

## Highlights of the Department of the Navy FY 2016 Budget Table of Contents

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The estimated total cost for the Department of Navy budget justification material is approximately \$1,436,000 for the 2015 fiscal year. This includes \$74,000 in supplies and \$1,362,000 in labor.

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## SECTION I – OVERVIEW

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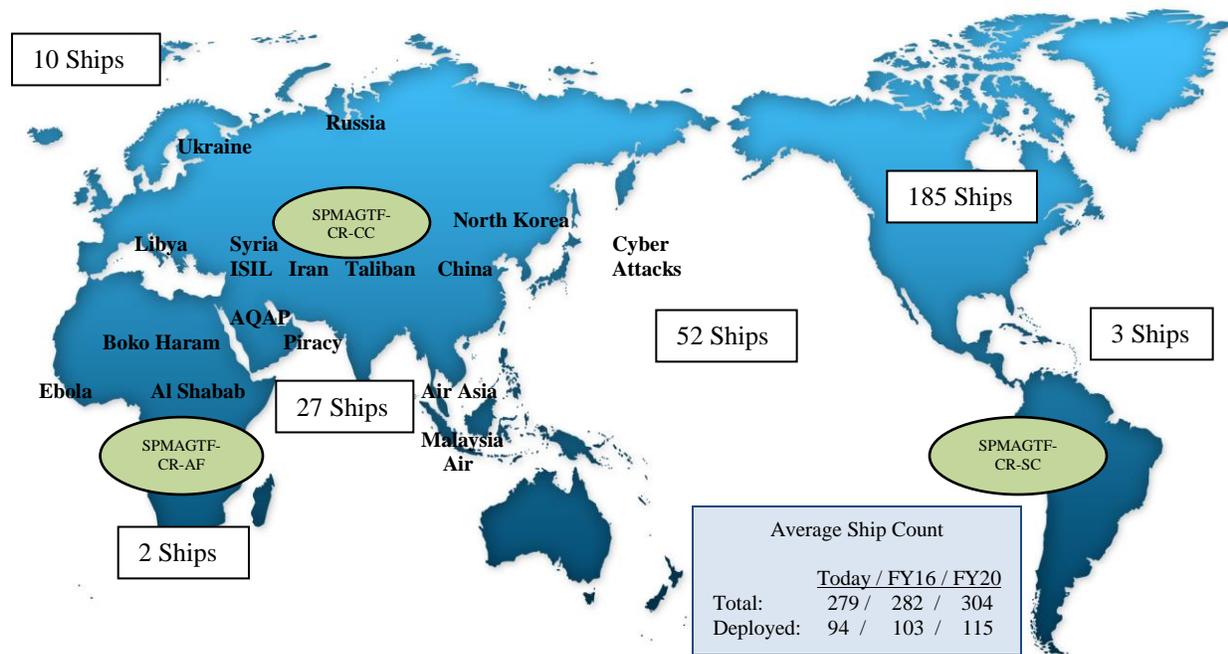
The United States (U.S.) is a maritime nation with major security and economic interests far from its shores. The United States Navy and Marine Corps team stand watch over those interests around the globe, operating forward where it matters when it matters. In today's dynamic and dangerous security environment, this team

provides key capabilities to win the nation's wars, deter conflict, rapidly respond to crises and natural disasters, and ensure the maritime security on which the U.S. economy depends. The Navy/Marine Corps team executes these missions by using the sovereign maneuver space of the sea for simultaneous and seamless operations on and below the surface, ashore, in the air and in space, and across the range of military operations.

In a challenging fiscal environment, the Department of the Navy (DoN) Fiscal Year (FY) 2016 President's Budget (PB) supports the priorities of the President's Defense Strategic Guidance, as amplified by the Quadrennial Defense Review, and the priorities of the Secretary of the Navy, Chief of Naval Operations and Commandant of the Marine Corps. The Department prioritized investments to provide a credible, modern and safe strategic deterrent; global forward presence of combat ready forces; preserve the means to defeat one aggressor and simultaneously deny the objectives of a second; focus on critical afloat and ashore readiness and personnel; sustain asymmetrical advantages; and sustain a relevant industrial base.

As the nation's forward deployed expeditionary force, the Navy and Marine Corps provide our country's most responsive capability for emergent security threats. The FY 2016 President's Budget funding reflects the resources required in today's security environment to rapidly respond to a broad scope of requirements spanning extremist organizations, pandemic diseases and natural disasters, while deterring assertive actors across the globe through expeditionary presence and dominant warfighting capability. Figure 1 shows areas of active DoN involvement in 2014.

Figure 1 – DoN 2014 Engagements



To maintain this force the DoN balances the required force structure with proper training. The FY 2016 President's Budget balances current readiness needed to execute assigned missions while sustaining a highly capable fleet, all within a tough fiscal climate. This budget reflects a DoN Future Years Defense Program (FYDP) from 2016 to 2020 of \$828.4 billion, \$5.1 billion higher than the FYDP presented with the FY 2015 budget; the FY 2016 budget for the Department is \$161.0 billion, an increase of \$1.5 billion (one percent).

The FY 2016 budget funds construction of 48 ships across the FYDP. Providing stability in shipbuilding in order to affordably deliver warfighting requirements, the budget supports steady production of destroyers and submarines; ten of each are constructed through FY 2020. The DoN will build 14 Littoral Combat Ships (LCS) in the FYDP, the last five of which are of modified LCS configuration. The modified configuration program begins in FY 2019 with no gap from earlier LCS production. The modified LCS provides improvements in ship lethality and survivability, delivering enhanced naval combat performance at an affordable price. The FYDP shipbuilding construction program also includes one aircraft carrier, one LHA replacement, one LX(R), five T-ATF(X) fleet ocean tugs, one afloat forward staging base, and four T-AO(X) fleet oilers. PB16 also funds the refueling and retention of USS GEORGE WASHINGTON (CVN-73), its Carrier Air Wing, and associated force structure.

The budget supports a balanced manned and unmanned aviation procurement plan of 492 aircraft over the FYDP. The successful underway testing of the carrier variant (CV) of the Joint Strike Fighter (JSF) on USS NIMITZ (CVN-68) in 2014 continues JSF program progression; 121 JSF aircraft of both Navy and Marine Corps variants are procured across the FYDP. The Marine Corps invests heavily in rotary wing aircraft, accelerating the procurement of the final 109 AH-1Z-1/UH-1Y helicopters, and procures 37 MV-22 Ospreys. The first 24 Navy V-22 Carrier Onboard Delivery (COD) aircraft will be procured starting in FY 2018. Investment in unmanned systems includes 18 MQ 4 Triton Unmanned Aircraft Systems through FY 2020, with first deployment to the Pacific in FY 2017, and the procurement of 10 MQ-8C Vertical Takeoff Unmanned Aircraft Systems. Aviation investments in the FYDP also include procurement of airborne early warning aircraft (24 E-2D), multi-mission helicopters (29 MH-60R), presidential helicopters (12 VXX), heavy lift helicopters (26 CH-53K), aerial refueling tankers (10 KC-130J), and the final 47 P-8A Poseidon multi-mission maritime aircraft.

The FY 2016 budget funds an FY 2016 fleet of 282 Battle Force Ships. This baseline budget maintains Navy/Marine Corps flying hours at a T-2.5/2.0 rating, with the exception of the F/A-18 A-D aircraft which are constrained by depot level throughput. Baseline funding for ship and aviation depot maintenance meets 80 and 77 percent of the requirements, respectively; and Marine Corps ground equipment maintenance is funded at 84 percent of requirement in the base budget. Facility sustainment levels for Navy are funded to 84 percent of the sustainment model and the Marine Corps funded to 81 percent in this baseline budget.



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 capacity. We maintain 329,200 sailors and 184,000 Marines in FY 2016. Our Marines will continue returning to their expeditionary roots, with an enhanced ability to operate from sea. Civilian personnel levels will remain steady, strongly supporting the force as engineers, scientists, medical professionals and skilled laborers.

The Department has been challenged to meet Combatant Commander demand for forces, and associated higher-than-planned operational tempo, while dealing with the reality of reduced resources in the Budget Control Act. Surgeable forces have decreased due to increased maintenance on aging platforms, a reduction in aircraft and weapons procurement, and risks taken against support infrastructure. This budget continues to put a priority on readiness while maintaining the minimum investment necessary to maintain an advantage in advanced technologies and weapons systems. While we have accepted some risk in weapons capacity and delayed certain modernization programs, this budget provides us with a plan to keep the Navy and Marine Corps as a ready, balanced force.

The FY 2016 President's Budget funds the priority findings in the Nuclear Enterprise Review, including shipyard capacity, infrastructure and training, as well as nuclear weapons support manning. The Department's budget submission added approximately \$2.2 billion across the FYDP for these efforts. Key elements include increasing shipyard capacity by funding a total end-strength of 33,500 Full Time Equivalents by FY 2018; accelerating investments in shipyard infrastructure and Nuclear Weapons Storage facilities; funding additional manpower associated with nuclear weapons surety at the Strategic Weapons Facilities, Strategic Systems Program Office, and at both East and West Coast Type Commander Headquarters; and funding key nuclear weapon training systems to include another missile tube simulator and associated sustainment to our ballistic missile submarine sailors.



Overall, the Department's investments in readiness and infrastructure in PB16 are essential to generating the combat ready forces that support the DoD rebalance to the Asia-Pacific and enable critical presence in the strategic maritime crossroads spanning the Middle East, Europe, Africa, the Western Pacific, and South America.

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## **STRATEGIC GUIDANCE**

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The FY 2016 President's Budget is developed from the priorities established in the 2014 Quadrennial Defense Review (QDR), amplifying the 2012 Defense Strategic Guidance (DSG). The QDR identifies the year 2020 as the goal for Navy and Marine Corps to reach necessary capabilities. The DSG set ten missions for the Department,

arranged under the three QDR objectives—protect the homeland, build security globally, and project power and win decisively.

### **Protect the Homeland**

- Maintain a safe, secure, and effective nuclear deterrent
- Fight terrorism through counter-terrorism/irregular warfare operations
- Defend the homeland and provide support to civil authorities
- Counter weapons of mass destruction

### **Build Security Globally**

- Provide a stabilizing presence across the globe
- Conduct stability and counterinsurgency operations
- Conduct humanitarian, disaster relief, and other operations

### **Project Power and Win Decisively**

- Defer and defeat aggression
- Project power despite anti-access/area denial challenges
- Operate effectively in space and cyberspace

In addition to these three objectives and ten missions, the QDR also directs the Department to prepare for 21<sup>st</sup> century conflicts and to maintain the strength of our All-Volunteer Force. The Marine Corps will return to a smaller, more agile sea-based force, as outlined in “Expeditionary Force 21.” Additionally we will evaluate innovative new ways to integrate Marine Corps operations with Navy, Coast Guard, Special Forces, and international partners. The Navy will continue to invest in science, technology, and other research to develop new approaches to fight conflicts. The Department will continue to rebalance our forces to the Asia-Pacific region, increasing the ship presence there by 25 percent, maintain our ballistic missile defense capability in Europe, and strengthen our cyber presence. To empower and focus our force, we will continue to research reforms in pay and benefits, and develop career paths more suitable to families. We’ll further enhance safety, security, and the quality of life for our Sailors and Marines. Additional guidance on how the Navy will reach these goals is described in the 2015 revision of “A Cooperative Strategy for 21<sup>st</sup> Century Seapower.”



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## PEOPLE, PLATFORMS, POWER, AND PARTNERSHIPS

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Four key factors sustain the DoN's warfighting advantage and global presence; these factors are the Secretary of the Navy's priority areas:

- **People** provide the critical asymmetric advantage in today's complex world. The DoN will continue to prioritize investments that ensure the proper training, readiness and mental and physical well-being of Sailors and Marines.
- **Platforms** span the ships, aircraft, submarines, tactical vehicles and unmanned vehicles that provide the capability and capacity underpinning the DoN's global combat-ready presence. The budget supports fielding Navy and Marine Corps equipment at the best value, working with industry and procuring platforms through competition, multiyear buys and driving hard bargains for the taxpayer. This approach is essential to providing the platforms needed to execute our missions.
- **Power** and energy get the platforms where they need to be and keep them there. The DoN continues to make progress toward greater energy security, building on a long record of energy innovation from sail to coal to oil to nuclear and now to alternative fuels.
- **Partnership** development initiatives, spanning exercises, operations, and broad leadership engagement have created a more interoperable force better prepared and more widely available to prevent and respond to crises.

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## FORWARD PRESENCE AND PARTNERHIP

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Naval forces operate forward to shape the security environment, signal U.S. resolve, and promote global prosperity by defending freedom of navigation in the maritime commons. By expanding our network of allies and partners and improving our ability to operate alongside them, naval forces foster the secure environment essential to an open economic system

based on the free flow of goods, promote stability, deter conflict, and shorten our response time to aggression. During crises, forward naval forces provide the President immediate options to defend our interests, de-escalate hostilities, and keep conflict far from our shores. During wartime, forward naval forces fight while preserving freedom of access—and action—for follow-on forces.

The Navy's budget submission provides a forward presence of 115 ships by 2020, up from an average of 97 in 2014, to be "where it matters, when it matters." This includes forward-based naval forces in Guam, Japan, and Spain; forward-operating forces deploying from overseas locations such as Singapore; and rotationally-deployed forces that operate from the United States. To provide forward presence more efficiently and effectively, we continue to implement the following force employment innovations:

- Increase forward-basing of forces abroad to reduce costly rotations and deployments, while boosting in-theater presence.
- Provide globally distributed and networked expeditionary forces in concert with our allies and partners to increase effective naval presence, strategic agility, and responsiveness.
- Employ modular designed platforms to allow mission modules and payloads to be swapped instead of entire ships, saving time and money.
- Take advantage of adaptive force packages to enable persistent engagements that build the capacity of allies and partners to respond to future crises. This budget funds the procurement of one additional afloat staging base (AFSB) in the FYDP for a total of three. These ships will flow between theaters in support of Combatant Commanders requirements while also having the capability to support Special Operations Forces (SOF). Funding is provided for enhanced SOF capabilities for all AFSBs in this budget.

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## **CYBER RESILIENCY**

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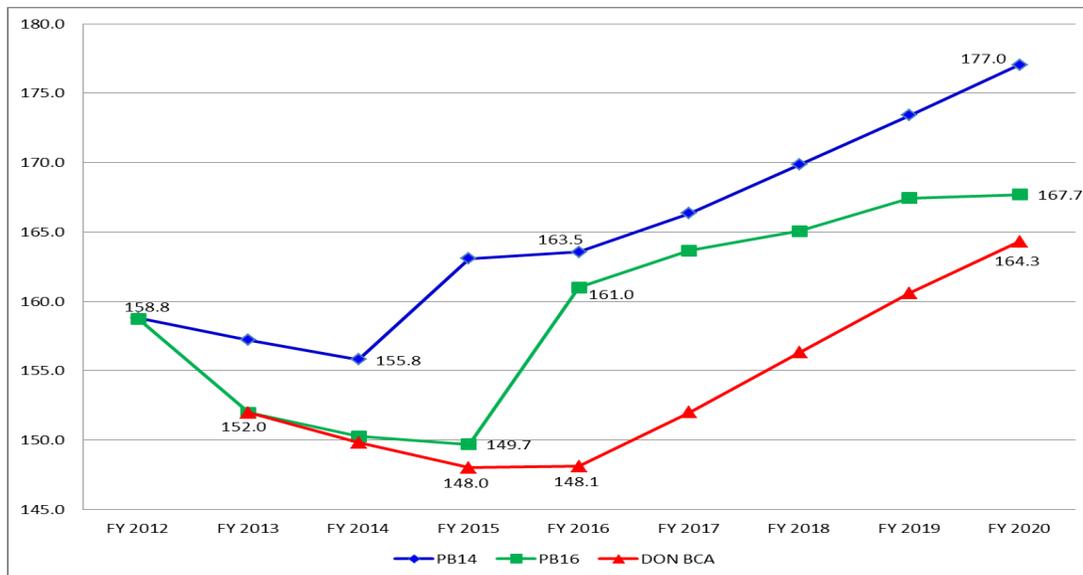
To operate effectively in every mission, we invest in protection of our cyber networks. The Department has expanded previous investments in Operation Rolling Tide (ORT), which was primarily focused on tactical networks such as NGEN and CANES, to include combat and other control systems on tactical platforms. Task Force Cyber Awakening (TFCA) was established to provide a holistic view of cyber security across the Navy enterprise. Based on TFCA's prioritizations of required capabilities to improve Navy's cyber posture, the DoN added \$300 million across the FYDP across a broad spectrum of programs. Together, ORT and TFCA efforts form the Cyber Resiliency Plan; investments made in this budget will lead to significant improvements in the DoN's Cyber posture.



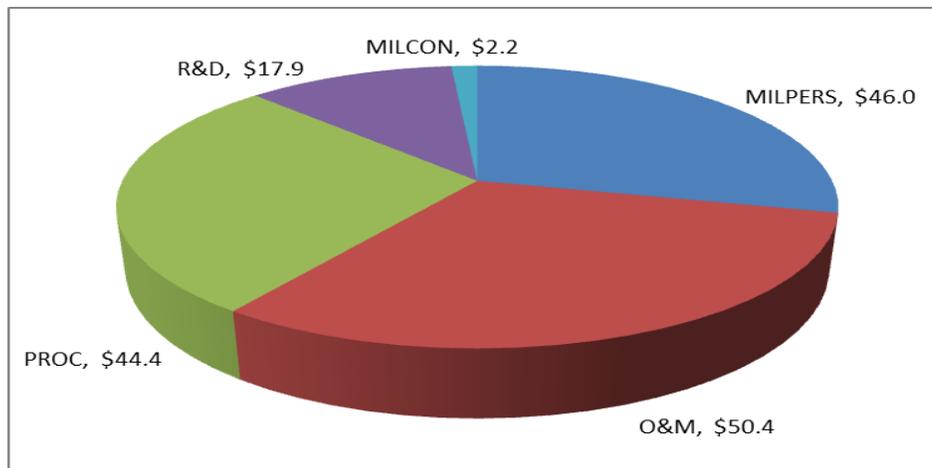
## RESOURCE SUMMARY

Total Obligation Authority (TOA) for the FY 2016 DoN baseline budget is \$161 billion. Figure 2 displays the DoN topline. Over the FYDP the FY 2016 budget request increases \$5.1 billion from the FY 2015 President’s Budget levels. If implemented, the Budget Control Act 2011 (BCA) levels would impose significant fiscal constraints. Figure 3 displays the FY 2016 President’s Budget request by Appropriation Title, and Figure 4 displays individual Department of the Navy appropriation estimates.

**Figure 2 - DoN Topline Trends FY 2012 - FY 2020 (Dollars in Billions)**



**Figure 3 – FY 2016 DoN Budget by Appropriation Title (\$161 Billion)**



**Figure 4 – Appropriation Summary, FY 2014- FY 2016**

<i>(In Millions of Dollars)</i>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Military Personnel, Navy	26,857	27,453	28,262
Military Personnel, Marine Corps	12,798	12,829	13,125
Reserve Personnel, Navy	1,850	1,836	1,885
Reserve Personnel, Marine Corps	693	660	706
Health Accrual, Navy	1,298	1,313	1,210
Health Accrual, Marine Corps	742	748	686
Health Accrual, Navy Reserve	148	125	108
Health Accrual, Marine Corps Reserve	89	74	63
Operation and Maintenance, Navy	37,233	37,552	42,201
Operation and Maintenance, Marine Corps	5,495	5,601	6,229
Operation and Maintenance, Navy Reserve	1,154	1,021	1,002
Operation and Maintenance, Marine Corps Reserve	255	271	277
Environmental Restoration, Navy	-	277	292
Aircraft Procurement, Navy	16,206	14,758	16,126
Weapons Procurement, Navy	2,895	3,137	3,154
Shipbuilding and Conversion, Navy	15,231	15,954	16,597
Ship Maintenance, Operations, and Sustainment Fund	2,038	540	-
Other Procurement, Navy	5,578	5,847	6,615
Procurement, Marine Corps	1,217	935	1,131
Procurement of Ammunition, Navy & Marine Corps	550	674	724
Research, Development, Test, & Evaluation, Navy	14,912	15,955	17,886
National Defense Sealift Fund	761	485	474
Military Construction, Navy & Marine Corps	1,634	1,080	1,669
Military Construction, Naval Reserve	29	56	36
Family Housing Construction, Navy & Marine Corps	86	16	16
Family Housing Operations, Navy & Marine Corps	344	354	353
Base Realignment & Closure	167	140	157
<b>SUBTOTAL</b>	<b>150,259</b>	<b>149,691</b>	<b>160,988</b>
<i>Navy</i>	<i>127,242</i>	<i>127,252</i>	<i>136,985</i>
<i>Marine Corps</i>	<i>23,017</i>	<i>22,439</i>	<i>24,003</i>
Overseas Contingency Operations	14,138	9,620	7,012
<b>TOTAL</b>	<b>164,397</b>	<b>159,311</b>	<b>168,000</b>

NOTE: OCO details in Chapter 8.



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## SECTION II – PERSONNEL

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### OVERVIEW

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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.

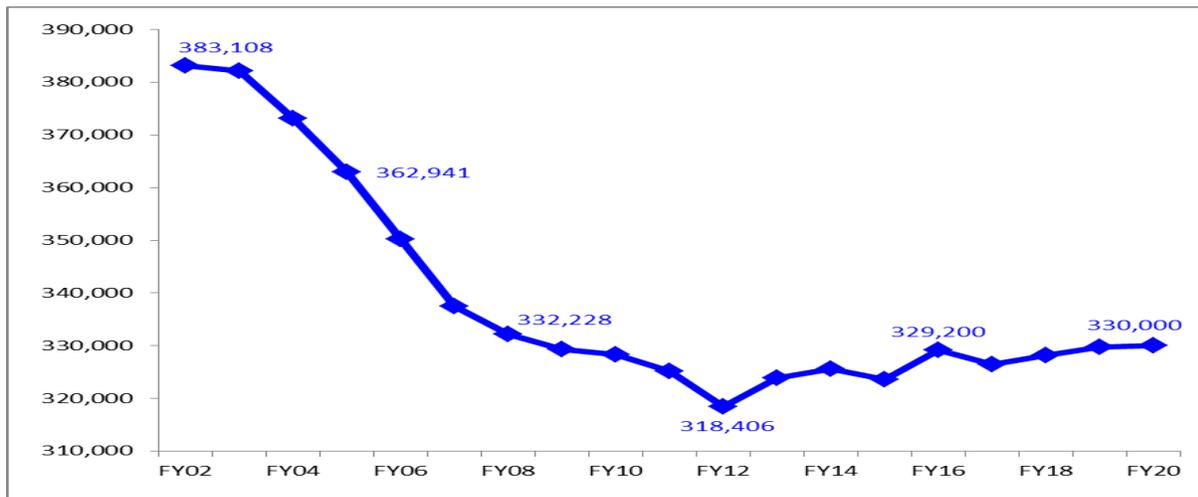
### MILITARY PERSONNEL

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#### *Active Navy Personnel*

The Department's military personnel constitute the lifeblood of everything we do. In the past decade, significant strides have been made to focus on Quality of Life factors such as: pay, leave, educational opportunities, access to quality health care, and a sense of financial security. Beginning in FY 2016, the Navy will increase the number of sailors to 330,000 over the next five years to properly size manpower accounts to reflect force structure decisions, reduce manning gaps at sea and improve Fleet readiness. This supports a FYDP goal of 50,000 Sailors underway on ships, submarines and aircraft, with more than 100 ships deployed overseas on any given day. The continued focus will be on recruiting and retention to retain the optimal mix of sailors that maintain the right skills and experience to adequately man the Fleet. While the Navy expects to meet recruiting and retention requirements with slowed growth of regular military compensation, our focus will target increases in retention incentives for specific skills. Targeted implementation of career incentive pays and bonuses is essential to retain Sailors through career milestones and incentivize critical skill sets. Specific incentives such as Selective Reenlistment Bonuses are essential to enlisted retention in Nuclear, Information Dominance, Special Warfare and Medical communities.



**Figure 5 – Navy Manpower, 2002-2020**

NOTE: E/S of 4,400 (FY 2010), 4,400 (FY 2011), and 3,836 (FY 2012) funded with OCO.

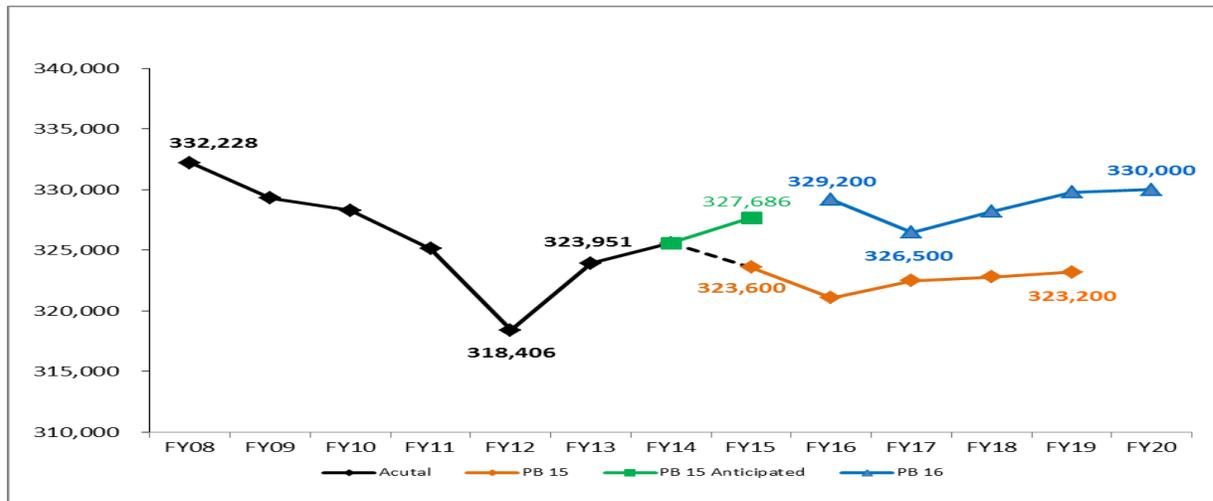
The FY 2016 Military Personnel, Navy budget requests resources to support Navy manpower, personnel, training, and education. The budgeted end strength in FY 2016 is 329,200; approximately 5,600 higher than the end strength requested in the FY 2015 budget. Major changes from FY 2015 include increasing end strength to support the refueling, vice decommissioning, of the USS GEORGE WASHINGTON (CVN 73) and its' associated air wing, man the *Ticonderoga* Class Guided Missile Cruisers and *Whidbey Island* Class Dock Landing Ships, and add crews for new DDG-51 platforms and new *Virginia* Class submarines. The EISENHOWER Carrier Strike Group will be the first CSG to execute one full Optimized Fleet Response Plan (O-FRP) cycle in FY 2016. This budget continues to reduce distributable inventory friction and improve Fleet readiness. It 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 funded with compensation reform savings. 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 highly trained, ready force that meets mission needs and can operate forward.

**Figure 6 - Active Navy Personnel Strength**

	FY 2014	FY 2015	FY 2016
Officers	54,088	53,311	55,159
Enlisted	267,041	266,008	269,664
Midshipmen	4,455	4,281	4,377
<b>Total: Strength</b>	<b>325,584</b>	<b>323,600</b>	<b>329,200</b>

**Figure 7 – Active Navy End Strength Trend**



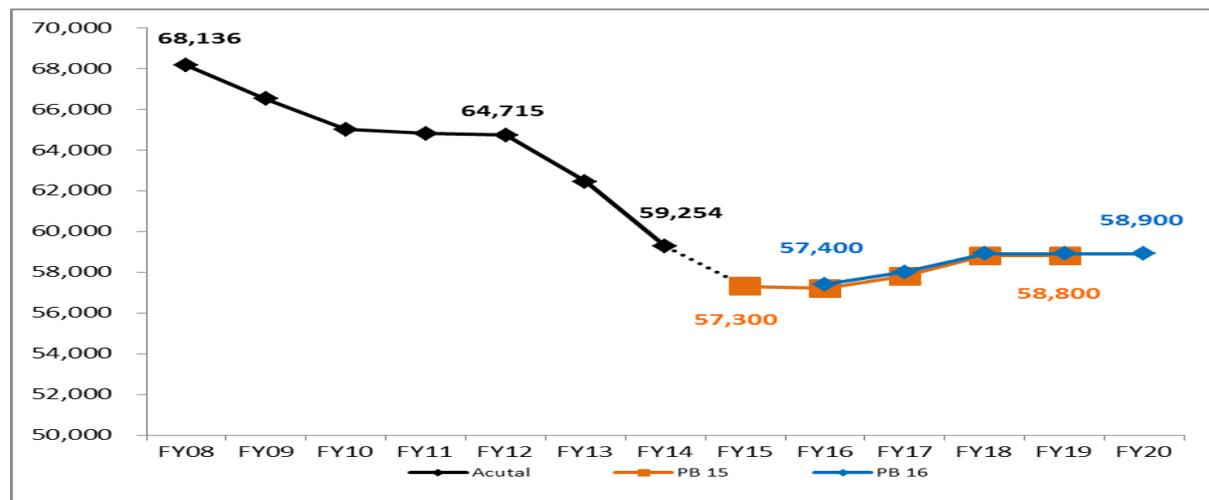
**Reserve Navy Personnel**

The FY 2016 Reserve Personnel, Navy budget request supports 57,400 Selected Reservists and Full Time Support personnel delivering strategic depth and operational capability to the Navy, Marine Corps, and Joint Forces. Today’s Navy Reserve is the most combat and operationally experienced Force in decades. This extensive military expertise, combined with unique civilian skills, enhances the capacity of the Total Force. In support of current defense strategy, the Navy will continue to operate forward with appropriate use of the Navy Reserve. To achieve this end, the Navy is dedicated to investing in the necessary Navy Reserve recruiting, training and retention. From FY 2015 to FY 2016, Navy Reserve end-strength will increase slightly despite reductions in headquarters activities, aviation squadrons, and Marine Corps chaplain and medical support. These reductions were offset by increases in shipyard surge maintenance, unmanned aerial vehicle support, and additional information dominance and cyber warfare mission team personnel. In the long-term, the Navy Reserve is expected to grow to approximately 58,900 end strength with the investments in these high demand and cost-effective mission areas.

**Figure 8 – Reserve Navy Personnel Strength**

	FY 2014	FY 2015	FY 2016
Drilling Reserve	49,198	47,327	47,466
Full Time Support	10,056	9,973	9,934
<b>Total: Strength</b>	<b>59,254</b>	<b>57,300</b>	<b>57,400</b>

**Figure 9 – Reserve Navy End Strength Trend**

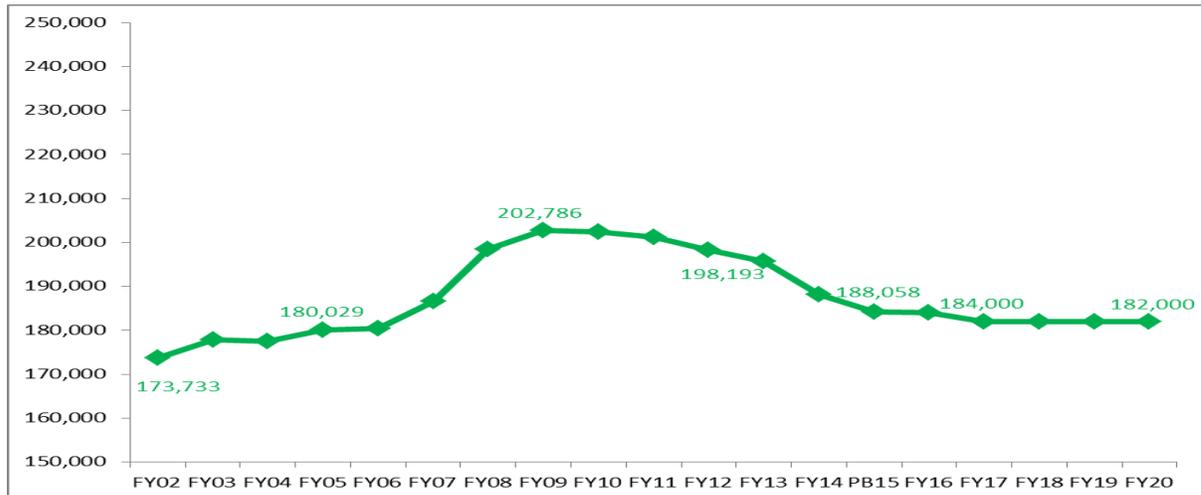


**Active Marine Corps Personnel**

The United States Marine Corps is America’s premier expeditionary force, ready to respond to any crisis. Marines are the first responders to any situation, priding themselves on being the “right force at the right place at the right time.” Figure 6 shows Marine Corps manpower.



**Figure 10 – Marine Corps Manpower, 2002-2020**



NOTE: E/S of 11,563 (FY 2007), 18,505 (FY 2008), 8,786 (FY 2009), 13,557 (FY 2013), 5,598 (FY 2014), and 1,400 (FY 2015) funded with OCO.

The Marine Corps manpower baseline budget funds an FY 2016 end strength of 184,000 to pause the recent drawdown path while assessing the impact of the four year drawdown on small unit leaders in the face of a continued high operational tempo. This temporary pause on the way to an end strength of 182,000 in FY 2017 reduces the impact on deployment to dwell ratios while supporting Special Purpose MAGTFs, WestPac deployments through the Unit Deployment Program, and operations against the Islamic State of Iraq and the Levant.

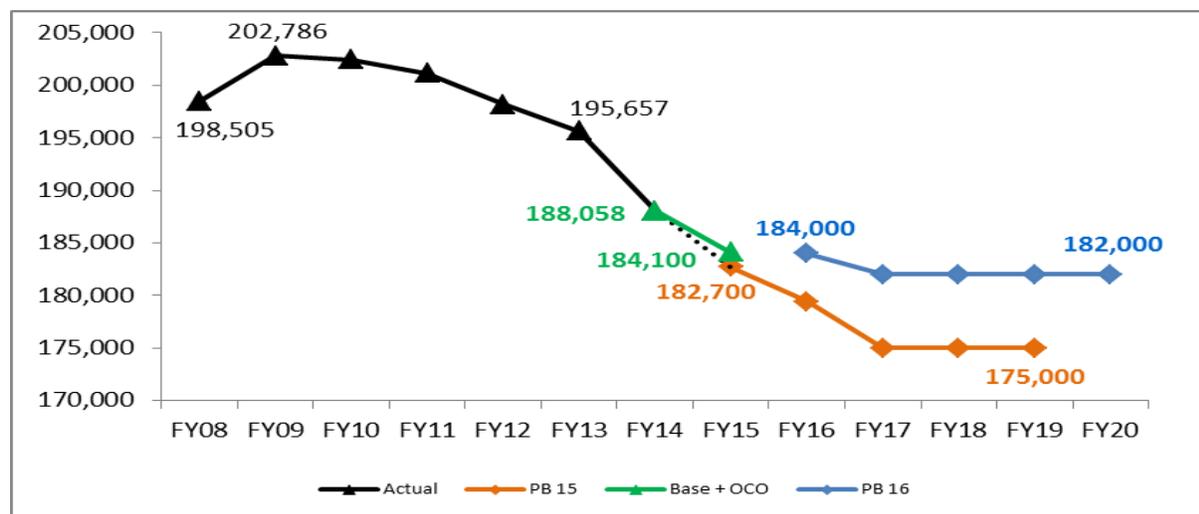
The Marine Corps total active end strength of 184,000 is fully funded in the baseline for the first time since the Marine Corps commenced its FY 2013 drawdown from a force structure of 202,000 Marines. OCO funding is requested for deployed pay and allowances in support of contingencies, mobilized reservists, and separations pay in support of the remainder of the drawdown.



**Figure 11 - Active Marine Corps Personnel Strength**

	FY 2014	FY 2015	FY 2016
Officers	20,914	20,912	20,912
Enlisted	167,144	163,188	163,088
<b>Total: Strength</b>	<b>188,058</b>	<b>184,100</b>	<b>184,000</b>

**Figure 12 - Active Marine Corps End Strength Trend**



**Reserve Marine Corps Personnel**



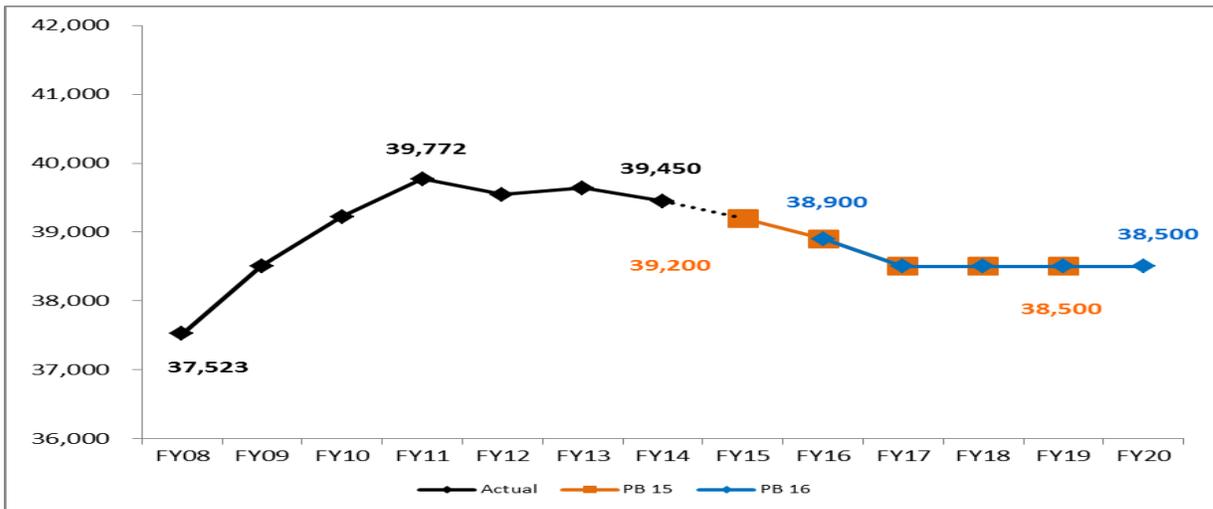
The FY 2016 request supports Marine Corps Reserve strength of 38,900. The Marine Corps Reserve maintains a 'Ready-Relevant-Responsive' force capable of seamlessly augmenting and operating as a part of the Total Force to fulfill Combatant Commander and Service rotational and emergent requirements.

The budget provides pay and allowances for drilling reservists, personnel in the training pipeline, and full-time active reserve personnel.

**Figure 13 - Reserve Marine Corps Personnel Strength**

	FY 2014	FY 2015	FY 2016
Drilling Reserve	37,190	36,939	36,639
Full Time Support	2,260	2,261	2,261
<b>Total: Strength</b>	<b>39,450</b>	<b>39,200</b>	<b>38,900</b>

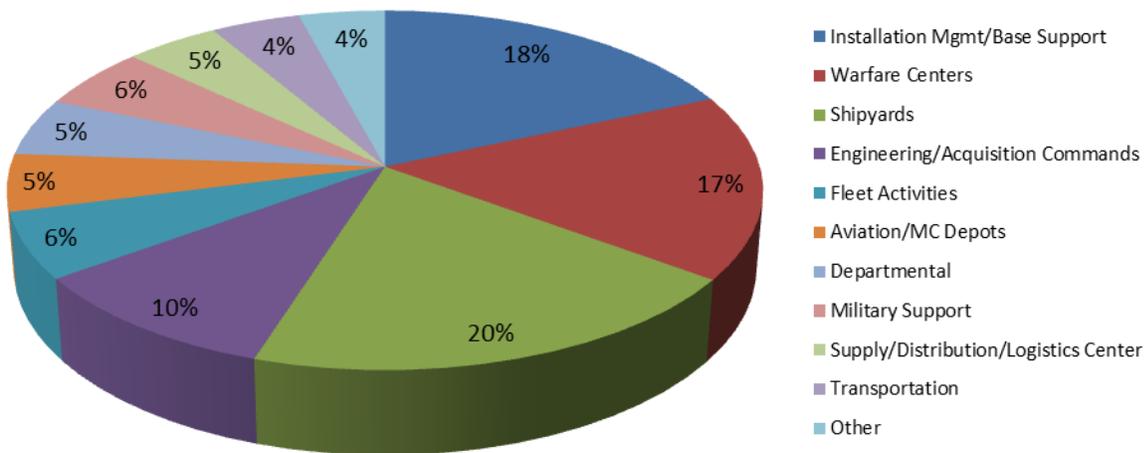
**Figure 14 - Reserve Marine Corps End Strength Trend**



## CIVILIAN PERSONNEL

DoN civilian employees play a critical role in keeping the Navy and Marine Corps team operating forward to protect American interests around the world. DoN civilians have been vital in sustaining the operational tempo of the last decade. DoN civilians operate within a broad spectrum of occupations to include world-class researchers and scientists developing and procuring cutting-edge equipment and weapons, along with the day-to-day management of the Department, each day providing technical, operational and management capability 24/7 to support the warfighter. Figure 15 displays the diverse nature of the civilian workforce.

*Figure 15 – Civilian Manpower Work Areas, FY 2016*



### Civilian Personnel Overview

Civilian career employees are in every single state in more than 558 different occupational series across the country helping to solve fleet issues— whether a malfunction in a ship's propulsion plant or a combat system out of alignment. Simultaneously, there are hundreds more developing and manufacturing the critical specialty ordnance items, and men and women carefully repairing and maintaining our nuclear submarines and ships. They answer the call, 24/7, providing a rapid response to ensure that our warfighters get what they need, when they need it.

The DoD civilian workforce is among the nation's most technologically savvy and talented workforce, and has surpassed all international government agencies, ranking number one worldwide for newly patented discoveries and inventions. For

the fifth consecutive year, the Institute of Electrical and Electronics Engineer ranked the Navy's patent portfolio best in the world amongst all other government agencies. In FY 2014 the DoN documented 378 patents.

Nearly half of the civilian workforce is comprised of engineers, logisticians, mathematicians, scientists, information technology and acquisition specialists - many with critical certifications and advanced degrees. Approximately 35,000 are blue collar artisans. About 4,400 civilians hold doctorate degrees and about half of the workforce have post-secondary degrees and advanced certifications. Veterans (to include Wounded Warriors and disabled veterans) comprise more than 50 percent of the DoN civilian workforce.

This budget reflects a balance between the Department's workforce requirements and our ability to increase our civilian manning levels. Actions taken as a result of budget uncertainties driven by sequestration, such as hiring freezes, mixed with an aging workforce, reduced our civilian manning levels in prior years to lower than anticipated levels. As a result, the Department has taken a pro-active approach to improving processes and hiring practices to increase our civilian manning levels and meet critical mission needs across the workforce. The human resources community has been working to improve strategic hiring practices across the enterprise and the impacts of these changes are already being seen. One example is at the shipyards, where the use of "bundling" is facilitating growth by allowing multiple selections off of a single certification—growth that is pivotal to support ship maintenance schedules and ultimately fleet readiness, in both the near term and in the future. Similar growth is needed at the Fleet Readiness Centers to address aircraft maintenance backlogs and in other key areas such as cyber and working capital fund labs. While the Department continues to grow in some areas, we are also mindful of previous commitments to reduce headquarters personnel requirements and staffs, and this budget continues to support these reductions. Additionally, the budget reflects several significant technical adjustments, such as the realignment of Defense Health Program and Special Operations Command civilian Full-Time Equivalent (FTEs) to the defense wide accounts.

Figure 16 displays total civilian personnel FTEs by component, type of hire, and appropriation.

**Figure 16 - DoN Civilian Manpower Full-Time Equivalent**

	FY 2014	FY 2015	FY 2016
<b>Total – Department of the Navy*</b>	193,460	198,412	200,959
<b><u>By Component</u></b>			
Navy	170,750	176,173	178,892
Marine Corps	22,710	22,239	22,067
<b><u>By Type Of Hire</u></b>			
Direct	182,448	187,287	189,873
Indirect Hire, Foreign National	11,012	11,125	11,086
<b><u>By Appropriation/Fund</u></b>			
Operation and Maintenance, Navy	91,546	95,690	98,263
Operation and Maintenance, Navy Reserve	785	847	840
Operation and Maintenance, Marine Corps	20,599	20,098	19,918
Operation and Maintenance, Marine Corps Reserve	270	263	261
<b>Total - Operation and Maintenance</b>	<b>113,200</b>	<b>116,898</b>	<b>119,282</b>
Research, Development, Test & Evaluation, Navy	824	992	1,027
Family Housing (Navy/Marine Corps)	627	707	710
<b>Total - Other</b>	<b>1,451</b>	<b>1,699</b>	<b>1,737</b>
<b>Total - Working Capital Funds</b>	<b>78,809</b>	<b>79,815</b>	<b>79,940</b>
<b><u>FTE by Work Area</u></b>			
Installation Mgmt/Base Support	36,360	36,863	36,970
Warfare Centers	33,587	33,581	33,514
Shipyards	35,560	38,440	39,913
Engineering/Acquisition Commands ( <i>excludes PEOs</i> )	20,295	20,164	20,276
Fleet Activities ( <i>e.g., Ship/Air Operations</i> )	9,203	11,871	12,008
Aviation/Marine Corps Depots	10,029	10,370	10,368
Departmental ( <i>e.g., Navy/MC HQ, PEOs</i> )	9,956	10,315	10,367
Military Support ( <i>e.g., Training, Quality of Life</i> )	10,998	10,764	11,131
Supply/Distribution/Logistics Centers	8,967	9,178	9,270
Transportation	8,942	8,507	8,730
Other	9,563	8,359	8,412

## MILITARY PERSONNEL, NAVY

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Pay and Allowances of Officers	7,563	7,685	7,917
Pay and Allowances of Enlisted	17,088	17,441	17,960
Pay and Allowances of Midshipmen	79	78	79
Subsistence of Enlisted Personnel	1,141	1,182	1,212
Permanent Change of Station Travel	839	892	917
Other Military Personnel Costs	148	176	178
<b>Sub Total: MPN</b>	<b>26,857</b>	<b>27,453</b>	<b>28,262</b>
Overseas Contingency Operations	499	332	251
<b>Total: MPN</b>	<b>27,356</b>	<b>27,785</b>	<b>28,513</b>

## MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Health Accrual	1,298	1,313	1,210
<b>Total: DHAN</b>	<b>1,298</b>	<b>1,313</b>	<b>1,210</b>

## RESERVE PERSONNEL, NAVY

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Reserve Component Training and Support	1,850	1,836	1,885
<b>Sub Total: RPN</b>	<b>1,850</b>	<b>1,836</b>	<b>1,885</b>
Overseas Contingency Operations	20	14	13
<b>Total: RPN</b>	<b>1,870</b>	<b>1,850</b>	<b>1,898</b>

## MEDICARE-ELIGIBLE RETIREE HEALTH FUND CONTRIBUTION, NAVY RESERVE

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Health Accrual	148	125	108
<b>Total: DHANR</b>	<b>148</b>	<b>125</b>	<b>108</b>

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

	FY 2014	FY 2015	FY 2016
Pay and Allowances of Officers	2,698	2,717	2,789
Pay and Allowances of Enlisted	8,816	8,817	8,887
Subsistence of Enlisted Personnel	741	768	831
Permanent Change of Station Travel	439	419	495
Other Military Personnel Costs	104	107	123
<b>Sub Total: MPMC</b>	<b>12,798</b>	<b>12,829</b>	<b>13,125</b>
<b>Overseas Contingency Operations</b>	<b>716</b>	<b>403</b>	<b>171</b>
<b>Total: MPMC</b>	<b>13,514</b>	<b>13,232</b>	<b>13,296</b>

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

	FY 2014	FY 2015	FY 2016
Health Accrual	742	748	686
<b>Sub Total: DHAMC</b>	<b>742</b>	<b>748</b>	<b>686</b>
<b>Overseas Contingency Operations</b>	<b>37</b>	<b>14</b>	<b>-</b>
<b>Total: DHAMC</b>	<b>779</b>	<b>762</b>	<b>686</b>

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

	FY 2013	FY 2014	FY 2015
	693	660	706
<b>Sub Total: RPMC</b>	<b>693</b>	<b>660</b>	<b>706</b>
<b>Overseas Contingency Operations</b>	<b>11</b>	<b>5</b>	<b>3</b>
<b>Total: RPMC</b>	<b>704</b>	<b>665</b>	<b>710</b>

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

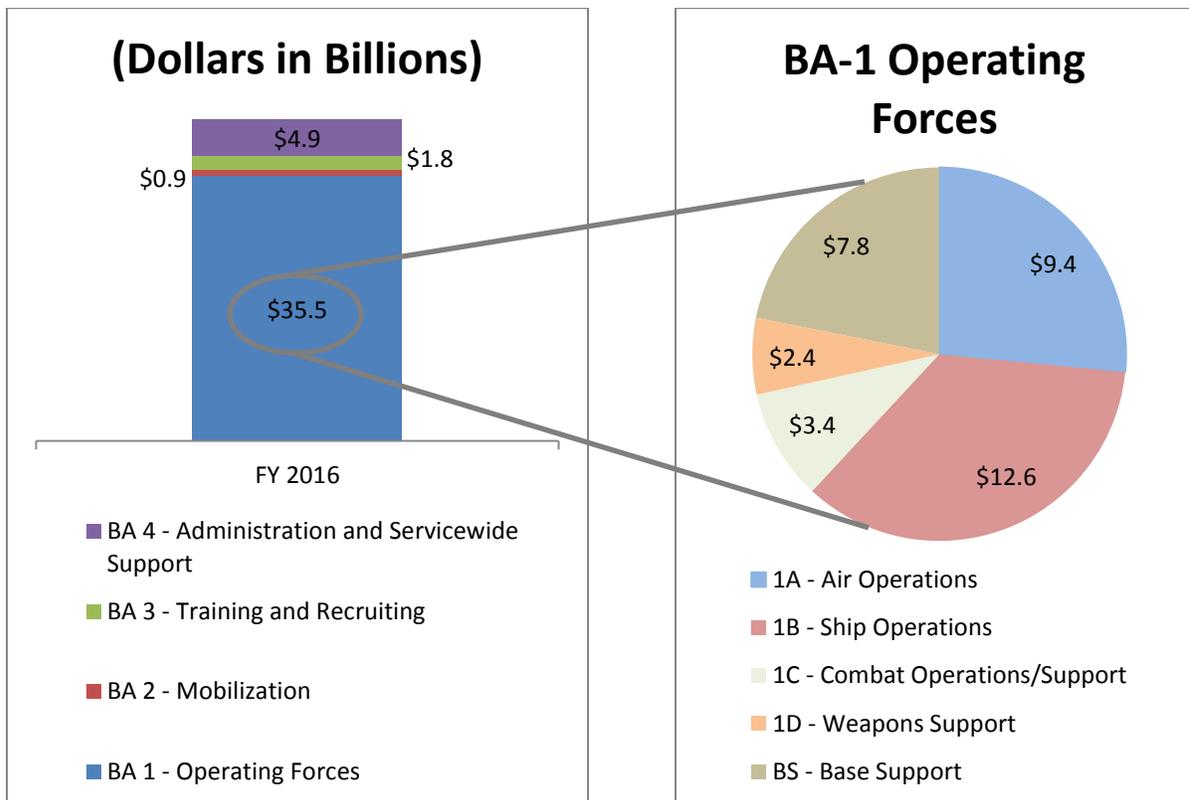
	FY 2013	FY 2014	FY 2015
Health Accrual	89	74	63
<b>Total: DHAMCR</b>	<b>89</b>	<b>74</b>	<b>63</b>

## SECTION III – READINESS

### NAVY OVERVIEW

The FY 2016 budget request supports requirements for our Carrier Strike Groups (CSGs), Amphibious Ready Groups (ARGs), and Marine Expeditionary Forces (MEFs) to respond to persistent as well as emerging threats. Navy deploys full-spectrum-ready forces to further security objectives in support of U.S. interests. Every day, more than 100 ships and submarines, embarked and shore based air squadrons, and Navy personnel ashore are on watch around the globe. The following figure displays FY 2016 funding for the Navy’s operation and maintenance.

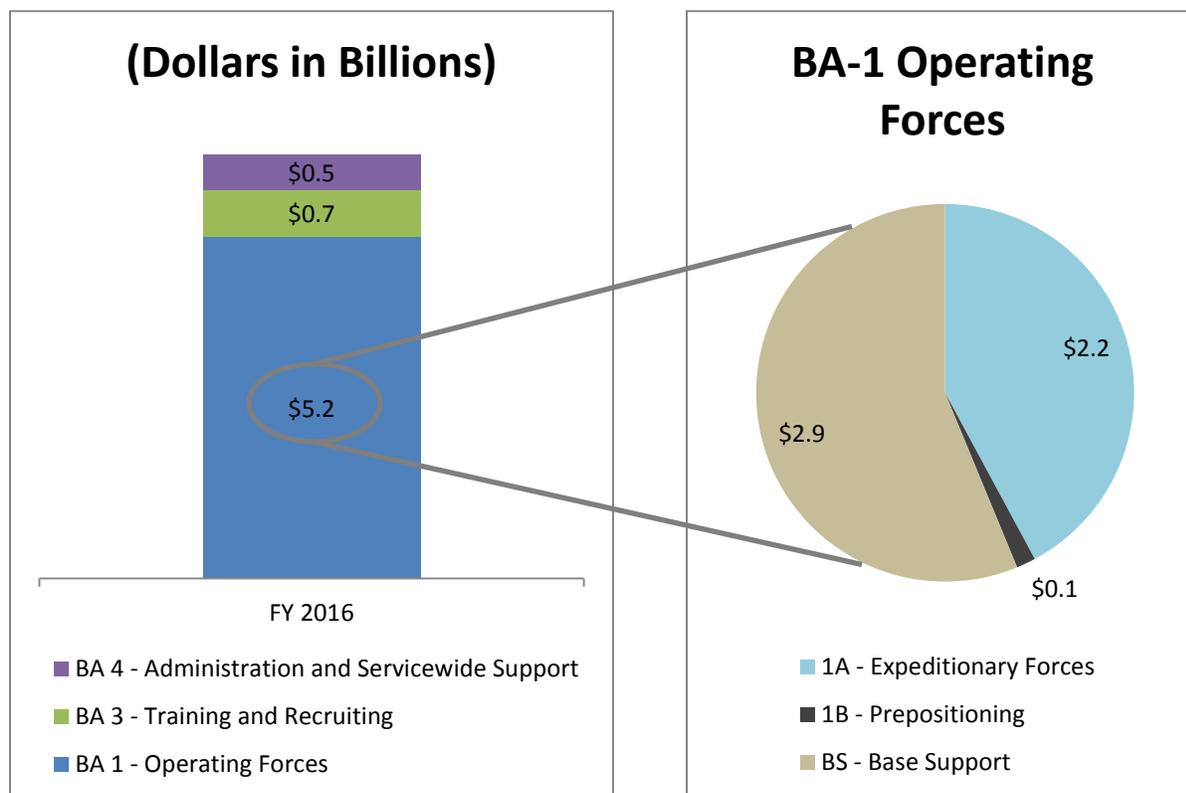
*Figure 17 – FY 2016 Navy Operation and Maintenance (O&M) Funding*



## MARINE CORPS OVERVIEW

Marines are forward deployed protecting the Nation’s security by conducting operations to defeat and deter adversaries, support partners, and create decision space for national leaders. The FY 2016 budget request supports requirements for our MEFs and Special Purpose MAGTFs to respond to persistent as well as emerging threats. Figure 18 displays Marine Corps O&M funding in FY 2016.

*Figure 18 – FY 2016 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 282 ships in FY 2016, as shown in Figure 19. This level of operational funding supports 11 aircraft carriers and 31 large amphibious ships that serve as the foundation upon which our carrier and expeditionary strike groups are based. In FY 2016 14 battle force ships will be delivered: one Nuclear Aircraft Carrier (CVN), two Nuclear Attack Submarines

(SSN), five Littoral Combat Ships (LCS), two Joint High Speed Vessels (JHSV), one Amphibious Transport Dock (LPD), two Destroyers (DDG) and one *Zumwalt* Class Destroyer (DDG 1000). Three Nuclear Attack Submarines (SSN) will be retired.

**Figure 19 – DoN Battle Force Ships**

Category	Ship Type	FY 2014	FY 2015	FY 2016
Aircraft Carriers	CVN	10	10	11
<b>Aircraft Carrier Total</b>		<b>10</b>	<b>10</b>	<b>11</b>
Fleet Ballistic Missile Submarines	SSBN	14	14	14
Guided Missile (SSGN) Submarines	SSGN	4	4	4
Nuclear Attack Submarines	SSN	55	54	53
<b>Submarine Total</b>		<b>73</b>	<b>72</b>	<b>71</b>
Cruisers	CG	22	22	22
Destroyers	DDG	62	62	65
<b>Large Surface Combatants Total</b>		<b>84</b>	<b>84</b>	<b>87</b>
Frigates	FFG	10	-	-
Littoral Combat Ships	LCS	4	6	11
Mine Countermeasures Ships	MCM	12	11	11
<b>Small Surface Combatants Total</b>		<b>26</b>	<b>17</b>	<b>22</b>
Amphibious Warfare Assault Ships	LHA	2	1	1
Amphibious Assault Ships	LHD	8	8	8
Amphibious Transport Docks	LPD	9	9	10
Dock Landing Ships	LSD	12	12	12
<b>Amphibious Warfare Ships Total</b>		<b>31</b>	<b>30</b>	<b>31</b>
Dry-Cargo Ammunition Ships	T-AKE	12	12	12
Oilers	T-AO	15	15	15
Fast Combat Support Ships	T-AOE	3	2	2
<b>Combat Logistics Ships Total</b>		<b>30</b>	<b>29</b>	<b>29</b>
Afloat Forward Staging Base (Interim)	AFSB (I)	1	1	1
Submarine Tenders	AS	2	2	2
Joint High Speed Vessels	JHSV	4	5	7
Command Ships	LCC	2	2	2
Mobile Landing Platforms	MLP	2	3	3
Surveillance Ships	T-AGOS	5	5	5
T-AKEs for Maritime Prepositioning	T-AKE MPS	2	2	2
Salvage Ships	T-ARS	4	4	4
Fleet Ocean Tugs	T-ATF	4	4	4
High Speed Transport Ships	HST	1	1	1
<b>Command and Support Ships Total</b>		<b>27</b>	<b>29</b>	<b>31</b>
<b>Battle Force Ships</b>		<b>281</b>	<b>271</b>	<b>282</b>

NOTE: Navy has adjusted ship counting rules based on the FY 2015 NDAA.

## *Active Ship OPTEMPO*

The FY 2016 budget request supports the Fleet Response Plan (FRP), enabling ships to surge and reconstitute by maintaining a continuous flow of ships from maintenance after deployment, through basic phase training back to ready assets. This is achieved through seven/eight month deployments, with CSGs moving to a 36 month Optimized Fleet Response Plan (OFRP) cycle beginning in FY 2015. This concept enables the Department to provide multiple CSGs within required time frames 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. 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 20, provide logistics capability that enables rapid response to contingencies world-wide. 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 thirty 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 20 – Strategic Sealift**

	FY 2014	FY 2015	FY 2016
<b><u>Prepositioning Ships:</u></b>			
Maritime Prepo Ships (O&M,N)	14	14	14
Army Prepo Ships (O&M,A)	8	8	8
Air Force Prepo Ships (O&M,AF)	2	2	2
Navy Prepo OPDS Ship with Tender (O&M,N)	1	1	1
<b><u>Surge Ships:</u></b>			
Large Medium-Speed RORO Ships (O&M,N)	9	9	9
Container/RORO Ships (former Prepo) (O&M,N)	5	5	5
Hospital Ships (O&M,N)	2	2	2
Ready Reserve Force Ships (O&M,N)	46	46	46
Prepositioning Capacity (millions of square feet)	5.6	5.6	5.6
Surge Capacity (millions of square feet)	9.3	9.3	9.3
Total Sealift Capacity (millions of square feet)	14.9	14.9	14.9

***Ship Maintenance***

The Department's organic ship maintenance program is mission funded in O&M. It provides funding for the Navy's public shipyards, regional maintenance centers, and intermediate maintenance facilities. To ensure a capable workforce is in place for current and projected public shipyard availabilities, the FY 2016 budget invests in the organic shipyard maintenance capabilities of the four major naval shipyards, reflected as an increase in Full-Time Equivalents (FTEs). This additional manpower will require time to train and certify in complex maintenance activities. To prevent a mismatch between the workload and the new workforce, the Department is also investing in private contract maintenance. This private near-term investment will prevent more expensive future deferment of current work, and allow the FY 2016 FTE investment to be trained and qualified. The Department's active ship maintenance baseline budget supports 80 percent of the notional O&M projections in FY 2016.

**Figure 21 - Department of the Navy Ship Maintenance**

<i>(Dollars in Millions)</i>	<b>FY2014</b>	<b>FY2015</b>	<b>FY2016</b>
<b>Active Forces</b>			
Ship Depot Maintenance (SDM) BA-1, 1B4B	4,300	4,906	5,960
OCO Leverage for SDM	1,657	1,341	1,366
OCO for Ship Maintenance Reset	345	582	557
Title II to Tile IX Congressional Shift	1,000	400	-
% of SDM funded with Baseline	80%	80%	80%
% of SDM Funded w/ Base & OCO	100%	100%	100%
Annual Deferred Maintenance	-	-	-
<b>SDM Funding w/ OCO</b>	<b>7,302</b>	<b>7,229</b>	<b>7,883</b>
Depot Operations Support BA-1, 1B5B	1,400	1,315	1,554
<b>Total Ship Maintenance (1B4B, 1B5B &amp; OCO)</b>	<b>8,702</b>	<b>8,544</b>	<b>9,437</b>

## **AIR OPERATIONS**

### **Active Tactical Air Forces**

The budget provides for the operation, maintenance, and training of ten active Navy Carrier Air Wings (CVWs) and three Marine Corps Air Wings in FY 2016. Challenges exist in Navy and Marine Corps strike-fighter inventories. Until F-35B/C aircraft are available in required numbers, 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). 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 will

improve in FY 2015 and is projected to achieve required capacity by FY 2017, which will improve inventory.

**Figure 22 – DON Aircraft Force Structure**

	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>
<b><u>Active Forces</u></b>	<b>20</b>	<b>20</b>	<b>20</b>
Navy Carrier Air Wings	10	10	10
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
<b><u>Primary Authorized Aircraft (PAA) - Active</u></b>	<b>3,089</b>	<b>3,139</b>	<b>3,151</b>
Navy	1,998	2,010	2,035
Marine Corps	1,091	1,129	1,116
<b><u>Total Aircraft Inventory (TAI)</u></b>	<b>3,947</b>	<b>4,056</b>	<b>4,056</b>
Active	3,688	3,798	3,838
Reserve	259	258	218

**Figure 23 – DoN Aircraft Inventory**

Type Model Series Category	FY 2014	FY 2015	FY 2016
ANTI SUB	3	3	3
ATTACK	151	144	142
BAMS-D	4	4	4
Exec ROTARY WING	19	19	19
Experimental	2	2	2
FIGHTER	97	119	130
IN FLIGHT REFUEL	81	78	79
OTHER	1	1	1
PATROL	139	149	165
ROTARY WING	1,312	1,375	1,356
STRIKE FIGHTER	1,199	1,171	1,150
TRAINING JET	284	285	281
TRAINING PROP	310	290	311
TRAINING UTILITY	25	25	17
TRANSPORT	108	117	118
UAS Combat support	68	105	110
UAS Patrol	-	4	4
UAS ROTARY WING	22	41	41
UTILITY	25	24	24
WARNING	97	100	99
<b>Total</b>	<b>3,947</b>	<b>4,056</b>	<b>4,056</b>

## *Aircraft OPTEMPO*

To provide adequately trained aircrews in accordance with the Fleet Response Plan (FRP), Carrier Airwings (CVWs) maintain an average T-rating of T-2.5 which is comprised of the following components: T-1.3 while deployed, T-2.0 pre-deployment sustainment, and T-2.7 post-deployment sustainment. During the maintenance phase of the deployment cycle, readiness degrades to T-3.3.

Marine Corps tactical aviation readiness differs in approach and requires T-2.0 readiness to be prepared to rapidly and effectively deploy on short notice for operational plan or contingency operations. The Marine Corps Aviation Plan (AVPLAN) directs the Training & Readiness (T&R) requirements and resources to attain a readiness level of T-2.0. The T&R Program 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.



During FY 2016, overall readiness levels of USN T-2.5 and USMC T-2.0 will be unattainable due to the effects of F/A-18 A-D legacy Hornet Out-of-Reporting status caused by aircraft depot maintenance throughput constraints. The intent of the FY 2016 funding level is for the average CVW T-rating to be T-2.5 and the average USMC

T-rating to be T-2.0, with the exception of the legacy F/A-18 A-D squadrons. This drives the average T-ratings to USN T-2.8 and USMC T-2.4. Units will deploy at required readiness of T-2.0 or better.

The FY 2016 base Flying Hour Program (FHP) is built upon an extensive and thorough review of the previous execution experience for both flight hours and cost-per-hour drivers. This process includes removing one-time and OCO-related costs and properly pricing aircraft systems and upgrades across all Navy and Marine Corps platforms. In addition, the number of budgeted flying hours represents the peacetime hours that are executable given current contingency operations.

## *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. The FY 2016 budget provides optimized capability within fiscal constraints. Overall increase in Airframes is due to the increase in phase depot maintenance/integrated maintenance concept/planned maintenance interval and standard depot level maintenance events. In addition, inductions for legacy F/A-18 A-D aircraft were reduced due to the increase in time to complete depot level maintenance caused by the number of high flight hours 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 to the flight line and sustain all Navy aircraft type/model/series. There is an increase in engine funding to complete an additional 132 engine repairs for the F414. Finally, the restoration of USS GEORGE WASHINGTON (CVN 73) and her related air wing support results in an overall increase to the account. 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 program, and Integrated Logistics Support (ILS). Figure 24 displays the funding and readiness indicators for aircraft depot maintenance and aviation logistics.



## Figure 24 - Aircraft Depot Maintenance and Aviation Logistics

### Aircraft Depot Maintenance (1A5A)

(Dollars in Millions)	FY 2014	FY 2015	FY 2016
Airframes	451	429	411
Engines	303	420	454
Components	39	30	33
<b>Baseline</b>	<b>793</b>	<b>880</b>	<b>898</b>
Overseas Contingency Operations	215	192	76
<b>Total</b>	<b>1,008</b>	<b>1,072</b>	<b>974</b>
<b>Percent Funded of Total Requirement</b>	<b>94%</b>	<b>100%</b>	<b>82%</b>

### Aviation Logistics (1A9A)

(Dollars in Millions)	FY 2014	FY 2015	FY 2016
KC-130J Hercules	48	44	46
MV-22 Osprey	142	123	141
E-6B Mercury	59	53	56
F-35 Joint Strike Fighter	131	131	302
<b>Baseline</b>	<b>380</b>	<b>351</b>	<b>545</b>
Overseas Contingency Operations	57	34	34
<b>Total</b>	<b>437</b>	<b>385</b>	<b>579</b>

## NAVY RESERVE OPERATIONS

The Department's Reserve Component operating forces consist of aircraft, combat equipment and support units, and their associated weapons. Funding is also provided to operate and maintain Reserve Component (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 increases to 132 for the Navy Reserve at the end of FY 2016 with the establishment of Navy Operational Support Center Washington D.C.

### 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 Defense Strategic

Guidance. The Naval Air Force Reserve consists of one Logistics Support Wing (twelve squadrons), one Tactical Support Wing (five squadrons), two integrated Helicopter Mine Countermeasures squadrons, two Maritime Patrol squadrons, and one Helicopter Maritime Strike Squadron. The 4th Marine Aircraft Wing (MAW) consists of nine squadrons and supporting units.

*Figure 25 – Reserve Component Aircraft Force Structure*

	FY 2014	FY 2015	FY 2016
<b><u>Reserve Forces Air Wings</u></b>	<b><u>3</u></b>	<b><u>3</u></b>	<b><u>3</u></b>
Navy Tactical Support Air Wing	1	1	1
Navy Logistics Support Air Wing	1	1	1
Marine Aircraft Wing	1	1	1
<b><u>Primary Authorized Aircraft (PAA) – Reserve</u></b>	<b><u>260</u></b>	<b><u>263</u></b>	<b><u>250</u></b>
Navy	153	151	136
Marine Corps	107	112	114

### *Reserve Component Aircraft Depot Maintenance*

The RC Aircraft Depot Maintenance program is integrated with the Active Component program to fund repairs, overhauls, and inspections, within available capacity. The FY 2016 budget provides optimized capability within fiscal constraints. Figure 26 displays baseline and overseas contingency operations funding requests and readiness indicators for RC aircraft depot maintenance.

*Figure 26 - Reserve Component Aircraft Depot Maintenance*

#### *Aircraft Depot Maintenance*

*(Dollars in Millions)*

	FY 2014	FY 2015	FY 2016
<b><u>Reserve Forces</u></b>			
Airframes	74	63	66
Engines	25	22	17
<b><u>Baseline Reserve Aircraft Depot Maintenance</u></b>	<b><u>99</u></b>	<b><u>85</u></b>	<b><u>83</u></b>
Overseas Contingency Operations	8	6	20
<b><u>Total Reserve Aircraft Depot Maintenance</u></b>	<b><u>107</u></b>	<b><u>91</u></b>	<b><u>103</u></b>
<b><u>Percent Funded of Total Requirement</u></b>	<b><u>100%</u></b>	<b><u>91%</u></b>	<b><u>95%</u></b>

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## MARINE CORPS OPERATIONS

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### *Active Operations*

The FY 2016 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 operation and maintenance budget supports the Marine Corps operating forces, which are comprised of three active Marine Expeditionary Forces (MEFs). Each MEF consists of a command element, one Marine Division, one Marine Aircraft Wing, and one Marine Logistics Group. Each MEF provides a highly trained, versatile expeditionary force capable of rapid response to global contingencies. The inherent flexibility of the MEF organization, combined with Maritime Prepositioning Force assets, allows for the rapid



deployment of appropriately sized and equipped forces. Marine Expeditionary Units (MEUs) are embedded within each MEF and deploy with Amphibious Readiness Groups. 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 MAGTFs and Navy amphibious ships, remain a uniquely critical and capable component of both crisis response and meeting our maritime responsibilities. Operating as a team, amphibious forces provide operational reach and agility; they provide decision space for our national leaders in times of crisis; and they bolster 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 of time. This budget supports the Marine Corps ability to maintain this flexibility and capability.

The Marine Corps FY 2016 budget continues to transition to a post-OEF Marine Corps that complies with strategic guidance and is capable across the range of military operations. The FY 2016 budget prioritizes global steady state and crisis response operations. Expansion of the Marine Corps Special Purpose MAGTFs and a continued focus on Pacific rebalancing optimizes the Marine Corps forward presence capabilities in support of forward-engaged Geographic Combatant Commanders and promotes regionally based rapid crisis response, theater security cooperation, limited contingency and evacuation operations, and humanitarian assistance.



The FY 2016 budget completes the congressionally-directed expansion of the Marine Corps Embassy Security Group (MCESG) and provides for operations and sustainment for the existing detachments and the establishment of nine new detachments.

### *Ground Equipment Depot Maintenance*

Resetting the Marine Corps for the future after a decade of continuous combat operations remains a top priority – it is necessary to reset the force by addressing equipment shortfalls and to refresh equipment worn out or degraded by years of combat. Repair and rebuild of equipment is accomplished on a scheduled basis to maintain the readiness of the equipment inventory that is necessary to support operational requirements. The FY 2016 budget request will meet 84 percent of the baseline active force requirements. 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 27 -- Marine Corps Ground Equipment Depot Maintenance**

<i>(Dollars in Millions)</i>	FY 2014	FY 2015*	FY 2016
<b>Funding Profile:</b>			
Baseline	214	239	228
Overseas Contingency Operations	<u>570</u>	<u>427</u>	<u>240</u>
<b>Total</b>	<b>784</b>	<b>666</b>	<b>468</b>
<b><u>Active Forces</u></b>			
Combat Vehicles	254	250	160
Missiles	4	10	8
Ordnance, Weapons, and Munitions	52	36	28
Electronics and Communication Systems	31	41	41
Construction Equipment	79	44	23
Automotive Equipment	325	285	208
Other	39		
<b>Total Active Forces</b>	<b>784</b>	<b>666</b>	<b>468</b>
% Funded of Total Requirement	100%	93%	91%

\*FY 2015 includes \$10 million Congressional increase.

## 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 and provides complementary assets that enable the Marine Corps total force to both mitigate risk and maximize opportunities. The FY 2016 operation and maintenance budget sustains a force of 38,900 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/group, battalions/squadrons, and companies/ detachments are located at 189 reserve training centers and sites across the United States; this budget maintains the Reserve component’s capability without any reductions to reserve end strength.

Figure 28 reflects Marine Corps Reserve Ground Equipment Depot Maintenance.

<i>Figure 28 -- Marine Corps Reserve Ground Equipment Depot Maintenance</i>			
<i>(Dollars in Millions)</i>	FY 2014	FY 2015	FY 2016
<b>Funding Profile:</b>			
Baseline	<u>18</u>	<u>18</u>	<u>18</u>
<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>
<b><u>Reserve Forces</u></b>			
Combat Vehicles	3	3	11
Tactical Missiles	7	0	0
Ordnance	4	3	4
Electrical Communication	2	2	2
Constructive Equipment	1	3	1
Automotive Equipment	1	7	0
<b>Total Reserve Forces</b>	<b>18</b>	<b>18</b>	<b>18</b>
% 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 from the Defense Strategic Guidance. The FSRM program ensures our current facilities inventory is maintained in good working order and prevents premature degradation of facility condition.

### **Facility Sustainment**

The FY 2016 budget funds Navy facility sustainment at 84 percent of the DoD-modeled requirement, up from 70 percent in FY 2015. This level of sustainment funding takes acceptable risk ashore with focused effort on sustaining critical facility components and performing facility maintenance affecting life, health, and safety of Sailors. The FY 2016 budget funds Marine Corps facility sustainment at a rate of 81 percent of the DoD-modeled value in FY 2016. This level of Marine Corps sustainment funding assumes minimal risk in the near term by prioritizing life,

health, and safety projects and deferring repairs and demolition projects in order to support a ready and capable force.

### **Facility Restoration and Modernization**

Navy continues to refine the Shore Facilities Investment Model and implement condition-based maintenance in order to efficiently prioritize and accurately budget restoration and modernization within the FSRM program. The Navy has increased outyear funding for recapitalization of permanent party barracks and priority Fleet support facilities, directly supporting improved quality of life and quality of service for our Sailors. The Navy continues to budget funds for fleet-wide facility consolidation intended to effectively and efficiently configure installations while simultaneously reducing the overall DoN facility inventory. The Marine Corps continues to resource restoration and modernization to maintain facilities at a fair condition (Q2) level.

The Navy and Marine Corps continue energy-related renovations and facility retrofits to achieve compliance with Energy Independence and Security Act and other DoN energy initiatives.

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## ***ENVIRONMENTAL RESTORATION, NAVY***

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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 2014	FY 2015	FY 2016
<b><u>Operating Forces</u></b>			
Air Operations	7,032	7,668	8,763
Ship Operations	9,753	10,798	12,591
Combat Operations/Support	3,251	2,934	3,285
Weapons Support	2,141	2,216	2,354
Base Support	7,555	6,827	7,589
<b>Total - Operating Forces</b>	<b>29,732</b>	<b>30,444</b>	<b>34,582</b>
<b><u>Mobilization</u></b>			
Ready Reserve and Prepositioning Forces	328	402	423
Activations/Inactivations	262	212	368
Mobilization Preparedness	88	120	94
<b>Total - Mobilization</b>	<b>679</b>	<b>734</b>	<b>885</b>
<b><u>Training and Recruiting</u></b>			
Accession Training	286	313	315
Basic Skills and Advanced Training	980	955	1026
Recruiting & Other Training and Education	477	457	497
<b>Total - Training and Recruiting</b>	<b>1,743</b>	<b>1,725</b>	<b>1,838</b>
<b><u>Administration and Servicewide Support</u></b>			
Servicewide Support	1,978	1,892	2,011
Logistics Operations and Technical Support	2,030	1,692	1,742
Investigations and Security Programs	1,058	1,061	1,139
Support of Other Nations	5	5	5
Cancelled Activities	7	0	0
<b>Total - Administration and Servicewide Support</b>	<b>5,079</b>	<b>4,650</b>	<b>4,896</b>
<b>Sub Total: O&amp;MN</b>	<b>37,233</b>	<b>37,552</b>	<b>42,201</b>
<b>Overseas Contingency Operations</b>	<b>8,880</b>	<b>6,254</b>	<b>5,132</b>
<b>Total: O&amp;MN</b>	<b>46,113</b>	<b>43,806</b>	<b>47,332</b>

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**OPERATION AND MAINTENANCE, NAVY RESERVE**


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(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b><u>Operating Forces</u></b>			
Air Operations	681	672	666
Ship Operations	98	13	1
Combat Operations/Support	125	133	132
Weapons Support	2	2	-
Base Support	227	180	181
<b>Total - Operating Forces</b>	<b>1,133</b>	<b>1,000</b>	<b>980</b>
<b><u>Administration and Servicewide Support</u></b>			
Servicewide Support	18	18	19
Logistics Operations and Technical Support	3	3	3
Cancelled Activities	1	-	-
<b>Total - Administration and Servicewide Support</b>	<b>22</b>	<b>21</b>	<b>22</b>
<b>Sub Total: O&amp;MNR</b>	<b>1,154</b>	<b>1,021</b>	<b>1,002</b>
<b>Overseas Contingency Operations</b>	<b>56</b>	<b>46</b>	<b>32</b>
<b>Total: O&amp;MNR</b>	<b>1,210</b>	<b>1,067</b>	<b>1,033</b>

## **OPERATION AND MAINTENANCE, MARINE CORPS**

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b><u>Operating Forces</u></b>			
Expeditionary Forces	1,513	1,852	2,090
USMC Prepositioning	97	88	86
Base Support	2,576	2,455	2,804
<b>Total - Operating Forces</b>	<b>4,187</b>	<b>4,395</b>	<b>4,980</b>
<b><u>Training and Recruiting</u></b>			
Accession Training	19	19	17
Basic Skills and Advanced Training	455	468	486
Recruiting & Other Training and Education	247	204	228
<b>Total - Training and Recruiting</b>	<b>722</b>	<b>691</b>	<b>731</b>
<b><u>Administration and Servicewide Support</u></b>			
Servicewide Support	500	444	441
Logistics OPS & Technical Support	86	71	76
<b>Total - Administration and Servicewide Support</b>	<b>586</b>	<b>514</b>	<b>517</b>
<b>Sub Total: O&amp;MMC</b>	<b>5,495</b>	<b>5,601</b>	<b>6,229</b>
<b>Overseas Contingency Operations</b>	<b>3,140</b>	<b>1,851</b>	<b>953</b>
<b>Total: O&amp;MMC</b>	<b>8,635</b>	<b>7,452</b>	<b>7,181</b>

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**OPERATION AND MAINTENANCE, MARINE CORPS RESERVE**


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(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b><u>Operating Forces</u></b>			
Expeditionary Forces	98	111	116
Base Support	138	138	141
<b>Total - Operating Forces</b>	<b>236</b>	<b>249</b>	<b>256</b>
<b><u>Administration and Servicewide Support</u></b>			
Servicewide Support	19	21	21
<b>Total - Administration and Servicewide Support</b>	<b>19</b>	<b>21</b>	<b>21</b>
<b>Sub Total: O&amp;MMCR</b>	<b>255</b>	<b>271</b>	<b>277</b>
<b>Overseas Contingency Operations</b>	<b>13</b>	<b>11</b>	<b>3</b>
<b>Total: O&amp;MMCR</b>	<b>268</b>	<b>281</b>	<b>280</b>

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**ENVIRONMENTAL RESTORATION, NAVY**


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(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Environmental Restoration Activities	-	277	292
<b>Total: ERN</b>	<b>-</b>	<b>277</b>	<b>292</b>

Note: These funds are transferred to O&MN after appropriation and reported in executed balances there.

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**NATIONAL DEFENSE SEALIFT FUND**


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(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Strategic Sealift Acquisition	226	17	15
DoD Mobilization Assets	204	152	161
Research and Development	31	24	25
Ready Reserve Force	300	291	273
<b>Total: NDSF</b>	<b>761</b>	<b>485</b>	<b>474</b>

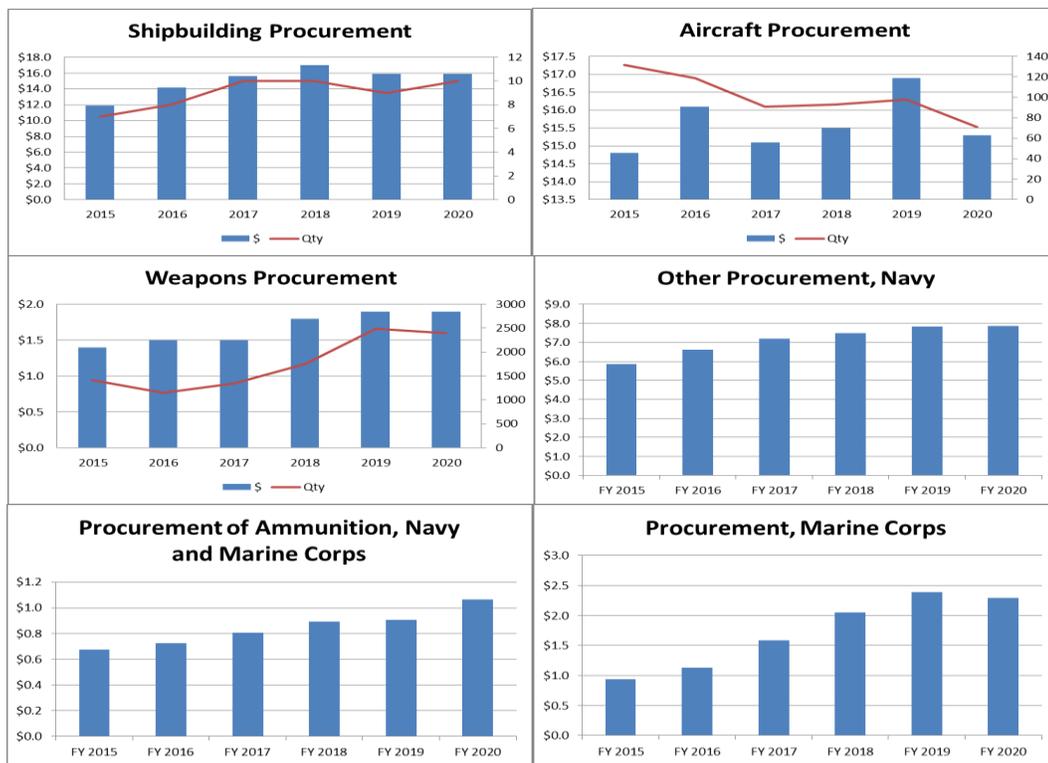
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# SECTION IV – PROCUREMENT

## OVERVIEW

To maintain a robust Fleet and adaptable Marine Corps, we invest in platforms and systems to address today’s wide-range of operations. The FY 2016 budget also continues our aggressive efforts to reduce acquisition cost. It balances a build capability that supports our industrial base with a capacity we can afford. This budget provides the required level to maintain our advantage in advanced technologies and weapons, allowing us to operate in every region across the full spectrum of conflict. Figure 29 displays funding in the procurement accounts across the FYDP.

*Figure 29 – Procurement Funding, FY 2015-2020*



## SHIP PROGRAMS

The Navy's shipbuilding budget procures 48 battle force ships across the FYDP. In FY 2016 there are nine battle force ships, including two *Virginia* Class submarines, two DDG 51 *Arleigh Burke* destroyers, three LCS ships, one LPD, and one Oiler Replacement. The entire plan across FY 2015 to FY 2019 is shown in Figure 30.

**Figure 30—Shipbuilding Procurement**

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FYDP
Ohio Replacement Program	-	-	AP	AP	AP	AP	-
CVN-21	-	-	-	1	-	-	1
SSN-774	2	2	2	2	2	2	10
DDG 51	2	2	2	2	2	2	10
LCS	3	3	3	3	2	3	14
LHA(R)	-	-	1	-	-	-	1
LPD 17	-	1	-	-	-	-	1
LX(R)	-	-	-	-	-	1	1
T-ATS	-	-	1	1	2	1	5
JHSV	1	-	-	-	-	-	-
MLP/AFSB	-	-	1	-	-	-	1
T-AO(X)	-	1	-	1	1	1	4
<b>New Construction Total QTY</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>10</b>	<b>9</b>	<b>10</b>	<b>48</b>
<b>New Construction Total (\$B)</b>	<b>\$13.0</b>	<b>\$14.3</b>	<b>\$16.2</b>	<b>\$17.1</b>	<b>\$17.3</b>	<b>\$16.6</b>	<b>\$81.5</b>
LCAC SLEP	2	4	4	-	-	-	8
Ship-to-Shore Connector	3	5	5	9	10	9	38
SC(X) (R)	-	-	-	1	3	3	7
Moored Training Ships	1	-	1	-	-	-	1
CVN RCOH	-	1	-	-	-	1	2
<b>Total Shipbuilding QTY</b>	<b>14</b>	<b>19</b>	<b>20</b>	<b>20</b>	<b>22</b>	<b>23</b>	<b>104</b>
<b>Total Shipbuilding (\$B)</b>	<b>\$16.0</b>	<b>\$16.6</b>	<b>\$20.1</b>	<b>\$20.3</b>	<b>\$19.1</b>	<b>\$19.8</b>	<b>\$95.9</b>

*Total Shipbuilding includes all new construction, RCOH, SLEP or conversion in SCN, R&D and NDSE, as well as other related line items including Service Craft, Outfitting and Post Delivery.*

### Aircraft Carriers

The next generation aircraft carrier, the *Ford* Class, will be the centerpiece of the carrier strike group. Taking advantage of the *Nimitz* Class hull form, the *Ford* Class will feature an array of advanced technologies designed to improve warfighting capabilities and allow significant manpower reductions.

With \$2.5 billion requested in FY 2016, the Department will continue to finance the detailed design and construction (\$1.6 billion) of the second *Ford* Class carrier (*John F. Kennedy* (CVN 79)), and provide the first year of Advance Procurement (\$875 million) for the third *Ford* class carrier (*Enterprise* (CVN 80)). The FY 2016 President's Budget includes \$678 million for CVN 73 Refueling Complex Overhaul (RCOH).

### ***Surface Ship Programs***

The Navy continues to invest in capabilities to counter improved ballistic missile capabilities emerging worldwide. The FY 2016 budget requests \$3.1 billion for two DDG 51 destroyers as part of the FY 2013 – FY 2017 Multi-Year Procurement (MYP) in support of this capable platform. The FY 2016 budget request also contains \$1.4 billion to procure three LCS seaframes.



### ***Submarine Programs***

The Navy continues to modernize the submarine fleet. *Virginia* Class fast attack submarines are joining the existing fleet of *Los Angeles* and *Seawolf* Class submarines to provide covert force application throughout the world's oceans. The Department received authority for a follow-on MYP contract for up to ten submarines beginning in FY 2014. The FY 2016 budget request includes funds for two *Virginia* Class fast attack submarines (\$3.3 billion) and Advance Procurement/Economic Order Quantity (\$2.0 billion) as part of the FY 2014 – FY2018 Multi-Year Procurement. The next MYP in FY 2019 will include one *Virginia* Payload Module submarine each in FY 2019 and FY 2020.

### ***Amphibious and Logistics Platforms***

The FY 2016 request includes \$550 million to complete funding for LPD 28, and \$278 million for Advance Procurement for LHA 8. The Ship to Shore Connector (SSC) program continues to procure craft, with five requested in FY 2016 (\$256 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 LCAC

modernization program continues with a service life extension for four craft in FY 2016 (\$80.7 million). FY 2016 also represents the first procurement (out of 17 planned) of the Navy's replacement oiler, with \$674 million requested.

## AVIATION PROGRAMS

Navy and Marine Corps aviation provides forward deployed air presence in support of our national strategy; the FY 2016 budget request procures 492 manned and unmanned aircraft. The budget continues the FY 2014-2018 multi-year procurement contracts for E-2D and KC-130J and the FY 2013-2017 multi-year contract for the MV-22. FY 2016 is the last year of the MH-60 multi-year procurement contract. The first low rate initial production contract for MQ-4C Triton is also in FY 2016. The aviation program is shown below in the figure.

*Figure 31 – Aircraft Programs*

Fixed Wing	FY 2015	FY 2016	FY 2017	FY2018	FY2019	FY2020	FYDP
F-35B (STOVL JSF)	6	9	14	20	20	20	83
F-35C (CV JSF)	4	4	4	8	10	12	38
F/A-18E/F	-	-	-	-	-	-	-
EA-18G	15	-	-	-	-	-	-
E-2D AHE	5	5	6	5	4	4	24
P-8A (MMA)	9	16	12	12	7	0	47
C-40A	-	-	-	-	-	-	-
KC-130J (USMC)	1	2	2	2	2	2	10
<b>Rotary Wing</b>							
AH-1Z/UH-1Y	28	28	27	27	27	0	109
CH-53K (HLR)	-	-	2	4	7	13	26
VH-92A	-	-	-	-	6	6	12
MV-22B	19	19	18	8	8	8	61
MH-60R	29	29	-	-	-	-	29
MH-60S	8	-	-	-	-	-	-
<b>UAV</b>							
MQ-8C Firescout	5	2	2	2	2	2	10
RQ-21A Blackjack	6	7	4	4	5	5	25
MQ-4C Triton	-	3	3	4	4	4	18
<b>Total Major Aircraft Programs</b>	<b>135</b>	<b>124</b>	<b>94</b>	<b>96</b>	<b>102</b>	<b>76</b>	<b>492</b>

NOTE: FY 2016 includes 3 RQ-21 requested in the OCO submission. RQ-21 represents funding in both APN and 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.



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, surface warfare, and Intelligence, Surveillance, and Reconnaissance (ISR) missions make it a critical force multiplier for the joint task force commander.

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 UH-1Y/AH-1Z aircraft fulfill the Marine Corps attack and utility helicopter missions. The FY 2016 base budget supports the construction of the last 12 UH-1Y aircraft and 16 AH-1Z aircraft for a total of 28 aircraft in FY 2016.

The Osprey MV-22B Tilt Rotor has a follow-on multi-year procurement with the Air Force from FY 2013 through FY 2017. The MV-22B 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. The Navy plans to replace the C-2A Carrier Onboard Delivery by procuring a version of the V-22 Osprey; all 24 aircraft procured in FY 2018 –FY 2020 are Navy V-22 variants.

The Department funds the fifth year of the FY 2012-2016 multi-year procurement of the MH-60R Seahawk helicopter, which is part of a joint contract with the Army's UH-60M Blackhawk.

### **Unmanned Aerial Vehicles (UAVs)**

The FY 2016 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.

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 Intelligence, Surveillance, and Reconnaissance/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 program went through a Title 10 Section 2433 (Nunn-McCurdy Breach) review in FY 2014 due to a unit cost breach. The Department certified a restructured program to Congress on 16 June 2014. The FY 2016 President's Budget funds the restructured program which includes 70 air vehicles (61 procurement and 9 RDT&E) comprised of MQ-8B and MQ-8C variants. The restructured program also includes the endurance upgrade, radar, and weapons capabilities, previously developed as Navy Rapid Deployment Capabilities.

MQ-4C Triton, 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, will commence low-rate initial production in FY 2016.

The Navy's carrier-based unmanned aerial vehicle efforts continue with the development of the Unmanned Carrier Launched Airborne Surveillance and Strike (UCLASS) system. UCLASS development will build on the operations, control technologies and subsystems demonstrated by NUCAS X-47B to provide an Early Operational Capability to Carrier Battle Group Commanders in support of COCOM requirements in the FY 2022 – FY 2023 timeframe.

## WEAPONS PROGRAMS

A ship or aviation platform cannot fulfill its mission without weapons. Figure 32 shows quantities across the FYDP for specific weapons programs.

*Figure 32 – Weapons Quantities*

	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FYDP
<b>Ship Weapons</b>							
TACTOM	243	100	-	-	-	-	100
SM6	110	113	125	125	125	125	613
RAM	90	90	90	90	90	90	450
ESSM	104	30	96	125	94	94	439
MK 48 HWT	-	8	19	31	40	47	145
MK 48 HWT Mods	44	81	30	75	76	76	338
MK 54 LWT Mods	100	140	192	172	167	167	838
LCS SSMM	-	-	24	120	168	157	469
<b>Aircraft Weapons</b>							
AIM-9X	167	227	221	227	153	152	980
AMRAAM	-	167	154	233	238	233	1,025
JSOW C	200	-	-	-	-	-	-
AARGM	116	138	296	356	436	346	1,572
LRASM	-	-	10	25	25	28	88
JAGM	-	-	96	104	110	110	420
SOPGM	54	27	24	24	24	24	123
Maverick*	134	30	-	-	-	-	30
SDB II	-	-	-	90	750	750	1,590

\*Includes Overseas Contingency Operations funding for 30 Laser Maverick weapons in FY 2016.

### Ship Weapons

The Tactical Tomahawk 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. Tactical Tomahawk procurement ends in FY 2016 as efforts transition to the missile recertification program. The Navy has acquired sufficient inventory of the Block IV TACTOM with the FY 2016 procurement of 100 missiles to meet the combat needs and will begin development of a follow-on Next Generation Land Attack Weapon.

The SM-6 is the primary air defense weapon for AEGIS cruisers and destroyers. The SM-6 Block I has 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 Department of the Navy has focused on its efforts to integrate the kill chain consisting of the E-2D Hawkeye, CEC, AEGIS and the SM-6 missile. The Engineering Change Proposal (ECP) for the SM-6 Block IA configuration is planned for inclusion in the FY2015 SM-6 production contract. The program will reach FOC in FY 2016.



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 2016 is the fifth year of production for Block 2 missiles to provide increased kinematic capability against high maneuvering threats and improved RF detection against low probability of intercept 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. In FY 2016, the Department will pursue a new three-year multi-year procurement contract for ESSM BLK 1 missiles. ESSM Block 2 missile procurement commences in FY 2018.

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 2016 efforts will continue the Common Broadband Advanced Sonar System as well as guidance and control modifications to the existing torpedo, optimizing the weapon for both deep and littoral waters and adding advanced counter-countermeasure capabilities. The Department funded efforts to restart the MK48 Torpedo production line in the PB15 request and FY 2016 is the first year of procurement of new torpedoes.

## *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 2016 continues full rate production for AIM 9X Block II, which incorporates enhanced lethality through increased high off-bore sight acquisition capability, thrust vectoring to achieve superior maneuverability, lock-on after launch capability, data link, and countermeasures.



The Advanced Medium Range Air-to-Air Missile (AMRAAM) is the next generation, all weather radar guided missile that is 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. Procurement re-commences in FY 2016 following the correction of testing and production deficiencies.

The Joint Standoff Weapon (JSOW) program provides an air-to-ground glide weapon capable of attacking a variety of targets during day, night, and adverse weather conditions for use against fixed area targets. The Navy will cease procurement of JSOW starting in FY 2016 given sufficient JSOW C and C-1 weapons in inventory and other weapons that will provide the required capability in future near-peer surface warfare engagements.

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 fifth year of AARGM production in FY 2016.

Stand-Off Precision Guided Munitions (SOPGM), Griffin missile, is a short range rocket propelled missile that uses GPS/INS to navigate 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 AGM-65E2 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. FY 2016 OCO funding will procure Laser Maverick modification kits to convert AGM-65F Infra-Red Mavericks in existing inventory to replace combat expenditures.

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## ***PROCUREMENT, MARINE CORPS***

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The Marine Corps continues to balance its ground equipment procurement and system development efforts to ensure that Marines are supported in the current fight while simultaneously modernizing in preparation for future contingencies.

### ***Major Procurement Programs***

The Light Armored Vehicle Anti-Tank Modernization (LAV-ATM) Program will modernize the legacy turret and Tube-launched, Optically-tracked, Wire-guided (TOW) system in order to sustain the capability, improve readiness, and ensure a high degree of commonality with USMC and U.S. Army systems.

The Marine Corps portion of the RQ-21A Blackjack program is funded in PMC. It will provide persistent maritime and land-based tactical Reconnaissance, Surveillance and Target Acquisition (RSTA) data collection and dissemination capability to the war fighter.

Ground/Air Task Oriented Radar (G/ATOR) is an expeditionary, 3-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. In addition to RDT&E funding for G/ATOR, this budget includes procurement funding supporting the LRIP of two G/ATOR systems and the refurbishment of one G/ATOR Engineering Development Model.

Joint Light Tactical Vehicle (JLTV) 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. The JLTV program strives to minimize ownership costs by maximizing commonality, reliability, and fuel efficiency, while achieving additional savings through effective competition in all stages of program execution. JLTV configurations will be derived from two basic vehicle variants, the Combat Tactical Vehicle and the Combat Support Vehicle. The commonality of components, maintenance procedures, and training among all configurations will minimize total ownership costs. Funding for major activities in this budget includes procurement of seven LRIP assets, kit procurement, test and evaluation associated with LRIP, publications and technical data and fielding.

The FY 2016 budget supports the procurement of hardware and software supporting end user devices along with networked infrastructure technical refresh.

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## ***PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS***

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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 2000-pound laser-guided “bunker buster” Penetrator bomb. Airborne Rockets include the Advanced Precision Kill Weapon System (APKWS) which provided Marine Corps ground forces in Operation Enduring Freedom in Afghanistan 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” MK 54 Guns on Cruiser and Destroyer combatant ships used against air, surface, and shore targets, to Precision-guided Artillery supporting the Marine Corps with accurate, first round fire-for-effect capability, and Small Arms, that are essential for the Navy Sea Air Land Teams (SEALs), Special Boat Teams and the Coastal Riverine Forces. In FY 2016 PANMC ‘s budget of \$724 million will fund the procurement of these and other vital ammunitions in support of the warfighter in virtually every aspect of combat on air, land and sea.



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## ***OTHER PROCUREMENT, NAVY***

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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 2016 OPN budget is \$6.6 billion.

### ***Ship Programs***

The DDG 51 Modernization program (DDG Mod) provides a significant integrated advancement in class combat systems and HM&E systems. This investment enables core modernization of DDG combat systems to keep pace with the 2020 threat environment and extend the mission service life of the ships to 35 years. The FY 2016 budget funds four DDG Modernization availabilities (three Hull, Mechanical & Electrical (HM&E)) availabilities and one Combat System availability), as well as procurement of equipment for six HM&E availabilities and one Combat System availability in FY 2018.

### ***Networks and C4I Programs***

The Department's capability to carry out missions is dependent on Command, Control, Communication, Computers, and Intelligence (C4I) programs. Cyber security is 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, we continue 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 2014		FY 2015		FY 2016	
	QTY	\$	QTY	\$	QTY	\$
<b><u>New Construction</u></b>						
CVN-21	-	918	-	1,219	-	2,509
SSN-774	2	6,235	2	5,832	2	5,340
DDG-51	1	1,985	2	2,796	2	3,150
DDG-1000	-	232	-	420	-	433
LCS	4	1,793	3	1,507	3	1,357
LPD-17	-	-	-	1,000	1	550
LHA(R)	-	-	-	29	-	278
JHSV	-	3	1	200	-	-
AFSB	1	579	-	-	-	-
TAO (X)	-	-	-	-	1	674
<b>Total New Construction</b>	<b>8</b>	<b>11,745</b>	<b>8</b>	<b>13,003</b>	<b>9</b>	<b>14,291</b>
<b><u>Other</u></b>						
CVN RCOH	-	1,855	-	484	1	693
Moored Training Ship	-	207	1	802	-	138
LCAC SLEP	4	81	2	40	4	81
Outfitting	-	383	-	475	-	697
Ship to Shore Connector	-	-	3	160	5	256
Service Craft	-	-	-	-	-	30
Craft Maintenance/ROH/SLEP	-	-	-	-	-	22
Completion of PY Shipbuilding Program	-	960	-	991	-	389
<b>Total Other</b>	<b>4</b>	<b>3,486</b>	<b>6</b>	<b>2,952</b>	<b>10</b>	<b>2,306</b>
<b>Total: SCN</b>	<b>12</b>	<b>15,231</b>	<b>14</b>	<b>15,954</b>	<b>19</b>	<b>16,597</b>

## SHIP MAINTENANCE, OPERATIONS AND SUSTAINMENT FUND

(Dollars in Millions)

	FY 2013	FY 2014	FY 2015
Ship Maintenance, Operations and Sustainment	2038	540	-
<b>Total: SMOSF</b>	<b>2,038</b>	<b>540</b>	<b>-</b>

## AIRCRAFT PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2014		FY 2015		FY 2016	
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
Combat Aircraft	130	12,054	122	10,591	110	10,340
Trainer Aircraft	29	249	-	-	-	9
Other Aircraft	3	177	1	200	7	889
Modification of Aircraft	-	2,198	-	2,286	-	2,753
A/C Spares & Repair Parts	-	1,066	-	1,209	-	1,564
A/C Support Equip & Facilities	-	461	-	473	-	572
<b>Sub Total: APN</b>	<b>162</b>	<b>16,206</b>	<b>123</b>	<b>14,758</b>	<b>117</b>	<b>16,126</b>
<b>Overseas Contingency Operations</b>	<b>1</b>	<b>243</b>	<b>9</b>	<b>243</b>	<b>3</b>	<b>217</b>
<b>Total: APN</b>	<b>163</b>	<b>16,448</b>	<b>132</b>	<b>15,001</b>	<b>120</b>	<b>16,344</b>

## WEAPONS PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2014		FY 2015		FY 2016	
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>
<b><u>Ballistic and Other Missiles</u></b>						
TRIDENT II Mods	-	1,130	-	1,175	-	1,099
ESSM	53	77	104	117	30	99
Tomahawk	206	307	196	272	100	185
AMRAAM	54	83	-	2	167	193
Sidewinder	208	97	167	68	227	96
JSOW	212	118	200	108	-	21
STANDARD	93	300	110	436	113	435
RAM	66	66	90	77	90	81
Hellfire	-	5	-	-	-	-
Aerial Targets	-	39	-	46	-	41
Other	57	207	14	400	27	238
<b><u>Torpedoes and Related Equipment</u></b>						
Mk-54 Torpedo Mods	-	122	-	64	-	113
Mk-48 Torpedo	-	-	-	2	8	66
Mk-48 Torpedo ADCAP Mods	-	49	-	41	-	63
Torpedo Support Equipment	-	54	-	50	-	68
Other	-	27	-	24	-	100
<b><u>Other Weapons</u></b>						
CIWS MODS	-	63	-	75	-	53
Gun Mount Mods	-	59	-	60	-	68
Other	-	40	-	47	-	51
<b><u>Spares and Repair Parts</u></b>						
	-	53	-	74	-	150
<b>Sub Total: WPN</b>	<b>949</b>	<b>2,895</b>	<b>881</b>	<b>3,137</b>	<b>762</b>	<b>3,154</b>
<b>Overseas Contingency Operations</b>	<b>207</b>	<b>82</b>	<b>87</b>	<b>67</b>	<b>30</b>	<b>3</b>
<b>Total: WPN</b>	<b>1,156</b>	<b>2,977</b>	<b>968</b>	<b>3,204</b>	<b>792</b>	<b>3,157</b>

## PROCUREMENT, MARINE CORPS

(Dollars in Millions)

	FY 2013	FY 2014	FY 2015
<b><u>Weapons and Combat Vehicles</u></b>			
LW155MM Lightweight Howitzer	4	5	7
HIMARS	6	19	17
LAV-PC	6	73	55
AAV7A1 PIP	32	15	27
Weapons and Combat Vehicles under \$5 million	11	7	8
MOD Kits	38	21	14
Other	3	3	3
<b><u>Guided Missiles and Equipment</u></b>			
Ground Based Air Defense (GBAD)	19	30	8
Other	65	12	19
<b><u>Communication and Electronics Equipment</u></b>			
Repair and Test Equipment	40	27	21
Comm Switching & Control Systems	54	64	66
Common Computer Resources	102	32	43
Radio Systems	68	64	81
Night Vision Equipment	6	7	2
Comm & Elec Infrastructure Support	19	38	79
Command Post Systems	58	38	29
Other	299	290	418
<b><u>Support Vehicles</u></b>			
5/4T Truck HMMWV (MYP)	1	57	-
Commercial Cargo Vehicles	32	11	23
Other	28	30	101
<b><u>Engineer And Other Equipment</u></b>			
	312	74	101
<b><u>Spares and Repair Parts</u></b>			
	13	16	8
<b>Sub Total: PMC</b>	<b>1,217</b>	<b>935</b>	<b>1,131</b>
<b>Overseas Contingency Operations</b>	<b>126</b>	<b>66</b>	<b>49</b>
<b>Total: PMC</b>	<b>1,342</b>	<b>1,001</b>	<b>1,180</b>

## PROCUREMENT OF AMMUNITION, NAVY AND MARINE CORPS

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
Navy Ammunition	453	562	538
Marine Corps Ammunition	97	112	186
<b>Sub Total: PANMC</b>	<b>550</b>	<b>674</b>	<b>724</b>
<b>Overseas Contingency Operations</b>	<b>169</b>	<b>155</b>	<b>137</b>
<b>Total: PANMC</b>	<b>719</b>	<b>829</b>	<b>861</b>

## OTHER PROCUREMENT, NAVY

(Dollars in Millions)

	FY 2013	FY 2014	FY 2015
Ship Support Equipment	1,452	1,826	1,902
Communications and Electronics Equipment	2,093	2,224	2,382
Aviation Support Equipment	461	369	419
Ordnance Support Equipment	768	581	874
Civil Engineering Support Equipment	75	53	55
Supply Support Equipment	54	88	247
Personnel and Command Support Equipment	430	379	407
Spares and Repair Parts	246	325	328
<b>Sub Total: OPN</b>	<b>5,578</b>	<b>5,847</b>	<b>6,615</b>
<b>Overseas Contingency Operations</b>	<b>111</b>	<b>124</b>	<b>12</b>
<b>Total: OPN</b>	<b>5,690</b>	<b>5,970</b>	<b>6,627</b>



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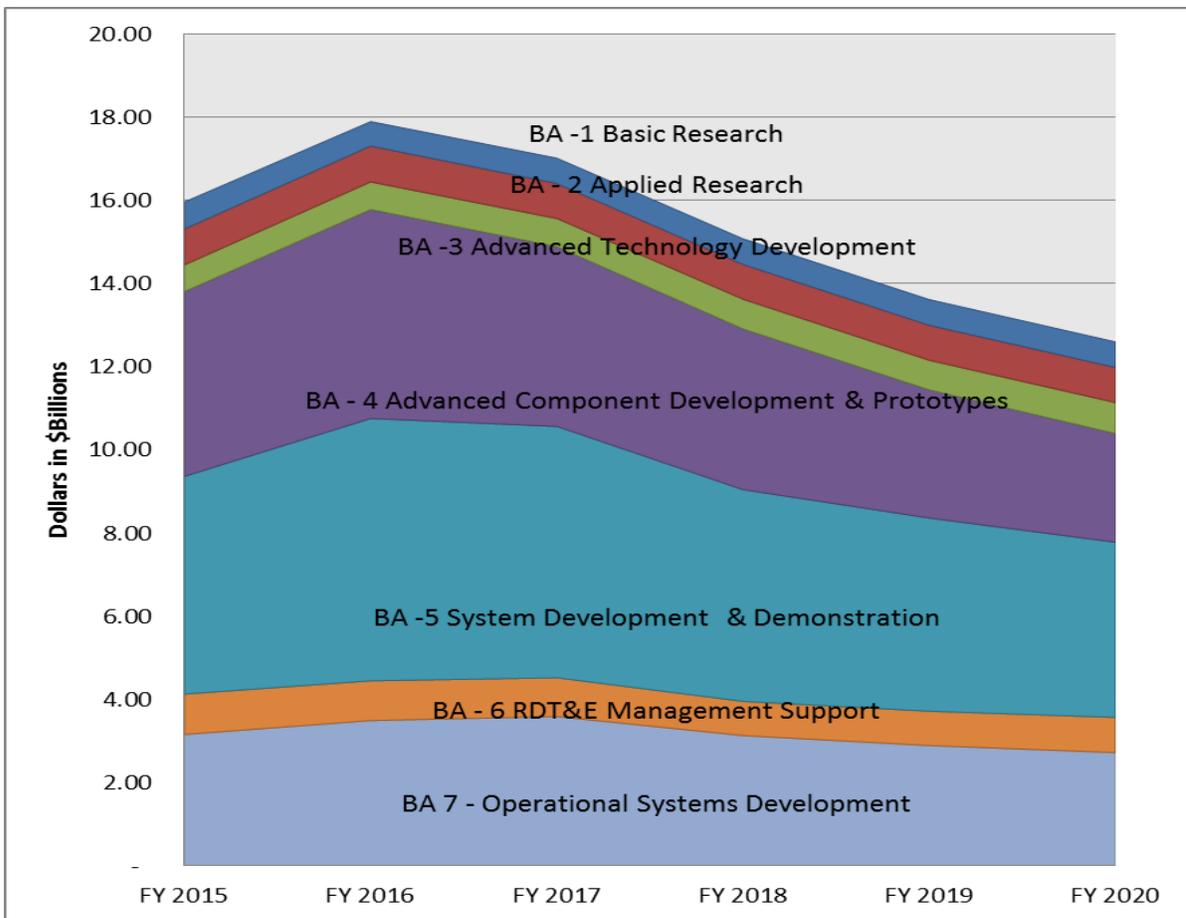


## SECTION V – DEVELOPMENT

### 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 electromagnetic warfare, protecting our national interests across space and cyberspace. RDT&E funding is shown by budget activity in Figure 33.

*Figure 33 – RDT&E Funding*



## Science and Technology

The FY 2016 budget requests \$2.1 billion for the Science and Technology (S&T) program, including \$10.2 million for development of "Speed to Fleet" (S2F) initiatives. S2F is a focused effort to accelerate insertion of maturing technologies into the Fleet to address critical naval needs. This is accomplished via the transition of prototype S&T products from Advanced Technology Demonstration to the Advanced Component Development and Prototypes phase. S2F initiatives included in the budget are SLQ-62 Upgrade, Real Time Spectrum Operations, Virtual Network Operations Center, Lithium Battery Certification for submarine operations, AN/SPY-1 radar Slide Rule Improvement, and Submarine Launched Device.

The FY 2016 budget request includes \$67.4 million for investments in Directed Energy Weapons including Electromagnetic Railgun and Solid State Laser Weapons. These funds are instrumental in Navy plans to conduct future at-sea demonstrations of these advanced technologies developed by the Office of Naval Research. Railgun efforts are focused on development of a tactical Railgun prototype capable of firing



10 rounds per minute and the pulsed power system architecture and components needed to drive it. The Navy plans to conduct a Railgun at-sea demonstration aboard a JHSV in FY 2016. Additionally, the FY 2016 Railgun request includes funds for the first phase of transition to the fleet, which is the integration of the Hypervelocity Projectile into existing and fielded

shipboard Gun and Fire Control Systems. Solid State Laser (SSL) Technology Maturation (TM) will utilize lessons learned from the SSL Quick Response Capability development and installation on USS PONCE (LPD 15). These lessons learned will be applied to a robust SSL-TM prototype suitable for installation and long term demonstration on a naval surface combatant beginning in FY 2016.

## Ship Research and Development

### OHIO Class Replacement

The Department of Navy has budgeted \$1.4 billion in FY 2016 for the *Ohio* Class submarine replacement program (SSBN(X)). FY 2016 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 \$184 million in FY 2016 for integration efforts, test planning and support, and funds to continue system development and demonstration (SDD) and developmental testing on Advanced Arresting Gear (AAG) and the Electromagnetic Aircraft Launch System (EMALS). FY 2016 also includes a request for \$8 million to begin development of the Enterprise Air Search Radar, including development and integration funding. This radar will replace the Dual Band Radar as the program of record starting with CVN 79 and follow on carriers.

### **VIRGINIA Class**

*Virginia* Class submarine research and development efforts continue to focus on cost reduction efforts, operational evaluation testing, development of sonar, combat control, and electronic support systems, and submarine multi-mission team trainer efforts. The FY 2016 budget includes \$125 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 2016 budget includes \$135 million for platform design efforts on future *Virginia* submarine strike payload capacity for Tomahawk Land Attack and follow on missiles.

### **Air and Missile Defense Radar (AMDR)**

The budget requests \$242 million in FY 2016 to continue the Air and Missile Defense Radar's Engineering Manufacturing Development phase and test the radar at the Pacific Missile Range Facility (PMRF). The radar is an open-architecture solution for DDG 51 Ballistic Missile Defense sensors, while also improving the DDG 51 class air defense capabilities. AMDR is to be installed on the second FY 2016 and both FY 2017 DDG 51 ships and beyond. AMDR is a key component of the DDG 51 Flight III configuration.

### **Surface Electronic Warfare Improvement Program (SEWIP)**

In response to current threats, the budget requests \$75 million for continuing research and development efforts associated with SEWIP, which provides enhanced electronic warfare (EW) capabilities to both existing and new ship based combat systems. These capabilities will improve anti-ship missile defense, counter targeting, and counter surveillance activities. SEWIP Block 2 will develop an upgraded antenna, receiver, and combat system interface for the currently installed AN/SLQ-32 EW suite, providing improved detection, accuracy, and mitigation of electronic

interference. Also funded in the budget is SEWIP Block 3 which will add an electronic attack (EA) capability to the AN/SLQ-32 EW suite, providing an EA transmitter, array, and advanced processing techniques. These system improvements will ensure the Department keeps pace with the anti-ship missile threat.

### *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 Marine Air-Ground Task Force heavy-lift requirements in the 21<sup>st</sup> 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 will complete initial flight in FY 2015 and Milestone C in FY 2016. Advance procurement funding for long-lead items is included in FY 2016 for low rate initial production in FY 2017.

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 2016 to include the integration of systems, production, qualification, and support of test articles, logistics products development, demonstration of system integration, interoperability, safety and utility.

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 until Milestone B in FY 2016.



The F-35 Joint Strike Fighter is in the 14th year of System Development and Demonstration (SDD) program. Approximately 3 more years of SDD work remain to achieve an Operational Requirements Document (ORD) compliant, Block 3 configured aircraft. F-35C Initial Sea

Trials on USS Nimitz was 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 is FY 2015 and the F-35C CV is FY 2019.

### *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. Continued investment in FY 2016 will support a first quarter award of competitive Engineering, Manufacturing and Development contracts to two vendors to build 16 test vehicles each (32 total). The FY 2016 budget also supports continued engineering and program management support.

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**RESEARCH, DEVELOPMENT, TEST AND EVALUATION, NAVY**

(Dollars in Millions)

	FY 2013	FY 2014	FY 2015
Basic Research	604	650	587
Applied Research	844	870	865
Advanced Technology Development	623	635	663
Advanced Component Development	4,152	4,444	5,025
System Development and Demonstration	4,174	5,236	6,309
RDT&E Management Support	1,153	973	956
Operational Systems Development	3,361	3,147	3,482
<b>Sub Total: RDT&amp;E,N</b>	<b>14,912</b>	<b>15,955</b>	<b>17,886</b>
<b>Overseas Contingency Operations</b>	<b>34</b>	<b>36</b>	<b>36</b>
<b>Total: RDT&amp;E,N</b>	<b>14,946</b>	<b>15,991</b>	<b>17,922</b>
<b>By Service</b>			
Navy	14,151	15,209	17,087
Marine Corps	795	782	835

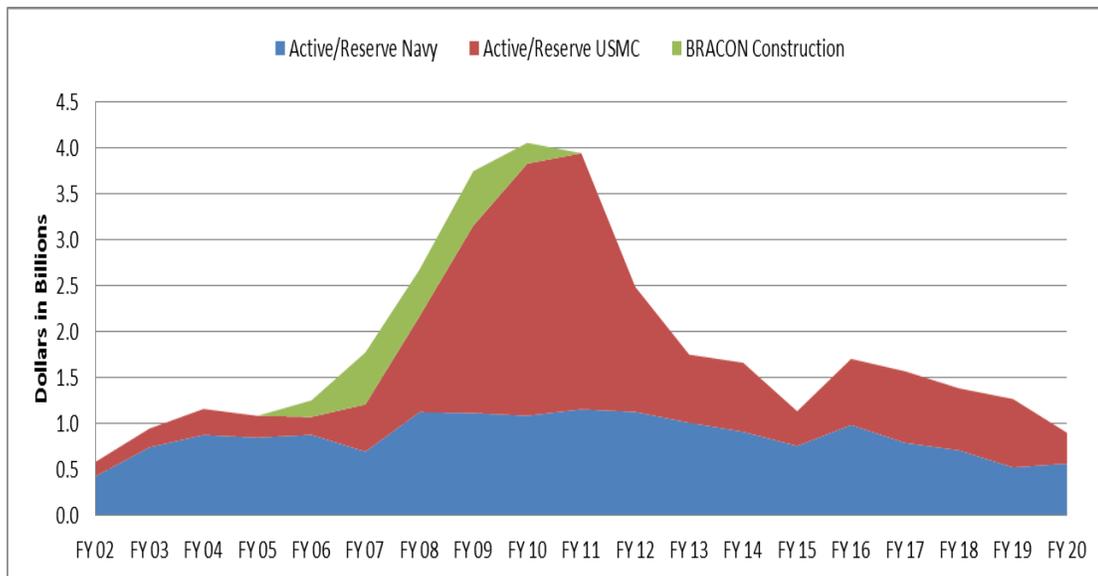
## SECTION VI – INFRASTRUCTURE

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 2016 budget request supports the Department’s critical goals, financing 60 military construction projects. Of these, 37 are for the active Navy and 20 for the active Marine Corps, one is for the Navy Reserve Component and two for the Marine Corps Reserve Component.

*Figure 34 – Historical Military Construction Funding*



Key tenets in the Department’s facilities investment strategy are as follows, with examples of FY 2016 funding for each:

- Improving Quality of Life and Safety
  - BEQ, Kaneohe Bay, HI (\$68 million)
  - Child Development Center, Yokosuka, Japan (\$14 million)
- Enhancing the Global Defense Posture
  - Movement of Marines to Guam (\$126 million)

- Replacing Aging Facilities
  - Sanitary Sewer System Recapitalization, Naval Base, Guam (\$45 million)
- Supporting New Systems
  - LCS Mission Module Readiness Center, Mayport, FL (\$16 million)
- Upgrading Operations, Training, and Security Facilities
  - Townsend Bombing Range Expansion, Phase 2, Beaufort, SC (\$48 million)
- Upgrade Infrastructure
  - Raw Water Pipeline Pendleton to Fallbrook, Pendleton, CA (\$4 million)

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## ***FAMILY HOUSING***

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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 2016 budget request includes \$0.4 million for the construction of a welcome center and \$3.7 million to revitalize and convert 20 units to 15 at Surface Combat Systems Center, Wallops Island, Virginia. The Navy's budget also includes \$316 million for the operation, maintenance and leasing of approximately 9,600 units located worldwide. The level of funding translates to 77 percent of the government owned inventory meeting adequate standards, which is below the 90 percent DoD goal.

The Marine Corps' FY 2016 budget request includes \$7.9 million for the improvement and repair of 18 family housing units at Marine Corps Air Station, Iwakuni, Japan. The Marine Corps' budget also includes \$37 million for the operation, maintenance and leasing of approximately 1,500 units located worldwide. The level of funding translates to 98 percent of the government owned inventory meeting adequate standards.

**Figure 35 – Navy & Marine Corps Family Housing Units**

	FY 2014	FY 2015	FY 2016
Privatized inventory	62,052	62,677	62,937
Government Owned inventory	10,374	9,026	8,879
Leased inventory	2,408	2,351	2,231
Total	74,834	74,054	74,047

## **BASE REALIGNMENT AND CLOSURE**

The Base Realignment and Closure (BRAC) Budget in FY 2016 is \$157 million. These funds will be used to continue environmental clean-up and monitoring at legacy locations.

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**MILITARY CONSTRUCTION, NAVY AND MARINE CORPS**  
**ACTIVE AND RESERVE**


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(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b><u>Significant Programs</u></b>			
Major Construction	1,529	1,040	1,555
Minor Construction	20	7	23
Planning and Design	81	33	92
Foreign Currency	4	-	-
<b>Sub Total: Navy</b>	<b>1,634</b>	<b>1,080</b>	<b>1,669</b>
<b>Overseas Contingency Operations</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Total: Navy</b>	<b>1,634</b>	<b>1,080</b>	<b>1,669</b>
<b><u>Naval Reserve</u></b>			
Major Construction	26	49	32
Minor Construction	-	4	1
Planning and Design	3	2	2
<b>Total: Naval Reserve</b>	<b>29</b>	<b>56</b>	<b>36</b>
<b><u>By Service</u></b>			
<b>Navy</b>	<b>883</b>	<b>758</b>	<b>986</b>
<b>Marine Corps</b>	<b>780</b>	<b>378</b>	<b>719</b>

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**FAMILY HOUSING, NAVY AND MARINE CORPS**

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b><u>Navy</u></b>			
Construction (Incl P&D)	61	-	8
O&M	312	321	316
<b>Total: Navy</b>	<b>373</b>	<b>321</b>	<b>324</b>
<b><u>Marine Corps</u></b>			
Construction (Incl P&D)	25	16	8
O&M	32	33	37
<b>Total: Marine Corps</b>	<b>57</b>	<b>49</b>	<b>46</b>
<b>Total: FH,N&amp;MC</b>	<b>430</b>	<b>370</b>	<b>370</b>

**BASE REALIGNMENT AND CLOSURE ACCOUNTS***(Dollars in Millions)*

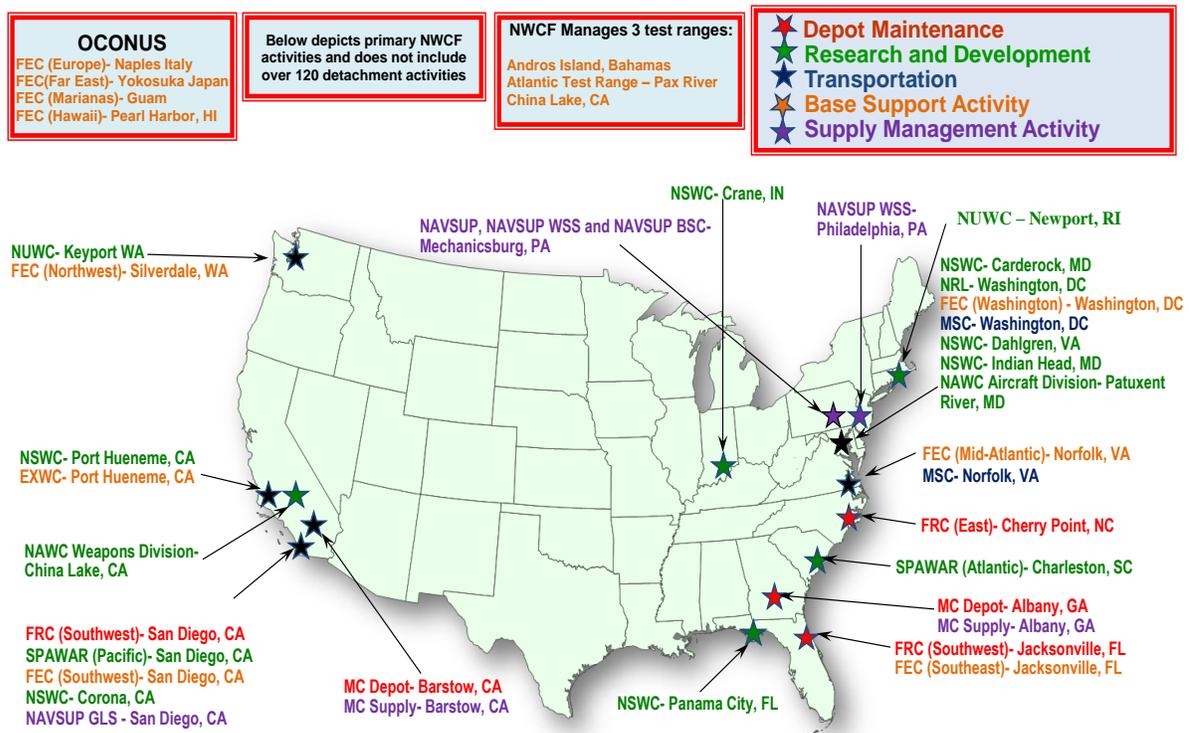
	FY 2014	FY 2015	FY 2016
Base Realignment and Closure IV	11	-	-
Base Realignment and Closure V	13	-	-
Consolidated Prior BRAC	143	140	157
<b>Total: BRAC</b>	<b>167</b>	<b>140</b>	<b>157</b>

## SECTION VII – NAVY WORKING CAPITAL FUND

The Navy Working Capital Fund (NWCF) is a revolving fund that finances Department of the Navy 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. These fluctuations are recovered from customers in future years via rate changes. The NWCF is key to supporting the DoN’s presence and posture 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 36 shows NWCF activities across the country.

Figure 36 – Map of NWCF Activities



The FY 2016 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 2016 is projected to be approximately \$28.5 billion, as shown in Figure 37. The NWCF 2016 budget request reflects a modest increase from FY 2015. The increase is primarily attributable to anticipated demand for Supply aviation repairables and additional ships entering Full Operational Status (FOS) within the Transportation activity, including two Mobile Landing Platforms and six Joint High Speed Vessels.

**Figure 37 - Summary of NWCF Costs**

<b>COST (In Millions of Dollars)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Supply (Obligations)	6,318	6,142	6,501
Depot Maintenance - Aircraft	1,948	2,122	2,134
Depot Maintenance - Marine Corps	490	602	582
Transportation	2,693	2,737	2,851
Research and Development	11,947	12,934	13,163
Base Support	3,099	3,227	3,271
<b>TOTAL</b>	<b>26,495</b>	<b>27,764</b>	<b>28,502</b>

### NWCF Cash

The DoN's goal is to maintain the cash balance within the upper and lower operational range. The DoN's operational range calculation begins with the former 7 to 10 day methodology based on historical average daily expenditure rates and a projection of outlays to procure capital investments. The operational range also takes into consideration DoN specific cash volatility to ensure adequate budgetary resources to offset projected outlays. The DoN's cash requirement includes a forecast of collections and disbursements and considers cyclical timing of outlays. The NWCF cash balance fluctuates primarily from the return of excess accumulated operating results for prior year gains/losses. As a result of ending FY 2014 below our lower operational range, the DoN is closely monitoring execution in FY 2015 to ensure continued solvency. The following figure shows the DoN cash position.

**Figure 38 – DoN Cash Position**

<b>Treasury Cash (In Millions of Dollars)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
Beginning Cash Balance	1,458	739	552
Ending Cash Balance	739	552	620
Upper Operational Range	1,148	1,174	1,183
Lower Operational Range	831	852	857

*The ending cash balance in FY 2014 reflects a \$442M reprogramming from NWCF into OMN per General Provision 8140 of the FY 2014 Consolidated Appropriations Act.*

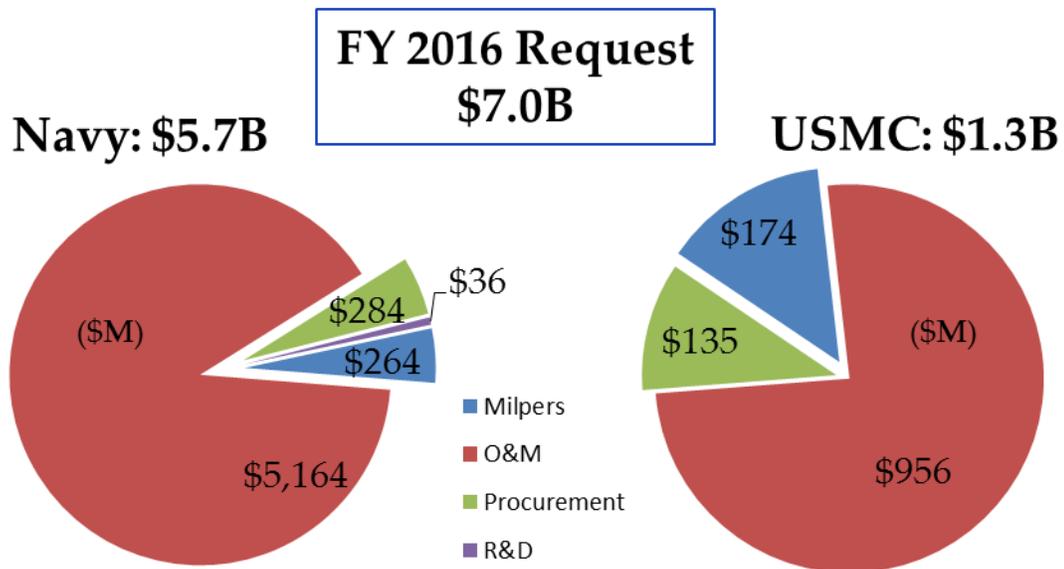
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# SECTION VIII - OVERSEAS CONTINGENCY OPERATIONS (OCO)

## OVERVIEW

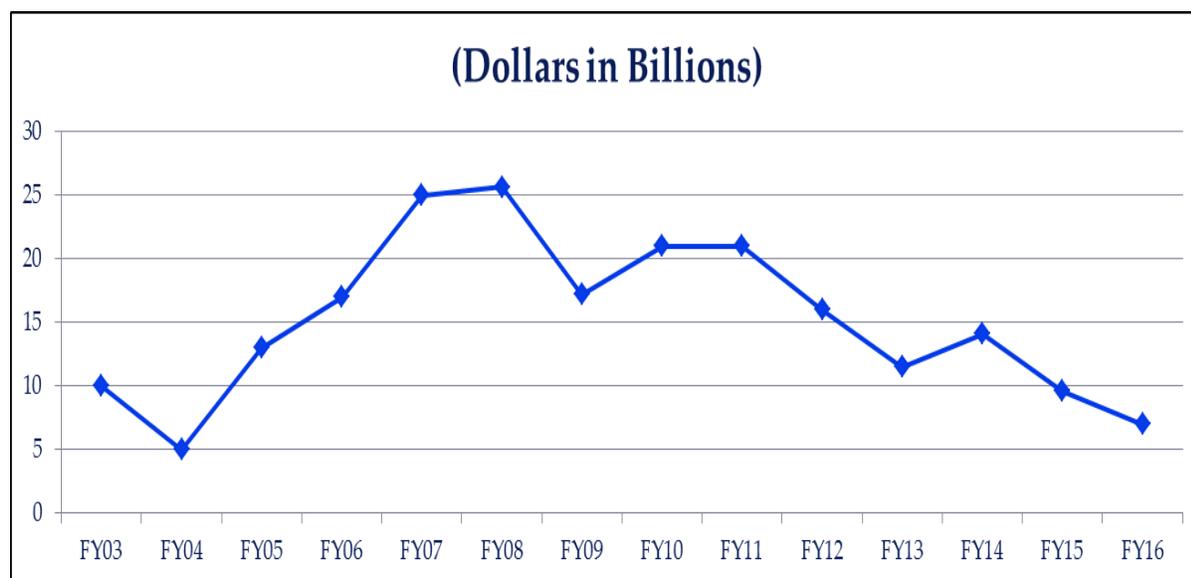
The Navy and Marine Corps overseas force posture is shaped by ongoing and projected operational commitments. FY 2016 continues funding for operations in Afghanistan, the Horn of Africa, and other locations in theater, as well as ongoing efforts to counter the Islamic State of Iraq and the Levant (ISIL) and for the European Reassurance Initiative. The FY 2016 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, combat support, base support, Marine Corps operations and field logistics, mobilized reservists, and other special pays. Figure 39 shows a breakout of Navy and Marine Corps funding by appropriation.

*Figure 39 – Navy and Marine Corps FY 2016 OCO Funding*



OCO funding continues to decrease with the Afghanistan drawdown, as shown in Figure 40. Today the Marine Corps has a declining force of ~4,000 Marines in the U.S. Central Command (CENTCOM) with ~1,000 in Afghanistan.

**Figure 40 – Historical OCO Funding, FY 2002 – FY 2016**



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 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).



The table below provides the Overseas Contingency Operations funding profile.

## *Department of the Navy Overseas Contingency Operations Funding*

(Dollars in Millions)

	FY 2014	FY 2015	FY 2016
<b>USN OCO</b>			
<b><u>Appropriation</u></b>			
Military Personnel, Navy	499	332	251
Reserve Personnel , Navy	20	14	13
Operation and Maintenance, Navy	6,337	5,404	4,972
Operation and Maintenance, Navy Reserve	51	46	32
Aircraft Procurement, Navy	243	243	217
Weapons Procurement, Navy	82	67	3
Other Procurement, Navy	111	124	12
Procurement of Ammunition, Navy/Marine Corps	104	62	51
Research, Development, Test, and Evaluation, Navy	34	36	36
<b>Sub Total USN OCO</b>	<b>7,481</b>	<b>6,328</b>	<b>5,587</b>
<b>USMC OCO</b>			
<b><u>Appropriation</u></b>			
Medicare-Eligible Retiree Health Fund Contribution, MC	-	14	-
Military Personnel, Marine Corps	716	403	171
Reserve Personnel , Marine Corps	11	5	3
Operation and Maintenance, Marine Corps	1828	1501	953
Operation and Maintenance, Marine Corps Reserve	13	11	3
Procurement, Marine Corps	126	66	49
Procurement of Ammunition, Navy/Marine Corps	65	92	86
<b>Sub Total USMC OCO</b>	<b>2,759</b>	<b>2,092</b>	<b>1,265</b>
<b>US Coast Guard</b>	<b>-</b>	<b>-</b>	<b>160</b>
<b>Congressional Base to OCO Transfer</b>	<b>-</b>	<b>1,200</b>	<b>-</b>
<b>DoN Grand Total</b>	<b>10,240</b>	<b>9,620</b>	<b>7,012</b>

\*The FY 2014 column reflects cost of war (CoW) report data, submitted monthly.



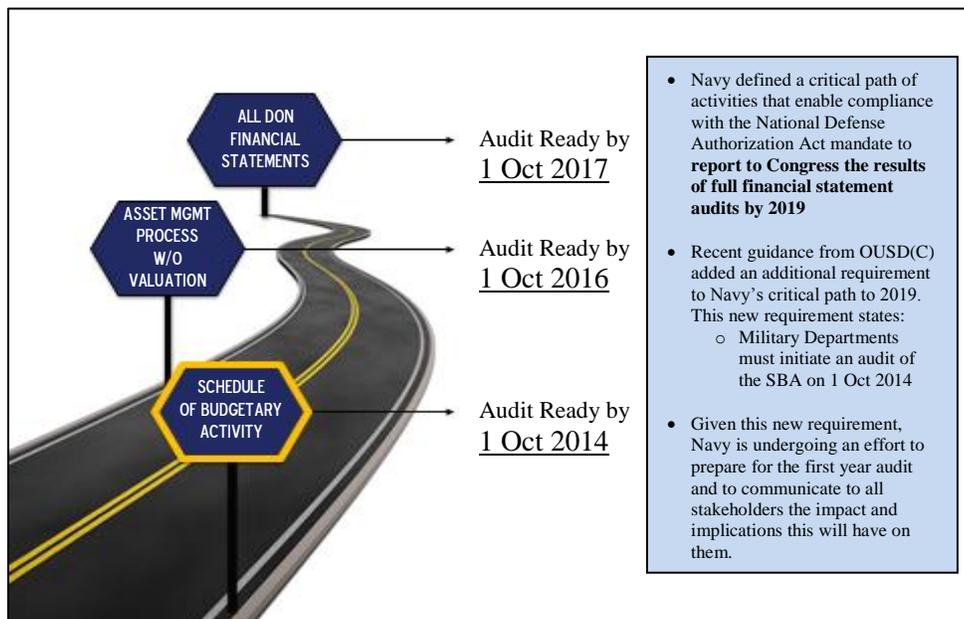
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## SECTION IX – FINANCIAL OPERATIONS

The Department's efforts at transforming DoN's business enterprise are 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 across the FYDP. Our ability to manage our budget efficiently is directly related to our ability to properly account for every dollar. The Navy is now under audit on its FY 2015 SBA, concurrent with the plan shown in Figure 41. DoN continues its commitment to improve the performance of its business processes and systems and to develop measurements of that progress.

*Figure 41 – Department of the Navy Road to Financial Auditability*



## FINANCIAL TRANSACTION IMPROVEMENTS

DoN's plan to achieve compliance with financial audit standards is today's most comprehensive business transformation initiative. The purpose of the Congressional mandate to achieve financial auditability is to improve the accuracy and accessibility of Departmental financial information. These improvements in turn will provide DoN leaders with better data to make resource decisions; increase accountability for funds appropriated and reduce the risk of funds misuse; and

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reduce the number of unsuccessfully-processed financial transactions causing re-work. The result will be improved efficiency, better capability to manage resources, and a business culture based on increased accountability.

An essential feature of the auditability plan is assembling a complete set of financial transactions for a specific reporting period. The Navy has completed the initial step in this plan by capturing all of the transactions comprising the SBA, now under independent audit. From this transaction universe, auditors will collect and review samples to test the accuracy of Navy business processes and whether they are supported by adequate documentation.

Not only will collecting a complete set of transactions satisfy audit requirements, but the Navy will also develop business tools which will aid in analyzing this comprehensive business data. Using these tools, the Department can determine if further strengthening of controls governing business processes and systems is needed, and whether adequate controls are being sustained over time. This analysis will be a gauge of DoN's business transformation efforts aiming for compliance with auditability standards.

In addition to developing effective transaction analysis tools, the DoN continues its enterprise effort to access a precise and unimpeded flow of Department business transactions, from inception through to the financial statements. None of DoN's major business systems, including Navy ERP, was designed with compliance with financial audit standards as an objective. Therefore, the initial step toward auditability was to verify the internal controls of eighty-three major DoN business systems using federal standards as benchmarks. Control deficiencies have been documented, and corrective action plans have been developed. Resulting improvements will upgrade the security of the systems and improve accuracy of data as it flows from one system to another.

Finally, DoN seeks automated solutions to improve the speed, precision, and economy of financial transactions. As an example, the Department serves as the DoD Executive Agent to implement the Department of the Treasury's web-based Invoice Processing Platform (IPP). IPP will automate and standardize intra-governmental transactions to strengthen internal controls, bring compliance with audit standards, improve accuracy, and reduce manual processing costs.

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## AUDIT READINESS PROGRESS

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DoN continues to make significant progress toward meeting Congressional and DoD mandates for DoN financial audit readiness. The Navy is now under audit on its FY 2015 SBA, a big step toward full financial auditability – defined as audit readiness on all four of the DoN financial statements. Congress has mandated in legislation that the Military Departments achieve full auditability during FY 2017.

To execute DoN’s plan to achieve full financial auditability, business managers must maintain improvements achieved working toward SBA audit readiness, as well as improve processes and systems used by Working Capital Fund organizations, and bolster major asset accountability, including accurate asset valuation. DoN is making steady progress toward this FY 2017 goal; however, there are major challenges ahead.

Departmental business managers are working steadily toward improving accountability for mission essential property which complies with financial audit standards. Mission essential assets include not only ships, subs, aircraft, and missiles, but also real estate, ordnance, and industrial equipment. DoN has successfully demonstrated audit readiness for most military equipment, and is on track to reach full accountability for all major assets by June 30, 2016, as mandated by DoD.

Financial audit readiness will not be a one-time achievement – rather, it will be marked by a progressively changing business environment in which improvements must be incorporated into permanent work processes. DoN is committed to promoting a business culture in which everyone understands their respective roles in achieving and sustaining financial auditability, from senior leaders down to the business managers who support our warfighting team each day. The result will be strengthened stewardship of public funds, institutionalized by performing effective internal controls over business processes and systems, and by making business policies and procedures more precise and compliant with audit standards.





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## *LIST OF ACRONYMS*

### **A**

**A2/AD** – Anti-Access/Area-Denial  
**AAG** – Advance Arresting Gear  
**AARGM** - Advanced Anti-Radiation Guided Munition  
**AC** - Active Component  
**ACV** – Amphibious Combat Vehicle  
**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

### **B**

**BA** - Budget Authority  
**BCA** – Budget Control Act of 2011

### **C**

**CANES** - Consolidated Afloat Networks and Enterprises Services  
**CENTCOM** - US Central Command  
**CG** - Cruiser  
**COCOMs** - Combatant Commanders  
**COD** – Carrier Onboard Delivery  
**CSGs** - 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  
**EMALS** – Electromagnetic Aircraft Launch System  
**EOD** – Explosive Ordnance Disposal  
**ERP** - Enterprise Resource Planning  
**ES** – End Strength  
**ESSM** – Evolved Sea Sparrow Missile

### **F**

**FFG** – Frigate  
**FHP** – Flying Hour Program  
**FOC** – Full Operation Capability  
**FOS** – Full Operating Status  
**FRC** - Fleet Readiness Center  
**FRP** - Fleet Response Plan  
**FRTTP** – 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

### **H**

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

### **I**

**IA** – Individual Augmentee  
**IOC** – Initial Operational Capability  
**IED** – Improvised Explosive Device  
**IMA** – Individual Mobilization Augmentee  
**IPP** – Invoice Processing Platform  
**ISIL** – Islamic State of Iraq and the Levant  
**ISR** - Intelligence, Surveillance and Reconnaissance  
**IT** – Information Technology

**J**

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

**L**

**LAV** – Light Armored Vehicle  
**LAV-ATM** – LAV Anti-Tank Modernization  
**LCAC** - Landing Craft Air Cushion  
**LCS** - Littoral Combat Ship  
**LHA** – Amphibious Warfare Assault Ship  
**LMSR** - Large, Medium Speed Roll-On/Roll-Off Ships  
**LOC** – Limited Operational Capability  
**LPD** – Amphibious Dock Ship  
**LRIP** – Low-Rate Initial Production  
**LSD** - Dock Landing Ship

**M**

**MAGTF** - Marine Air-Ground Task Force  
**MCESG** – Marine Corps Embassy Security Guards  
**MEFs** - Marine Expeditionary Forces  
**MEUs** - Marine Expeditionary Units  
**MILCON** - Military Construction  
**MILPERS** – Military Personnel  
**MLP** - Mobile Landing Platform  
**MPS** - Maritime Prepositioning Ships  
**MSC** - Military Sealift Command  
**MYP** – Multi-Year Procurement

**N**

**NDSF** - National Defense Sealift Fund  
**NECC** - Navy Expeditionary Combat Command  
**NGJ** – Next Generation Jammer  
**NWCF** - Navy Working Capital Fund

**O**

**OCO** – Overseas Contingency Operations  
**O&M** – Operation & Maintenance

**OMB** – Office of Management and Budget  
**OPTEMPO** - Operational Tempo  
**ORD** – Operational Requirements Document  
**ORT** – Operation Rolling Tide

**P**

**PAA** - Primary Authorized Aircraft  
**PACOM** – Pacific Command  
**PB** – President’s Budget  
**PC** – Patrol Craft

**Q**

**QDR** – Quadrennial Defense Review

**R**

**RAM** - Rolling Airframe Missile  
**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  
**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  
**SDD** – System Development and Demonstration  
**SEAL** – Sea Air Land Team  
**SEWIP** – Surface Electronic Warfare Improvement Program  
**SLEP** – Service-Life Extension Program  
**SM** - Standard Missile  
**SMOSF** – Ship Maintenance, Operations, and Sustainment Fund  
**SOF** – Special Operations Force  
**SOPGM** – Stand-Off Precision Guided Munitions  
**SSBN** – Nuclear Ballistic Submarine

**SSC** – Ship to Shore Connector  
**SSGN** – Guided Missile Submarine (nuclear)  
**SSN** - Nuclear Attack Submarine  
**S&T** - Science and Technology  
**STOVL** - Short Takeoff and Vertical Landing  
**STUAS** - Small Tactical Unmanned Aircraft System

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

**T**

**TACAIR** – Tactical Air  
**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-AOE** – Fast Combat Support Ships  
**T-AO(X)** – Fleet Oiler Replacement  
**TFCA** – Task Force Cyber Awakening  
**TMS** – Type/Model/Series  
**TOA** - Total Obligation Authority  
**TOW** – Tube-Launched Optically-Tracked, Wire-Guided

**U**

**UAS** - Unmanned Aerial System



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