

Highlights of the Department of the Navy FY 2018 Budget Table of Contents

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Section I – Introduction

Overview	1-1
FY 2018 President’s Budget	1-2
Strategic Guidance and Themes	1-5
Resource Summary	1-6

Section II – Personnel

Overview	2-1
Military Personnel.....	2-1
Active Navy Personnel	2-1
Reserve Navy Personnel	2-4
Active Marine Corps Personnel	2-5
Reserve Marine Corps Personnel	2-7
Civilian Personnel	2-9

Section III – Readiness

Navy Overview	3-1
Marine Corps Overview	3-2
Ship Operations	3-2
Battle Force Ships	3-3
Active Ship OPTEMPO.....	3-4
Mobilization	3-4
Ship Maintenance	3-5
Air Operations.....	3-6
Active Tactical Air Forces	3-6
Aircraft OPTEMPO	3-8
Aircraft Depot Maintenance	3-9
Navy Reserve Operations	3-10
Reserve Component Air Forces.....	3-10
Reserve Component Aircraft Depot Maintenance	3-11
Marine Corps Operations	3-12

Active Operations.....	3-12
Ground Equipment Depot Maintenance	3-13
Marine Corps Reserve Operations	3-14
Ground Equipment Depot Maintenance	3-15
Facility Sustainment, Restoration, and Modernization.....	3-16
Facility Sustainment.....	3-16
Facility Restoration and Modernization	3-16
Environmental Restoration, Navy.....	3-16

Section IV – Procurement

Overview	4-1
Ship Programs	4-2
Aircraft Carriers.....	4-2
Surface Ship Programs.....	4-3
Submarine Programs.....	4-3
Amphibious and Logistics Platforms	4-4
Aviation Programs.....	4-5
Fixed Wing	4-5
Rotary Wing	4-6
Unmanned Aerial Vehicles	4-7
Weapons Programs.....	4-8
Ship Weapons	4-8
Aircraft Weapons.....	4-11
Procurement, Marine Corps	4-12
Major Procurement Programs	4-13
Procurement of Ammunition, Navy and Marine Corps	4-14
Other Procurement, Navy	4-15
Industrial Plant Equipment Program	4-15
Ship Programs.....	4-15
Networks and C4I Programs	4-16

Section V – Development

Research and Development Support	5-1
Science and Technology	5-2
Rapid Prototyping and Development	5-2
Surface Navy Laser Weapon System.....	5-3
Ship Research and Development	5-3
Aviation Research and Development.....	5-4

Marine Corps Research and Development.....	5-6
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Section VI – Infrastructure

Military Construction	6-1
Family Housing.....	6-2
Base Realignment and Closure	6-3

Section VII – Revolving Funds

Navy Working Capital Fund (NWCF) Overview	7-1
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Section VIII – Overseas Contingency Operations

Overseas Contingency Operations Overview	8-1
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Section IX – Financial Operations

Responsible Military Spending.....	9-1
Auditability	9-1
Auditability Brings Transformation.....	9-2
Auditability Progress.....	9-3

Appendix A – List of Acronyms

List of Acronyms	A-1
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List of Appropriation Tables

Military Personnel, Navy	2-12
Medicare-Eligible Retiree Health Fund Contribution, Navy	2-12
Reserve Personnel, Navy	2-12
Medicare-Eligible Retiree Health Fund Contribution, Navy Reserve	2-12
Military Personnel, Marine Corps	2-13
Medicare-Eligible Retiree Health Fund Contribution, Marine Corps.....	2-13
Reserve Personnel, Marine Corps.....	2-13
Medicare-Eligible Retiree Health Fund Contribution, MC Reserve.....	2-13
Operation and Maintenance, Navy	3-17
Operation and Maintenance, Navy Reserve	3-18
Operation and Maintenance, Marine Corps	3-18
Operation and Maintenance, Marine Corps Reserve	3-19
Environmental Restoration, Navy	3-19

National Defense Sealift Fund	3-19
Shipbuilding and Conversion, Navy	4-17
Aircraft Procurement, Navy	4-18
Weapons Procurement, Navy	4-19
Procurement, Marine Corps	4-20
Procurement of Ammunition, Navy and Marine Corps	4-21
Other Procurement, Navy	4-21
Research, Development, Test, and Evaluation, Navy	5-7
Military Construction, Navy and Marine Corps	6-3
Family Housing, Navy and Marine Corps	6-4
Base Realignment and Closure Accounts	6-4

List of Supporting Figures

1	DON 2016 Engagements	1-2
2	DON Topline Trends FY 2012 – 2022	1-6
3	FY 2018 DON Budget by Appropriation Title	1-6
4	Appropriation Summary FY 2016 – FY 2018	1-7
5	Active Navy Personnel Strength	2-3
6	Active Navy End Strength Trend	2-3
7	Reserve Navy Personnel Strength	2-4
8	Reserve Navy End Strength Trend	2-5
9	Active Marine Corps Personnel Strength	2-7
10	Active Marine Corps End Strength Trend	2-7
11	Reserve Marine Corps Personnel Strength	2-8
12	Reserve Marine Corps End Strength Trend	2-8
13	Civilian Manpower Work Areas, FY 2018	2-9
14	DON Civilian Manpower Full-Time Equivalent	2-11
15	FY 2018 Active Navy Operation and Maintenance Funding	3-1
16	FY 2018 Active Marine Corps O&M Funding	3-2
17	DON Battle Force Ships	3-3
18	Strategic Sealift	3-5
19	Hospital Ships	3-5
20	DON Ship Maintenance	3-6
21	DON Aircraft Force Structure	3-7
22	DON Aircraft Inventory	3-7
23	DON Aircraft Depot Maintenance and Aviation Logistics	3-10
24	Reserve Component Aircraft Force Structure	3-11
25	Reserve Component Aircraft Depot Maintenance	3-11

26	Marine Corps Ground Equipment Depot Maintenance	3-14
27	Marine Corps Reserve Ground Equipment Depot Maintenance	3-15
28	Procurement Funding, FY 2017-2022.....	4-1
29	Shipbuilding Procurement	4-2
30	Aircraft Programs	4-5
31	Weapons Quantities	4-8
32	RDT&E Funding	5-1
33	Historical MILCON Funding.....	6-1
34	Navy and Marine Corps Family Housing Units.....	6-3
35	Map of NWCF Activities	7-1
36	Summary of NWCF Costs.....	7-2
37	Navy and Marine Corps FY 2018 OCO Funding.....	8-1
38	Historical OCO Funding, FY 2003-2018	8-2
39	Department of the Navy OCO Funding	8-3
40	DON Road to Financial Auditability	9-2

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SECTION I – OVERVIEW



The United States of America is a maritime nation. For more than two centuries, the Navy and Marine Corps have operated throughout the world to protect American citizens and defend U.S. interests by responding to crises and, when necessary, fighting and winning wars. Forward-deployed and forward-stationed naval forces use the global maritime commons as a medium of maneuver, assuring access to and enabling overseas commerce, defending key interests in those areas, protecting our citizens abroad, and preventing our

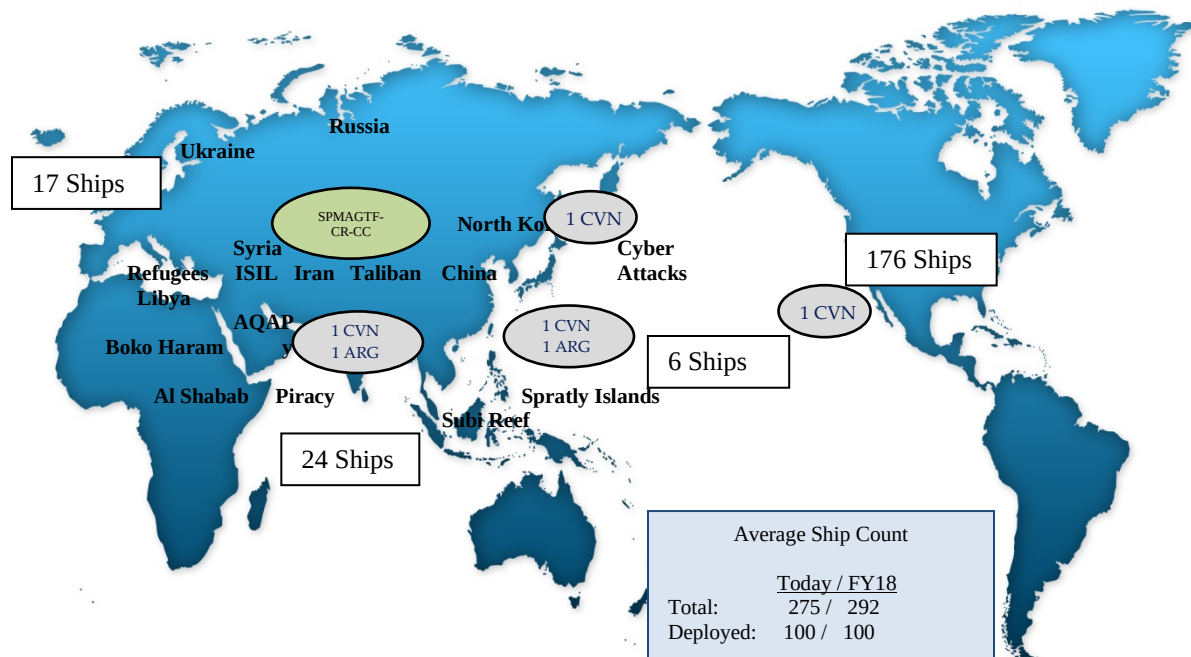
adversaries from leveraging the world's oceans against us. The ability to sustain operations in international waters far from our shores constitutes a distinct advantage for the United States—a Western Hemisphere nation separated from many of its strategic interests by vast oceans. Maintaining this advantage in an interconnected global community that depends on the oceans remains an imperative for our Sea Services and the Nation.

The global security environment is rapidly changing and the Navy and Marine Corps is engaged in a completion that they have not faced in over twenty years. To meet the objectives in the Defense Planning Guidance, as part of the Joint Forces, the Navy and Marine Corps primary force contributors are two Carrier Strike Groups (CSG) and two Amphibious Ready Groups (ARG) forward at all times, and keeping three additional CSGs and ARGs in a ready use or surge status to deploy within 30 days. Fifteen years of consistently high operational tempo for naval forces, funding reductions, and budget uncertainty have resulted in a readiness shortfall in several areas. To respond to these challenges, priority was placed on the readiness of forward deployed forces, and consequently the readiness of surge and non-deployed forces has suffered. The FY 2018 budget takes assertive steps to begin the reversal of these trends, and bring us forward by improving the wholeness of our Naval Forces.

America's Sea Services uniquely provide forward postured capability around the globe. During peacetime and times of conflict, across the full spectrum—from supporting an ally with humanitarian assistance or disaster relief, to deterring or

defeating an adversary in battle—Sailors and Marines are deployed at sea and in far-flung posts to be wherever we are needed, when we are needed. Coming from the sea, naval forces are on station, stay longer, are self-sufficient, and by virtue of being sovereign U.S. territory, provide national leadership unparalleled freedom of action in the event of a crisis. Figure 1 shows areas of active DON involvement in 2016.

Figure 1 – DON 2016 Engagements



FY 2018 President's Budget

The FY 2018 President's Budget balances current readiness needed to execute assigned missions while sustaining a highly capable fleet. The DON budget balances risk in today's requirements and those required to counter 21st century threats. In the near term, there are gaps in training and maintenance that create readiness risks in the event of a major contingency. In the longer term, there are also risks: a dynamic and increasingly dangerous security environment, especially as potential adversaries develop greater military capability, and forces straining to handle multiple simultaneous contingencies. The FY 2018 base budget for the Department is \$171.5 billion, an increase of \$12.6 billion (7 percent) over FY 2017 enacted. The FY 2018 request for Overseas Contingency Operations (OCO) is \$8.5 billion.

Maintaining a robust Fleet and adaptable Marine Corps, requires investments in platforms and systems to address today's wide-range of operations. The FY 2018 budget leverages our aggressive efforts to reduce acquisition costs, improves our capability, and supports our industrial base. This budget ensures we maintain our advantage in advanced technologies and weapons, allowing us to operate in every region across the full spectrum of conflict. In FY 2018, there are eight battle force ships, including one *Ford* class aircraft carrier; two *Virginia* class submarines; two DDG 51 *Arleigh Burke* destroyers; one Littoral Combat Ship (LCS); one T-AO 205 oiler; and one T-ATS towing, salvage, and rescue ship. Navy and Marine Corps aviation provides our nation's leaders with ashore and afloat options where it matters and when it matters. The FY 2018 budget request procures 91 manned and unmanned aircraft.



The FY 2018 budget funds an FY 2018 fleet of 292 Battle Force Ships. As with the FY 2017 request, this budget funds baseline and OCO flight hours for the Navy and Marine Corps to deploy at a 2.0 T-rating. Ship Operations are funded to 58



days/quarter deployed and 24 days/quarter non-deployed with OCO. Marked improvements of the FY 2017 request include Ship Depot maintenance being funded to 80 percent in the base budget, and 100 percent with OCO. Additionally, Aviation Depot Maintenance is funded to capacity at the Fleet Readiness Centers, 89 percent of the total requirement in base and OCO funding

(84 percent in base). Marine Corps ground equipment maintenance is funded at 79 percent of requirement. The FY 2018 base budget request funds sustainment of Navy shore facilities at 78 percent and Marine Corps at 75 percent.



To provide the required ability to deter aggression and respond to emerging security threats—including extremist organizations, pandemic diseases and natural disasters—we must maintain the proper force strength. Both the Navy and Marine Corps are on path to align with the force structure required by strategy, following periods of reduction. The Navy has drawn down from 383,000 in FY 2002 to 327,900 in FY 2018.

The Marine Corps is coming down from a peak of 202,000 in FY 2009 to a sustained level of 185,000 in FY 2018 and beyond. Our Marines will continue returning to their expeditionary roots, with an enhanced ability to operate from sea. Civilian personnel levels grow slightly to accommodate shipyards, security, and acquisition, while maintaining the force of engineers, scientists, medical professionals, and skilled laborers.

The Department remains challenged to meet Combatant Commander demands for forces, and associated higher-than-planned operational tempo over the past decade, while dealing with constrained levels of funding. Surgeable forces have decreased due to high operational tempo and deferred maintenance, a reduction in aircraft and weapons procurement, and risks taken against support infrastructure. This budget has properly funded readiness, though we still have a backlog of deferred work to complete beyond FY 2018, while also adding modest increases in investment necessary to maintain an advantage in advanced technologies and weapons systems. While we have accepted some risk in facilities, weapons capacity, and delayed certain modernization programs, this budget provides us with the best balance to keep the Navy and Marine Corps as a ready and decisive force.

The topline funding provided in the FY 2018 budget has enabled the Department to begin addressing the capabilities needed for full-spectrum warfighting to deter high-end adversaries. This budget makes solid progress toward countering 21st century threats, with fully funded training and maintenance that improve readiness in the event of a major contingency. The Department prioritizes investments in modernization efforts to recapitalize our forces and maintain an effective, safe, and secure nuclear deterrent, including weapons and systems to enhance reliability and survivability of our nuclear strike capability, and command and control (C2) networks.

Overall, the Department's investments in readiness and infrastructure in PB18 are essential to generating the combat ready forces that support the DoD global posture spanning the Middle East, Europe, Africa, the Western Pacific, and South America.

STRATEGIC GUIDANCE AND THEMES

The FY 2018 President's Budget is developed with existing and evolving guidance ranging from National security policy, to the Department of Defense (DoD) strategic guidance (established in the most recent *Quadrennial Defense Review* (QDR) of 2014), to the combined Secretary of the Navy / Chief of Naval Operations / Commandant of the Marine Corps *Cooperative Strategy for 21st Century Seapower*, to the Chief of Naval Operations' *Design for Maintaining Maritime Superiority*, and finally, the Commandant of the Marine Corps' *Advance to Contact* guidelines. There is an ongoing strategic review within the DoD which will inform future budget submissions.



The DON budget maintains consistency with the overarching themes of the DoD budget which include:

- Sustain global demand for Naval forces.
- Continue readiness reset
- Recapitalize and modernize Naval forces
- Address the competitive environment
 - o Fund high end fight and game changing capabilities
 - o Restore and increase modernization programs
 - o Retain counterterrorism/counter insurgency competencies
- Improve cyber resiliency
- Focus on Responsible Military Spending

RESOURCE SUMMARY

Total Obligation Authority (TOA) for the FY 2018 DON baseline budget is \$171.5 billion. Figure 2 displays the DON topline. Figure 3 displays the FY 2018 President's Budget request by Appropriation Title. Figure 4 displays individual Department of the Navy appropriation estimates.

Figure 2 – DON Annual Budget in FY 2018 Then Year Dollars, FY 2012 – FY 2018 (Dollars in Billions)

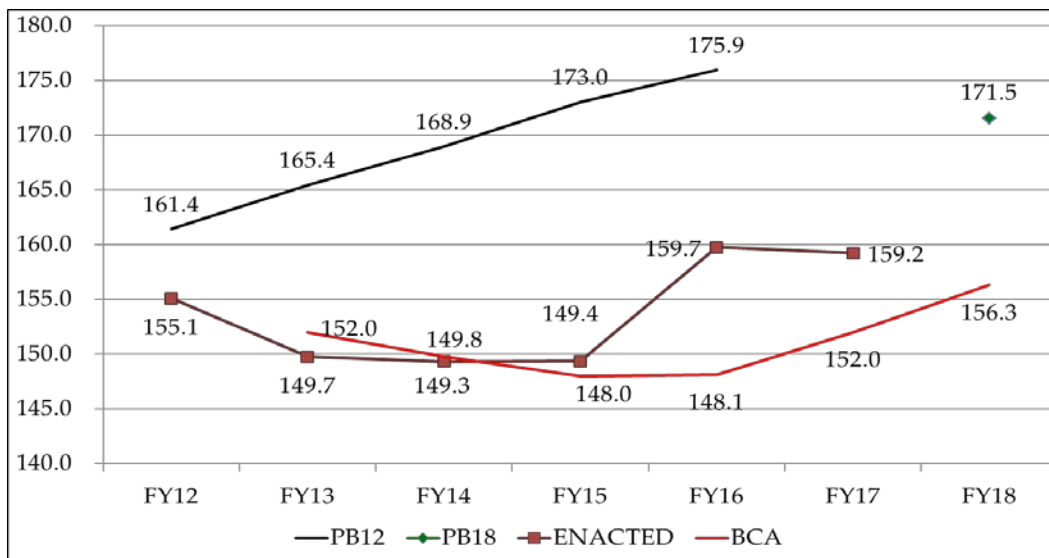


Figure 3 – FY 2018 DON Budget by Appropriation Title (\$171.5 Billion)

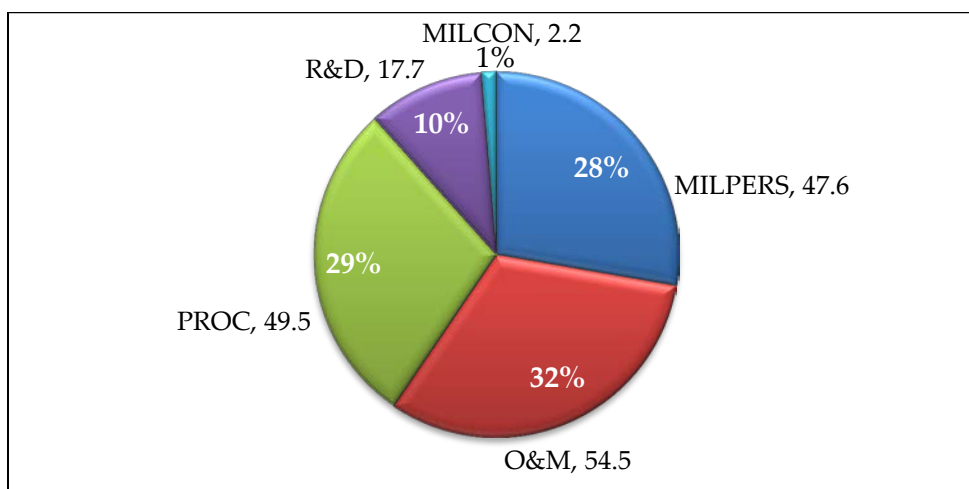


Figure 4 – Appropriation Summary, FY 2016 – FY 2018

<i>(In Millions of Dollars)</i>	FY 2016	*FY 2017	FY 2018
Military Personnel, Navy	27,888	27,889	28,918
Military Personnel, Marine Corps	12,717	12,735	13,279
Reserve Personnel, Navy	1,876	1,921	2,000
Reserve Personnel, Marine Corps	703	745	767
Medicare-Eligible Retiree Health Fund Contribution, Navy	1,281	1,352	1,514
Medicare-Eligible Retiree Health Fund Contribution, MC	726	766	866
Medicare-Eligible Retiree Health Fund Contribution, Res Navy	116	123	136
Medicare-Eligible Retiree Health Fund Contribution, Res MC	68	72	77
Operation and Maintenance, Navy	39,769	38,539	45,439
Operation and Maintenance, Marine Corps	5,873	5,672	6,933
Operation and Maintenance, Navy Reserve	932	930	1,084
Operation and Maintenance, Marine Corps Reserve	273	271	279
Environmental Restoration, Navy	-	289	281
Aircraft Procurement, Navy	17,415	16,135	15,056
Weapons Procurement, Navy	3,087	3,265	3,420
Shipbuilding and Conversion, Navy	18,704	21,157	19,904
Other Procurement, Navy	6,573	6,309	8,278
Procurement, Marine Corps	1,155	1,307	2,065
Procurement of Ammunition, Navy/Marine Corps	653	634	792
Research, Development, Test, and Evaluation, Navy	18,297	17,215	17,675
Military Construction, Navy and Marine Corps	1,721	1,338	1,617
Military Construction, Naval Reserve	36	39	65
Family Housing, Navy (Construction)	21	94	84
Family Housing, Navy (Operations)	345	301	328
National Defense Sealift Fund	538	-	509
Base Realignment & Closure	177	134	144
SUBTOTAL	160,944	159,233	171,511
<i>Navy</i>	<i>137,709</i>	<i>135,379</i>	<i>145,198</i>
<i>Marine Corps</i>	<i>23,235</i>	<i>23,507</i>	<i>26,313</i>
Overseas Contingency Operations	9,381	14,401	8,481
TOTAL	170,325	173,280	179,992

NOTE: OCO details in Section VIII. FY 2017 OCO includes \$3.26 billion from the Request for Additional Appropriations.

*Estimated enacted values

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SECTION II – PERSONNEL

OVERVIEW

Sailors, Marines, Civilians, and their families enable the Navy and Marine Corps to remain ready, forward, and engaged in challenging times. The men and women who comprise today's all-volunteer military are of superb caliber, and we continue to invest to sustain this impressive force.

MILITARY PERSONNEL

Active Navy Personnel

The Department's military personnel are the cornerstone of the Navy. Our mission objectives are accomplished because Sailors adhere to our core values enhancing the trust and confidence of the American people. The Navy has made adjustments to properly size manpower accounts to reflect force structure decisions, reduce manning gaps at sea, and improve Fleet readiness. This will result in FY 2018 active duty manning at 327,900, with more than 100 ships deployed overseas on any given day. A continued focus on recruiting, developing, retaining, and promoting the best Sailors in FY 2018 is critical to our success in maintaining the optimal mix of personnel with the right skills and experience to man the Fleet. To fight and win, we need a force that draws from the broadest talent pools, values health and fitness, attracts and retains innovative thinkers, provides flexible career paths, and prioritizes merit over tenure. Underpinning these initiatives is the Navy Sailor 2025 program. Sailor 2025 has three main efforts, 1) to create a modern personnel system; 2) to create a Ready, Relevant Learning system that supports modern teaching initiatives focused on providing the right training at the right time in a Sailor's career; and 3) provided for an enriched culture that fosters and supports



empowerment and trust, resilience and health, and a work life balance that is inclusive and respectful of our diverse Navy.

The FY 2018 Military Personnel, Navy (MPN) budget requests resources to support Navy manpower, personnel, training, and education. The budgeted end strength in FY 2018 is 327,900; approximately 4,000 higher than the estimated end strength for FY 2017. The FY 2018 request adds funding to align Cruiser manpower to the FY 2018 modernization plan. Additionally, this request increases funding for Permanent Change of Station (PCS) moves to begin recouping risk Navy assumed in FY 2017 due to funding constraints. This adjustment also results in an increase in personnel in a transient status as we continue to work toward the CNO goal of six-month lead-time on written orders for sailors conducting PCS moves. We continue to



implement Navy fitness initiatives, provide for more adaptive workforce opportunities, and further performance-based advancement programs. In FY 2018 we rephase the Sailor 2025 Ready Relevant Learning initiative, which through pilot programs began in FY 2017 to create a new way of training our Sailors through mobile, modularized learning, re-

engineered content, and a distributed Learning Continuum IT infrastructure. Improvements to training will include employing gaming technology, simulation environments, virtual reality, modular training, and mobile environment training that will accelerate Sailors learning and on-the-job skills. Our goal is to increase the tempo and efficiency with which we train, and adapt our processes to be receptive to innovation and creativity for the individual, the team, and the institution. In support of this goal, we increased AEGIS instructors, Cyber Mission Force training pipeline and General Skills Training billets. Additional major changes from FY 2017 include funding to historic Officer execution levels; increases to support the rephasing of the Ready Relevant Learning Program; Joint Strike Fighter Initial Operational Capability requirements; reduction to Major Headquarters Activity billets and recruiters following the consolidation of Regional and Headquarter Recruiting Districts; as well as increasing strength that directly supports Marine Corps units (Corpsmen, Chaplains, etc.) as the Marine Corps increases their

manpower. This budget continues to reduce distributable inventory friction and improve Fleet readiness, and increases junior officer billets to ensure the billet base reflects the work required.

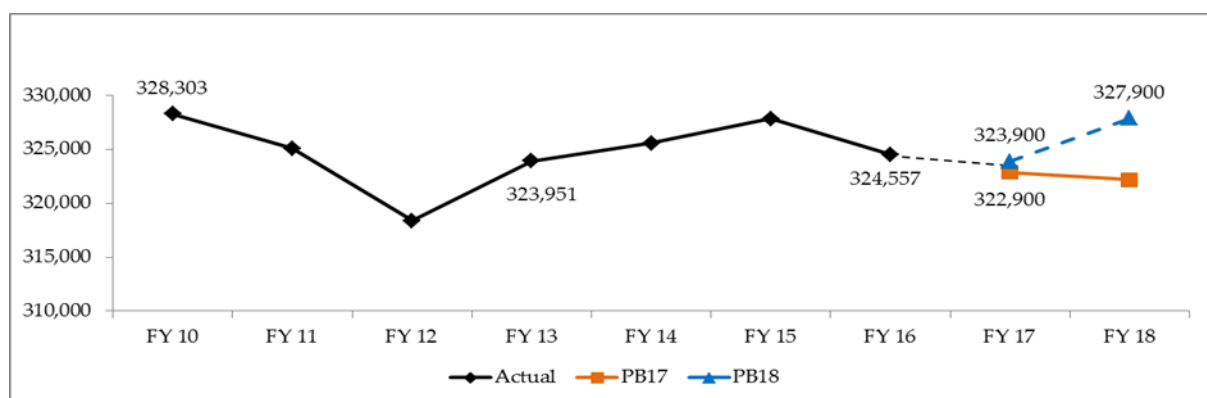
The Navy will continue improving the quality of life for Sailors and implementing quality of service initiatives begun in prior years. We will provide a comprehensive package of pay and benefits that is limited in its growth, but rewards Sailors assigned to deployable units by providing increased sea pay, special and incentive pays for critical skill-sets, and compensation for Sailors underway for extended deployments. We will manage our personnel strength to deliver a naval force that produces leaders and teams who learn and adapt to achieve maximum possible performance, and who achieve and maintain high standards to be ready for decisive operations and combat. Navy active military manpower is reflected in Figures 5 and 6.

OCO funding is requested for deployed pay and allowances in support of contingencies, mobilized reservists to support operations in the U.S. Central Command (CENTCOM) area of operations

Figure 5 – Active Navy Personnel Strength

	FY 2016	FY 2017	FY 2018
Officers	54,392	54,510	54,256
Enlisted	265,742	265,022	269,287
Midshipmen	4,423	4,368	4,357
Total: Strength	324,557	323,900	327,900

Figure 6 – Active Navy End Strength Trend



Reserve Navy Personnel

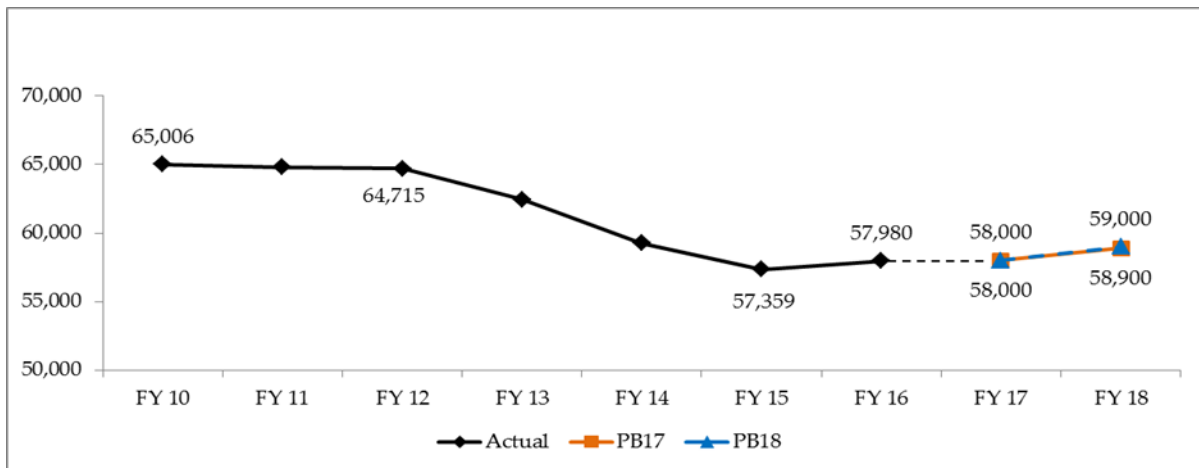


The FY 2018 Reserve Personnel, Navy (RPN) budget request supports 59,000 Selected Reservists and Full Time Support personnel delivering operational capability and surge capacity to the Navy, Marine Corps, and Joint Forces. The Navy Reserve is an integrated force multiplier to the active component, leveraging unique civilian skills and military training in critical capability areas. Reserve personnel remain in high demand to provide enhanced capability, fill manning gaps, and deploy overseas and at home across the full spectrum of naval missions. The Navy Reserve is a vital component of the Navy's

Design for Maintaining Maritime Superiority, continuing to fill both Combatant Commander unit and individual mobilization requirements with a high rate of volunteers. In FY 2018, the Navy Reserve will complete a period of planned growth that has been in progress over the last six years to best adapt to the changing threat environment. End strength will increase as shown in Figures 7 and 8. The primary growth areas are cyber warfare, Unmanned Aerial Systems (UAS), and shipyard surge maintenance. Additional specific investments include maintenance personnel supporting maritime patrol squadron (VP-62 and VP-69) scheduled deployments, improving cyber warfare training to enable full-spectrum cyberspace operations, and permanently fortifying off-installation Navy Operational Support Centers (NOSC) with armed and trained Reserve security personnel to protect our Sailors against extremist threats. The Navy Reserve remains a cost-efficient, mission-effective, and agile force that stands ready to uphold vital national security interests around the globe.

Figure 7 – Reserve Navy Personnel Strength

	FY 2016	FY 2017	FY 2018
Drilling Reserve	47,979	48,045	48,899
Full Time Support	10,001	9,955	10,101
Total: Strength	57,980	58,000	59,000

Figure 8 – Reserve Navy End Strength Trend*Active Marine Corps Personnel*

The Marine Corps remains dedicated to our essential role as our nation's expeditionary force in readiness, chartered by the 82nd Congress and reaffirmed in the most recent National Defense Authorization Act (NDAA), to be the most ready force when the nation is least ready.

The FY 2018 Military Personnel, Marine Corps (MPMC) budget request funds an active duty end strength of 185,000. The makeup of this force was informed by Marine Corps Force 2025, a yearlong, exhaustive, ground up review that focused on the changes necessary to successfully operate in an increasingly



complex global environment. At 185,000 Marines, the Marine Corps will improve the capability and capacity in fields such as information warfare, to allow commanders the ability to fight in all five operational domains (ground, air, sea, space, and cyber) while maintaining effective command and control. The inventory of Marines with special skills – intelligence, electronic warfare, and cyber – to keep pace with the ever-increasing demand for these technical specialties.

Paired with resources guided by strategy, the force of 185,000 active personnel will provide the Marine Corps the ability to develop the capacity and vital warfighting capabilities to allow five critical tasks necessary to build a 5th Generation Marine Corps. The tasks include evolving the Marine Air-Ground Task Force to be able to 1) fight across all warfighting domains, 2) enhancing the ability to maneuver, 3) integrating the Naval Force to fight at and from the sea, 4) operating with resilience in a contested network environment, and 5) exploiting the competence of the individual Marine.

The Marine Corps is the Nation's crisis response force, which provides our Nation the ability to respond to unexpected crises, from humanitarian assistance and disaster relief efforts, to non-combatant evacuation operations, to major combat operations. This same force can be reinforced quickly to contribute to assured access anywhere in the world in the event of a major contingency. Figures 9 and 10 provide Marine Corps manpower levels.



The Marine Corps is positioned to respond across the range of military operations and continues to transition to a post-OIF/OEF posture while supporting Operation Resolute Support, Inherent Resolve and Freedom Sentinel. The Marine Corps is prepositioning Special Purpose Marine Air-Ground Task Forces in Africa, Kuwait, and Central America in order to

conduct Theater Security Cooperation missions as well as protect U.S. diplomatic facilities and citizens abroad. The Marine Corps also provides forces for Western Pacific deployments through the Unit Deployment Program, and operations against the Islamic State of Iraq and the Levant.

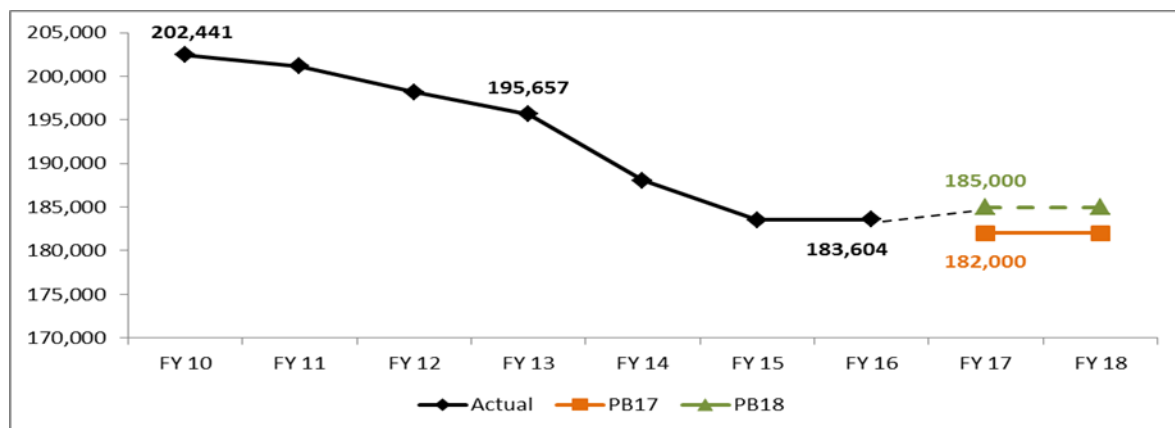
In FY 2018, Marines continue to be in high demand from Combatant Commanders (COCOMs) around the world. Marines are forward deployed, engaged on land and sea, and ready for crisis response in Africa, Europe, the Middle East, and the Pacific.

OCO funding is requested for deployed pay and allowances in support of contingencies, mobilized reservists to support operations in the U.S. Central Command (CENTCOM) area of operations, and continued support of wounded, ill, and injured Marines.

Figure 9 – Active Marine Corps Personnel Strength

	FY 2016	FY 2017	FY 2018
Officers	20,673	21,112	21,112
Enlisted	162,931	163,888	163,888
Total: Strength	183,604	185,000	185,000

Figure 10 – Active Marine Corps End Strength Trend



Reserve Marine Corps Personnel



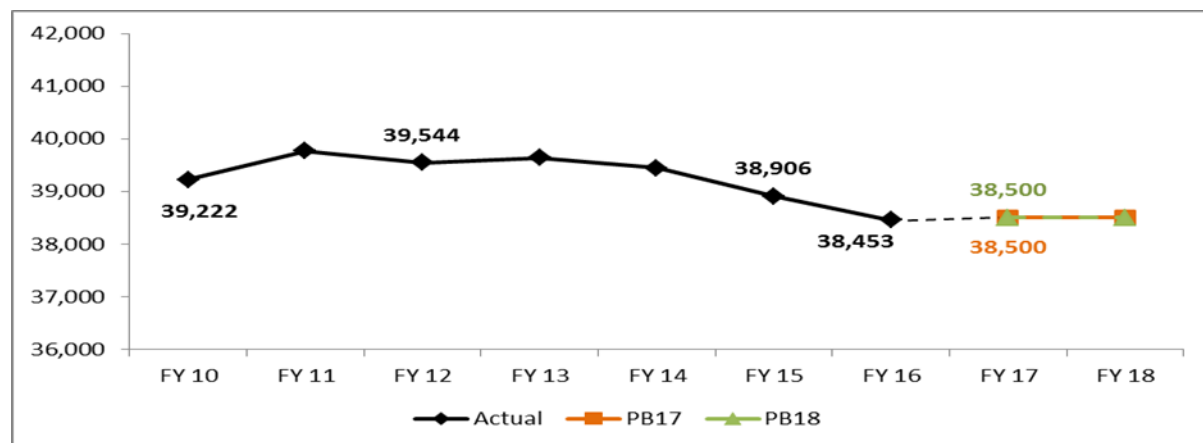
The FY 2018 Budget Request supports a Marine Corps Reserve strength of 38,500. The Marine Corps Reserve maintains a 'Ready-Relevant-Responsive' force capable of seamlessly augmenting and operating as a part of the Total Force to fulfill COCOM and Service rotational and emergent requirements. The Reserves support each COCOM by providing forces focused on regional security cooperation, crisis response and prevention activities, and support

to combat operations. The Marine Corps Reserve maintains a robust operational tempo while providing critical capabilities essential in maintaining 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 COCOMs' need 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 11 - Reserve Marine Corps Personnel Strength

	FY 2016	FY 2017	FY 2018
Drilling Reserve	36,218	36,278	36,239
Full Time Support	2,235	2,222	2,261
Total: Strength	38,453	38,500	38,500

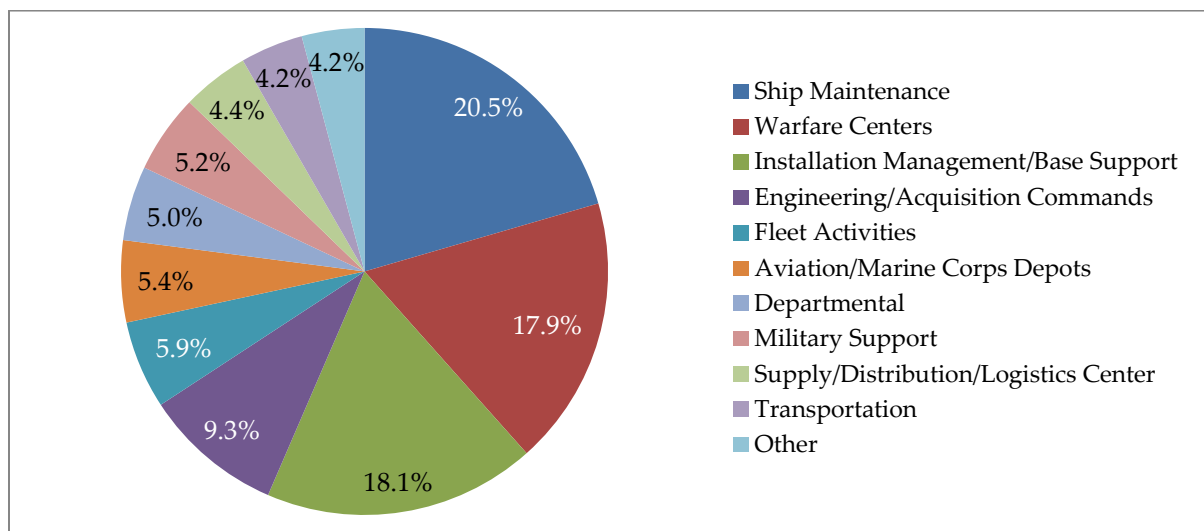
Figure 12 – Reserve Marine Corps End Strength Trend



CIVILIAN PERSONNEL

DON civilian employees are essential to mission success. They provide the Navy and Marine Corps team with the operational readiness to operate and fight decisively around the globe. DON civilians maintain our ships and aircraft, provide logistical capabilities for deployed operations, execute cyber missions, and conduct research to develop cutting-edge equipment and weapons. Figure 13 displays the diverse nature of the civilian workforce.

Figure 13 – Civilian Manpower Work Areas, FY 2018



A key to readiness recovery and sustainment is the ability to grow the force as needed, and this budget reflects growth in several key areas. Our Navy Working Capital Fund activities are vital to our success, providing maintenance, parts, sealift, and the research and development of new technologies and weapons. In FY 2018, we continue to increase engineering support at our warfare centers for continued growth on platforms including the Joint Strike Fighter, *Columbia* Class Program, and unmanned systems. To invest in the workforce of the future, we have added FTEs for Science, Technology, Engineering, and Mathematics (STEM) per Congressional direction. Additionally, we have increased personnel for cyber and tactical support at our systems centers to confront the challenges of today's cyber warfare.

This budget reflects our commitment to provide the necessary manning to restore stressed readiness and to maintain maritime superiority. The ship maintenance workforce grows to reflect scheduled maintenance and to reduce the backlog that has accumulated from over a decade of increased Operational Tempo (OPTEMPO).

To handle the backlog of airframes requiring maintenance from increased flight hours in the Middle East, we have added artisans and engineers to our Fleet Readiness Centers. We continue to increase security at our bases and facilities due to increased threats. Finally, this budget remains committed to achieving the 25 percent headquarters funding reduction approved by Congress.

Figure 14 displays total civilian personnel FTEs by component, type of hire, and appropriation.



Figure 14 – DON Civilian Manpower Full-Time Equivalent

	FY 2016	FY 2017	FY 2018
Total - Department of the Navy*	203,835	205,226	209,008
<u>By Component</u>			
Navy	183,312	184,236	187,900
Marine Corps	20,523	20,990	21,108
<u>By Type Of Hire</u>			
Direct	193,397	193,815	197,596
Indirect Hire, Foreign National	10,438	11,411	11,412
<u>By Appropriation/Fund</u>			
Operation and Maintenance, Navy	97,779	98,963	101,588
Operation and Maintenance, Navy Reserve	803	819	839
Operation and Maintenance, Marine Corps	18,619	19,133	19,160
Operation and Maintenance, Marine Corps Reserve	250	248	248
Total - Operation and Maintenance	117,451	119,163	121,835
Base Closure and Realignment	48	54	54
Family Housing (Navy/Marine Corps)	652	688	682
Research, Development, Test, and Evaluation, Navy	701	884	1105
Total - Other	1,401	1,626	1,841
Total - Working Capital Funds	84,983	84,437	85,332
<u>FTE by Work Area</u>			
Ship Maintenance (e.g., Shipyards)	40,435	41,245	42,830
Warfare Centers	36,952	36,976	37,448
Installation Management/Base Support	35,145	35,940	37,781
Engineering/Acquisition Commands (excludes PEOs)	20,946	20,768	19,423
Fleet Activities (e.g., Ship/Air Operations)	11,601	12,077	12,233
Aviation/Marine Corps Depots	11,124	11,257	11,351
Departmental (e.g., Navy/Marine Corps HQ, PEOs)	10,933	10,484	10,350
Military Support (e.g., Training, Quality of Life)	10,932	10,729	10,903
Supply/Distribution/Logistics Center	9,305	9,156	9,291
Transportation	9,369	8,652	8,709
Other	7,093	7,942	8,689

MILITARY PERSONNEL, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Pay and Allowances of Officers	7,736	7,794	8,049
Pay and Allowances of Enlisted	17,870	17,956	18,507
Pay and Allowances of Midshipmen	80	81	82
Subsistence of Enlisted Personnel	1,155	1,168	1,210
Permanent Change of Station Travel	907	737	927
Other Military Personnel Costs	140	153	143
Sub Total: MPN	27,888	27,889	28,918
Overseas Contingency Operations	344	327	378
Total: MPN	28,231	28,216	29,296

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Health Accrual	1,281	1,352	1,514
Total: DHAN	1,281	1,352	1,514

RESERVE PERSONNEL, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Reserve Component Training and Support	1,876	1,921	2,000
Sub Total: RPN	1,876	1,921	2,000
Overseas Contingency Operations	13	12	9
Total: RPN	1,889	1,933	2,009

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY RESERVE

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Health Accrual	116	123	136
Total: DHANR	116	123	136

*Estimated enacted value

MILITARY PERSONNEL, MARINE CORPS*(Dollars in Millions)*

	FY 2016	*FY 2017	FY 2018
Pay and Allowances of Officers	2,732	2,742	2,857
Pay and Allowances of Enlisted	8,659	8,633	9,012
Subsistence of Enlisted Personnel	783	807	852
Permanent Change of Station Travel	456	449	482
Other Military Personnel Costs	87	103	75
Sub Total: MPMC	12,717	12,735	13,279
Overseas Contingency Operations	144	180	104
Total: MPMC	12,861	12,915	13,383

MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, MARINE CORPS*(Dollars in Millions)*

	FY 2016	*FY 2017	FY 2018
Health Accrual	726	766	866
Total: DHAMC	726	766	866

RESERVE PERSONNEL, MARINE CORPS*(Dollars in Millions)*

	FY 2016	*FY 2017	FY 2018
Reserve Component Training and Support	703	745	767
Sub Total: RPMC	703	745	767
Overseas Contingency Operations	3	4	2
Total: RPMC	706	749	769

MEDICARE-ELIGIBLE RETIREE HEALTH FUND , MARINE CORPS RESERVE*(Dollars in Millions)*

	FY 2016	*FY 2017	FY 2018
Health Accrual	68	72	77
Total: DHAMCR	68	72	77

*Estimated enacted value

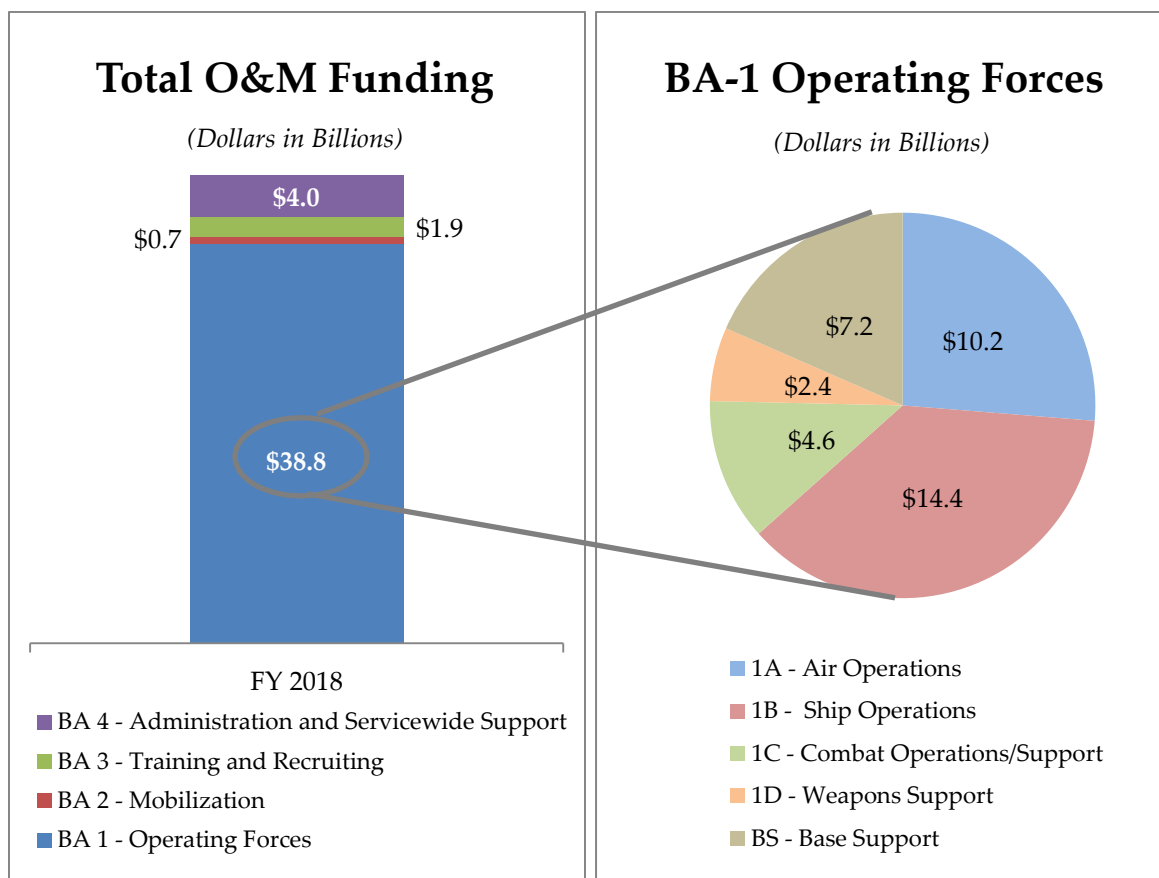
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SECTION III – READINESS

NAVY OVERVIEW

The FY 2018 budget builds on the effort that began with PB17 focusing on filling readiness gaps in Navy major readiness accounts and the enabling accounts that enable our deployed forces to steam ships and fly aircraft. This budget request supports requirements for our Carrier Strike Groups (CSGs), Amphibious Ready Groups (ARGs), and Marine Expeditionary Forces (MEFs) to respond to persistent and emerging threats. The Navy deploys full-spectrum-ready forces to further security objectives in support of U.S. interests. Every day, 100 ships and submarines, embarked and shore based air squadrons, and Navy personnel ashore, are on watch around the globe. The following figure displays the active Navy's operation and maintenance funding in FY 2018.

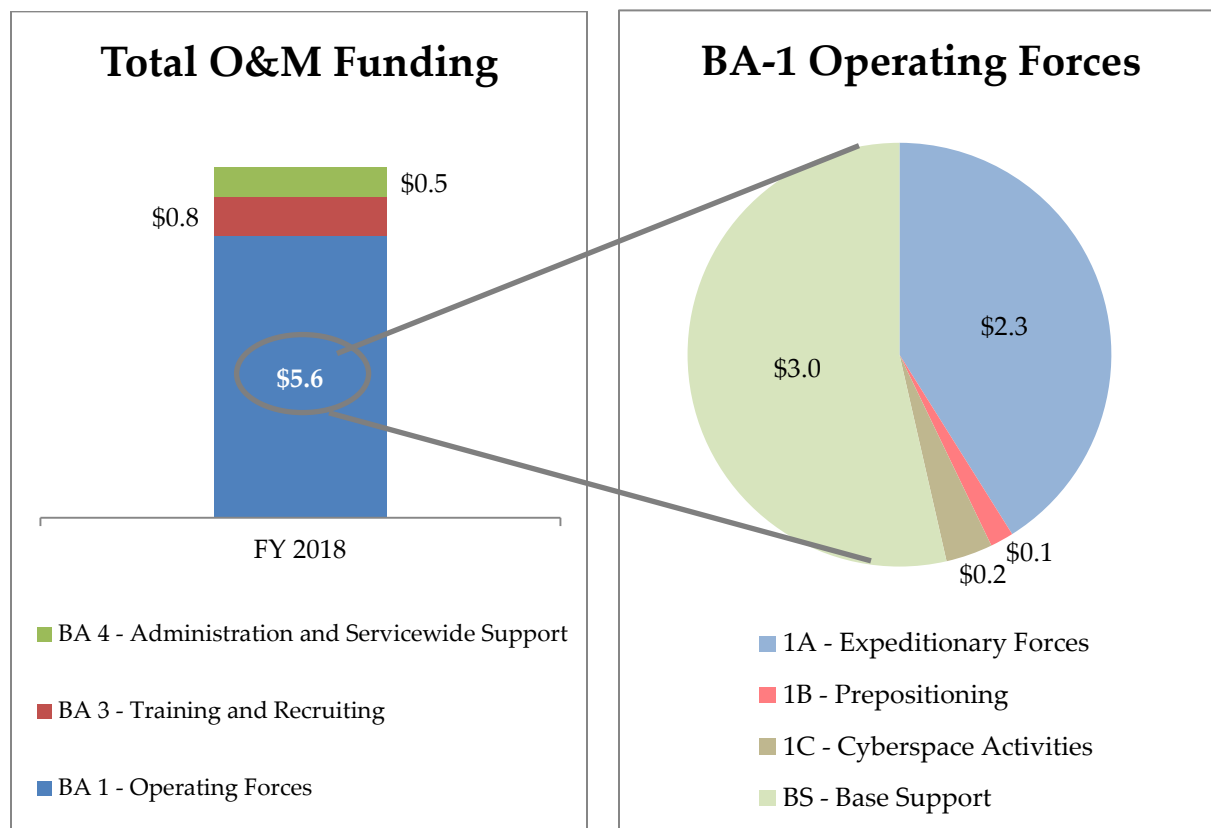
Figure 15 – FY 2018 Active Navy Operation and Maintenance (O&M) Funding



MARINE CORPS OVERVIEW

The FY 2018 budget provides the Nation with a ready Marine Corps that is forward postured conducting operations to defeat and deter adversaries, support partners, and create decision space for national leaders. The FY 2018 budget enhances warfighter readiness, addresses pressing shortfalls and increases lethality by mitigating gaps in combat power. Particular focus within the O&M funding is on the operating forces, training exercises, and installations. Figure 16 displays active Marine Corps' O&M funding in FY 2018.

Figure 16 – FY 2018 Active Marine Corps O&M Funding



SHIP OPERATIONS

The Ship Operations program provides the Navy with critical mission capabilities. The budget provides for a deployable battle force of 292 ships in FY 2018, as shown in Figure 17. This level of operational funding supports 11 aircraft carriers and 32 large amphibious ships that serve as the foundation upon which our carrier and

amphibious ready groups are based. In FY 2018, 13 battle force ships will be delivered: two Nuclear Attack Submarines (SSN), four Littoral Combat Ships (LCS), two Expeditionary Fast Transports (EPF), one Expeditionary Sea Base, one Amphibious Transport Dock (LPD), two Destroyers (DDG) and one *Zumwalt* Class Destroyer (DDG 1000). Two battle force ships will be retired: one Nuclear Attack Submarines (SSN) and the Afloat Forward Staging Base (Interim).

Figure 17 – DON Battle Force Ships

Category	Ship Type	FY 2016	FY 2017	FY 2018
Aircraft Carrier	CVN	10	11	11
Aircraft Carrier Total		10	11	11
Ticonderoga Class Cruiser	CG	22	22	22
Guided Missile Destroyers	DDG	62	65	67
Zumwalt-class Destroyers	DDG 1000	1	1	2
Littoral Combat Ship	LCS	8	13	17
Mine Countermeasures Ships	MCM	11	11	11
Surface Combatant Total		104	112	119
Amphibious Warfare Assault Ships	LHA	1	1	1
Amphibious Assault Ships	LHD	8	8	8
Amphibious Transport Docks	LPD	10	10	11
Dock Landing Ships	LSD	12	12	12
Amphibious Ships Total		31	31	32
Nuclear Attack Submarines	SSN	52	51	52
Fleet Ballistic Missile Sub	SSBN	14	14	14
Guided Missile (SSGN) Subs	SSGN	4	4	4
Submarine Total		70	69	70
Dry-Cargo Ammunition Ships	T-AKE	12	12	12
Fleet Replenishment Oilers	T-AO	15	15	15
Fast Combat Support Ships	T-AOE	2	2	2
Combat Logistics Ships Total		29	29	29
Afloat Forward Staging Base (Interim)	AFSB (I)	1	1	0
Submarine Tenders	AS	2	2	2
High-Speed Transport	T-HST	1	1	1
Amphibious Command Ship	LCC	2	2	2
Ocean Surveillance Ship	T-AGOS	5	5	5
Prepo Dry-Cargo Ammunition Ships	T-AKE MPS	2	2	2
Salvage Ships	T-ARS	4	2	2
Ocean Tugs	T-ATF	4	3	3
Expeditionary Fast Transport	T-EPF	7	8	10
Expeditionary Mobile Base	T-ESB	1	1	2
Expeditionary Transfer Dock	T-ESD	2	2	2
Support Ships Total		31	29	31
Total Battle Force Ships		275	281	292

Note: FY 2017 represents end of year projections.

Active Ship OPTEMPO



The FY 2018 budget request supports the Optimized Fleet Response Plan (OFRP), enabling ships to surge and reconstitute by maintaining a continuous flow from maintenance after deployment, through basic phase training back to deployable ready assets. This is achieved through a goal of seven month deployments.

This concept enables the Department to provide multiple CSGs to meet the threat and deliver decisive military force, if necessary. The DON will support these goals and respond to global challenges by planning for 45 underway days per quarter for the active OPTEMPO of our deployed forces and 20 underway days per quarter for non-deployed forces in the baseline. This also includes repair and consumable parts. The OCO request will support additional deployed/non-deployed steaming of 13/4 days per quarter.

Mobilization

The Navy's mobilization forces, displayed in Figure 18, provide logistics 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. The prepositioned response is followed by the surge ships, which are maintained in a reduced operating status from four to 30 days. The number of days indicates the time from ship activation until the ship is available for tasking; e.g., Reduced Operating Status 5 (ROS-5) indicates it will take five days to make the ship ready to sail, fully crewed and operational. Figure 19 reflects the hospital ships and the capacity measured by the number of patient beds for both the USNS MERCY and USNS COMFORT.

Figure 18 – Strategic Sealift

	FY 2016	FY 2017	FY 2018
<u>Prepositioning Ships:</u>			
Maritime Prepo Ships (O&M,N)	14	14	14
Army Prepo Ships (O&M,A)	7	7	7
Air Force Prepo Ships (O&M,AF)	2	2	2
Navy Prepo OPDS Ship with Tender (O&M,N)	1	1	1
<u>Surge Ships:</u>			
Large Medium-Speed RORO Ships (FY16 & FY18 NDSF, FY17 OMN)*	10	10	10
Container/RORO Ships (former Prepo) (FY16 & FY18 NDSF, FY17 OMN)*	5	5	5
Ready Reserve Force Ships (FY16 & FY18 NDSF, FY17 OMN)*	46	46	46
Prepositioning Capacity (millions of square feet)	4.8	4.8	4.8
Surge Capacity (millions of square feet)	10.5	10.5	10.5
Total Sealift Capacity (millions of square feet)	15.3	15.3	15.3

* Note: NDSF realigned to OMN in FY 2017.

Figure 19 – Hospital Ships

	FY 2016	FY 2017	FY 2018
<u>Hospital Ships:</u>			
Hospital Ships	2	2	2
Hospital Ship Capacity (number of patient beds)	2,000	2,000	2,000

Ship Maintenance

The Department's organic ship maintenance program is mission funded in O&M. It provides funding for repairs, overhauls, and refueling of submarines, carriers, and surface ships at the Navy's four public shipyards, regional maintenance centers, intermediate maintenance facilities, and at private shipyards via contracts. In addition to continued support for ongoing maintenance availabilities, the FY 2018 budget invests in Naval Shipyard (NSY) capacity by increasing the FTE workforce from 33,850 in FY 2017 to 34,988 in FY 2018 in order to increase shipyard throughput. Additionally, to help reduce NSY workload and better align workload to capacity, FY 2018 funds planning for private sector submarine maintenance to reduce the impact to follow-on maintenance work. These efforts minimize the more expensive future execution of deferred current work, maximize utilization of private and public maintenance capacity, and support OFRP. Deferred maintenance in FY 2016 included the cancellation of the USS BOISE maintenance availability due to insufficient capacity at the NSY and deferred funding for USS MONTPELIER until FY 2017 due to a lack of resources in FY 2016. The funding in Figure 20 is the

enacted PB-17 value that funds all planned ship maintenance availabilities. The Department's active ship maintenance baseline budget supports 80 percent of the ship depot maintenance projected in FY 2018.

Figure 20 – Department of the Navy Ship Maintenance

<i>(Dollars in Millions)</i>	FY 2016	FY 2017	FY 2018
Active Forces			
Ship Maintenance BA-1, 1B4B	4,961	4,792	7,166
OCO Leverage for Ship Maintenance	1,366	3,251	1,858
OCO for Ship Maintenance Reset	557	625	625
Title II to Title IX Congressional Shift	1,000	-	-
% Funded with Baseline	68%	60%	80%
% Funded w/ Base & OCO	95%	100%	100%
Annual Deferred Maintenance	417	-	-
SDM Funding w/ OCO	7,884	8,669	9,649
Depot Operations Support BA-1, 1B5B	1,722	1,583	2,194
Total Ship Maintenance (1B4B, 1B5B, & OCO)	9,606	10,252	11,843

AIR OPERATIONS

Active Tactical Air Forces

The budget provides for the operation, maintenance, and training of nine active Navy Carrier Air Wings (CVWs) and three Marine Corps Air Wings in FY 2018, as reflected in Figure 21. Challenges persist Navy and Marine Corps strike-fighter mission capable aircraft inventories. The F-35C carrier variant provides a multi-role stealthy strike fighter to complement the F/A-18. Until F-35C aircraft are available in required numbers, the Navy plans to mitigate the inventory challenge with service life extension of legacy F/A-18 A-D airframes to 8,000-10,000 hours (over original design of 6,000 hours) and procurement of additional F/A-18E/F aircraft. Extension of legacy Hornet life requires additional inspections and deep maintenance that were not originally envisioned for the aircraft. Average repair time has significantly increased because of required engineering of unanticipated repairs, material lead times, and increased corrosion of airframes. Throughput at Navy aviation depots

alone is insufficient to improve mission capable inventories to required levels. Figure 22 displays aircraft inventories.

Figure 21 – DON Aircraft Force Structure

	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>
<u>Active Forces</u>	<u>20</u>	<u>19</u>	<u>19</u>
Navy Carrier Air Wings	10	9	9
Marine Air Wings	3	3	3
Patrol Wings	3	3	3
Helicopter Maritime Strike Wings	2	2	2
Helicopter Combat Support Wings	2	2	2
 <u>Primary Authorized Aircraft (PAA) - Active</u>	 <u>3,275</u>	 <u>3,555</u>	 <u>3,586</u>
Navy	2,208	2,328	2,362
Marine Corps	1,067	1,227	1,224
 <u>Total Active Inventory (TAI)</u>	 <u>4,077</u>	 <u>4,140</u>	 <u>4,185</u>

Figure 22 – DON Aircraft Inventory

Class Category	FY 2016	FY 2017	FY 2018
Attack	257	286	278
Fighter	58	58	58
In Flight Refuel	76	81	79
Patrol	178	204	206
Rotary Wing	1,023	1,041	1,085
Strike Fighter	1,168	1,159	1,145
Tilt Rotor	264	280	295
Training Jet	281	276	279
Training Prop	328	312	324
Training Rotary	113	119	113
Transport	106	107	107
UAV	96	81	83
Utility	53	31	29
Warning	76	105	104
Total	4,077	4,140	4,185

Aircraft OPTEMPO

Mission and Other Flight Operations include all Navy and Marine Corps Tactical Air (TACAIR) and Anti-Submarine Warfare 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 Optimized Fleet Response Training Plan (OF RTP) 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.



FY 2018 funding supports the maximum executable requirements of deployed units, units training in preparation to deploy, and of non-deployed units for sustainment and maintenance readiness levels. The primary driver of the increases in FY 2018 funding in comparison to FY 2017 is the increase in cost-per-flight hour for various

Type/Model/Series in repairable parts, consumables, and maintenance contracts.

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. An increase in production of airframes, engines, and components is a result of the increase in integrated



maintenance capacity and standard depot level maintenance events. These events are associated with a shift in workload and unit cost mix for priority type/model/series in an effort to reduce Out-Of-Reporting (OOR) aircraft status. In addition, inductions for legacy F/A-18 A-D aircraft were increased with an associated increase in civilian maintenance personnel hiring in order to decrease the time to complete depot level maintenance caused by a high number of flight hour inspections and additional engineering work required after these inspections. Multiple actions are in progress to improve the throughput of Navy aviation depots to return required number of legacy F/A-18 A-Ds and F/A-18 E/Fs to the flight line and sustain all Navy & Marine Corps aircraft type/model/series. The increase in aviation logistics is associated with the introduction of additional Primary Authorized Aircraft (PAA) to the F-35 program, the flight hours support for the F-35 Engine Performance Based Logistics (PBL) and Integrated Logistics Support (ILS) programs. Figure 23 displays the funding and readiness indicators for aircraft depot maintenance and aviation logistics. FY 2018 continues to harmonize Aviation Support accounts. Executing the training and deployed flight hours are more than just flying and depot maintenance. Several support accounts exist that underpin the Naval Aviation Enterprise efforts to improve Ready Basic Aircraft (RBA) availability. To complement the Air Depot Maintenance (1A5A) and Aviation Logistics (1A9A) accounts in FY18, there is increased funding to the following Aviation Support accounts: Engineering & Technical Services (1A3A), Air Operations & Safety Support (1A4A), Air Systems Support (1A4N), and Depot Support Services (1A6A).

Figure 23 – Aircraft Depot Maintenance and Aviation Logistics***Aircraft Depot Maintenance (1A5A)****(Dollars in Millions)*

	FY 2016	FY 2017	FY 2018
Airframes	423	532	517
Engines	452	469	521
Components	33	41	52
Baseline	908	1,042	1,090
Overseas Contingency Operations	76	114	211
Total	984	1,156	1,301
Percent Funded of Total Requirement	91%	85%	89%

Aviation Logistics (1A9A)*(Dollars in Millions)*

	FY 2016	FY 2017	FY 2018
KC-130J Hercules	44	49	20
MV-22 Osprey	145	166	117
E-6B Mercury	55	57	64
F-35 Joint Strike Fighter	263	354	523
Baseline	507	626	724
Overseas Contingency Operations	34	35	103
Total	541	661	827

NAVY RESERVE OPERATIONS

The Department's Reserve Component (RC) operating forces consist of aircraft, combat equipment and support units, and their associated weapons. Funding is also provided to operate and maintain RC activities and commands in all fifty states plus Puerto Rico and Guam. This geographical diversity allows the Navy's Selected Reservists the opportunity to train outside of fleet concentration centers. The facility inventory remains at 132 for the Navy Reserves in FY 2018.

Reserve Component Air Forces

RC flying hour funding enables ready Navy and Marine Corps Reserve aviation forces to operate, maintain, and deploy in support of the Department's Strategic Guidance. The Naval Air Force Reserve, as shown in Figure 24, consists of one Logistics Support Wing (12 squadrons), one Tactical Support Wing (five squadrons),

one Maritime Support Wing (four squadrons), and two integrated Helicopter Mine Countermeasures squadrons. The 4th Marine Aircraft Wing (MAW) consists of 11 squadrons and supporting units. Additions in FY 2018 include the realignment of the VMR-1 squadron from Marine Corps Air Station (MCAS) Cherry Point, NC and MARFORCOM to Naval Air Station (NAS) Joint Reserve Base (JRB) Fort Worth, TX and MARFORRES under 4th MAW.

Figure 24 – Reserve Component Aircraft Force Structure

	FY 2016	FY 2017	FY 2018
<u>Reserve Forces Air Wings</u>	<u>4</u>	<u>4</u>	<u>4</u>
Navy Tactical Support Air Wing	1	1	1
Navy Logistics Support Air Wing	1	1	1
Navy Maritime Support Air Wing	1	1	1
Marine Aircraft Wing	1	1	1
<u>Primary Authorized Aircraft (PAA) – Reserve</u>	<u>244</u>	<u>275</u>	<u>284</u>
Navy	141	143	142
Marine Corps	103	132	142

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 25 displays baseline and overseas contingency operations funding requests and readiness indicators for RC aircraft depot maintenance.

Figure 25 – Reserve Component Aircraft Depot Maintenance

(Dollars in Millions)	FY 2016	FY 2017	FY 2018
<u>Reserve Forces</u>			
Airframes	66	68	72
Engines	17	18	23
Baseline Reserve Aircraft Depot Maintenance	83	86	95
Overseas Contingency Operations	20	20	15
Total Reserve Aircraft Depot Maintenance	103	106	110
Percent Funded of Total Requirement	91%	91%	89%

MARINE CORPS OPERATIONS

Active Operations



Fifteen years of high deployment/op-tempo in Afghanistan and Iraq accelerated the consumption rate of many legacy systems and delayed the replacement and production of new equipment. Those operations, combined with decreased funding levels had forced investment

decisions that ensured Marines were prepared for the ongoing fight at the expense of modernization and future readiness. The Marine Corps FY 2018 budget is the first step on the path to achieve maximum readiness in the near and far term by combining key modernization efforts, select legacy systems investment, force design adjustments, training enhancements, and infrastructure/facilities investment.

The FY 2018 budget ensures the Marine Corps continues to be a versatile middleweight force, forward deployed, engaged, and able to respond across the range of military operations. The budget supports the Marine Corps operating forces, which are comprised of three active Marine Expeditionary Forces (MEFs). Each MEF consists of one command element, one Marine Division, one Marine Aircraft Wing, and one Marine Logistics Group and provides a highly trained, expeditionary force capable of rapid response to global contingencies. The inherent flexibility of the MEF organization, combined with Maritime Prepositioning Force assets, allows for rapid deployment of appropriately sized and equipped forces. Marine Expeditionary Units (MEUs) are embedded within each MEF and deploy with Amphibious Ready Groups (ARGs). Three MEUs are East coast based, three are West coast based, and one is based in Okinawa, Japan. These scalable forces possess the firepower and mobility needed to achieve success across the full operational spectrum in either joint or independent operations.

The Navy and Marine Corps team remain the solution set to fulfilling the nation's global maritime responsibilities. With the increasing concentration of the world's population in littoral areas, the ability to operate simultaneously on the sea, ashore, in the air, and to move seamlessly



between these three domains is critical. Amphibious forces, a combination of Marine Air-Ground Task Forces MAGTFs and Navy amphibious ships, remain a uniquely critical and capable component of both crisis response and maritime responsibilities. Operating as a team, amphibious forces provide operational reach and agility, decision space for our national leaders in times of crisis, and strengthened diplomatic initiatives by means of their credible forward presence. Amphibious forces also provide the nation with assured access for the joint force in a major contingency operation. No other force possesses the flexibility to provide these capabilities and yet sustain itself logistically for significant periods and begins to achieve the program balance and resource foundation required so that the Marine Corps can modernize to achieve optimal effectiveness.

Ground Equipment Depot Maintenance

Ground equipment reset after more than a decade of continuous combat operations is key to ensuring the Marine Corps' future combat readiness. Continued investment of reset and sustainment costs is necessary to reset the force by addressing equipment shortfalls and refreshing equipment worn out or degraded by years of combat. The Marine Corps has reset 93 percent of its ground equipment with 65 percent returned to operating forces. The FY 2018 budget request will continue this effort meeting 76 percent of the baseline active force requirement, and 79 percent with OCO as indicated in Figure 26. Employed in multiple combat and stability operations for the past decade, the Marine Corps has utilized wartime supplemental funding to address equipment reset requirements.

Figure 26 – Marine Corps Ground Equipment Depot

<i>(Dollars in Millions)</i>	FY 2016	FY 2017	FY 2018
Funding Profile:			
Baseline	179	207	288
Overseas Contingency Operations	<u>231</u>	<u>147</u>	<u>52</u>
Total	410	354	340
<u>Active Forces</u>			
Combat Vehicles	138	103	135
Missiles	6	7	7
Ordnance, Weapons, and Munitions	15	25	36
Electronics and Communication Systems	29	40	38
Construction Equipment	23	22	26
Automotive Equipment	199	10	46
Total Active Forces	410	207	288
% Funded of Total Requirement	80%	79%	79%

* FY 2016 Maintenance Categories include baseline and OCO.

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 in the same manner as the active force. The Reserve provides complementary assets that enable the Marine Corps total force to mitigate risk and maximize

opportunities. The FY 2018 budget sustains a force of 38,500 Reserve Marines assigned to units across the country. 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 161 reserve training centers and sites across the United States. The FY 2018 budget maintains the Reserve Component's capability without any reductions to reserve end strength. Figure 27 reflects Marine Corps Reserve Ground Equipment Depot Maintenance.

Ground Equipment Depot Maintenance

Ground Equipment Depot Maintenance program supports the overhaul, repair and maintenance of combat vehicles, tactical missiles, electrical communications, automotive/constructive equipment and ordnance. The FY 2018 budget ensures that the combined repairs and procurement programs provide a balanced level of attainment and maintenance of inventory in order to meet mission requirements. Though the overall maintenance budget remains constant from year to year, the variations in the categories are driven by the fact the work type and quantity are dependent upon the nature of the repair/refurbish cycles and the emergent equipment set needs of the forces. Figure 27 reflects the funding for Marine Corps Reserve Ground Equipment Depot Maintenance. Variations in the funding amounts in the different maintenance categories from year to year reflect the quantity and cost of the equipment sets anticipated during that year by the enterprise ground equipment management plan. Specifically, there is a decrease from FY 2017 in work performed on Combat Vehicles and increases in maintenance performed on weapon systems and equipment sets, which are categorized as Electronics and Communications Systems, Construction Equipment, and Automotive Equipment in order to maintain force readiness in all respective commodities as required by the Reserve component. Figure 27 reflects Marine Corps Reserve Ground Equipment Depot Maintenance.

Figure 27 – Marine Corps Reserve Ground Equipment

<i>(Dollars in Millions)</i>	FY 2016	FY 2017	FY 2018
Funding Profile:			
Baseline	<u>18</u>	<u>19</u>	<u>19</u>
Total	18	19	19
Reserve Forces			
Combat Vehicles	1	14	6
Tactical Missiles	2	-	1
Ordnance	9	3	3
Electrical Communication	1	1	5
Constructive Equipment	2	-	2
Automotive Equipment	3	1	2
Total Reserve Forces	18	19	19
% Funded of Total Requirement	100%	100%	100%

FACILITY SUSTAINMENT, RESTORATION, AND MODERNIZATION

Continued investment in Facility Sustainment, Restoration, and Modernization (FSRM) is necessary to maintain our shore installations supporting required capabilities in the Defense Strategic Guidance. The FSRM program maintains the working order of our facilities inventory and prevents premature condition degradation of mission critical facilities.

Facility Sustainment

The FY 2018 budget funds Navy facility sustainment at 78 percent of the DoD-modeled requirement, up from 70 percent in FY 2017. This level of sustainment funding continues to place risk ashore with a focused effort on preserving critical facility components and performing facility maintenance that affects life, health, and safety of Sailors. The FY 2018 budget funds Marine Corps facility sustainment at a rate of 75 percent of the DoD-modeled value in FY 2018. This level of Marine Corps sustainment funding prioritizes life, health, and safety projects to support a ready and capable force.

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 funding on recapitalization of those critical facilities that support warfighting readiness. The Marine Corps continues to resource restoration and modernization to maintain facilities at a fair condition (Q2) level. The FY 2018 request ensures that mission critical facilities are properly maintained in order to support readiness based on mission dependency. Additionally, it continues to support the Marine Corps' Infrastructure Reset Strategy, the implementation of which consolidates and right-sizes infrastructure footprint within existing installations in order to improve operational readiness.

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 appropriations.

OPERATION AND MAINTENANCE, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
<u>Operating Forces</u>			
Air Operations	7,222	7,649	10,191
Ship Operations	11,237	10,356	14,405
Combat Operations/Support	3,416	3,128	4,633
Weapons Support	2,345	2,431	2,404
Base Support	7,501	6,687	7,154
Total - Operating Forces	31,721	30,252	38,787
<u>Mobilization</u>			
Ready Reserve and Prepositioning Forces	418	1,177	417
Activations/Inactivations	351	243	198
Mobilization Preparedness	91	120	89
Total - Mobilization	861	1,540	705
<u>Training and Recruiting</u>			
Accession Training	306	298	298
Basic Skills and Advanced Training	1,034	1,109	1,228
Recruiting & Other Training and Education	486	484	406
Total - Training and Recruiting	1,826	1,891	1,932
<u>Administration and Servicewide Support</u>			
Servicewide Support	2,123	2,020	1,672
Logistics Operations and Technical Support	2,045	1,716	1,142
Investigations and Security Programs	1,173	1,116	1,202
Support of Other Nations	5	5	
Cancelled Activities	8	-	-
Spectrum/Telecommunications	7	-	-
Total - Administration and Servicewide Support	5,361	4,856	4,016
Sub Total: O&MN	39,769	38,539	45,439
Overseas Contingency Operations	7,143	9,660	5,875
Total: O&MN	46,912	48,199	51,314

*Estimated enacted value

OPERATION AND MAINTENANCE, NAVY RESERVE

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
<u>Operating Forces</u>			
Air Operations	573	627	712
Ship Operations	1	1	1
Combat Operations/Support	135	122	135
Base Support	202	158	219
Total - Operating Forces	910	908	1,066
<u>Administration and Servicewide Support</u>			
Servicewide Support	19	18	15
Logistics Operations and Technical Support	3	3	3
Total - Administration and Servicewide Support	22	21	18
Sub Total: O&MNR	932	929	1,084
Overseas Contingency Operations	31	29	24
Total: O&MNR	963	959	1,108

OPERATION AND MAINTENANCE, MARINE CORPS

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
<u>Operating Forces</u>			
Expeditionary Forces	1,899	1,705	2,320
USMC Prepositioning	85	86	86
Combatant Commander Direct Mission Support	-	-	182
Base Support	2,615	2,608	2,982
Total - Operating Forces	4,599	4,399	5,568
<u>Training and Recruiting</u>			
Accession Training	20	17	17
Basic Skills and Advanced Training	483	521	552
Recruiting & Other Training and Education	227	227	258
Total - Training and Recruiting	729	766	827
<u>Administration and Servicewide Support</u>			
Servicewide Support	470	430	460
Logistics OPS & Technical Support	74	78	78
Spectrum/Telecommunications	1	-	-
Total - Administration and Servicewide Support	545	507	538
Sub Total: O&MMC	5,873	5,672	6,933

*Estimated enacted value

OPERATION AND MAINTENANCE, MARINE CORPS RESERVE

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
<u>Operating Forces</u>			
Expeditionary Forces	110	114	122
Base Support	144	137	144
Total - Operating Forces	255	250	266
<u>Administration and Servicewide Support</u>			
Servicewide Support	18	21	12
Total - Administration and Servicewide Support	18	21	12
Sub Total: O&MMCR	273	271	279
Overseas Contingency Operations	3	3	3
Total: O&MMCR	276	274	282

ENVIRONMENTAL RESTORATION, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Environmental Restoration Activities	-	282	281
Total: ERN	-	282	281

NATIONAL DEFENSE SEALIFT FUND

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Strategic Sealift Acquisition	15	-	-
DoD Mobilization Assets	161	-	201
Research and Development	25	-	19
Ready Reserve Force	273	-	289
Total: NDSF	474	-	509

Note: NDSF realigned within OMN and RDTEN in FY 2017.

*Estimated enacted value

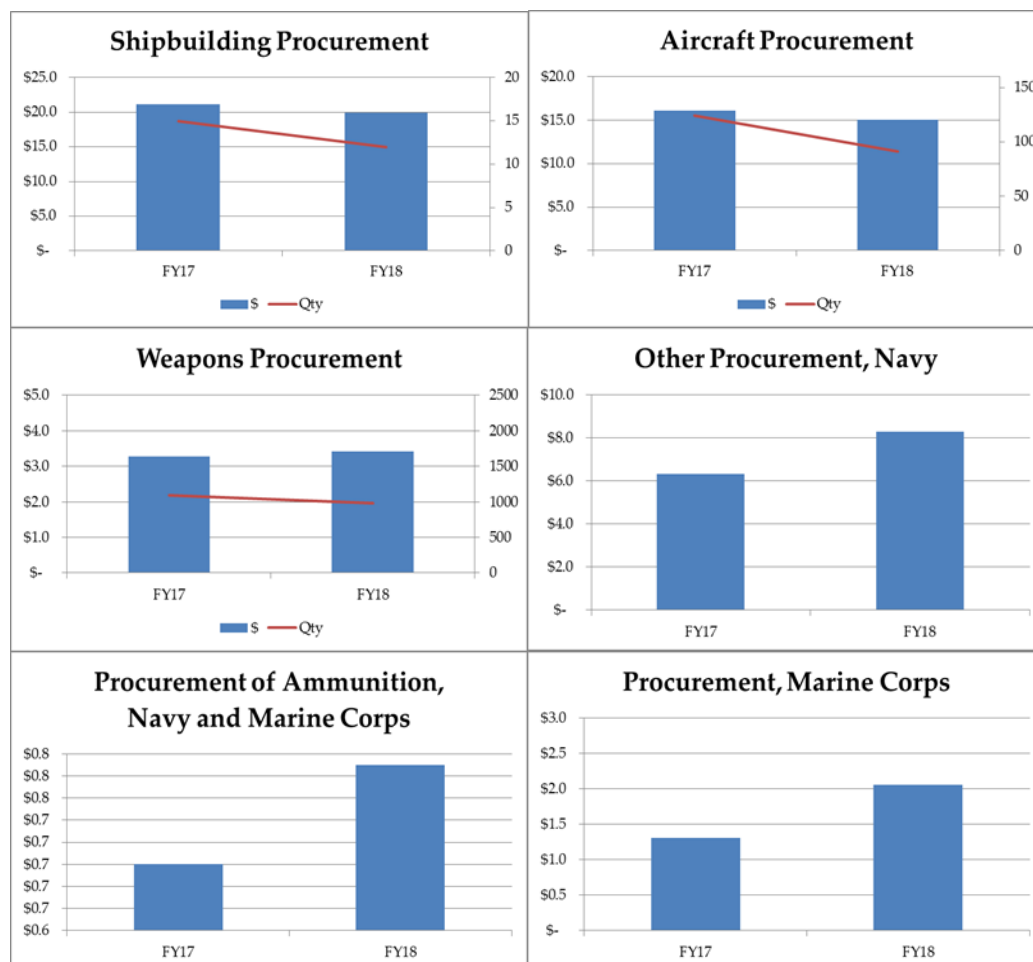
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SECTION IV – PROCUREMENT

OVERVIEW

Maintaining a robust Fleet and adaptable Marine Corps, requires investments in platforms and systems to address today's wide-range of operations. The FY 2018 budget leverages our aggressive efforts to reduce acquisition costs, improves our capability, and supports our industrial base. This budget ensures we maintain our advantage in advanced technologies and weapons, allowing us to operate in every region across the full spectrum of conflict. Figure 28 displays funding in the procurement accounts in FY2017 and FY2018.

Figure 28 – Procurement Funding, FY 2017 – FY 2018 (\$ Billions)



SHIP PROGRAMS

The Navy's shipbuilding budget procures eight battle force ships, including one *Ford* class aircraft carrier; two *Virginia* class submarines; two DDG 51 *Arleigh Burke* destroyers; one Littoral Combat Ship (LCS); one T-AO 205 oiler; and one T-ATS towing, salvage, and rescue ship. The plan through FY 2018 is shown in Figure 29.

Figure 29 – Shipbuilding Procurement

	FY 2017	FY 2018
Columbia class	-	-
CVN 21	-	1
SSN 774	2	2
DDG 51	2	2
LCS	3	1
FFX	-	-
LHA(R)	1	-
LPD 17	1	-
LX(R)	-	-
T-ATS	-	1
Expeditionary Fast Transport	-	-
Expeditionary Sea Base	-	-
T-AO 205	-	1
T-AGOS (X)	-	-
New Construction Total QTY	9	8
New Construction Total (\$B)	\$17.4	\$17.3
LCAC SLEP	3	-
Ship to Shore Connector	2	3
LCU 1700	-	1
Moored Training Ships	1	-
CVN RCOH	-	-
Other Construction Total QTY	6	4
Total Shipbuilding QTY	15	12
Total Shipbuilding (\$B)	\$21.2	\$19.9

NOTE: The FY 2017 column in this table represents FY 2017 Enacted

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 \$4.4 billion requested in FY 2018, the Department will continue to finance the detailed design and construction (\$2.6 billion) of the second *Ford* class carrier (USS John F. Kennedy (CVN 79)), and begin to finance the detailed design and construction (\$1.9 billion) for the third *Ford* class carrier (USS Enterprise (CVN 80)). The FY 2018 President's Budget includes the third increment of funding (\$1.6 billion) for USS George Washington (CVN 73) Refueling Complex Overhaul (RCOH) and the third year of Advance Procurement (\$76 million) for USS John C. Stennis (CVN 74) RCOH.

Surface Ship Programs

The Navy continues to invest in capabilities to counter improved ballistic missile capabilities emerging worldwide. The FY 2018 budget requests \$3.6 billion for two DDG 51 destroyers as part of the Multi-Year Procurement (MYP) in support of this capable platform. The FY 2018 budget request also contains \$636 million to procure one Littoral Combat Ship (LCS).

Submarine Programs

The Navy continues to modernize the submarine fleet. Planning and design continues for the *Columbia* class submarine to provide continuous sea-based strategic deterrence. With the second year of Advance Procurement funding for the *Columbia* class submarine (\$843 million), the Department will continue detail design efforts and begin funding continuous missile tube production, which will help stabilize the manufacturing base and reduce cost and schedule risk. *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 2018 budget request includes funds for two *Virginia* class fast attack submarines (\$3.3 billion) executing as part of the FY 2014 – FY 2018 MYP.



Amphibious and Logistics Platforms

The Landing Craft Utility (LCU) 1700 program requests one craft in FY 2018 (\$32 million). The LCU 1700 serves as the functional replacement for the LCU 1610 class, the average age of which exceeds 45 years, and provides heavy lift capability to transport personnel and cargo from ship to shore. The Ship to Shore Connector (SSC) program continues to procure craft, with three requested in FY 2018 (\$213 million). The SSC serves 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. The T-AO 205 Fleet Oiler program requests one ship (\$466 million) and Advance Procurement funds (\$75 million). The T-AO 205 class will recapitalize the existing T-AO 187 class to supply fuel and dry cargo to Navy ships at sea. The T-ATS Towing, Salvage, and Rescue ship program requests one ship (\$76 million). T-ATS will be the functional replacement for the T-ATF class Fleet Tugs and the T-ARS class Salvage ships.



AVIATION PROGRAMS

Navy and Marine Corps aviation provides our nation's leaders with ashore and afloat options where it matters and when it matters. The FY 2018 budget request procures 91 manned and unmanned aircraft. The aviation program is shown in Figure 30.

Figure 30 – Aircraft Programs

Fixed Wing	FY 2017	FY 2018
F-35C (CV)	8	4
F-35B (STOVL)	18	20
F/A-18E/F	14	14
E-2D AHE	6	5
P-8A (MMA)	11	7
C-40A (USN)	2	-
KC-130J	2	2
Rotary Wing		
CH-53K (HLR)	2	4
MV-22B/CMV-22B	19	6
AH-1Z	26	22
VH-92A	-	-
UAV		
MQ-4C Triton	3	3
MQ-8C Firescout	5	-
RQ-21A Blackjack*	8	4
Total Major Aircraft Programs	124	91

NOTE: FY 2017 includes the OCO request for 2 F/A-18E/F, 1 MV-22B, and 4 RQ-21A Blackjack. FY 2017 and FY 2018 includes 4 RQ-21A Blackjack procured in PMC.

Fixed Wing

The F-35B Short Takeoff and Vertical Landing (STOVL) variant is a multi-role strike fighter replacing the AV-8B and F/A-18 A/B/C/D for the Marine Corps. The F-35C carrier variant provides the Navy with a multi-role stealthy strike fighter to complement the F/A-18. Our Strike Fighter Inventory Management (SFIM) strategy remains challenged with F/A-18A-D aircraft that reach the end of their service lives before sufficient F-35 aircraft can be delivered into service. 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/A-18E/F and F-35B/C aircraft.

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.

The missions performed by the aging P-3 Orion fleet continue to transition to the P-8A Multi-Mission Maritime Aircraft, based on the Boeing 737 platform. The P-8A's ability to perform undersea warfare to include high altitude torpedo capability; long-range surface warfare, and Intelligence, Surveillance, and Reconnaissance (ISR) missions make it a critical force multiplier for the joint task force commander. The increased performance and capabilities of the P-8A enables the crew to get on-station faster and stay on-task longer and most significantly, achieving unprecedented reliability.

The KC-130J 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.

Rotary Wing

The AH-1Z aircraft fulfill the Marine Corps attack and utility helicopter missions. The FY 2018 base budget supports the procurement of 22 AH-1Z aircraft.

The CH-53 is the DoD's only ship-board compatible heavy-lift helicopter. The Marine Corps has been operating the CH-53E since the early-1980s and is replacing this legacy aircraft with the upgraded and more capable CH-53K. The new CH-53K will have heavy-lift capabilities that exceed all other DoD rotary wing-platforms. The FY 2018 budget request continues initial production procurement for this vital asset.



The V-22 Osprey begins a seven year MYP commencing in FY 2018, completing the planned procurement of this aircraft. The Navy plans to replace the C-2A Carrier Onboard Delivery (COD) with the CMV-22B variant, which will perform various missions to include external conformal fuel tanks to provide the capability to meet the range requirements that the COD mission demands and a high frequency radio to transmit/receive beyond line of sight over water. 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.

Unmanned Aerial Vehicles (UAVs)

The FY 2018 budget continues procurement of a broad range of unmanned platforms in support of Joint Force and Combatant Commander demands for increased ISR capability and capacity.

MQ-4C Triton, is a High Altitude-Long Endurance Unmanned Aircraft System designed to provide persistent maritime ISR of nearly all the world's high-density sea-lanes, littorals, and areas of national interest. FY 2018 continues production and maintains our commitment to the ISR transition plan.

The RQ-21 Blackjack, formerly called Small Tactical Unmanned Aircraft System (STUAS), is a combined Navy and Marine Corps program for a common solution that provides persistent ISR/Target Acquisition support for tactical level maneuver decisions and unit level force defense/force protection for naval amphibious assault ships (multi-ship classes) and Navy and Marine land forces.

The MQ-8 Fire Scout continues to support the restructured program which includes completion of the total fleet requirement for 60 air vehicles comprised of MQ-8B and MQ-8C variants with the final year of production being FY 2017. The restructured program also includes the endurance upgrade, radar, and weapons capabilities.



WEAPONS PROGRAMS

Figure 31 shows quantities in the FY 2018 request for specific weapons programs. The FY 2018 weapons procurement budget is \$3.6 billion.

Figure 31 –Weapons Quantities

Ship Weapons	FY 2017	FY 2018
TACTOM*	196	100
TACTOM RECERT	-	-
SM6*	125	125
RAM	120	60
ESSM*	75	31
MK 48 HWT	11	17
MK 48 HWT Mods	73	79
MK 54 LWT Mods	144	144
Harpoon Blk II+ Mod	-	54
SOPGM	24	19
LCS OTH	-	-
LCS SSMM	24	110
Aircraft Weapons		
AIM-9X	152	185
AMRAAM	163	120
AARGM	253	251
LRASM	10	25
JAGM	96	-
HELLFIRE*	100	110
Laser Maverick*	174	45
SDB II	-	90

**Includes OCO request for expended munitions*

Ship Weapons

The Tactical Tomahawk (TACTOM) 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 Tactical Tomahawk preserves Tomahawk's long-range precision-strike capability while significantly increasing responsiveness and flexibility. FY 2018 quantities reflect a combination of

baseline and overseas contingency operations (OCO) for expended missiles. The Department will procure 91 Anti-Access Area Denial (A2AD) modification kits in FY 2018. The Navy will continue development of a follow-on Next Generation Land Attack Weapon and future Tactical Tomahawk upgrades.

The 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-winged 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 Hawkeye, CEC, AEGIS, and the SM-6 missile. SM-6 Block IA has a modified guidance section and will reach full operational capability (FOC) in FY 2018.

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. FY 2018 is the seventh year of production for Block II missiles to provide 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 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. FY 2018 is the first year of procurement for the ESSM Block II missile.

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. FY 2018 efforts will continue the Common Broadband Advanced Sonar System, and guidance and control modifications to the existing torpedo, optimizing the weapon for both deep and littoral waters, and adding advanced counter-countermeasure capabilities. FY 2018 is the third year of procurement of new torpedoes.

The Harpoon Block II+ missile is a net enabled, air-launched, anti-ship cruise weapon with the ability to receive in-flight updates that improve the targeting and engagement of moving maritime targets. This system utilizes global positioning to provide in-flight updates coupled with an active radar seeker to provide accurate targeting. FY 2018 procures kits to retrofit the Harpoon 1C weapons in current inventory.

Stand-Off Precision Guided Munitions (SOPGM), Griffin missile, is a short-range rocket propelled missile that uses GPS/Inertial Navigation System (INS) to the target vicinity and a semi-active laser seeker for terminal guidance. The missile, included in the roll-on/roll-off KC-130J Intelligence, Surveillance, and Reconnaissance Weapon Mission Kit for USMC, has been adapted for use on surface combatants (Patrol Coastal and Littoral Combat Ship platforms) as a short-range anti-surface missile to increase defensive capability against small boat attacks.

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.

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 2018 continues



procurement of AIM-9X Block II and the second year of AIM-9X Block II+ missiles, which incorporates 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. A decrease in quantities reflects the first production lot of Form, Fit, Function Refresh (F3R) missiles which replaces 80% of the missile guidance section components.

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. The Department continues with the seventh year of AARGM production in FY 2018.

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 2018 is the second year of procurement.

The Joint Air-to-Ground Missile (JAGM) is the replacement for Hellfire. JAGM is an air-launched missile system, which utilizes multi-mode seeker technology providing advanced line-of-sight and beyond-line-of-sight capabilities. Milestone C has been

delayed from FY 2017 to FY 2018. FY 2017 funding is being used to procure the first low rate initial production (LRIP) quantities and maintain initial operational capability (IOC). Due to the delay, no missiles are requested in FY 2018.

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 2018 request replaces Hellfire missiles that were expended to support OCO.

The AGM-65 Maverick is a tactical, air-to-surface, guided missile designed for close-air support, interdiction, and defense suppression missions. It also provides standoff capability and high strike probability against a wide range of tactical targets, including high-speed moving targets, armor, air defenses, ships, transportation equipment, and fuel storage facilities. The AGM-65E2, Laser Maverick, is a joint effort by the Navy and Air Force to modernize this capability with an enhanced laser seeker and new software that reduces the risk of collateral damage. The AGM-65E2 is a modification to the Maverick's Guidance and Control Section (GCS) to incorporate modern components, which are a suitable replacement for the obsolete components of the existing AGM-65E.

Small Diameter Bomb Increment II (SDBII) is an Air Force led ACAT I joint program, which provides the warfighter a capability to attack mobile targets in all-weather from stand-off range. SDBII addresses the requirement to attack mobile targets; multiple kills per pass; multiple ordnance carriage; all weather operations; near-precision munitions capability; capability against fixed targets; reduced munitions footprint; increased weapons effectiveness; minimized potential for collateral damage; reduced susceptibility of munitions to countermeasures; and a migration path to net centric operations capability. FY 2018 is the first year of procurement for the DON.

PROCUREMENT, MARINE CORPS (PMC)



In FY 2018 the Marine Corps continues to balance its ground equipment procurement efforts to ensure Marines are supported in the current fight while simultaneously modernizing in preparation for future contingencies. The Marine Corps' path to achieve maximum readiness in ground equipment in the near

and far term combine key modernization efforts, select legacy systems investment, force design adjustments, and training infrastructure enhancements to attain an optimally effective force. Modernization is essential to develop the Marine Corps across all warfighting functions and is the key to ensuring tomorrow's Marine Corps is equipped to execute Marine Corps Operating Concept and outmatch anticipated future challenges. The FY 2018 requests include key warfighting modernization efforts for Ground Combat Tactical Vehicles, Command and Control/Situational Awareness, Ground Radars, Digital Fires Support, and Training Systems. The FY 2018 PMC budget is \$2.1 billion.

Major Procurement Programs

Joint Light Tactical Vehicle (JLTV) Family of Vehicles (FoV) is a joint Army and Marine Corps program of which Army is the lead service. The program objectives are to restore the mobility and payload of the original High Mobility Multi-Wheeled Vehicle to the future light tactical vehicle fleet while providing increased modular protection within the weight constraints of the expeditionary force. JLTV configurations will be derived from two basic vehicle variants, the Combat Tactical Vehicle and the Combat Support Vehicle. The FY 2018 request reflects increased production of JLTV, associated kits, and delivery to receiving units in support of IOC.

Ground/Air Task Oriented Radar (G/ATOR) is an expeditionary, three-dimensional, short/medium range multi-role radar designed to detect cruise missiles, air breathing targets, rockets, mortars, and artillery. G/ATOR will support air defense, air surveillance, counter-battery/target acquisition, and aviation radar tactical enhancements; the final evolution will also support the Marine Corps' air traffic control mission.

Networking on the Move provides Marine commanders with the ability to conduct digital command and control by providing tactical voice, video, and data services while traversing the battlefield. This force modernizing technology will enhance the Marine Corps' ability to operate as an expeditionary force. The Marine Corps has different variants based on the vehicle being used: the NOTM Ground Combat Vehicle (NOTM-GCV), NOTM-Internally Transportable Vehicle (NOTM-ITV), and NOTM-Airborne (NOTM-A). The FY 2018 budget will procure all three variants of the NOTM and critical system upgrades.

PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS (PANMC)

The Procurement of Ammunition, Navy and Marine Corps (PANMC) appropriation supports the inventory and replenishment of munitions and related weaponry. 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 include the Advanced Precision Kill Weapon System (APKWS), which provide Marine Corps ground forces greater precision and effectiveness while increasing firing standoff range. Pyrotechnics and Demolition reinforces Explosive Ordnance Disposal (EOD), the world’s premier combat force for countering explosive hazards including Improvised Explosive Device (IED) and underwater mines.

The ammunition portfolio is a comprehensive array of capabilities that encompasses munitions for everything from the 5 inch MK 54 Guns on Cruiser and Destroyer combatant ships used against air, surface, and shore targets, to Precision-guided Artillery supporting the Marine Corps and Naval Special Warfare with accurate, first round fire-for-effect capability, and Small Arms munitions, that are essential for the Navy Sea Air Land Teams (SEALs), and the Coastal Riverine and Security Forces. In FY 2018 PANMC’s baseline and OCO budget of \$1.0 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 (OPN)

The procurement, production, and modernization of equipment not provided for in the previous appropriations, which generally support multiple platforms, 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 improve the fleet and shore establishment. The FY 2018 OPN budget is \$8.3 billion.

Industrial Plant Equipment Program

The Department's Industrial Plant Equipment (IPE) program supports the capitalized personal property procurements for the Naval Shipyards (NSY) and Fleet I-level maintenance activities. These capital improvements are integral to the Nuclear Enterprise. The FY 2018 other procurement budget supports the replacement of



obsolete NSY industrial plant equipment that is frequently broken and beyond its service life, with new and efficiency-enabling equipment. In addition, this program will support the procurement of required capital equipment needed at the shipyards to support new mission requirements, including VIRGINIA Class introduction at Norfolk NSY, and concurrent VIRGINIA Class availabilities at Portsmouth and Pearl Harbor NSYs, as well as recapitalization of significantly aged IPE, weight handling equipment, and nuclear support equipment infrastructure.

Ship Programs

The FY 2018 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 DDG modernization program funds six availabilities (four Hull, Mechanical & Electrical (HM&E) and two Combat Systems) and procurement

for one HM&E availability and three Combat System availabilities in FY 2018. Consolidated Afloat Networks and Enterprise Services (CANES) program will fund the procurement of 24 Afloat production units, 13 Afloat technical insertions units, one Ashore production unit, one Afloat First Article as well as all integration and associated costs for pre-installation design. Additionally, CANES FY 2018 funding will install 13 Afloat production units, one Ashore unit, and 11 Afloat Technical Insertion units. Shipboard Information Warfare installations in FY 2018 include seven Ship's Signal Exploitation Equipment (SSEE), and seven Graywing. Shipboard Electronic Warfare procurements include 13 Surface Electronic Warfare Improvement Program (SEWIP) block 2, and 2 SEWIP block 3 upgrades to the AN/SLQ-32.

Networks and C4I Programs



The Department's ability to carry out missions is dependent on Command, Control, Communication, Computers, and Intelligence (C4I) programs. Cyber security and resiliency are of principal concern to protect warfighting capabilities. The Navy and Marine Corps continue to issue technical standards and certifications to keep our C4I

systems modernized and resilient against threats. Along with DoD, the Department continues to streamline our network operations through the use of common technologies and the synchronization of IT networks.

SHIPBUILDING AND CONVERSION, NAVY

(Dollars in Millions)

	FY 2016		*FY 2017		FY 2018	
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
<u>New Construction</u>						
Columbia class	-	-	-	773	-	843
CVN 21	-	2,432	-	2,627	1	4,442
SSN 774	2	5,318	2	5,040	2	5,226
DDG 51	3	4,083	2	3,615	2	3,589
DDG 1000	-	433	-	272	-	224
LCS	3	1,332	3	1,564	1	636
LPD 17	1	535	1	1,786	-	-
LHA(R)	-	477	1	1,618	-	1,711
LX(R)	-	14	-	-	-	-
Expeditionary Fast Transport	1	225	-	-	-	-
Expeditionary Sea Base	1	635	-	-	-	-
T-ATS	1	75	-	-	1	76
TAO 205	1	674	-	73	1	541
Total New Construction	13	16,233	9	17,367	8	17,288
<u>Other</u>						
CVN RCOH	1	653	-	1,932	-	1,681
Moored Training Ship	-	138	1	625	-	-
LCU 1700	1	34	-	-	1	32
LCAC SLEP	4	81	3	82	-	-
Outfitting/Post Delivery	-	614	-	626	-	549
Ship to Shore Connector	5	211	2	128	3	213
Service Craft	-	30	-	65	-	24
YP Craft Maintenance/ROH/SLEP	-	22	-	21	-	-
Completion of PY Shipbuilding Programs	-	389	-	160	-	118
Polar Icebreaker	-	-	-	150	-	-
Total Other	11	2,171	6	3,790	4	2,615
Total: SCN	24	18,403	15	21,157	12	19,904

*Estimated enacted value

AIRCRAFT PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2016		*FY 2017		FY 2018	
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
Combat Aircraft	135	11,945	101	10,619	82	9,272
Airlift Aircraft	-	-	2	207	-	-
Trainer Aircraft	-	9	-	6	-	-
Other Aircraft	12	1,006	10	757	5	785
Modification of Aircraft	-	2,465	-	2,480	-	2,814
A/C Spares & Repair Parts	-	1,478	-	1,603	-	1,682
A/C Support Equip & Facilities	-	511	-	464	-	504
Sub Total: APN	147	17,415	113	16,136	87	15,056
Overseas Contingency Operations	3	209	7	682	0	157
Total: APN	150	17,624	120	16,818	87	15,214

*Estimated enacted value

WEAPONS PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2016		*FY 2017		FY 2018	
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
<u>Ballistics and Other Missile</u>						
TRIDENT II Mods	-	1,089	-	1,099	-	1,144
Evolved Sea Sparrow Missile (ESSM)	30	92	75	51	30	75
Tomahawk	149	202	100	219	34	134
AMRAAM	158	203	163	197	120	197
Sidewinder	207	93	152	71	185	80
JT Standoff Weapon (JSOW)	-	13	-	2	-	5
Standard Missile	101	417	125	491	117	511
Rolling Airframe Missile (RAM)	90	75	90	72	60	59
Aerial Targets	-	40	-	137	-	125
Joint Air Ground Missile (JAGM)	-	-	96	22	-	4
LRASM	-	-	10	30	25	75
Stand Off Precision Guided Munitions (SOPGM)	17	3	24	3	19	3
Small Diameter Bomb (SDB II)	-	-	-	-	90	21
Other	-	170	-	289	-	278
<u>Torpedo and Related Equipment</u>						
MK-48 Torpedo	8	60	11	43	17	45
MK-54 Torpedo Mods	-	113	-	97	-	104
MK-48 Torpedo ADCAP Mods	-	57	-	46	-	39
Torpedo Support Equipment	-	63	-	55	-	70
Other	-	23	-	24	-	32
<u>Other Weapons</u>						
Close-In Wpns Sys (CIWS) Mods	-	55	-	51	-	73
Gun Mount Mods	-	58	-	77	-	76
LCS Module Weapons	-	-	24	3	110	13
Other	-	111	-	124	-	147
<u>Spares and Repair Parts</u>						
	-	150	-	62	-	110
Sub Total: WPN	760	3,087	870	3,265	807	3,420
Overseas Contingency Operations			226	138	175	152
Total: WPN	760	3,087	1,096	3,403	982	3,572

*Quantities reflected in chart are appropriated.

*Estimated enacted value

PROCUREMENT, MARINE CORPS

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
<u>Weapons and Combat Vehicles</u>			
AAV7A1 PIP	20	70	108
Amphibious Combat Vehicle	-	-	162
LAV PIP	89	48	17
Modification Kits	14	15	18
155MM Ltwt Towed Howitzer	7	3	20
High Mobility Artillery Rocket System	16	31	60
Wpns & Cmbt Vehs under \$5 million	8	8	20
Other	-	3	1
<u>Guided Missiles and Equipment</u>			
Javelin	51	1	41
Other	90	49	86
<u>Communications and Electronic Equipment</u>			
Repair and Test Equipment	15	14	33
Common Computer Resources	31	39	67
Command Post Systems	34	91	187
Radio Systems	38	44	34
Comm Switching & Control Systems	63	62	55
Comm & Elec Infrastructure Supt	66	30	44
Common Aviation Command and Control System (CAC2S)	17	52	45
RQ-21 UAS	78	78	78
Ground/Air Task Oriented Radar (G/ATOR)	126	123	139
Other	155	183	269
<u>Support Vehicles</u>			
Commercial Cargo Vehicles	22	85	67
Joint Light Tactical Vehicle	59	104	234
Other	23	16	34
<u>Engineer and Other Equipment</u>	122	133	211
<u>Spares and Repair Parts</u>	10	23	35
Sub Total: PMC	1,153	1,307	2,064
Overseas Contingency Operations	64	331	65
Total: PMC	1,217	1,639	2,130

*Estimated enacted value

PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Navy Ammunition	506	464	498
Marine Corps Ammunition	147	169	295
Sub Total: PANMC	653	633	792
Overseas Contingency Operations	118	168	226
Total: PANMC	771	801	1,018

OTHER PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Ship Support Equipment	1,943	1,997	3,077
Communications and Electronics Equipment	2,348	2,034	2,565
Aviation Support Equipment	420	419	442
Ordnance Support Equipment	852	905	929
Civil Engineering Support Equipment	55	79	100
Supply Support Equipment	247	317	510
Personnel and Command Support Equipment	432	359	376
Spares and Repair Parts	276	200	279
Sub Total: OPN	6,573	6,309	8,278
Overseas Contingency Operations	12	251	220
Total: OPN	6,585	6,560	8,498

*Estimated enacted value

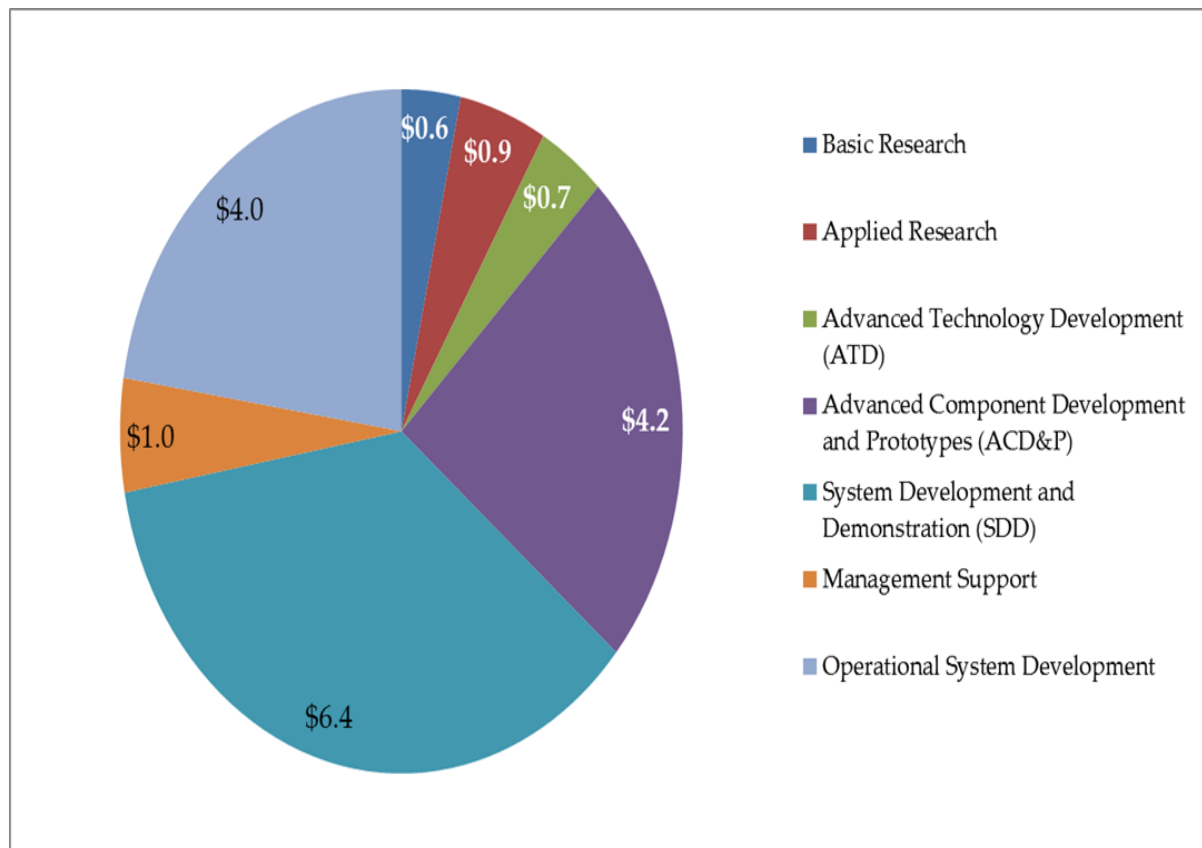
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SECTION V – DEVELOPMENT

RESEARCH AND DEVELOPMENT SUPPORT

The Department of the Navy's Research, Development, Test and Evaluation (RDT&E) program supports DON missions by giving the Department asymmetric and technological advantages against adversaries in all environments and spectrums. Science and technology research is vital to provide for future technologies that support innovative capabilities in shipbuilding, aviation, weapons, and ground equipment. Investment in R&D is also fundamental in the *Columbia* Class Program, *Virginia* Payload Module, unmanned systems, electromagnetic warfare, and protecting our national interests across space and cyberspace. RDT&E funding is shown by budget activity in Figure 32.

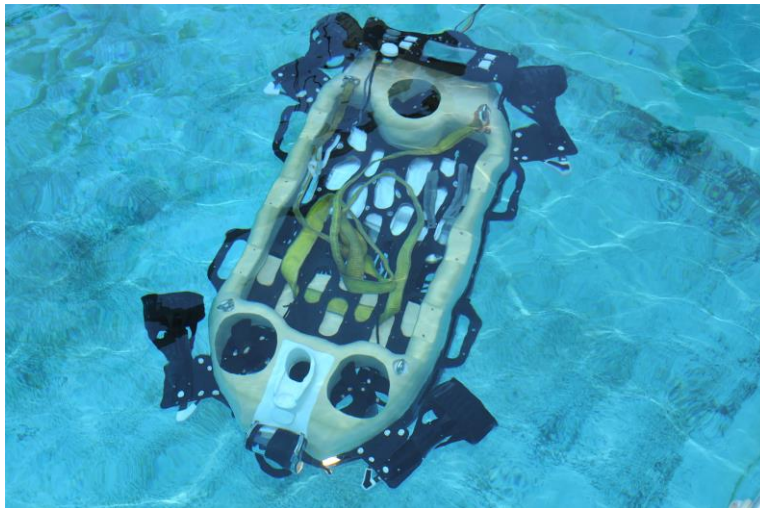
Figure 32 – FY 2018 RDT&E Funding



Science and Technology

The FY 2018 budget requests \$2.2 billion for the Science and Technology (S&T) program, including \$35 million for 10 new Future Naval Capability initiatives in the areas of Capable Manpower, Enterprise and Platform Enablers, Expeditionary Maneuver Warfare, Forcenet, Sea Shield and Sea Strike.

Rapid Prototyping and Development



In response to the accelerating rate of change in the global environment and landscape of potential threats, there is a critical need to improve agility in the development and delivery of warfighting capabilities to the Fleet. The budget requests \$41 million in FY 2018 for rapid prototyping in support of

acquisition agility. Prototype investments and initiatives are guided by DON's Accelerated Acquisition Board of Directors (AABoD). Prototyping portfolios are defined in the detailed budget exhibit and include fast-tracked technology insertion initiatives and incremental prototype campaigns. Rapid prototyping efforts deliver game-changing technology solutions to high priority warfighting needs and associated complex problems. Prototype campaigns refine emerging technologies and engineering innovations, and inform operational concepts and requirements through a series of progressive experiments (live-virtual-constructive, test ranges, and at-sea experiments) leveraging: 1) in-house Naval Research and Development Establishment (NR&DE) infrastructure; 2) Fleet experimentation venues; 3) industry internal research and development (IRAD); and 4) Federally Funded Research and Development Centers (FFRDC), University Affiliated Research centers (UARC) investments, and cutting edge technology. Deliverables include integrated hardware/software prototype system(s), Concept of Operations (CONOPS), requirements analysis, test report(s), and technical data package(s) to support experimentation events, limited fielding decisions, and to inform leadership decisions on the development of an accelerated acquisition approaches.

Surface Navy Laser Weapon System

The budget requests \$63.2 million in FY 2018 for the development and fielding of the Surface Navy Laser Weapon System (SNLWS) to Naval forces. SNLWS is a ship-mounted weapon system, which will include a High Energy Laser (HEL) for counter-Unmanned Aerial Vehicle (UAV) and counter-Fast Inshore Attack Craft (FIAC) missions. In addition, SNLWS will include an integrated low power laser dazzler for counter-Intelligence, Surveillance, and Reconnaissance (ISR) missions against Unmanned Aerial System (UAS)-mounted sensors. Additional mission functionality includes combat ID and battle damage assessment. This technology has the potential to improve the ability of the Navy to defend fleet assets and maintain maritime superiority by deterring, damaging, or destroying asymmetric threats while preserving the inventory of high-value kinetic weapons to address more stressing threats.

Ship Research and Development

COLUMBIA Class

The Department of Navy has budgeted \$1.041 billion in FY 2018 for the *Columbia* class submarine program. FY 2018 research and development efforts will focus on the propulsion plant, common missile compartment development, and platform development technologies like the propulsor, Strategic Weapons System, and maneuvering/ship control.

FORD Class

The budget requests \$308 million in FY 2018 for integration efforts, test planning and support, funds to continue System Development and Demonstration (SDD) and developmental testing on Advanced Arresting Gear (AAG).

VIRGINIA Class

Virginia class submarine research and development efforts continue to focus on cost reduction efforts, operational evaluation testing, development of sonar, combat control, electronic support systems, and submarine multi-mission team trainer efforts. The FY 2018 budget includes \$117 million which continues efforts to improve electronic systems and subsystems, development of improved silencing capability, and reduced Total Ownership Costs for Block IV submarines. In addition, the FY 2018 budget includes \$73 million for platform design efforts on future *Virginia* submarine strike payload capacity for Tomahawk Land Attack and follow on missiles in the *Virginia* Payload Module.

Frigate (FFX)

The budget requests \$143 million in FY 2018 for the Navy to reassess the capabilities required to ensure the multi-mission Frigate paces future threats. The Navy desires to maximize the lethality and survivability of the future Guided Missile Frigate (FFX) in Surface Warfare, Air Warfare through a Local Area Defense capability, and Anti-Submarine Warfare while keeping the ship an effective and affordable part of Distributed Maritime Operations.

Aviation Research and Development



The Super Stallion CH-53E, the only heavy-lift helicopter specifically configured to support Marine Corps missions, entered the fleet in 1980. An improved CH-53K is required to support MAGTF heavy-lift requirements in the 21st century joint environment. The CH-53K will conduct expeditionary heavy-lift transport of armored vehicles,

equipment, and personnel to support distributed operations deep inland from a sea-based center of operations. The system demonstration phase completed initial flight in 1st Quarter FY 2016. Milestone C was complete in 2nd Quarter FY 2017. Advance Procurement funding for long-lead items is included in FY 2017 for low rate initial production in FY 2018.

The VH-92A Presidential Helicopter replaces the legacy VH-3D which was fielded in 1974 and the VH-60N which was fielded in 1989. The Engineering and Manufacturing Development Phase continues in FY 2018 to include the integration of systems, production, qualification, and support of test articles; logistics products development; and demonstration of system integration, interoperability, safety, and utility. FY 2018 includes finalization of modification and delivery of two Electronic Development Model (EDM) aircraft.

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. The NGJ AEA pod will replace the aged ALQ-99 Tactical Jamming System and will be integrated into the EA-18G aircraft. Increment 1 (Mid Band) technology maturation and risk reduction effort continue.

F/A-18E/F Advanced Infrared Search and Track (IRST) is a passive long-wave Infra-Red (IR) sensor which provides an alternate fire control system in a high Electronic Attack / Radio Detection and Ranging (RADAR) denied environment. Block II IRST upgrades the Infra-Red Receiver (IRR) and processor to provide full Capabilities Development Document (CDD) capability, enhanced warfighting capability through an improved engagement timeline, improved situational awareness, longer range passive detection and tracking, and a larger field of regard with specification performance. FY 2018 funding supports both Block I and Block II efforts including the procurement of six IRST Block II EDMs.

The Unmanned Carrier-Launched Airborne Surveillance and Strike (UCLASS) program underwent a restructure with near term focus on the new Unmanned Carrier Aviation (UCA)/MQ-25 Stingray program and accelerating 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 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 to pace emergent threats. FY 2018 will continue work that was begun under UCLASS and leverage previous work completed, focusing on the three segment areas: air, control system and connectivity, and carrier development.

The F-35 Joint Strike Fighter is in the 15th year of System Development and Demonstration (SDD) program. Approximately two more years of SDD work remain to achieve an Operational Requirements Document (ORD) compliant Block III configured aircraft. F-35C Initial Sea Trials on USS Nimitz were successfully completed in November 2014. The redesigned Arresting Hook System allowed for 124 aircraft arrestments with no bolters. The Initial Operational Capability (IOC) date for the F-35B STOVL was in FY 2015



Marine Corps Research and Development

Amphibious Combat Vehicle

This new 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 has been structured to provide a phased, incremental capability. ACV Increment 1.1 leverages and continues the work that was previously accomplished under the Marine Personnel Carrier program. The FY 2018 budget supports the down-selection to one vendor and Milestone C enabling the program to enter LRIP.

Ground Based Air Defense Future Weapon System/Counter Unmanned Aerial System

This effort continues product development and evaluation of new Counter Unmanned Aerial Systems (Counter-UAS's). It consists of the development and operation assessment of the Man-Portable Anti-Drone Defeat System Kit (MADS-K) and a laser based weapon system. These systems will provide a detect, track, identify, and defeat capability through multiple engagement methods. The FY 2018 budget will continue efforts necessary to defeat this emerging threat.

RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY

(Dollars in Millions)

	FY 2016	*FY 2017	FY 2018
Basic Research	649	563	596
Applied Research	952	980	886
Advanced Technology Development	681	824	686
Advanced Component Development	4,930	4,538	4,219
System Development and Demonstration	6,237	5,753	6,362
RDT&E Management Support	1,286	868	946
Operational Systems Development	3,563	3,683	3,980
Sub Total: RDT&E,N	18,297	17,209	17,675
Overseas Contingency Operations	36	327	130
Total: RDT&E,N	18,333	17,536	17,805
<u>By Service</u>			
Navy	17,517	16,393	16,746
Marine Corps	780	1,324	929

*Estimated enacted value

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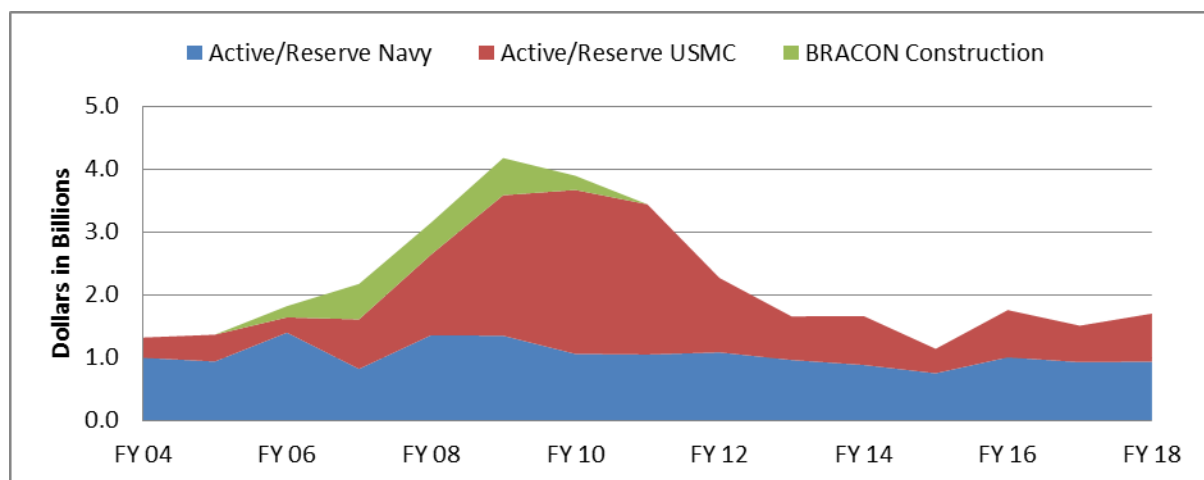
SECTION VI – INFRASTRUCTURE

The mission of the Department could not be achieved without high quality facilities that support our Sailors, Marines, and their families. Further, our ability to rapidly deploy around the globe is directly connected to an effective shore infrastructure.

MILITARY CONSTRUCTION

The FY 2018 budget request supports the Department's critical goals, financing 35 military construction projects. Of these, 16 are for the active Navy and 15 for the active Marine Corps, two are for the Navy Reserve Component, and two for the Marine Corps Reserve Component.

Figure 33 – Historical Military Construction Funding



Key tenets in the Department's facilities investment strategy are as follows, with examples of FY 2018 funding for each:

- Shipyard Improvements
 - Ship Repair Training Facility, NSA Norfolk, VA (\$73 million)
 - Paint, Blast, and Rubber Facility, NSS Portsmouth, ME (\$62 million)
- Ordnance Recapitalization
 - Chambers Field Magazine Recap, NAVSTA Norfolk, VA (\$35 million)
 - Missile Magazines, CNI NAVMAG Indian Island, WA (\$44 million)

- Supporting New Systems
 - F-35B Vertical Lift Fan Test Facility, MCAS Cherry Point, NC (\$16 million)
 - ISR Operations Facility Expansion NAS Oceana, VA (\$29 million)
- Depot Maintenance Recapitalization
 - F/A 18 Avionics Repair Facility Replacement NAS Lemoore, CA (\$61 million)
 - Combat Vehicle Repair Facility, MCLB Barstow, CA (\$37 million)
- Replacing Aging Infrastructure
 - Sewer Lift Station and Relief Sewer Line, Pearl Harbor Hickam, HI (\$73 million)
 - Bachelor Enlisted Quarters, Camp Lejeune, NC (\$38 million)
- Force Relocations and Consolidations
 - LHD Pad Conversions MV-22 Landing Pads, MCB Kaneohe Bay, HI (\$19 million)
 - Aircraft Apron, Taxiway & Support Facilities, Joint Base McGuire-Dix-Lakehurst, NJ (\$12 million)

FAMILY HOUSING

The family housing budget includes the operation, maintenance, recapitalization, leasing, and privatization oversight of the Department's family housing worldwide. The budget request represents the funding level necessary to provide safe and adequate housing either through the community or in government quarters.

The Navy's FY 2018 budget request includes \$73 million for the construction of 60 units at Naval Support Activity Andersen, Guam; one unit at Naval Support Activity Bahrain and wholehouse revitalizations of 151 units at Naval Station, Rota, Spain. The Navy's budget also includes \$277 million for the operation & maintenance of approximately 7,000 units located worldwide, and leasing of nearly 1,800 units. The level of funding translates to 82 percent of the government owned inventory meeting adequate standards, which is below the 90 percent DoD goal.

The Marine Corps' FY 2018 budget request includes \$10 million for the improvement and repair of 24 family housing units at Marine Corps Air Station, Iwakuni, Japan. The Marine Corps budget also includes \$542 million for the operation, maintenance and leasing of approximately 1,500 units located worldwide. The level of funding translates to 93 percent of the government owned inventory meeting adequate standards.

Figure 34 – Navy & Marine Corps Family Housing Units

	FY 2016	FY 2017	FY 2018
Privatized inventory (end of FY)	62,124	62,205	62,205
Government Owned inventory (average)	8,624	8,414	8,942
Leased inventory (average)	1,798	1,805	1,799
Total	72,546	72,424	72,946

BASE REALIGNMENT AND CLOSURE

The Base Realignment and Closure (BRAC) Budget in FY 2018 is \$144 million. These funds will be used to continue environmental clean-up and monitoring at legacy locations.

MILITARY CONSTRUCTION, NAVY AND MARINE CORPS ACTIVE AND RESERVE

(Dollars in Millions)

	FY 2016	FY 2017	FY 2018
<u>Significant Programs</u>			
Major Construction	1,607	1,220	1,374
Minor Construction	23	30	24
Planning and Design	92	88	219
Sub Total: Navy	1,721	1,338	1,617
Overseas Contingency Operations	-	127	19
Total: Navy	1,721	1,465	1,635
<u>Naval Reserve</u>			
Major Construction	32	35	59
Minor Construction	1	-	2
Planning and Design	2	4	4
Sub Total: Navy Reserve	36	39	65
Overseas Contingency Operations		4	
Total: Naval Reserve	36	43	65
<u>By Service</u>			
Navy	1,003	928	936
Marine Corps	754	580	764

FAMILY HOUSING, NAVY AND MARINE CORPS

(Dollars in Millions)

	FY 2016	FY 2017	FY 2018
<u>Navy</u>			
Construction (Incl P&D)	13	82	73
O&M	314	267	277
Total: Navy	326	349	350
<u>Marine Corps</u>			
Construction (Incl P&D)	8	12	10
O&M	32	34	52
Total: Marine Corps	40	46	62
Total: FH,N&MC	366	395	412

BASE REALIGNMENT AND CLOSURE ACCOUNTS

(Dollars in Millions)

	FY 2016	FY 2017	FY 2018
Base Realignment and Closure IV	-	-	-
Base Realignment and Closure V	-	-	-
Consolidated Prior BRAC	176	154	144
Total: BRAC	176	154	144

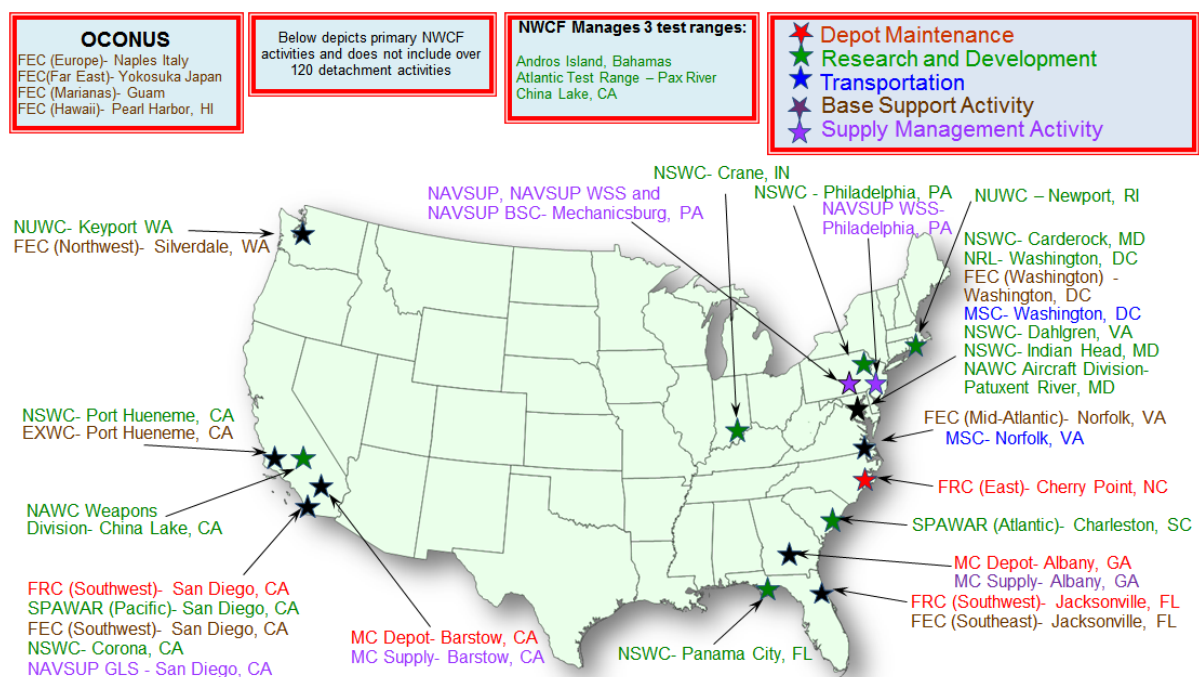
SECTION VII – REVOLVING FUND

Navy Working Capital Fund Overview

The Navy Working Capital Fund (NWCF) is a revolving fund that finances Department of the Navy (DON) activities providing products and services on a reimbursable basis, based on a customer-provider relationship between operating units and NWCF support organizations. Unlike for-profit commercial businesses, NWCF activities strive 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. These fluctuations are recovered from customers in future years via rate changes. The NWCF is key to supporting the DON's posture and presence through capability, capacity, and readiness.

NWCF activity groups comprise five primary areas: Supply Management, Depot Maintenance, Transportation, Research and Development, and Base Support. The wide range of goods and services provided by NWCF activities are crucial to the DON's afloat and ashore readiness and maintaining a relevant industrial base. Figure 35 shows NWCF activities across the country.

Figure 35 – Map of NWCF Activities



The FY 2018 NWCF budget request reflects the DON's continued focus on ensuring the right products and services are provided where it matters, when it matters, and at the right cost. The value of goods and services provided by NWCF activities in FY 2018 is projected to be approximately \$30.9 billion, as shown in Figure 36. The NWCF FY 2018 budget request reflects a total cost that is relatively stable with a slight increase from FY 2017. The cost increase is primarily attributable to general price inflation, fuel changes, and further investment in laboratories and warfare centers in accordance with Section 212 of the 2017 National Defense Authorization Act.

Figure 36 - Summary of NWCF Costs

<i>(Dollars in Millions)</i>	FY 2016	FY 2017	FY 2018
<u>Operating Costs</u>			
Supply - Obligations	7,400.3	8,943.8	8,645.3
Depot Maintenance - Aircraft	2,147.6	2,186.7	2,280.6
Depot Maintenance - Marine Corps	469.5	396.3	312.1
Transportation	2,927.4	2,693.3	2,831.8
Research and Development	12,902.6	13,264.3	13,627.8
Base Support	3,075.4	3,118.7	3,260.8
Total	28,922.9	30,603.2	30,958.3

NWCF Cash

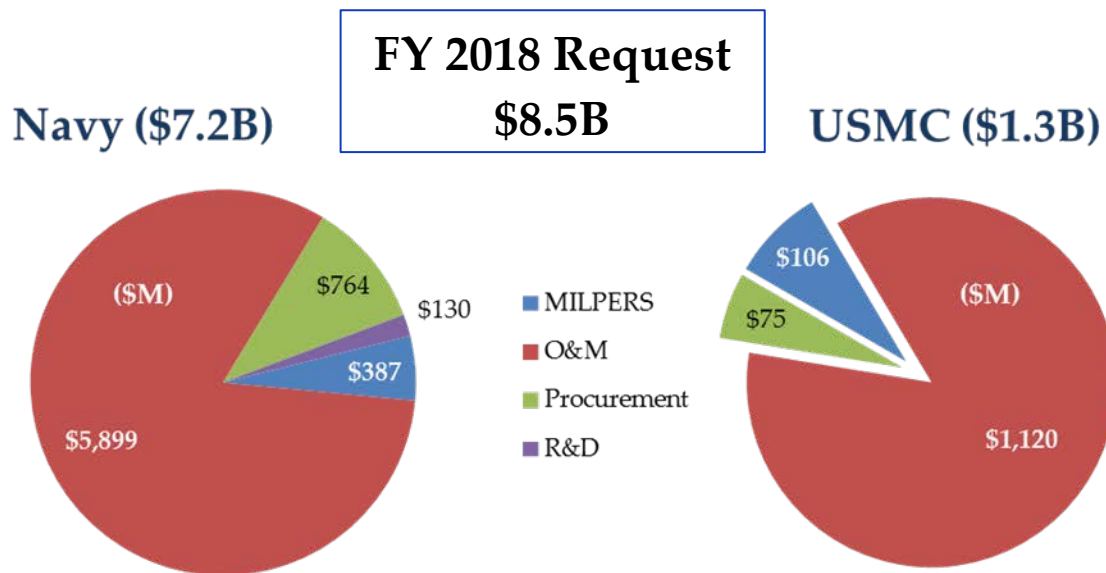
The DON's goal is to maintain our cash balance within the upper and lower operational range. The operational range is determined using the established DoD guidance for calculating cash requirements. Specifically, these are rate, range, risk mitigation and reserves, commonly referred to as "The Four R's". The DON's operational range calculation is based on average daily expenditure rates and a projection of outlays to procure capital investments. The operational range also takes into consideration DON specific cash volatility and provides a reserve in order to ensure an adequate cash balance is maintained to meet projected outlays throughout the year. The DON's NWCF cash requirement includes a forecast of collections and disbursements and considers cyclical timing of outlays.

SECTION VIII - OVERSEAS CONTINGENCY OPERATIONS (OCO)

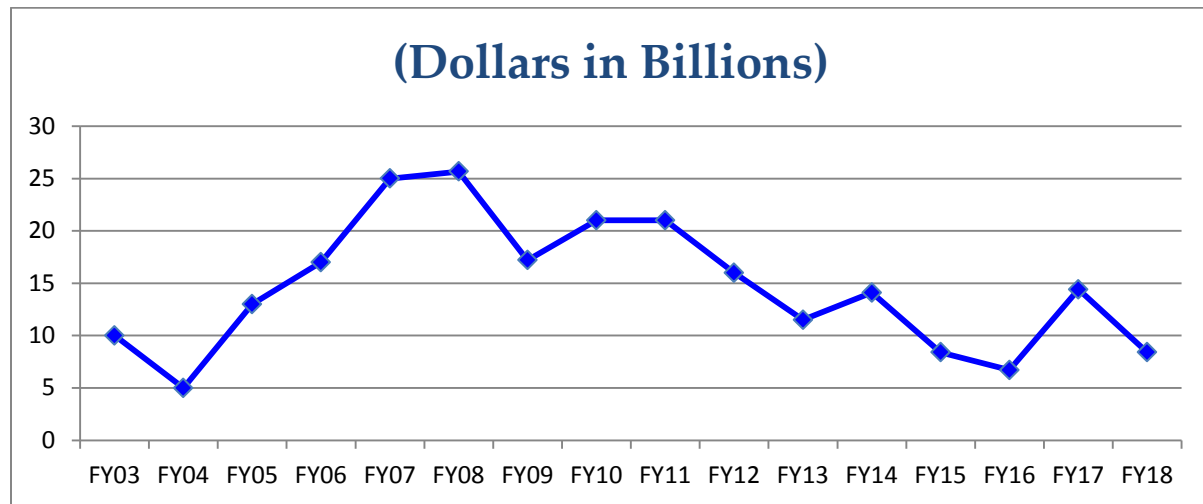
OVERVIEW

The Navy and Marine Corps overseas force posture is shaped by ongoing and projected operational commitments. FY 2018 continues funding to counter the Islamic State of Iraq and the Levant (ISIL) and for operations in Afghanistan, the Horn of Africa, and other locations in theater, as well as for the European Reassurance Initiative. The FY 2018 request includes incremental costs to sustain operations, manpower, equipment, and infrastructure repair, as well as equipment repair and replacement. These costs include aviation and ship operations and maintenance, combat support, base support, Marine Corps operations and field logistics, mobilized reservists, and other special pays. Figure 37 shows a breakout of Navy and Marine Corps funding by appropriation.

Figure 37 – Navy and Marine Corps FY 2018 OCO Funding



The level of funding requested in FY 2018 decreases slightly, as shown in Figure 38, reflects the current deployed forces for the Afghanistan plan. Today the Marine Corps has a force of ~3,000 Marines ashore in the U.S. Central Command (CENTCOM) and another ~1,000 Marine Reserve members supporting CENTCOM.

Figure 38 – Historical OCO Funding, FY 2003 – FY 2018

Beyond the Marines participating in counterinsurgency, security cooperation, and civil-military operations, on any given day there are ~4,600 Sailors ashore and another ~10,000 afloat throughout CENTCOM. These sailors are conducting operations such as air operations, maritime infrastructure protection, explosive ordnance disposal (counter-IED), combat construction engineering, cargo handling, combat logistics, maritime security, detainee operations, customs inspections, civil affairs, base operations, and other forward presence activities. For the foreseeable future, the demand for naval presence in theater remains high as we uphold commitments to allies and partner states.

The Navy has active and reserve forces continually deployed in support of contingency operations overseas serving as members of Carrier Strike Groups, Expeditionary Strike Groups, Special Operating Forces, Seabee units, Marine forces, medical units, and Individual Augmentees (IAs). Figure 39 provides the Overseas Contingency Operations funding profile.



Figure 39 – Department of the Navy OCO Funding*(Dollars in Millions)*

	FY 2016	*FY 2017	FY 2018
USN OCO			
<u>Appropriation</u>			
Military Personnel, Navy	344	338	378
Reserve Personnel , Navy	13	12	9
Operation and Maintenance, Navy	5,076	9,758	5,875
Operation and Maintenance, Navy Reserve	31	29	24
Aircraft Procurement, Navy	204	682	157
Weapons Procurement, Navy	0	138	152
Other Procurement, Navy	12	251	220
Procurement of Ammunition, Navy/Marine Corps	51	160	216
Military Construction, Navy	-	127	19
Military Construction, Navy Reserve		4	
Research, Development, Test, and Evaluation, Navy	36	279	130
Sub Total USN OCO	5,768	11,778	7,180
USMC OCO			
<u>Appropriation</u>			
Military Personnel, Marine Corps	143	186	104
Reserve Personnel , Marine Corps	3	4	2
Operation and Maintenance, Marine Corps	639	2,043	1,117
Operation and Maintenance, Marine Corps Reserve	3	3	3
Procurement, Marine Corps	64	331	65
Procurement of Ammunition, Navy/Marine Corps	67	8	10
Research, Development, Test, and Evaluation	-	48	-
Sub Total USMC OCO	919	2,623	1,301
US Coast Guard	-	-	162
DON Grand Total	6,687	14,401	8,643

NOTE: The FY 2016 column reflects cost of war (CoW) report data, submitted monthly.

*Estimated enacted value

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SECTION IX – FINANCIAL OPERATIONS

RESPONSIBLE MILITARY SPENDING

Since the last Administration, the Department of the Navy continues to realize savings during the budget build. While some funds were reinvested, the majority was used to accommodate reductions in the defense topline, thereby contributing to the Administration's efforts to hold down the Federal deficit. Continuing this theme, in support of the current Administration's guidance to reform the federal government through reducing costs and the size of the workforce, the DON's FY 2018 President's Budget incorporates several reductions. Savings (reductions) reflect better buying power through reevaluating modernization programs and enhancing contract competition, changes to business practices by organizational consolidations and eliminating duplication, information technology improvements through help desk consolidations and enterprises licenses, termination of underperforming or unneeded programs, tightening personnel costs, and reducing travel.

Examples of key initiatives include:

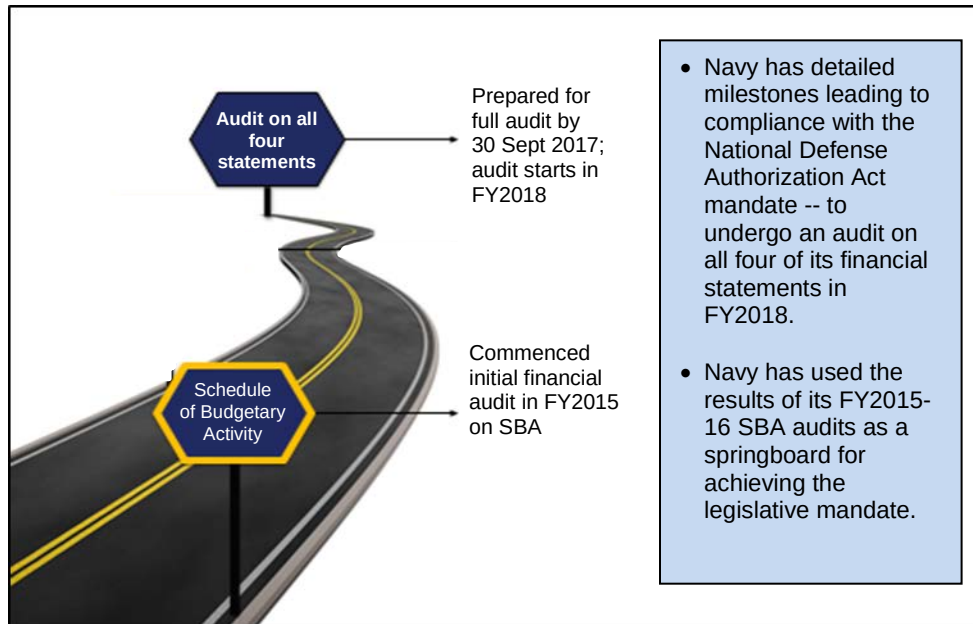
- Better Buying Power includes acquisition cost savings for DDG-51, VIRGINIA Class, and F-35s.
- Business Operations includes general and administrative overhead reductions at working capital fund activities.
- Personnel Reductions represent a continuation of management headquarters activity adjustments to ultimately reflect an overall 25% funding reduction restructuring ROTC units, reducing recruiters, and consolidating functions.

AUDITABILITY

The Department will continue to aggressively pursue opportunities to drive-down the cost of doing business. To this end, we are continually assessing existing business systems, evaluating dated organization structures, optimizing the force mix, and seeking bold ideas to maximize the use of taxpayer dollars. Our goal is to drive innovative enterprise transformation to reduce spending on unnecessary overhead, so as to preserve critical naval capabilities. The Department's transformation of the DON's business enterprise is of paramount importance, ensuring that all available

resources are directed to our Sailors and Marines. The Department's drive to provide stronger financial management and to achieve auditability will continue its momentum.

Figure 40 – Department of the Navy Road to Financial Auditability



AUDITABILITY BRINGS TRANSFORMATION

The DON's plan to achieve compliance with financial audit standards is the Department's most comprehensive business transformation initiative to date. The purpose of the Congressional mandate to achieve financial auditability is to improve the accuracy and accessibility of Departmental financial information. These improvements, through strengthened internal controls over business processes and systems, will increase accountability for funds appropriated and reduce the risk of funds misuse. In addition, the improvements will lead to greater efficiencies, better capability to manage resources, and a business culture based on widened responsibility shared by all leaders, not just those in the financial management community.

AUDITABILITY PROGRESS

DON has reached a critical junction on its path to reaching the Congressionally-established goal of undergoing an audit on all four of its financial statements in FY 2018. Presently, the Marine Corps is undergoing this “full” audit in advance of the FY 2018 deadline and is providing “lessons learned” to the Navy. The Navy will follow on time to meet the legislative mandate.

At this crucial intersection, the Navy is increasing its momentum toward “full” auditability, using as a springboard the results of its FY 2015 and FY 2016 Schedules of Budgetary Activity audits. Auditors issued over two hundred Notices of Findings and Recommendation, with a Flag Officer or Senior Executive assigned to direct the remediation of each finding. In raising the level of responsibility for correcting deficiencies, the Navy is widening the circle of accountability for making improvements in its business culture. As internal controls governing deficient business process and systems are strengthened to meet accounting standards, DON will in the future be able to achieve a favorable audit opinion; this “clean” opinion will signify the required level of financial stewardship mandated by Congress for all federal agencies.

While the Navy is correcting its deficiencies from the initial two audits, it is simultaneously speeding its pace to prepare for the FY 2018 audit on all four financial statements. In addition to audit findings, other remaining internal control deficiencies have been identified, and milestones have been established for their remediation. Some actions, such as compiling an accurate transaction universe for each financial statement, are being met centrally, while other remediation must be carried out locally at each major command. Accountability for major assets is a responsibility for each major command, as an example, as is retaining key records documenting each business transaction. As corrective actions progress throughout the Department, it is increasingly clear to Navy’s workforce that auditability is an All-Hands effort.

Even as audit momentum is accelerating, the Navy continues to confront and mitigate other major challenges, including:

- A complex financial system landscape including both legacy system and the newer Navy Enterprise Resource Planning environment. Some required systems changes will not be complete in time for the “full” audit in FY 2018. The Navy is prioritizing the changes, ensuring the most critical ones are completed first.

- A narrowing window prior to the FY 2018 audit for control changes to be implemented and then validated.
- Less-than-full availability of all prior years' data and documentation to support the information on financial statements.
- Dependence on external service providers, including the effect service providers' audit readiness has on Navy processes.
- The impact that resource constraints, such as Management Headquarters Activity reductions, may have to lengthen timelines in achieving a favorable audit opinion.

The Navy-Marine Corps team is meeting these hurdles head-on with full awareness that financial audit readiness will not be a one-time achievement – rather, it will be marked by a progressively changing business environment in which improvements will be incorporated into permanent work processes. The DON is committed to promoting a business culture in which all participants 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 for public funds, institutionalized by performing effective internal controls over business processes and systems, and by making business policies and procedures more precise and compliant with accounting standards.

Establishing an annual audit cycle is an essential step toward achieving a favorable audit opinion. Continual audit presence helps instill the corporate rigor and focus required to support the demanding audit pace, while providing valuable insight for future business improvements.

LIST OF ACRONYMS

A

A2/AD – Anti-Access/Area-Denial
AABoD– Accelerated Acquisition Board of Directors
AARGM - Advanced Anti-Radiation Guided Munition
AC - Active Component
ACAT – Acquisition Category
ACV – Amphibious Combat Vehicle
AEA- Airborne Electronic Attack
AFSB – Afloat Forward Staging Base
AEA – Airborne Electronic Attack
AMDR –Air and Missile Defense Radar
AMRAAM - Advanced Medium Range Air-to-Air Missile
AOR – Area of Responsibility
AP – Advance Procurement
APKWS - Advanced Precision Kill Weapon System
ARGs – Amphibious Ready Groups
AS – Submarine Tenders
AT/FP – Anti-Terrorism/Force Protection
AVPLAN – Aviation Plan

B

BA - Budget Authority
BRAC – Base Realignment and Closure

C

CANES- Consolidated Afloat Networks and Enterprise Services
CBARS – Carrier Based Aerial Refueling System
CDD – Capabilities Development Documentation
CENTCOM - US Central Command
CG - Cruiser
CNO- Chief of Naval Operations
COCOMs - Combatant Commanders
COD – Carrier Onboard Delivery
CONOPS- Concept of Operations
CSG - Carrier Strike Groups
CV – JSF Carrier Variant
CVN – Nuclear Aircraft Carrier
CVW- Carrier Air Wing

C4I - Command, Control, Communication, Computers and Intelligence

D

DDG – Guided Missile Destroyer
DoD – Department of Defense
DON – Department of the Navy
DSG – Defense Strategic Guidance

E

EA – Electronic Attack
ECP- Engineering Change Proposal
EDM- Electronic Development Model
EMALS – Electromagnetic Aircraft Launch System
ESB – Expeditionary Sea Base
EOD – Explosive Ordnance Disposal
EPF – Expeditionary Fast Transport
ERN – Environmental Restoration, Navy
ERP - Enterprise Resource Planning
ES – End Strength
ESSM – Evolved Sea Sparrow Missile
EW – Electronic Warfare
EXWC – Engineering and Expeditionary Warfare Center

F

F3R- Form Fit, Function Refresh
FEC – Facilities Engineering Command
FFRDC- Federally Funded Research and Development Centers
FHP – Flying Hour Program
FIAC- Fast Inshore Attack Craft
FOC – Full Operational Capability
FOS – Full Operating Status
FoV-Family of Vehicles
FRC - Fleet Readiness Center
FRP - Fleet Response Plan
FRTP – Fleet Response Training Plan
FSRM – Facility Sustainment, Restoration, and Modernization
FTE - Full-Time Equivalent
FY- Fiscal Year
FYDP - Future Years Defense Plan

G

G/ATOR – Ground/Air Task Oriented Radar
GCS- Guidance and Control Section
GCV- Ground Combat Vehicle

H

HADR – Humanitarian Assistance and Disaster Relief
HARM - High-Speed Anti-Radiation Missile
HEL- High Energy Laser
HM&E - Hull, Mechanical and Electrical

I

IA – Individual Account
IA – Individual Augmentee
IOC – Initial Operational Capability
IED – Improvised Explosive Device
ILS – Integrated Logistics Support
IMA – Individual Mobilization Augmentee
INS- Inertial Navigation System
IPE- Industrial Plant Equipment
IPP – Invoice Processing Platform
IRAD- Internal Research and Development
IR- Infra Red
IRR – Infrared Receiver
IRST – Infrared Search and Track
ISIL – Islamic State of Iraq and the Levant
ISR – Intelligence, Surveillance and Reconnaissance
IT – Information Technology
ITV- Internally Transportable Vehicle

J

JAGM – Joint Air-to-Ground Missile
JHSV - Joint High Speed Vessel
JLTV - Joint Light Tactical Vehicle
JPATS - Joint Primary Aircraft Training System
JRB- Joint Reserve Base
JSF - Joint Strike Fighter
JSOW - Joint Standoff Weapon

L

LAV – Light Armored Vehicle
LAV-ATM – LAV Anti-Tank Modernization
LCAC – Landing Craft Air Cushion

LCC – Amphibious Command Ship
LCS – Littoral Combat Ship
LCU – Landing Craft Utility
LHA – Amphibious Warfare Assault Ship
LHD – Amphibious Assault Ship
LMSR – Large, Medium Speed Roll-On/Roll-Off Ships
LOC – Limited Operational Capability
LPD – Amphibious Dock Ship
LRASM – Long Rang Anti-Ship Missile
LRIP – Low-Rate Initial Production
LSD – Dock Landing Ship
LX(R) – Amphibious Ship Replacement

M

MADS-K- Man-Portable Anti-Drone Defeat System Kit
MAGTF - Marine Air-Ground Task Force
MAW- Marine Aircraft Wing
MCB – Marine Corps Base
MCM – Mine Countermeasures Ships
MCAS – Marine Corps Air Station
MCRD – Marine Corps Recruiting Depot
MEF - Marine Expeditionary Force
MEU - Marine Expeditionary Unit
MILCON - Military Construction
MILPERS – Military Personnel
MLP - Mobile Landing Platform
MML- Missile-to-Missile Link
MPS - Maritime Prepositioning Ships
MPMC – Military Personnel, Marine Corps
MPN – Military Personnel, Navy
MSC - Military Sealift Command
MTS – Moored Training Ship
MYP – Multi-Year Procurement

N

NDAA- National Defense Authorization Act
NAS – Naval Air Station
NAWC – Naval Air Warfare Center
NCDOC – Navy Cyber Defense Operations Command
NDSF - National Defense Sealift Fund
NECC - Navy Expeditionary Combat Command
NGJ – Next Generation Jammer
NOSC – Navy Operational Support Center
NOTM- Networking on the Move

NR&DE - Naval Research and Development Establishment

NSWC – Naval Surface Warfare Center

NSY - Naval Shipyard

NIWC – Naval Undersea Warfare Center

NWCF - Navy Working Capital Fund

O

OCO – Overseas Contingency Operations

OEF – Operation Enduring Freedom

OFRP – Optimized Fleet Response Plan

OFRTP – Optimized Fleet Response Training Plan

OIF – Operation Iraqi Freedom

O&M – Operation & Maintenance

OMB – Office of Management and Budget

OPTEMPO - Operational Tempo

OPN – Other Procurement, Navy

ORD – Operational Requirements Document

OOR – Out-of-Reporting

ORT – Operation Rolling Tide

P

PAA - Primary Authorized Aircraft

PACOM – Pacific Command

PANMC – Procurement or Ammunition, Navy and Marine Corps

PB – President's Budget

PBL – Performance Based Logistics

PC – Patrol Craft

PCS - Permanent Change of Station

PMC – Procurement, Marine Corps

PMRF – Pacific Missile Range Facility

Q

QDR – Quadrennial Defense Review

R

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

R&D – Research & Development

RDT&E – Research, Development, Test and Evaluation

RFU – Ready-for-Use

R&M - Restoration and Modernization

ROS - Reduced Operating Status

RPN – Reserve Personnel, Navy

RSTA – Reconnaissance, Surveillance, and Target Acquisition

S

S2F – Speed to Fleet

SBA – Schedule of Budgetary Activity

SBR – Statement of Budgetary Resources

SDB – Small Diameter Bomb

SDBII - Small Diameter Bomb Increment II

SDD – System Development and Demonstration

SEAL – Sea Air Land Team

C41SFIM - Strike Fighter Inventory Management

SLEP – Service-Life Extension Program

SM - Standard Missile

SNLWS - Surface Navy Laser Weapon System

SOF – Special Operations Force

SOPGM – Stand-Off Precision Guided Munitions

SSBN – Nuclear Ballistic Submarine

SSC – Ship to Shore Connector

SSGN – Guided Missile Submarine (Nuclear)

SSMM – Surface-to-Surface Missile Module

SSN - Nuclear Attack Submarine

S&T - Science and Technology

STEM - Science, Technology, Engineering, and Mathematics

STOVL - Short Takeoff and Vertical Landing

STUAS - Small Tactical Unmanned Aircraft System

SUW – Surface Warfare

T

TACAIR – Tactical Air

TACTOM – Tactical Tomahawk

T-AE – Combat Logistics Ship

T-AGOS - Ocean Surveillance Ship

T-AH – Hospital Ship

TAI - Total Aircraft Inventory

T-AKE - Dry-Cargo Ammunition Ship

T-AO – Fleet Replenishment Oilers

T-AOE – Fast Combat Support Ships

T-AO(X) – Fleet Oiler Replacement

codT-ATF – Ocean Tugs
T-ESD – Expeditionary Transfer Dock
T-HST – High-Speed Transport
TMS – Type/Model/Series
TOA – Total Obligation Authority
TOW – Tube-Launched Optically-Tracked, Wire-Guided
T&R – Training and Readiness
TSC – Theater Security Cooperation

U

UARC – University Affiliated Research Centers
UAS – Unmanned Aerial System
UCA – Unmanned Carrier Aviation

UAV – Unmanned Aerial Vehicle
UCLASS – Unmanned Carrier Launched Airborne Surveillance and Strike
USMC – United States Marine Corps
USN – United States Navy

V

VPM – Virginia Payload Module