS – *Guidance and Control Section*
GCV – *Ground Combat Vehicle*
GF – *General Fund*
GL – *General Ledger*
GLGP – *Gun-Launched Guided Projectile*
GOTS – *Government-off-the-Shelf*
GPC – *Great Power Competition*

H

HADR – *Humanitarian Assistance and Disaster Relief*
HARM – *High-Speed Anti-Radiation Missile*
HECTR – *Hawkeye Cockpit Technical Refresh*
HEL – *High Energy Laser*
HIMARS – *High Mobility Artillery Rocket System*
HM&E – *Hull, Mechanical, and Electrical*
HMMWV – *High-Mobility Multi-Wheeled Vehicle*
HR – *Human Resource*
HSC – *Helicopter Sea Combat Squadron*
HSMST – *High Speed Maneuverable Surface Targets*
HUD – *Heads-Up Display*
HVU – *High Value Units*
HW – *Hazardous Waste*

I

I – *Intermediate*
IA – *Individual Augmentee*
IA – *Information Assurance*
ICD – *Initial Capabilities Document*
ICEX – *Ice Exercise*
iDS – *integrated Digital Shipbuilding*
IED – *Improvised Explosive Device*
IFC – *Integrated Functional Capability*
IFC 4.0 – *Integrated Functional Capability-4*
ILS – *Integrated Logistics Support*
IMA – *Individual Mobilization Augmentee*
IMPS – *Information Management/Processing System*
IMS – *Integrated Master Schedule*
IMUTS – *Inertial Measurement Unit Test Station*
IMX – *International Maritime Exercise*
INFSA – *Integrated Naval Force Structure Assessment*
INS – *Inertial Navigation System*
IOC – *Initial Operational Capability*
IOT&E – *Initial Operational Test & Evaluation*
IPA – *Independent Public Accounting*
IPE – *Industrial Plant Equipment*
IPOE – *Intelligence Preparation of the Operational Environment*
IPP – *Invoice Processing Platform*
IPS – *Integrated Power System*
IR – *Infrared*
IRAD – *Internal Research and Development*
IRC – *Independent Review Commission*
IRR – *Infrared Receiver*
IRST – *Infrared Search and Track*
ISIL – *Islamic State of Iraq and the Levant*
ISR – *Intelligence, Surveillance, and Reconnaissance*
ISR&T – *Intelligence, Surveillance, Reconnaissance, and Targeting*
IT – *Information Technology*
IUSS – *Integrated Undersea Surveillance System*
IW – *Information Warfare*

J

JADC2 – *Joint All-Domain Command and Control*
JAGM – *Joint Air-to-Ground Missile*
JASSM – *Joint Air-to-Surface Standoff Missile*
JASSM-ER - *Joint Air-to-Surface Standoff Missile – Extended Range*
JHSV – *Joint High-Speed Vessel*
JIE – *Joint Information Environment*
JLTV – *Joint Light Tactical Vehicle*
JMPS-E – *Joint Mission Planning System - Expeditionary*
JPATS – *Joint Primary Aircraft Training System*
JRB – *Joint Reserve Base*
JROTC – *Junior Reserve Officer Training Corps*

JRSS – *Joint Regional Security Stacks*
JSF – *Joint Strike Fighter*
JSOW – *Joint Standoff Weapon*
JST – *Joint Services Transcript*

L

LAAD – *Low Altitude Air Defense*
LARK-V – *Lighter Amphibious Resupply Cargo Vessel*
LAV – *Light Armored Vehicle*
LAV-ATM – *LAV Anti-Tank Modernization*
LAW – *Light Amphibious Warship*
LCAC – *Landing Craft, Air Cushion*
LCC – *Amphibious Command Ship*
LCS – *Littoral Combat Ship*
LCSRON – *Littoral Combat Ship Squadron*
LCS SSMM – *Littoral Combat Ship Surface-to-Surface Missile Module*
LCU – *Landing Craft Utility*
LDO – *Limited Duty Officer*
LDUUV – *Large Displacement Unmanned Undersea Vehicle*
LHA – *Landing Helicopter Assault*
LHD – *Landing Helicopter Dock*
LMSR – *Large, Medium Speed Roll-On/Roll-Off Ships*
LNA – *Low Noise Amplifier*
LOC – *Limited Operational Capability*
LOCE – *Littoral Operations in a Contested Environment*
LPD – *Amphibious Transport Dock Ship*
LRASM – *Long-Range Anti-Ship Missile*
LRIP – *Low-Rate Initial Production*
LRS – *Line-of-Sight Radio Systems*
LSD – *Dock Landing Ship*
LUSV – *Large Unmanned Surface Vessels*
LVC – *Live, Virtual Constructive*
LWT – *Lightweight Torpedo*
LX(R) – *Amphibious Ship Replacement*

M

M-Code – *Military Code*
MADIS – *Marine Air Defense Integrated System*
MADS-K – *Man-Portable Anti-Drone Defeat System Kit*
MAGTF – *Marine Air-Ground Task Force*
MALD – *Miniature Air-Launched Decoy*
MALD-N – *Miniature Air-Launched Decoy Naval*
MALE-T – *Medium Altitude Long Endurance – Tactical*
ManTech – *Manufacturing Technology*
MAR-E – *Marine Rotational Force – Europe*
MARFORCOM – *Marine Forces Command*
MARFORCYBER – *Marine Corps Forces Cyberspace Command*
MARFORSOUTH – *Marine Corps Forces South*
MARSOC – *Marine Corps Forces Special Operations Command*
MASTT – *Mobile Anti-Submarine Warfare Training Target*
MAW – *Marine Aircraft Wing*
MCAS – *Marine Corps Air Station*
MCB – *Marine Corps Base*
MCCS – *Marine Corps Community Services*
MCF 2025 – *Marine Corps Force 2025*
MCHH – *Multi-Channel Hand Held*
MCJROTC - *Marine Corps Junior Reserve Officers Training Corps*
MCM – *Mine Countermeasures*
MCN – *Military Construction, Navy*
MCNR – *Military Construction, Navy Reserve*
MCRD – *Marine Corps Recruiting Depot*
MDAP – *Major Defense Acquisition Program*
MDX-ARDB – *Maritime Defense Exercise-Amphibious Rapid Deployment Brigade*
MEB – *Maneuver Enhancement Brigade*
MEB – *Marine Expeditionary Brigade*
MEF – *Marine Expeditionary Force*
MEGFoS – *Marine Air-Ground Task Force Electronic Warfare Ground Family of Systems*
MET – *Maintenance Execution Team*
MEU – *Marine Expeditionary Unit*
MFOM – *Family of Munitions*
MILCON – *Military Construction*
MILDET – *Military Detachment*
MILPERS – *Military Personnel*
MISR&T – *Maritime Intelligence, Surveillance, Reconnaissance, and Targeting*
MLR – *Marine Littoral Regiment*
MLRS – *Multiple Launch Rocket System*
MML – *Missile-to-Missile Link*
MOC – *Marine Corps Operating Concept*
Mod DDS – *Modernized Dry Dock Shelter*

MOS *– Military Occupational Specialty*
MP *– Mission Package*
MPF *– Maritime Prepositioning Force*
MPMC *– Military Personnel, Marine Corps*
MPN *– Military Personnel, Navy*
MPS *– Maritime Prepositioning Ships*
MPS *– Family of Mobile Power Systems*
MPSRON *– Maritime Prepositioning Ships Squadron*
MRAP *– Mine-Resistant Ambush Protected*
MRIC *– Medium-Range Intercept Capability*
MRTFB *– Major Range Test and Facility Base*
MRV *– Mission Role Variant*
MSC *– Military Sealift Command*
MSC-FMS *– Military Sealift Command Financial Management System*
MSF *– Million Square Feet*
MST *– Maritime Strike Tomahawk*
MTS *– Moored Training Ship*
MTV *– Medium Tactical Vehicle*
MTVR *– Medium Tactical Vehicle Replacement*
MUX *– Marine Air-Ground Task Force Unmanned Aircraft System Expeditionary*
MWR *– Morale, Welfare, and Recreation*
MYP *– Multi-Year Procurement*

N

NAS *– Naval Air Station*
NAV/COMMs *– Navigation and Communications*
NAVAIR *– Naval Air Systems Command*
NAVFAC *– Naval Facilities Engineering Command*
NAVSUP *– Navy Supply Systems Command*
NAVWAR *– Naval Information Warfare Systems Command*
NAWC *– Naval Air Warfare Center*
NCA *– National Command Authority*
NCC *– Naval Community College*
NCCA *– Naval Center for Cost Analysis*
NCDOC *– Navy Cyber Defense Operations Command*
NCIS *– Naval Criminal Investigative Service*
NCTAMS PAC *– Naval Computer and Telecommunications Area Master Station Pacific*
NCTS *– Naval Computer and Telecommunications Station*
NDAA *– National Defense Authorization Act*
NDI *– Non-Developmental Item*
NDS *– National Defense Strategy*
NDSF *– National Defense Sealift Fund*
NDW *– Naval District Washington*
NECC *– Navy Expeditionary Combat Command*
NEO *– Non-Combatant Evacuation Operations*
NERP *– Navy Enterprise Resource Planning*
NGAD *– Next Generation Air Dominance*
NGIPES *– Next Generation Integrated Power and Energy System*
NGJ *– Next Generation Jammer*
NGJ-LB *– Next Generation Jammer Low-Band*
NGJ-MB *– Next Generation Jammer Mid-Band*
NGLS *– Next Generation Logistics Ship*
NGT *– Next Generation Troposcatter*
NIAPS *– Navy Information/Application Product Suite*
NIFC-CA *– Naval Integrated Fires Control – Counter Air*
NIWSC *– Naval Information Warfare Center*
NJROTC *– Naval Junior Reserve Officers Training Corps*
NLFoS *– Navy Laser Family of Systems*
NLWS *– Navy Laser Weapon System*
NMC *– Not Mission Capable*
NMESIS *– Navy/Marine Corps Expeditionary Ship Interdiction System*
NMMES *– Navy Maritime Maintenance Enterprise Solution*
NMMES-TR *– Navy Maritime Maintenance Enterprise Solution Technical Refresh*
NOFFS *– Navy Operational Fitness and Fueling System*
NOSC *– Navy Operational Support Center*
NOTM *– Networking on the Move*
NPP *– NROTC Preparatory Program*
NR&DE *– Naval Research and Development Establishment*
NROTC *– Naval Reserve Officers Training Corps*
NSA *– National Security Agency*
NSA *– Naval Support Activity*
NSBDF *– National Sea-Based Deterrence Fund*
NSM *– Naval Strike Missile*
NSRP *– National Shipbuilding Research Program*
NSS *– National Security Strategy*
NSS *– Naval Sustainment System*

NSTC – *Naval Service Training Command*
NSWC – *Naval Surface Warfare Center*
NSY – *Naval Shipyard*
NUWC – *Naval Undersea Warfare Center*
NWCF – *Navy Working Capital Fund*

O

O&M – *Operation & Maintenance*
O&MMC – *Operation & Maintenance, Marine Corps*
O&MMCR – *Operation & Maintenance, Marine Corps Reserve*
O&MN – *Operation & Maintenance, Navy*
O&MNR – *Operation & Maintenance, Navy Reserve*
OASuW – *Offensive Anti-Surface Warfare*
OCO – *Overseas Contingency Operations*
OCONUS – *Outside the Continental U.S.*
ODS – *Officer Development School*
OEF – *Operation Enduring Freedom*
OEM – *Original Equipment Manufacturer*
OFRP – *Optimized Fleet Response Plan*
OFRTP – *Optimized Fleet Response Training Plan*
OFS – *Operation Freedom Sentinel*
OIF – *Operation Iraqi Freedom*
OIR – *Operation Inherent Resolve*
OM&S – *Operating Materials and Supplies*
OMB – *Office of Management and Budget*
OMN – *Operation & Maintenance, Navy*
OMNR – *Operation & Maintenance, Navy Reserve*
OOR – *Out-of-Reporting*
OPDS – *Offshore Petroleum Distribution Systems*
OPFOR – *Operating Forces*
OPN – *Other Procurement, Navy*
OPT – *Operational Planning Team*
OPTEMPO – *Operational Tempo*
ORD – *Operational Requirements Document*
ORT – *Operation Rolling Tide*
OSD – *Office of the Secretary of Defense*
OT – *Operational Test*
OTH – *Over-the-Horizon*
OUSD(C) – *Office of the Under Secretary of Defense Comptroller*

P

P&D – *Production & Deployment*
P&R – *Programs and Resources*
P2P – *Performance to Plan*
PAA – *Primary Authorized Aircraft*
PACOM – *U.S. Pacific Command*
PANMC – *Procurement of Ammunition, Navy and Marine Corps*
PB – *President's Budget*
PBL – *Performance Based Logistics*
PC – *Patrol Craft*
PCS – *Permanent Change of Station*
PEO – *Program Executive Office*
PHIBRON – *Amphibious Squadron*
PHS – *Payload Handling System*
PLAN – *People's Liberation Army Navy*
PMAI – *Primary Mission Aircraft Inventory*
PMAPPS – *Program Management Applications System*
PMC – *Procurement, Marine Corps*
PMRF – *Pacific Missile Range Facility*
POL – *Policy Reform*
POM – *Program Objective Memorandum*
PoR – *Program of Record*
PRC – *People's Republic of China*
Pre-CLO – *Pre-Combat Loadout*
PRTV – *Production Representative Test Vehicle*

R

R3B – *Requirements Review Board*
R&D - *Research and Development*
R&M - *Restoration and Modernization*
RAA - *Request for Additional Appropriations*
RADAR - *Radio Detection and Ranging*
RAM - *Rolling Airframe Missile*
RBA - *Ready Basic Aircraft*
RC - *Reserve Component*
RCOH - *Refueling Complex Overhaul*
RDT&E,N - *Research, Development, Test and Evaluation, Navy*
REPI – *Readiness and Environmental Protection Integration*
RF - *Radio Frequency*
RFU – *Ready-for-Use*
RIMPAC – *Exercise Rim of the Pacific*
ROC – *Reform Oversight Council*
ROGUE – *Remotely Operated Ground Unit Expeditionary*

ROS – *Reduced Operating Status*
ROTC – *Reserve Officers Training Corps*
RPED – *Rapid Prototyping Experimentation and Demonstration*
RPMC – *Reserve Personnel, Marine Corps*
RPN – *Reserve Personnel, Navy*
RRF – *Ready Reserve Force*
RRL – *Ready Relevant Learning*
RRPR – *Reduced Range Practice Rockets*
RSTA – *Reconnaissance, Surveillance, and Target Acquisition*
RTC – *Recruit Training Command*
RWS – *Remote Weapons Station*

S

S&T – *Science and Technology*
S2F – *Speed to Fleet*
SABRS – *Standard Accounting, Budgeting, and Reporting System*
SAPR – *Sexual Assault Prevention and Response*
SAPRO – *Sexual Assault Prevention and Response Office*
SBA – *Schedule of Budgetary Activity*
SBR – *Statement of Budgetary Resources*
SCN – *Shipbuilding and Conversion, Navy*
SCO – *Strategic Capabilities Office*
SDB – *Small Diameter Bomb*
SDBII – *Small Diameter Bomb Increment II*
SDD – *System Development and Demonstration*
SDP – *Signal Data Processor*
SDR – *Ship Disposition Review*
SDTA – *System Demonstration Test Article*
SEAL – *Sea Air Land*
SELRES – *Selected Reserve*
SEWIP – *Surface Electronic Warfare Improvement Program*
SFIM – *Strike Fighter Inventory Management*
SHORAD – *Short Range Air Defense*
SID – *Ship Inactivation Decision*
SIOP – *Shipyard Infrastructure Optimization Program*
SLAP – *Service Life Assessment Program*
SLCM-N – *Sea-Launched Nuclear Cruise Missile*
SLEP – *Service Life Extension Program*
SLM – *Service Life Modification*
SM – *Standard Missile*
SM-6 – *Standard Missile-6*
SMART-T – *Secure Mobile Anti-Jam Reliable Tactical Terminal*
SMCR – *Selected Marine Corps Reserve*
SMMC – *Sergeant Major of the Marine Corps*
SNLWS – *Surface Navy Laser Weapon System*
SNN – *Sealift Nation Needs*
SOF – *Special Operations Force*
SOPGM – *Stand-Off Precision Guided Munitions*
SOSA – *Sensor Open Systems Architecture*
SOUTHCOM – *U.S. Southern Command*
SPMAGTF – *Special Purpose MAGTF*
SPMAGTF-CR-CC – *Special Purpose Marine Air Ground Task Force – Crisis Response – Central Command*
SPMAGTF-SC – *Special Purpose Marine Air Ground Task Force Southern Command*
SRCFS – *Submarine Rescue Fly Away System*
SRDRS – *Submarine Rescue Diving and Recompression System*
SSBN – *Nuclear-Powered, Ballistic Missile Submarine*
SSC – *Ship-to-Shore Connector*
SSEE – *Ship's Signal Exploitation Equipment*
SSGN – *Guided Missile Submarine (Nuclear)*
SSL-TM – *Solid State Laser Technology Maturation*
SSMM – *Surface-to-Surface Missile Module*
SSN – *Nuclear-Powered Attack Submarine*
SSN(X) – *Future Attack Submarine*
SSR – *Secretary's Strategic Review*
ST – *Facilities Sustainment*
STARS – *Standard Accounting and Reporting System*
STARS-HCM – *Standard Accounting and Reporting System-Headquarters Claimant Module*
STEM – *Science, Technology, Engineering, and Mathematics*
STOP – *Ship's Terminal Offload Period*
STOVL – *Short Takeoff and Vertical Landing*
STUAS – *Small Tactical Unmanned Aircraft System*
SUW – *Surface Warfare*
SWAP-C – *Space, Weight, Power and Cooling*
SYSCOM – *Systems Command*

T

T-AE – *Combat Logistics Ship*

T-AGOS *– Ocean Surveillance Ship*
T-AGOS(X) *– Next-Generation Ocean Surveillance Ship*
T-AH *– Hospital Ship*
T-AKE *– Dry-Cargo Ammunition Ship*
T-AO *– Fleet Replenishment Oiler*
T-AOE *– Fast Combat Support Ship*
T-ARS *– Salvage Ships*
T-ATF *– Fleet Ocean Tugs*
T-ATS *– Towing, Salvage, and Rescue Ship*
T-EPF *– Expeditionary Fast Transport*
T-ESB *– Expeditionary Mobile Base*
T-ESD *– Expeditionary Transfer Dock*
T-HST *– High-Speed Transport*
T&E *– Test and Evaluation*
T&R *– Training and Readiness*
TA *– Tuition Assistance*
TACAIR *– Tactical Air*
TACAMO *– Take Charge and Move Out*
TACTOM *– Tactical Tomahawk*
TAI *– Total Aircraft Inventory*
TAT *– Turn-Around-Time*
TCID *– Theater Combat Identification*
TCM *– Tactical Communications Modernization*
TCM MCHH *– Tactical Communications Modernization Multi-Channel Hand Held*
TD *– Technology Demonstration*
TFM *– Total Force Management*
TMS *– Type/Model/Series*
TOA *– Total Obligation Authority*
TOW *– Tube-Launched Optically-Tracked, Wire-Guided*
TSC *– Theater Security Cooperation*
TSEP *– Tactical Submarine Evolution Plan*
TSP *– Thrift Savings Plan*
TWTS *– Terrestrial Wideband Transmission Systems*
TYCOM *– Type Commander*

U

UARC *– University Affiliated Research Center*
UAS *– Unmanned Aircraft (or Aerial) System*
UAV *– Unmanned Aerial Vehicle*
UCA *– Unmanned Carrier Aviation*
UCLASS *– Unmanned Carrier Launched Airborne Surveillance and Strike*
UESC *– Utility Energy Service Contract*
ULTV *– Ultra-Light Tactical Vehicle*
UNREP *– Underway Replenishments*
USMC *– United States Marine Corps*
USN *– United States Navy*
USV *– Unmanned Surface Vehicle/Vessel*
USW *– Undersea Warfare*
UT *– Utilities*
UTV *– Utility Task Vehicle*
UUV *– Unmanned Undersea Vehicles*

V

VACL *– Virginia Class*
VAQ *– Electronic Attack Squadron*
VDS *– Variable Depth Sonar*
VLC *– Victim's Legal Counsel*
VLF *– Very Low Frequency*
VolEd *– Voluntary Education Program*
VP *– Patrol Squadron*
VPM *– Virginia Payload Module*

W

WBLOS *– Web-Based Line of Sight*
WCF *– Working Capital Fund*
WCS *– Weapon Control System*
WEZ *– Weapon Engagement Zone*
WHMO *– White House Military Office*
WPN *– Weapons Procurement, Navy*
WS *– Weapon Systems*
WSA *– Weapon Systems Acquisition Process*
WST *– Weapon System Trainers*

X

XHT *– External Hull Treatment*

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USN