DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2017
BUDGET ESTIMATES

JUSTIFICATION OF ESTIMATES
FEBRUARY 2016

Navy Working Capital Fund (NWCF)

The estimated cost for this report for the Department of the Navy (DON) is $116,115.

The estimated total cost for supporting the DON budget justification material is approximately $1,834,000 for the 2016 fiscal year. This includes $75,200 in supplies and $1,758,800 in labor.

NAVY WORKING CAPITAL FUND (NWCF)

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. The value of goods and services provided by NWCF activities in FY 2017 is projected to be approximately $28.2 billion, as shown in Figure 1. The NWCF 2017 budget request reflects a modest decrease from FY 2016. The cost decrease is primarily attributable to savings generated from favorable fuel prices and foreign currency exchange rates as well as energy conservation.

Figure 1 - Summary of NWCF Costs

COST ***(In Millions of Dollars)***	**FY 2015**	**FY 2016**	**FY 2017**
Supply (Obligations)	6,364	6,805	6,766
Depot Maintenance - Aircraft	2,016	2,135	2,179
Depot Maintenance - Marine Corps	563	563	456
Transportation	2,988	2,907	2,703
Research and Development	12,239	12,822	12,933
Base Support	3,017	3,261	3,124
TOTAL	**27,188**	**28,493**	**28,161**

Supply Management

Supply Management is the central element assuring afloat and ashore operating forces and their equipment have the necessary supplies, spare parts, and components to conduct military engagements, various types of training, and any potential contingency. Ensuring the right material is provided where it matters, when it matters, and at the right cost is vital to equipping and sustaining Navy and Marine Corps warfighting units. Supply Management performs inventory oversight functions that result in the sale of aviation and shipboard components, ship's store stock, repairables, and consumables to a wide variety of customers. Supply Management also provides strong sailor and family support through contracting, resale, transportation, food service, and other quality of life programs. Costs related to supplying material to customers are recouped through stabilized rate recovery processes.

Depot Maintenance

The Fleet Readiness Centers (FRCs) and Marine Corps Depots perform depot maintenance functions to ensure repair, overhaul, and timely upgrades of the right types and quantities of weapons systems and support equipment in order to ensure our ability to rapidly respond to global crises. Work completed at the FRCs and Depots ensure deployed and next-to-deploy units have the battle-ready items they need to train, fight, and win today while supporting the force to win tomorrow. Forward-deployed individuals perform time-critical repair and upgrade functions in-theater, alongside the service members they support.

Since current demand for naval forces exceed supply, the FRCs are essential for mobilization; repair of aircraft, engines, and components; and the manufacture of associated parts and assemblies. Additionally, the FRCs overhaul and repair a wide range of equipment and components. They provide engineering services in the development of hardware design changes and furnish technical and other professional services on maintenance and logistics issues.

The Marine Corps Depots provide engineering, manufacturing, re-manufacturing, preservation, calibration, fabrication, technical evaluation, and other services required to maximize the readiness and sustainability of ground combat and combat support weapon systems, associated parts, assemblies, and subassemblies. Such quality products and responsive maintenance support services help maintain a core industrial base in support of DoD operating forces mobilization, surge, reset, and reconstitution requirements.

Transportation

Over-ocean movement of supplies and provisions to the deployed operating forces is a primary focus of this group; it also maintains prepositioned equipment and supplies as well as other special mission services. These combine to support the Navy and the Marine Corps in deterring potential threats and promptly responding to crises in the maritime crossroads.

Transportation is the responsibility of the Military Sealift Command (MSC) whose major clients include the Fleet Commanders for U.S. Pacific Fleet and U.S. Fleet Forces Command, and Naval Sea Systems Command. The five programs budgeted by MSC through the NWCF are: 1) Combat Logistics Force which provides support using civilian mariner manned non-combatant ships for underway material support; 2) Service Support which provides civilian mariner manned non-combatant ships with towing, rescue and salvage, submarine support and cable laying and repair services, as well as a command and control platform and floating medical facilities; 3) Special Mission Ships which provide unique seagoing contract-operated platforms in the areas of oceanographic and hydrographic surveys, underwater surveillance, missile tracking, acoustic surveys, and submarine and special warfare support and contracted harbor tugs; 4) Afloat Prepositioning Force Navy which deploys advance material for strategic lift in support of the Marine Expeditionary Forces; and 5) Joint High Speed Vessels which is a cooperative effort for a high-speed, shallow draft vessel intended for rapid intra-theater transport of medium sized cargo payloads.

Research and Development

Research and Development (R&D) includes the Warfare Centers and the Naval Research Laboratory. R&D activities are intrinsically involved in the development, engineering, acquisition, and in-service support of weapons systems and equipment for the air, land, sea, and space operating environments. These efforts are key to the success of DON and DoD operations now and in the future spanning from current fleet *Virginia* Class submarines to the future *Ohio* Replacement submarines. Other areas where the R&D activities make major contributions are battle-space awareness, net-centric operations (connectivity and interoperability), cyber warfighting capability, and command and control. Their contributions are evident through research, engineering, and testing efforts in the fields of space, aerial, surface, and sub-surface sensors, communications systems, multi-media data fusion, and battle management systems. R&D activities are continuously innovating and implementing improvements focused on delivering capability.

The R&D activities support logistics through the repair and maintenance of select items of operating forces weapons and equipment. This unique capability is leveraged when work is limited in scope, irregular in schedule and/or very specialized and, therefore, insufficient to warrant fully dedicated depot facilities or commercial source interests. Continued success in the logistics area is vital to ensuring the necessary mission capabilities of the operating forces sustaining our global presence.

- Space and Naval Warfare System Centers provide fleet support for command, control, and communication systems, ocean surveillance, the integration of systems that connect different platforms, and cyber warfighting capability from seabed to space.
- Naval Air Warfare Center provides support for carrier and land-based aircraft, engines, avionics, aircraft support systems and ship/shore/air operations.
- Naval Surface Warfare Center provides fleet support for hull, mechanical, and electrical systems, surface combat systems, coastal warfare systems, and other offensive and defensive systems associated with surface warfare.
- Naval Undersea Warfare Center provides fleet support for submarines, autonomous underwater systems, and offensive and defensive systems associated with undersea warfare.
- Naval Research Laboratory operates as the DON's full spectrum corporate laboratory, conducting a broadly based multidisciplinary program of scientific

research and advanced technological development directed toward maritime applications of new and improved materials, techniques, equipment, systems, and ocean, atmospheric, and space sciences and related technologies.

Base Support

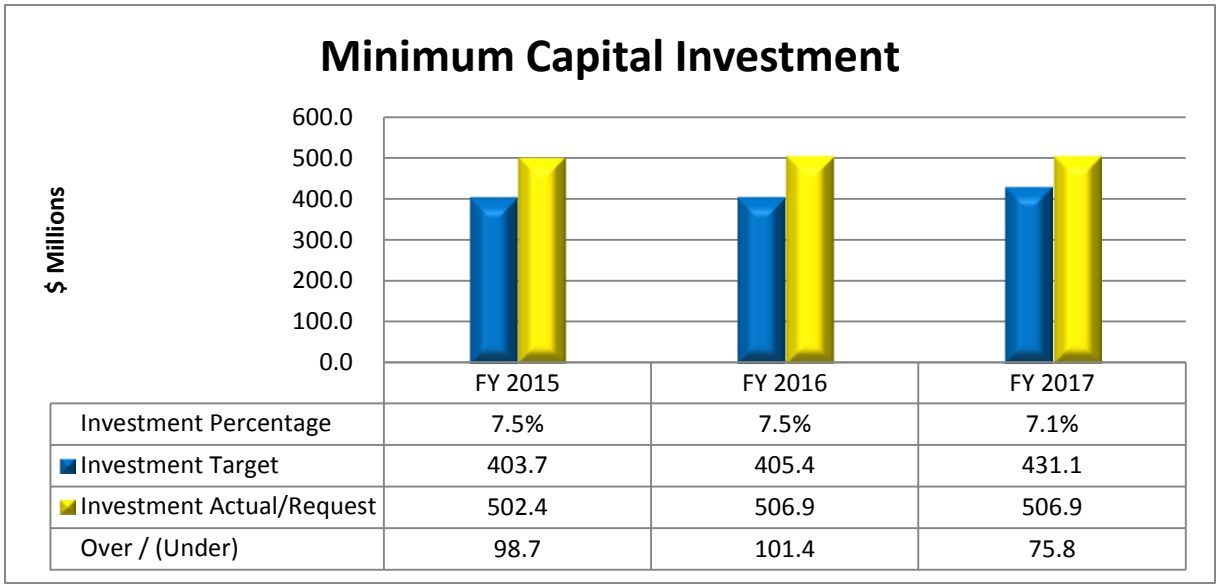
The Base Support business area is comprised of the Facilities Engineering Commands (FECs) and the NWCF portion of Naval Facilities Engineering and Expeditionary Warfare Center (NAVFAC EXWC). The FECs provide a broad range of services by ensuring that DON and DoD facilities and installations have reliable access to utilities services such as electricity, water, steam, natural gas, vehicle and equipment services, facility support contracting oversight, and building/ facilities sustainment and recapitalization services. By utilizing network wide digital control and monitoring systems and increasing the use of alternative sources of energy (e.g. geothermal, ocean thermal, wind, solar, and wave), the FECs support achieving facility energy and utility distribution system efficiencies and reducing the DON's overall energy consumption levels. The FECs budget reflects continued investments in energy focused efficiency. The NWCF portion of NAVFAC EXWC supports combatant capabilities and sustainable facilities through specialized engineering and technology development. In addition, energy efficiency improvements in both buildings and support vehicles are being implemented by Base Support activities in order to conserve DON and DoD resources. Facility-related technology development and environmental testing is also performed by this group. These efforts are key toward improving operational energy efficiency and shore energy efficiency resulting in decreased risk to operational forces and reducing the impact of volatility in energy prices.

Depot Maintenance Six Percent Capital Investment Plan:

10 USC 2476 mandates that each fiscal year, DON invest in the depot capital budgets (facilities and equipment) a minimum of 6% of the average total combined maintenance, repair, and overhaul workload funded for the previous three fiscal years. The 6% percent threshold mandated by 10 USC 2476 is applicable at the DON level, to include both NWCF (Fleet Readiness Centers and USMC Depots) and appropriated fund (Shipyards) activities.

The FY 2017 request reflects the DON's continued commitment to sustain and recapitalize Depot Maintenance infrastructure and to maintain a relevant industrial base. The FY 2017 budget exceeds the 6% threshold in each fiscal year. Figure 2 reflects the DON's capital investment in depots.

Figure 2 - Depot Capital Investment



	FY 2015	FY 2016	FY 2017
Investment Percentage	7.5%	7.5%	7.1%
Investment Target	403.7	405.4	431.1
Investment Actual/Request	502.4	506.9	506.9
Over / (Under)	98.7	101.4	75.8

Financial Summary Tables:

The tables below reflect the DON Navy Working Capital Fund FY 2017 President's Budget request including New Orders, Revenue, Operating Costs, Net Operating Results, Accumulated Operating Results, Workload, Cash, Customer Rate Changes, Unit Costs, Staffing and Capital Investment Program (CIP).

New Orders: New orders are based on workload estimates coordinated with customers and historical trend analysis.

(Dollars in millions)

New Orders	FY 2015	FY 2016	FY 2017
Supply - Navy	6,029.4	6,388.9	6,849.5
Supply - Marine Corps	146.8	116.1	102.9
Depot Maintenance - Aircraft	1,844.8	2,066.8	2,245.0
Depot Maintenance - Marine Corps	442.5	532.2	378.4
R&D - Air Warfare Center	4,279.1	4,558.5	4,161.9
R&D - Surface Warfare Center	3,709.6	4,205.1	4,234.5
R&D - Undersea Warfare Center	1,060.7	1,126.3	1,126.8
R&D - SPAWAR Systems Center	2,194.0	2,372.0	2,283.7
R&D - Naval Research Laboratory	843.0	742.5	750.9
Transportation - MSC	2,897.0	2,943.9	2,972.5
Base Support - FECs	2,963.9	3,184.0	2,998.8
Base Support - EXWC	68.0	77.9	73.4
Totals	**26,478.8**	**28,314.1**	**28,178.3**

Revenue: Reflects the income generated from sale of goods or services, or any other use of capital or assets, associated with the main operations before any costs or expenses are deducted.

(Dollars in millions)

Revenue	FY 2015	FY 2016	FY 2017
Supply - Navy	6,405.0	6,665.3	6,979.3
Supply - Marine Corps	149.1	125.8	101.5
Depot Maintenance - Aircraft	1,913.9	2,135.7	2,317.0
Depot Maintenance - Marine Corps	572.6	562.8	460.9
R&D - Air Warfare Center	4,375.3	4,361.5	4,440.5
R&D - Surface Warfare Center	3,688.9	4,153.2	4,236.8
R&D - Undersea Warfare Center	1,056.6	1,122.1	1,116.8
R&D - SPAWAR Systems Center	2,224.2	2,381.3	2,363.4
R&D - Naval Research Laboratory	840.3	768.5	772.3
Transportation - MSC	2,888.9	2,943.9	2,972.5
Base Support - FECs	2,993.1	3,097.2	2,963.1
Base Support - EXWC	70.3	76.4	76.3
Totals	**27,178.3**	**28,393.8**	**28,800.4**

Cost of Goods Sold: (Operating)
Total operating obligations for supply functions and cost of goods and services sold for industrial functions are as follows:

(Dollars in millions)

Operating Costs	FY 2015	FY 2016	FY 2017
Supply - Navy (Obligations)	6,257.5	6,697.5	6,681.7
Supply - Marine Corps (Obligations)	106.5	107.9	84.2
Depot Maintenance - Aircraft	2,016.4	2,135.4	2,178.5
Depot Maintenance - Marine Corps	563.3	562.7	456.2
R&D - Air Warfare Center	4,379.4	4,391.3	4,421.0
R&D - Surface Warfare Center	3,740.9	4,162.5	4,198.8
R&D - Undersea Warfare Center	1,048.8	1,117.9	1,121.7
R&D - SPAWAR Systems Center	2,217.6	2,371.8	2,394.4
R&D - Naval Research Laboratory	852.3	778.1	797.6
Transportation - MSC	2,987.7	2,906.9	2,702.8
Base Support - FECs	2,945.4	3,185.9	3,047.9
Base Support - EXWC	71.8	74.9	76.0
Totals	**27,187.6**	**28,492.5**	**28,160.8**

Net Operating Results:

Revenue, excluding surcharge collections and extraordinary expenses, less the cost of goods and services sold to customers is as follows:

(Dollars in millions)

Net Operating Results	FY 2015	FY 2016	FY 2017
Supply - Navy	74.7	(82.0)	109.6
Supply - Marine Corps	2.5	4.9	(0.4)
Depot Maintenance - Aircraft	(102.5)	0.3	129.2
Depot Maintenance - Marine Corps	9.3	0.2	4.7
R&D - Air Warfare Center	(4.1)	(34.5)	19.5
R&D - Surface Warfare Center	(52.6)	(9.4)	37.9
R&D - Undersea Warfare Center	6.7	2.4	(4.9)
R&D - SPAWAR Systems Center	6.6	9.6	(31.0)
R&D - Naval Research Laboratory	(11.6)	(9.6)	(25.2)
Transportation - MSC	(98.8)	37.0	(30.4)
Base Support - FECs	46.2	(101.6)	(84.8)
Base Support - EXWC	(1.4)	1.6	0.3
Totals	**(125.1)**	**(181.1)**	**124.6**

(Dollars in millions)

Accumulated Operating Results	**FY 2015**	**FY 2016**	**FY 2017**
Supply - Navy	122.3	(109.6)	0.0
Supply - Marine Corps	(4.5)	0.4	0.0
Depot Maintenance - Aircraft	(120.2)	(129.2)	0.0
Depot Maintenance - Marine Corps	(4.8)	(4.7)	0.0
R&D - Air Warfare Center	14.9	(19.5)	0.0
R&D - Surface Warfare Center	(28.6)	(37.9)	0.0
R&D - Undersea Warfare Center	2.5	4.9	0.0
R&D - SPAWAR Systems Center	21.4	31.0	0.0
R&D - Naval Research Laboratory	34.8	25.2	0.0
Transportation - MSC	(6.6)	30.4	0.0
Base Support - FECs	186.4	84.8	0.0
Base Support - EXWC	(1.9)	(0.3)	0.0
Totals	**215.7**	**(124.6)**	**0.0**

Workload:

Workload projections for NWCF activities are consistent with Navy force structure and attendant support levels as well as those factors unique to each group. The table below displays year-to-year percentage changes in transportation per diem (ship days) for MSC, changes in program costs for Base Support – FECs, and change in direct labor hours for all other industrial activity groups. For supply business areas, workload changes are indicated by gross sales:

Workload	**FY 2016**	**FY 2017**
Supply - Navy	3.6%	4.8%
Supply - Marine Corps	-10.5%	-4.2%
Depot Maintenance - Aircraft	2.0%	0.5%
Depot Maintenance - Marine Corps	5.3%	-19.8%
R&D - Air Warfare Center	-0.4%	-0.2%
R&D - Surface Warfare Center	2.0%	-1.4%
R&D - Undersea Warfare Center	-2.2%	-2.6%
R&D - SPAWAR Systems Center	2.5%	-1.3%
R&D - Naval Research Laboratory	3.5%	-0.8%
Transportation - MSC	11.6%	1.8%
Base Support - FECs	8.2%	-4.3%
Base Support - EXWC	-3.5%	-1.6%

NWCF Cash:

Definition of Cash: The Defense Working Capital Fund (DWCF) Fund Balance with Treasury, treasury account symbol 97X4930, is subdivided into five sub-numbered accounts. The Navy's account is 97X4930.002. The balance in this account is defined as cash balance which equals the amount at the beginning of the fiscal year plus the cumulative fiscal year-to-date amounts of collections, appropriations, and transfers-in minus the cumulative fiscal year-to-date amounts of disbursements, withdrawals, and transfers-out.

Anti-deficiency Act Applicability: The NWCF is required to maintain a positive cash balance to prevent an Anti-deficiency Act (ADA) violation under Title 31, United States Code, § 1517(a), *Prohibited obligations and expenditures*. The Anti-deficiency Act determination is applicable at the total DON NWCF level.

Cash Management Principles in Working Capital Funds: Unlike appropriated funds, the NWCF Fund Balance with Treasury balance is not equal to outstanding obligations. Cash on hand at Treasury must be sufficient to pay bills when due and should remain sufficient to support operational requirements, near term capital investment program disbursements, and any cost fluctuations and unplanned expenses due to customer demand changes. More specifically, the NWCF needs to have cash to:

- Support regular operational requirements including payments for supplies, labor, utilities, etc;
- Cover costs not covered by stabilized rates due to commodity market cost increase, unexpectedly increased inflation or other factors;
- Increase inventory investments to respond to customer demand changes;
- Pay overhead and fixed costs when actual workload is less than budgeted workload as these costs are allocated to workload levels estimated in the budget;
- Cover cyclical or seasonal patterns in cash disbursements and collections, because cash levels of certain business activities will typically be lower at specific times of the year such as the holiday season when depots often operate on a reduced work schedules;
- Cover budgeted cash losses when returning prior year gains by providing goods or services below cost to customers;
- Ensure funds are available to cover spikes in payables that occur when multiple bills arrive earlier than expected, or valleys in collections because of other cash flow issues.

The cash balance is primarily affected by cash generated from operations but the balance is also impacted by appropriations, transfers, and withdrawals. Maintaining a proper cash balance is dependent on setting rates to recover full costs, including prior year losses, and accurately projecting workload.

NWCF Cash Management: The DON's goal is to maintain the cash balance within the upper and lower operational range. The DON's operational range calculation is based on average daily expenditure rates and a projection of outlays to procure capital investments. The operational range also takes into consideration DON specific cash volatility to ensure adequate cash balance is maintained to meet projected outlays throughout the year. The DON's NWCF cash requirement includes a forecast of collections and disbursements and considers cyclical timing of outlays. Protecting customer programs by preserving their buying power in the year of execution to the levels of the original budget is a primary benefit of the Navy Working Capital Fund. This benefit, however, can only be realized when sufficient cash balances are maintained throughout each cycle to absorb the impact of cost volatility and any unanticipated changes in customer workload. Although the DON has been operating at cash levels below the operational range for the past several years, the DON has had to make execution year cash adjustments in order to maintain solvency and to prevent a potential violation of the ADA. In addition, as the DON moves towards compliance with the Government Wide Accountability initiative of maintaining a positive cash balance on a daily basis, additional cash is required to prevent any potential ADA violation. For FY 2017 the DON NWCF budget includes a cash surcharge for the Military Sealift Command in the amount of $300 million. This surcharge is only applicable to Navy-owned ships and in concert with FY 2015 and FY 2016 cash infusions will position NWCF cash within the operational range. This action effectively eliminates the need for execution year adjustments. As depicted in the following figure, the DON NWCF cash balance profile reflects the Department's commitment to right size, without jeopardizing the goal of maintaining maximum Navy and Marine Corps' warfighting capabilities and readiness.

	(In Millions of Dollars)		
Treasury Cash	**FY 2015**	**FY 2016**	**FY 2017**
Beginning Cash Balance	**739.1**	**879.6**	**833.7**
Collections	27,420.0	28,287.8	28,609.8
Disbursements	27,374.7	28,355.7	28,021.9
Consumable Item Transfer	95.1	22.0	2.5
Congressional Transfer	0.0	0.0	0.0
Ending Cash Balance	**879.6**	**833.7**	**1,424.1**
Upper Operational Range	**1,660.0**	**1,660.0**	**1,660.0**
Lower Operational Range	**1,163.9**	**1,191.1**	**1,181.4**

The ending cash balances of FY 2015 and FY 2016 retain the impact of a $442M reprogramming from NWCF into OMN per General Provision 8140 of the FY 2014 Consolidated Appropriations Act.

Customer Rate Changes:

Approved composite rate changes from FY 2014 to FY 2015 and from FY 2015 to FY 2016 are displayed below. Composite rate changes from FY 2016 to FY 2017 (designed to achieve an accumulated operating result of zero) are as follows:

	(Percent Change)		
Customer Rate Change	**FY 2015**	**FY 2016**	**FY 2017**
Supply:			
Navy - Aviation Consumables	5.3%	4.9%	3.9%
Navy - Shipboard Consumables	5.1%	5.5%	2.7%
Navy - Aviation Repairables	0.1%	2.9%	5.6%
Navy - Shipboard Repairables	5.1%	5.5%	2.7%
MARCORPS Repairables	5.3%	5.2%	-3.9%
Depot Maintenance - Aircraft	0.1%	-5.7%	26.4%
Depot Maintenance - Marine Corps	3.3%	2.3%	4.0%
R&D - Air Warfare Center	1.1%	1.2%	3.2%
R&D - Surface Warfare Center	2.9%	1.5%	3.2%
R&D - Undersea Warfare Center	3.4%	1.2%	0.9%
R&D - SPAWAR Systems Center	1.3%	1.6%	1.0%
R&D - Naval Research Laboratory	-6.3%	9.8%	0.5%
Transportation - MSC			
Combat Logistics Force	8.1%	4.8%	-3.5%
Special Mission Ships	-2.6%	7.2%	-4.9%
Afloat Prepositioning Ships	27.8%	2.3%	77.4%
Service Support Ships	36.0%	56.0%	-28.1%
Joint High Speed Vessels	N/A	N/A	-30.0%
Base Support - FECs			
East Coast Utilities	-0.5%	5.5%	-0.4%
East Coast - Other	-1.0%	-8.7%	5.1%
West Coast Utilities	-15.2%	1.8%	-11.3%
West Coast - Other	-0.1%	-8.1%	-6.3%
Base Support - EXWC	0.7%	11.2%	7.1%

Unit Costs:

Unit Cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when their customers request additional services.

Unit Cost	FY 2015	FY 2016	FY 2017
Supply - Navy (cost per unit of sales[1]):			
Wholesale	0.977	1.006	0.950
Retail	$0.952	$1.001	$1.001
Supply - Marine Corps (cost per unit of sales[1]):			
Wholesale	$0.649	$0.829	$0.825
Retail	$0.936	$0.999	$1.006
Depot Maintenance - Aircraft ($/Direct Labor Hour)	$191.15	$198.38	$201.47
Depot Maintenance - Marine Corps ($/Direct Labor Hour)	$134.39	$127.47	$128.88
R&D - Air Warfare Center ($/Direct Labor Hour[2])	$103.58	$103.98	$108.42
R&D - Surface Warfare Center ($/Direct Labor Hour[2])	$105.24	$103.72	$102.43
R&D - Undersea Warfare Center ($/Direct Labor Hour[2])	$101.16	$102.43	$100.49
R&D - SPAWAR Systems Center ($/Direct Labor Hour[2])	$108.86	$109.73	$111.46
R&D - Naval Research Laboratory ($/Direct Labor Hour[2])	$150.36	$151.35	$156.63
Transportation - MSC			
Combat Logistics Force ($/day)	$137,491	$128,754	$122,892
Special Mission Ships ($/day)	$35,224	$38,882	$36,095
Afloat Prepositioning Ships ($/day)	$63,343	$64,052	$64,008
Service Support Ships ($/day)	$69,379	$99,290	$79,699
Joint High Speed Vehicles	$0	$75,152	$64,117
Base Support - FECs Cost of Services	Various	Various	Various
Base Support - EXWC ($/direct Labor Hour[2])	$113.66	$116.41	$120.29

[1] *excludes inventory augmentation and war reserve material obligations*

[2] *includes direct labor plus overhead costs*

Staffing:
Total civilian and military personnel employed at NWCF activities are displayed in the following tables.

(Strength in Whole Numbers)

Civilian End Strength	**FY 2015**	**FY 2016**	**FY 2017**
Supply - Navy	7,071	6,901	6,904
Supply - Marine Corps	26	26	26
Depot Maintenance - Aircraft	9,368	9,244	9,306
Depot Maintenance - Marine Corps	1,587	1,618	1,556
R&D - Air Warfare Center	14,617	14,363	14,272
R&D - Surface Warfare Center	17,094	16,149	16,145
R&D - Undersea Warfare Center	4,966	4,541	4,541
R&D - SPAWAR Systems Center	8,271	8,157	8,082
R&D - Naval Research Laboratory	2,466	2,528	2,523
Transportation - MSC	6,983	7,082	6,827
Base Support - FECs	9,332	9,337	9,340
Base Support - EXWC	383	363	363
Totals	**82,164**	**80,309**	**79,885**

(Workyears in Whole Numbers)

Civilian Workyears	**FY 2015**	**FY 2016**	**FY 2017**
Supply - Navy	6,619	6,896	6,899
Supply - Marine Corps	26	26	26
Depot Maintenance - Aircraft	8,781	9,165	9,275
Depot Maintenance - Marine Corps	1,632	1,621	1,598
R&D - Air Warfare Center	14,121	14,068	14,043
R&D - Surface Warfare Center	16,255	16,083	15,973
R&D - Undersea Warfare Center	4,665	4,593	4,510
R&D - SPAWAR Systems Center	7,960	8,044	7,970
R&D - Naval Research Laboratory	2,415	2,470	2,478
Transportation - MSC	9,055	8,888	8,724
Base Support - FECs	9,142	9,271	9,275
Base Support - EXWC	363	354	354
Totals	**81,034**	**81,479**	**81,125**

(Strength in Whole Numbers)

Military End Strength	**FY 2015**	**FY 2016**	**FY 2017**
Supply - Navy	364	364	364
Supply - Marine Corps	0	0	0
Depot Maintenance - Aircraft	122	121	122
Depot Maintenance - Marine Corps	11	11	11
R&D - Air Warfare Center	216	195	195
R&D - Surface Warfare Center	211	193	188
R&D - Undersea Warfare Center	37	35	35
R&D - SPAWAR Systems Center	80	82	80
R&D - Naval Research Laboratory	59	54	58
Transportation - MSC	151	183	165
Base Support - FECs	80	78	78
Base Support - EXWC	3	3	3
Totals	**1,334**	**1,319**	**1,299**

(Workyears in Whole Numbers)

Military Workyears	**FY 2015**	**FY 2016**	**FY 2017**
Supply - Navy	364	364	364
Supply - Marine Corps	0	0	0
Depot Maintenance - Aircraft	115	121	122
Depot Maintenance - Marine Corps	11	11	11
R&D - Air Warfare Center	197	164	171
R&D - Surface Warfare Center	219	194	190
R&D - Undersea Warfare Center	26	32	32
R&D - SPAWAR Systems Center	89	82	80
R&D - Naval Research Laboratory	56	54	58
Transportation - MSC	149	183	165
Base Support - FECs	80	78	78
Base Support - EXWC	3	3	3
Totals	**1,309**	**1,286**	**1,274**

Capital Investment Program (CIP):

The Capital Investment Program (CIP) within the NWCF establish the capability for reinvestment in the infrastructure of business areas to improve product and service quality and timeliness, reduce costs, and foster state-of-the-art business operations. The CIP provides the framework for planning, coordinating, and controlling NWCF resources and expenditures to obtain capital assets. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, whether internally or externally developed; and minor construction. The capital budget justifies the purchase of assets with a unit cost that is greater than or equal to $250,000 and have a useful life of two or more years.

The table below shows a summary of the NWCF capital budget.

(Dollars in Millions)

Capital Investment Program	FY 2015	FY 2016	FY 2017	Chg FY 16/17
Supply - Navy	4.6	5.0	8.0	3.0
Depot Maintenance - Aircraft	31.3	52.0	47.7	(4.3)
Depot Maintenance - Marine Corps	5.9	5.0	5.2	0.1
R&D - Air Warfare Center	40.1	49.9	47.6	(2.3)
R&D - Surface Warfare Center	29.3	48.7	41.1	(7.6)
R&D - Undersea Warfare Center	13.6	16.6	14.7	(1.9)
R&D - SPAWAR Systems Center	6.9	11.4	8.0	(3.4)
R&D - Naval Research Laboratory	13.2	23.1	19.6	(3.5)
Transportation - MSC	6.2	13.2	13.0	(0.2)
Base Support - FECs	16.7	29.3	15.4	(13.9)
Totals	**167.7**	**254.1**	**220.0**	**(34.1)**

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NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Fleet Readiness Centers (FRCs) provide responsive worldwide maintenance, engineering, and logistics support to the Naval Aviation Enterprise (NAE). The FRCs ensure a core industrial resource base essential for mobilization, repair of aircraft, engines, and components, and manufacture of parts and assemblies. The FRCs provide engineering services in the development of hardware design changes, and furnish technical and professional services on maintenance and logistics problems. Work completed at the FRCs ensure deployed and next-to-deploy units have the battle-ready items they need to train, fight, and win today while supporting the force to win tomorrow.

Activity Group Composition:

Activities	Location
FRC, EAST	Cherry Point, NC
FRC, SOUTHEAST	Jacksonville, FL
FRC, SOUTHWEST	San Diego, CA

Significant Changes Since the FY 2016 President's Budget:

The budget estimate for FY 2017 reflects changes from the President's Budget submission to account for decreased Net Operating Results (NOR) projections. This is primarily a result of losses on prior year fixed price aircraft, engine, and component depot events. FY 2017 estimate reflects an increase in Revenue reflecting the impact of a recoupment of the Accumulated Operating Results (AOR) resulting from prior year losses. FY 2016 and FY 2017 estimates include expenses related to additional direct and indirect workyears in support of increasing throughput.

NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Orders	$1,844.8	$2,066.8	$2,245.0
Revenue	$1,913.9	$2,135.7	$2,317.0
Expense	$2,016.4	$2,135.4	$2,178.5
Operating Results	($102.5)	$0.3	$138.5
Capital Surcharge	$0.0	($9.3)	($9.3)
Net Operating Results (NOR)	($102.5)	($9.0)	$129.2
Prior Year AOR	($17.7)	($120.2)	($129.2)
Accumulated Operating Results (AOR)	($120.2)	($129.2)	$0.0

Some totals may not add due to rounding.

Orders, Revenue and Expense:
In order to achieve the goal of zero AOR in FY 2017, estimates are updated from the FY 2016 President's Budget to reflect all known pricing and workload assumptions. FY 2017 includes a planned NOR of $129.2 million to recoup prior year losses. Increase in revenue reflects efforts to maximize throughput on Direct Labor Hours (DLHs).

Orders- New reimbursable orders reflect an increase in FY 2016 related to NSF Components. FY 2017 increase reflects the impact of the prior year AOR recoupment and increases in Product Support – Logistics (P-8/P-3, MQ-4, FA-18) and Modifications (FA-18).

Revenue- Revenue for FY 2015, FY 2016, and FY 2017 is consistent with updated estimates of new reimbursable orders and carryover workload assumptions.

Expense (Cost of Goods & Services Sold) - Cost of Goods and Services Sold for FY 2015 through FY 2017 include expenses related to additional direct and indirect workyears in support of increasing throughput.

Net Operating Results- FY 2015 and FY 2016 NOR projections are lower primarily due to labor and material overages on fixed price aircraft, engine, and component depot events. FY 2017 NOR is set to recoup prior year losses and achieve zero AOR.

NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$1,910.6	$2,163.9	$2,304.9
Disbursements	$2,014.7	$2,138.8	$2,181.0
Net Outlays	$104.1	($25.0)	($123.9)

Some totals may not add due to rounding.

The End of Fiscal Year (EOFY) 2015 cash balance was -$47.9 million. For Fiscal Year 2016, the cash balances will increase by $25 million to a total EOFY 2016 balance of -$22.9 million. The negative cash balances in FY 2015 and FY 2016 are as a direct result of incurring operating losses. Reflecting the increased revenue in FY 2017 to achieve zero AOR and recoup prior year losses, the FY 2017 cash balances will increase by $123.9 million to a total EOFY cash balance of $101 million.

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	10,549	10,764	10,813

Direct Labor Hours:
Direct labor hours reflect slight increases across all years consistent with anticipated new orders and working off prior year workload.

Performance Indicators:
The primary performance indicator is unit cost, which represents the average cost of delivering goods and services to our customers.

Unit Cost (Expense Rate):	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$2,016.4	$2,135.4	$2,178.5
Workload (DLHs) (000)	10,549	10,764	10,813
Unit cost (per DLH)	$191.15	$198.38	$201.47

Unit Cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by

encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

Stabilized / Composite Rates (Revenue Rate):	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized / Composite Rate	$198.45	$187.22	$236.55
Change from Prior Year		($11.23)	$49.33
Composite Rate Change		-5.66%	26.35%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite revenue rate charged to customers incorporates both the stabilized costs and the reimbursable costs. The FY 2017 composite hourly rate reflects an increase of $49.33 from FY 2016. The rate change includes changes in requirements for reimbursable direct material related to workload mix and recoupment of losses on prior year fixed price aircraft, engine, and component depot events, as well as additional indirect expenses to increase throughput.

NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Summary of Workload Indicators:

(Inducted Units)

	FY 2015	FY 2016	FY 2017
AIRFRAMES	**429**	**367**	**397**
O&M,N	392	326	360
O&M,NR	10	17	14
RDT&E	11	13	9
Other	16	11	14
ENGINES	**1,768**	**1,661**	**1,405**
O&M,N	1,662	1,581	1,328
O&M,NR	18	27	17
RDT&E	12	12	12
Other	76	41	48

Performance Indicators:	FY 2015	FY 2016	FY 2017
Aircraft Completed	425	451	398
Aircraft Completed on Time	383	406	358
% Scheduled Work Completed on Time	90%	90%	90%
Components Completed	30,803	40,094	40,094
Components Completed on Time	29,263	38,090	38,090
% Scheduled Work Completed on Time	95%	95%	95%
Engines Completed	1,694	1,719	1,652
Engines Completed on Time	1,525	1,547	1,487
% Scheduled Work Completed on Time	90%	90%	90%
Inventory Turnover Ratio	2.3%	2.5%	2.5%

Planned Schedule Conformance percentages and Inventory Turnover Ratio are consistent with historical data.

NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	9,368	9,244	9,306
Civilian Workyears (straight time)	8,781	9,165	9,275
Military End Strength	122	121	122
Military Workyears	115	121	122
Contractor Workyears	1013	903	880

Civilian Personnel: Civilian personnel staffing was increased to work down Carryover, and then stabilizes in FY 2016 and FY 2017.

Military Personnel: The military personnel profile is stable.

Contractor Personnel: Contractor personnel are decreasing, but the profile remains relatively stable.

NARRATIVE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE – FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$23.1	$35.6	$41.0
Equipment, ADPE / Telecom	$4.9	$14.6	$1.5
Software Development	$0.8	$0.0	$0.0
Minor Construction	$2.4	$1.8	$5.2
Total	$31.3	$52.0	$47.7

Some totals may not add due to rounding.

The Capital Investment Program assists the FRCs in achieving their mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. The CIP authority reflects a significant increase in FY 2016 and FY 2017 due to the inclusion of $9.3M in both years in additional investments reflecting the Department of the Navy's commitment to meet the minimum 6% Depot Capital Investment target.

Carryover Compliance: (Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$1,007.9	$938.8	$869.9
Allowable Carryover	$831.5	$937.8	$1,081.7
Calculated Actual Carryover	$825.1	$758.5	$703.7
Delta (Actual-Allowable): Above Ceiling(+)/Below Ceiling(-)	($6.4)	($179.3)	($378.0)

Some totals may not add due to rounding.

Carryover is within the allowable carryover ceiling for all fiscal years submitted.

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**2,016.4**
FY 2016 President's Budget:	**2,133.6**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**0.0**
Pricing Adjustments:	**-0.3**
General Purchase Inflation	-0.3
Program Changes:	**-5.1**
Airframes work *(FA-18)*	42.9
Engines work *(F414, TF34)*	20.5
Components work	-3.7
Other Support work	-48.4
Modification work	-11.7
Product Support work	-4.7
Other Changes:	**7.2**
Depreciation	0.1
Facilities Sustainment, Restoration & Modernization	1.5
Equipment Maintenance by Contract	1.6
Goods/Svcs from Other Agencies	1.5
Other Contracts	2.5
FY 2016 Current Estimate:	**2,135.4**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**2,135.4**
Pricing Adjustments:	**45.3**
Annualization of Prior Year Pay Raises	**3.2**
Civilian Personnel	3.2
Military Personnel	0.0
FY 2017 Pay Raise	**10.4**
Civilian Personnel	10.3
Military Personnel	0.1
Fuel Price Changes	-0.7
General Purchase Inflation	32.4
Program Changes:	**-1.9**
Airframes work *(FA-18 HFH, H-1, P-3)*	-15.8
Engines work *(F414)*	-23.8
Components work *(BCMI)*	20.1
Other Support work	-3.7
Modification work	9.7
Product Support work	11.6
Other Changes:	**-0.3**
Depreciation	1.0
Facilities Sustainment, Restoration & Modernization	0.2
Equipment Maintenance by Contract	-0.4
Goods/Svcs from Other Agencies	-1.0
Other Contracts	-0.1
FY 2017 Estimate:	**2,178.5**

DEPOT MAINTENANCE SIX PERCENT CAPITAL INVESTMENT PLAN
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	REVENUE (Maintenance, Repair, Overhaul) 3 year average			BUDGETED CAPITAL (Modernization, Efficiency)		
	FY 12-14	FY 13-15	FY 14-16	FY 2015	FY 2016	FY 2017
	2,298.4	1,934.4	1,938.4			
	1,934.4	1,938.4	1,914.0			
	1,938.4	1,914.0	2,135.7			
Revenue (Avg)	2,057.1	1,928.9	1,996.0			
Working Capital Fund (Avg)	2,057.1	1,928.9	1,996.0			
Appropriations (Avg)	0.0	0.0	0.0			
Total Revenue (Avg)	2,057.1	1,928.9	1,996.0			
WCF Depot Maintenance Capital Investment						
Facilities/ Work Environment				28.2	45.9	49.4
Equipment				28.8	50.2	42.5
Equipment (Non-Capital Investment Program)				9.6	9.4	9.6
Processes				0.7	1.2	1.2
Total WCF Investment				67.3	106.7	102.7
Appropriated Funding - List by Appropriation						
MILCON				1.2	0.0	0.0
Procurement				27.9	4.5	4.5
Operation & Maintenance				4.2	7.1	7.1
Total Appropriated Funding				33.3	11.6	11.6
Component Total				100.6	118.3	114.3
Minimum 6% Investment				123.4	115.7	119.8
Investment Over/Under Requirement				-22.8	2.6	-5.4
				4.9%	6.1%	5.7%

Exhibit Fund-6 Depot Maintenance-Six Percent Capital Investment Plan

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
February 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**16**	**$23.125**	**27**	**$35.623**	**27**	**$41.002**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	1	$0.001	1	$0.409	0	$0.000
	- Quality Control/Testing	5	$5.519	6	$7.745	5	$5.375
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	5	$9.005	6	$9.742	13	$22.319
	- Support Equipment	5	$8.600	14	$17.727	9	$13.308
2	**ADPE and Telecom Equipment >= $.250M**	**3**	**$4.880**	**7**	**$14.598**	**1**	**$1.500**
	- Computer Hardware (Production)	0	$0.000	0	$0.000	0	$0.000
	- Computer Hardware (Network)	3	$4.880	1	$1.344	0	$0.000
	- Computer Software (Operating)	0	$0.000	6	$13.254	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	1	$1.500
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**1**	**$0.800**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	1	$0.800	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $1.000M)**	**4**	**$2.449**	**6**	**$1.780**	**8**	**$5.180**
	- Replacement Capability	4	$2.449	6	$1.780	8	$5.180
	- New Construction	0	$0.000	0	$0.000	0	$0.000
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**24**	**$31.254**	**40**	**$52.001**	**36**	**$47.682**
	Total Capital Outlays		**$50.220**		**$42.565**		**$47.627**
	Total Depreciation Expense		**$32.854**		**$37.490**		**$38.509**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#001 - Non-ADP Equipment						Fleet Readiness Centers		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0		$0	0		$0	0		$0
Material Handling	0		$0	0		$0	0		$0
Installation Security	1	1	$1	1	409	$409	0		$0
Quality Control/ Testing	5	1,104	$5,519	6	1,291	$7,745	5	1,075	$5,375
Medical Equipment	0		$0	0		$0	0		$0
Machinery	5	1,801	$9,005	6	1,624	$9,742	13	1,717	$22,319
Support Equipment	5	1,720	$8,600	14	1,266	$17,727	9	1,479	$13,308
Total	16	1,445	$23,125	27	1,319	$35,623	27	1,519	$41,002

Justification:

As the Department of the Navy's provider of depot level maintenance, repair, overhaul, & upgrades for aircraft, the Fleet Readiness Centers (FRCs) depend heavily on the acquisition of capital assets through the Capital Investment Program (CIP) to accomplish its mission. CIP satisfies long range planning, programming objectives, and documented needs for capability to perform operational functions that cannot be performed as effectively or economically by the use of existing infrastructure, equipment, and/or facilities essential to accomplish mission requirements.

The acquisition of capital assets efficiently and effectively accomplishes the objective for which it is justified which are improved efficiency or effectiveness of operations; replacement of unsafe, beyond economical repair, or inoperative and unusable assets; and environmental, hazardous waste reduction, or regulatory agency (state, local, or Federal) mandated requirements. For each project alternatives were considered, but the procurement is the most cost effective for the government.

Example of Installation Security purchase is: Modify electronic security system at FRC East Cherry Point.

Examples of Quality Control/Testing purchases include test stands, a test cell, ultrasonic inspection system, and a vacuum test chamber:

- **Procure V-22 Auxiliary Power Unit (APU) Test Carrier**
  This project proposes to procure an additional V-22 APU Test Cart & Carrier located in Bldg 137 Shop 94404. The procurement supports the V-22 program and will include all new mechanical and electrical hardware, wiring, hoses, connectors, and other components critical for the test cart and carrier. Impact if V-22 APU Test Cart & Carrier is not upgraded: production will have to cease operations until a specific failure is rectified. The test cart is a single point failure. Alternatives have been considered, but replacement is the most cost effective for the government.

Examples of Machinery purchases include mills, lathes, presses, and additive manufacturing machines:

- **Vertical Grinder**
  Replace existing Vertical Grinder, manufactured in 2005, with a new unit, to maintain capability and increase versatility. Existing machine is becoming less reliable and therefore unable to machine parts to the required tolerances. The wear on the existing machine is now equal to the tolerance band of the part. Parts processing time increases as operator corrects for increasing machine wear. The proposed unit will be able to machine and measure parts to the required tolerances. It will simplify featuring, thus reducing set-up time. New machine will include latest numerical control electronics, in-process gauging, high-pressure coolant for cleaning the grinding wheel and deburring the part, and will meet all regulations for safety and environmental standards. Impact if not replaced include the eventual loss of capability on this single point failure grinder. Alternatives have been considered, but replacement is the most cost effective for the government.

- **Horizontal Boring Mill (HBM)**
  The purpose of this project is to replace a 44 year old HBM used to machine beryllium components. This project supports multiple components for the FA-18, E-2, C-2, T-34, and T-44 aircraft. Specific components include: FA-18 tail hooks, steering collars, levers, trunions, and spindles. The existing HBM no longer complies with OSHA beryllium machining requirements and has a temporary permit to operate. The HBM leaks oil, loses tolerances, and has been down for repairs 5 months since 2013. Significant safety improvements include material guards to prevent beryllium chips from falling on the ground, wet process to minimize beryllium dust in the atmosphere, and increased accuracy to 0.0005". Impacts if not replaced include OSHA shut down of beryllium milling on components and a backlog increase. This machine is a single point of failure for beryllium milling in 2016. Alternatives have been considered, but replacement is the most cost effective for the government.

Examples of Support Equipment purchases include test stands and booths:

- **Vacuum Test Chamber**
  This project proposes to upgrade and consolidate the Vacuum and Atmospheric Pressure Test Stands. The upgrade will consist of replacing with all new mechanical hardware and a data acquisition control system for integration of various components. Platforms Supported: FA-18, A-6, P-3, T-38, AV-8B, E-2, and C-2. Existing system requires regular engineering and artisan maintenance and is becoming unsupportable due to age and technological obsolescence.

- **Replace Main Fuel Control Test Stand**
  This project will replace the Main Fuel Control Test Stand that supports the LM2500 engine program. The current system is 27 years old, a single point of failure, and has exceeded its useful life. The current fuel control test bench needs maintenance frequently, and is down for repairs two months throughout the year. The impact if not replaced is the eventual sudden failure of the equipment and loss of capability to test the component. Alternatives have been considered, but replacement is the most cost effective for the government.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#002 - ADP Equipment						Fleet Readiness Centers		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	0		$0	0		$0	0		$0
Computer Hardware (Network)	3	1,627	$4,880	1	1,344	$1,344	0		$0
Computer Software (Operating System)	0		$0	6	2,209	$13,254	0		$0
Telecommunications	0		$0	0		$0	1	1,500	$1,500
Other Support Equipment	0		$0	0		$0	0		$0
Total	3	1,627	$4,880	7	2,085	$14,598	1	1,500	$1,500

Justification:

As the Department of the Navy's provider of depot level maintenance, repair, overhaul, & upgrades for aircraft, the Fleet Readiness Centers (FRCs) depend heavily on the acquisition of capital assets through Capital Investment Program to accomplish its mission. CIP satisfies long range planning, programming objectives, and documented needs for capability to perform operational functions that cannot be performed as effectively or economically by the use of existing infrastructure, equipment, and/or facilities essential to accomplish mission requirements.

The acquisition of the capital assets efficiently and effectively accomplishes the objective for which it is justified which are; improved efficiency or effectiveness of operations, beyond economical repair, or inoperative and unusable assets, or regulatory agency (state, local, or Federal) mandated requirements. Requested computer hardware, software, and networks will update and connect current systems to ensure IA (Information Assurance) compliance. For each project alternatives were considered, but the procurement is the most cost effective for the government.

Examples of Computer Hardware includes industrial connectivity projects.

- **Industrial Connectivity Phase II (IC PH II)**
  The purpose of this project is to provide RDT&E Network Connectivity to various areas throughout our facility. These areas include but are not limited to: Engine Test Cells, Hydraulics Test Cells, Components Test Cells, Auxiliary Power Unit Test Cells, Gearbox Test Cells, Autoclave Controllers, Non Destructive Inspection and Vibration Equipment, Composite Shop and various legacy aircraft platforms. These areas are currently operating with non-IA (Information Assurance) compliant standalone and legacy computers which cannot be replenished/kept up to date and cannot communicate with those that need data from them. These areas will continue to operate in a non-IA compliant environment which is inefficient and cannot be updated with new hardware and software. By providing them with a network, it will bring them into IA compliance, upgrade their hardware and software, and increase efficiencies. Alternatives have been considered, but procurement is the most cost effective for the government.

Examples of Computer Software projects include Advanced Skills Management and Engineering Configuration Management.

- **Advanced Skills Management (ASM)**
  The purpose of this project is to procure the ASM software system. ASM is a COMFRC enterprise solution that will provide a standardized system to track the qualifications, certifications, and licenses of personnel. The current methods used for tracking qualifications are the Employee Master Maintenance Application (EMMA) and a host of manual paper based solutions, Microsoft Excel and Electronic Individual Qualification Records, across the enterprise. The EMMA system is an antiquated software system currently hosted in a Jacksonville datacenter which has been mandated for closure by the Chief of Naval Operations. ASM will allow transparency of naval personnel records across the enterprise and automation of processes (e.g. recording training completions) that are currently performed manually. The selection of ASM over other alternatives will allow for a standard training system of record throughout all three levels of Naval Aviation Maintenance. ASM is currently the Navy and Marine Corps training system of record for all active duty personnel across the first and second levels of Naval Aviation Maintenance. The impact of not purchasing ASM is the loss of data and automation of qualification tracking from the loss of the current EMMA system. Alternatives have been considered, but ASM is the most cost effective as an enterprise solution.

Example of Telecommunications project is the replacement of the Main Telephone Switch at FRC East Cherry Point.

- **Main Telephone Switch**
  The purpose of this project is to replace the main telecommunications switch, ancillary switches at 4470, and East Plaza and respective voicemail capability. The current system was procured in the 1990's and has been upgraded in 2006 and 2007. Currently the voicemail system is no longer Joint Interoperability Test Command (JITC) approved and must be replaced. New parts are no longer available and replacement parts must be remanufactured or refurbished. Since these systems support all of the FRCs, immediate replacement is required to bring the switches, including hardware and software, into JITC compliance. Impact if not provided is a lack of telephone service for the command once the current equipment experiences critical failure. Alternatives have been considered, but replacement is the only option.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#003 - Software Development						Fleet Readiness Centers		
	FY 2015			FY 2016			FY 2017		
Software	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Internally Developed	0		$0	0		$0	0		$0
Externally Developed	1	800	$800	0		$0	0		$0
Total	1	800	$800	0		$0	0		$0

Justification:

The Fleet Readiness Centers (FRCs), as the Department of the Navy's provider of depot level maintenance, repair, overhaul, & upgrades for aircraft, depend heavily on the acquisition of capital assets through the Capital Investment Program (CIP) to accomplish its mission. Software development provided by CIP satisfies long range planning and programming objectives.

There is one Externally Developed software project.

- **Engineering Data Management**
  This software provides engineering data management and 3D modeling. The software is required to move and share 3D models between FRC sites and transfer models to industrial machines. The impact if the software is not procured includes increased turn-around-time for manufacturing aircraft components/parts from 3D models, excessive engineering labor, and the loss of capability to support the fleet as all future OEM data moves to 3D modeling. Alternatives were considered, but this procurement is the most cost effective for the government.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#004 - Minor Construction ($250K - $1,000K)						Fleet Readiness Centers		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	4	612	$2,449	6	297	$1,780	8	648	$5,180
New Construction	0		$0	0		$0	0		$0
Environmental Capability	0		$0	0		$0	0		$0
Total	4	612	$2,449	6	297	$1,780	8	648	$5,180

Justification:

As the Department of the Navy's provider of depot level maintenance, repair, overhaul, & upgrades for aircraft, the Fleet Readiness Centers (FRCs) depend heavily on the acquisition of capital assets through Capital Investment Program to accomplish its mission. CIP satisfies long range planning, programming objectives, and documented needs for capability to perform operational functions that cannot be performed as effectively or economically by the use of existing infrastructure and/or facilities essential to accomplish mission requirements. None of the projects in this budget exceed current MILCON thresholds.

Budgeted projects are for construction, expansion, or improvement of a complete and useable building, structure, or other real property.

Replacement Project Example:

- **Bldg 101 FA-18 Wing Shop Storage**
  The purpose of this project is to provide FA-18 Wing Shop storage. This project will remove the inefficient and unsuitable storage area on the east side of Bldg 101 and replace it with a new, useful storage area. The current structures are in disrepair due to age and deterioration. The shop is now performing workload that was previously done in the FA-18 Aircraft Line Wing Shop, and that workload will increase with the Command's FA-18 aircraft requirement (30 A/C in FY16). In order for the FA-18 Wing Shop to be able to handle the influx of wings from the line, additional work cells need to be made. This project will open up space on the shop floor for more production cells by providing additional storage for fixtures, wings in queue/delay, and fixture details. The new storage space will double the storage capacity of the shop. If this project is not implemented, the shop may not be able to meet the scheduled delivery of wings due to a lack of work space.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
February 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$36.182**	**$23.125**	**($13.057)**	
			Installation Security	$0.877	$0.001	($0.876)	One decrease, and one program slip to FY16
			Quality Control/Testing	$7.541	$5.519	($2.022)	Five decreases, four increases, and two program slips to FY16
			Machinery	$15.924	$9.005	($6.794)	Eleven decreases, two increases, two new,two canceled, and three deferred
			Support Equipment	$11.840	$8.600	($3.240)	One increase, one canceled, one deferred, and two program slips to FY16
	2	**ADP**		**$0.000**	**$4.880**	**$4.880**	
			Computer Hardware (Network)	$0.000	$4.880	$4.880	Three new
	3	**Software**		**$0.000**	**$0.800**	**$0.800**	
			Software Externally Developed	$0.000	$0.800	$0.800	One new
	4	**Minor Construction**		**$2.885**	**$2.449**	**($0.436)**	
			Replacement	$2.885	$2.449	($0.436)	Six decreases, one new, and two canceled
TOTAL FY 2015 CIP Program				**$39.067**	**$31.254**	**($7.813)**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$34.232**	**$35.623**	**($2.969)**	
			Installation Security	$0.000	$0.409	$0.409	One program slip from FY15
			Quality Control/Testing	$6.125	$7.745	($0.480)	One increase, two new, two deferred, and two program slips from FY15
			Machinery	$12.590	$9.742	($2.848)	Five new, one cancelled, and four deferred
			Support Equipment	$15.517	$17.727	($0.050)	One increase, five new, two canceled, two deferred, and two program slips from FY15
	2	**ADP**		**$9.300**	**$14.598**	**$5.298**	
			Computer Software (Operating System)	$9.300	$13.254	$3.954	Three new
			Computer Hardware (Network)	$0.000	$1.344	$1.344	One new
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$3.150**	**$1.780**	**($1.370)**	
			Replacement	$3.150	$1.780	($1.370)	Three decreases, one new, and one deferred
TOTAL FY 2016 CIP Program				**$46.682**	**$52.001**	**$0.959**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$41.002**	**$41.002**	**$0.000**	
			Quality Control/Testing	$5.375	$5.375	$0.000	
			Machinery	$22.319	$22.319	$0.000	
			Support Equipment	$13.308	$13.308	$0.000	
	2	**ADP**		**$1.500**	**$1.500**	**$0.000**	
			Telecommunications	$1.500	$1.500	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$5.180**	**$5.180**	**$0.000**	
			Replacement	$5.180	$5.180	$0.000	
TOTAL FY 2017 CIP Program				**$47.682**	**$47.682**	**$0.000**	

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	1,844.8	2,066.8	2,245.0
a. Orders from DoD Components:	1,247.2	1,311.8	1,399.2
Department of the Navy	1,191.7	1,267.5	1,342.8
O & M, Navy	969.9	895.8	948.3
O & M, Marine Corps	2.0	2.0	2.0
O & M, Navy Reserve	15.2	28.8	21.1
O & M, Marine Corp Reserve	0.0	0.0	0.0
Aircraft Procurement, Navy	176.2	311.1	336.0
Weapons Procurement, Navy	0.0	0.0	0.0
Ammunition Procurement, Navy/MC	1.4	2.2	2.2
Shipbuilding & Conversion, Navy	0.2	0.1	3.5
Other Procurement, Navy	2.3	1.4	1.4
Procurement, Marine Corps	0.0	0.0	0.0
Family Housing, Navy/MC	0.0	0.0	0.0
Research, Dev., Test, & Eval., Navy	24.5	26.1	28.3
Military Construction, Navy	0.0	0.0	0.0
National Defense Sealift Fund	0.0	0.0	0.0
Other Navy Appropriations	0.0	0.0	0.0
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	1.3	0.5	0.5
Army Operation & Maintenance	0.1	0.1	0.0
Army Res, Dev, Test, Eval	0.6	0.0	0.0
Army Procurement	0.8	0.4	0.5
Army Other	0.0	0.0	0.0
Department of the Air Force	53.0	41.6	53.8
Air Force Operation & Maintenance	46.4	39.1	51.0
Air Force Res, Dev, Test, Eval	1.9	0.3	0.3
Air Force Procurement	4.8	2.2	2.5
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	1.2	2.1	2.1
Base Closure & Realignment	0.0	0.0	0.0
Operation & Maintenance Accounts	0.6	0.2	0.2
Res, Dev, Test & Eval Accounts	0.1	0.2	0.2
Procurement Accounts	0.5	1.7	1.8
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	0.0	0.0	0.0
b. Orders from other Fund Activity Groups	456.6	614.5	691.5
c. Total DoD	1,703.7	1,926.3	2,090.7
d. Other Orders:	141.1	140.5	154.3
Other Federal Agencies	5.8	3.6	4.1
Foreign Military Sales	38.4	31.2	35.6
Non Federal Agencies	96.8	105.7	114.6
2. Carry-In Orders	1,006.9	937.8	869.0
3. Total Gross Orders	2,851.7	3,004.6	3,114.0
a. Funded Carry-Over before Exclusions	937.8	869.0	796.9
4. Revenue(-)	1,913.9	2,135.7	2,317.0
5. End of Year Work-In-Process (-)	14.4	16.0	16.3
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	99.3	95.5	78.0
7. Funded Carryover	825.1	758.5	703.7

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	1,007.9	938.8	869.9
2. Revenue	1,913.9	2,135.7	2,317.0
3. New Orders	1,844.8	2,066.8	2,245.0
4. Exclusions:			
Foreign Military Sales	38.4	31.2	35.6
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	5.8	3.6	4.1
Non-Federal and Others	96.8	105.7	114.6
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	1,703.7	1,926.3	2,090.7
6. Weighted Average Outlay Rate	59.0%	56.2%	56.1%
7. Carryover Rate	41.0%	43.8%	43.9%
8. Allowable Carryover	831.5	937.8	1,081.7
Allowable Carryover(First Year)	698.5	843.7	917.8
Allowable Carryover (Second Year Procurement-funded Orders)	132.9	94.1	163.8
Part II			
9. Balance of Customer Order at Year End	938.8	869.9	797.9
10. Work-in-progress	14.4	16.0	16.3
11. Exclusions:			
Foreign Military Sales	50.0	48.7	45.7
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	15.9	15.2	5.5
Non-Federal and Others	33.5	31.6	26.7
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	825.1	758.5	703.7

Some totals may not add due to rounding.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	1,881.1	2,088.9	2,269.2
Capital Surcharges	0.0	9.3	9.3
Depreciation	32.9	37.5	38.5
Other Income			
Total Income	1,913.9	2,135.7	2,317.0
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	10.6	10.1	10.6
Civilian Personnel Compensation & Benefits	880.5	898.0	914.8
Travel and Transportation of Personnel	14.3	13.3	12.0
Material & Supplies (Internal Operations)	541.4	561.6	597.3
Equipment	238.6	324.4	322.6
Other Purchases from NWCF	15.1	14.3	14.3
Transportation of Things	3.0	3.2	3.2
Depreciation - Capital	32.9	37.5	38.5
Printing and Reproduction	0.7	1.0	1.0
Advisory and Assistance Services	0.0	0.0	0.0
Rent, Communication, Utilities & Misc Charges	40.9	41.2	40.6
Other Purchased Services	238.0	232.5	223.9
Total Expenses	2,016.1	2,137.2	2,178.8
Work in Process Adjustment	1.0	-1.9	-0.3
Comp Work for Activity Retention Adjustment	-0.6	0.0	0.0
Cost of Goods Sold	2,016.4	2,135.4	2,178.5
Operating Result	-102.5	0.3	138.5
Adjustments Affecting NOR	0.0	-9.3	-9.3
Capital Surcharges	0.0	-9.3	-9.3
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	0.0	0.0	0.0
Net Operating Result	-102.5	-9.0	129.2
PY AOR	-17.7	-120.2	-129.2
TOTAL AOR	-120.2	-129.2	0.0
Non-Recoverable Adjustments impacting AOR	0.0	0.0	0.0
AOR for budget purposes	-120.2	-129.2	0.0

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY 2015

			----- Peacetime -----	
	Total	Mobilization	Operating	Other
Material Inventory BOP	$ 22.2	$ -	$ 22.2	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 780.1	$ -	$ 780.1	$ -
B. Purchase of long lead items in advance of customer orders	-	-	-	-
C. Other Purchases (List)	-	-	-	-
D. Total Purchases	$ 780.1	$ -	$ 780.1	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 793.1	$ -	$ 793.1	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions (List)	-	-	-	-
D. Total inventory adjustments	$ 793.1	$ -	$ 793.1	$ -
Material Inventory EOP	$ 9.2	$ -	$ 9.2	$ -

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY 2016

	Total	Mobilization	----- Peacetime ----- Operating	Other
Material Inventory BOP	$ 9.2	$ -	$ 9.2	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 886.0	$ -	$ 886.0	$ -
B. Purchase of long lead items in advance of customer orders	-	-	-	-
C. Other Purchases	-	-	-	-
D. Total Purchases	$ 886.0	$ -	$ 886.0	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 877.0	$ -	$ 877.0	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions	-	-	-	-
D. Total inventory adjustments	$ 877.0	$ -	$ 877.0	$ -
Material Inventory EOP	$ 18.2	$ -	$ 18.2	$ -

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - FLEET READINESS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY 2017

	Total	Mobilization	----- Peacetime ----- Operating	Other
Material Inventory BOP	$ 18.2	$ -	$ 18.2	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 919.9	$ -	$ 919.9	$ -
B. Purchase of long lead items in advance of customer orders	-	-	-	-
C. Other Purchases	-	-	-	-
D. Total Purchases	$ 919.9	$ -	$ 919.9	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 920.3	$ -	$ 920.3	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions	-	-	-	-
D. Total inventory adjustments	$ 920.3	$ -	$ 920.3	$ -
Material Inventory EOP	$ 17.8	$ -	$ 17.8	$ -

TAB #2 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Marine Corps Depot Maintenance Activity Group (DMAG) provides innovative, worldwide, depot level and related maintenance, rebuild, modification, and repairs, on Department of Navy (DON), federal and non-federal customers' war fighting weapon systems. The DMAG also provides engineering, manufacturing, remanufacturing, preservation, calibration, fabrication, technical evaluation, and other services required to maximize the readiness and sustainability of ground combat and combat support weapon systems, associated parts, assemblies, and subassemblies.

The DMAG provides quality products and responsive maintenance support services that maintain a core industrial base in support of DoD operating forces mobilization, surge, reset, and reconstitution requirements. The DMAG enables equipment readiness and operational availability by refurbishing equipment to a like new condition before returning it to the warfighter.

Activity Group Composition:

Activities	Location
Marine Depot Maintenance Command	Albany, GA
Marine Depot Maintenance Command	Barstow, CA

Significant Changes Since the FY 2016 President's Budget:

The DMAG's FY 2017 budget request reflects a reduction of $90 million of Air Force Mine Resistant Ambush-Protected (MRAP) vehicle workload previously included in FY 2015. This workload has slipped to FY 2016. This slippage, offset by increases in workload from other customers such as Marine Expeditionary Forces (MEFs) and National Guard, resulted in $33 million less in revenue than planned for FY 2015. For FY 2016 new customer orders are expected to increase by $80.8M mainly due to realizing the slipped workload for Air Force MRAP vehicles offset by other workload changes for the Marine Corps.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Orders	$442.5	$532.2	$378.4
Revenue	$572.6	$562.8	$460.9
Expense	$563.3	$562.7	$456.2
Operating Results	$9.3	$0.1	$4.7
Capital Surcharge	-$0.1	$0.0	$0.0
Net Operating Results (NOR)	$9.2	$0.1	$4.7
Prior Year AOR	-$15.0	-$4.8	-$4.7
Other Changes Affecting AOR	$1.0	$0.0	$0.0
Accumulated Operating Results (AOR)	-$4.8	-$4.7	$0.0

Some totals may not add due to rounding.

Orders, Revenue and Expense:

Orders- New reimbursable orders for FY 2015, FY 2016, and FY 2017 are $442.5 million, $532.2 million, and $378.4 million respectively. New orders include the anticipated receipt of funding for reset. Budgeting for workload from non-organic sources was based upon letters of intent from customers. The fluctuation in new orders across all years is due to anticipated reductions in workload from other Services, and increases in reset workload, which has accounted for the majority of throughput since FY 2012.

Revenue- Total revenue was $572.6 million for FY 2015, and is expected to be $562.8 million for FY 2016, and $460.9 million for FY 2017. As the DMAG typically utilizes contracted workforce to support surges in workload, the FY 2015 workload revisions and subsequent adjustments to carryover projections required the DMAG to initiate a hiring action with the goal of acquiring at least 295 additional artisans to augment the current workforce. The additional workforce is intended to remain on board through FY 2016, enabling the DMAG to continue to accept high amounts of new orders while also mitigating carryover to the greatest extent possible and generating more revenue.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Expenses were $563.3 million in FY 2015, and are expected to be $562.7 million in FY 2016, and $456.2 million in FY 2017.

Net Operating Results (NOR) - NOR was $9.3 million for FY 2015, and is expected to be $0.1 million for FY 2016, and $4.7 million for FY 2017.

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$583.2	$562.9	$461.8
Disbursements	$544.1	$584.5	$458.0
Net Outlays	-$39.1	$21.6	-$3.8

Some totals may not add due to rounding.

The DMAG's End of Year (EOY) FY 2015 cash balance was $79.6 million. For FY 2016, the DMAG projects that cash balances will decrease by $21.6 million to a total of $58.0 million driven downward by liquidations due to late projects executing in FY 2015. The FY 2017 cash balance is expected to increase to a total of $61.9 million.

Workload:

In the FY 2017 President's Budget, FY 2016 is expected to be the peak year for new orders at $532.2 million based on the inclusion of Marine Corps and Air Force MRAP workload. Based on a projected downward trend for reset workload in FY 2017, new orders decrease to $378.4 million.

Direct Labor Hours (DLHs) (Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate (Includes Contractors)	4.191	4.414	3.539

Direct Labor Hours:

Continued receipt of reset workload, coupled with yearly carryover projections, and the hiring of additional workforce by the end of FY 2015, has caused a slight increase in direct labor hours in FY 2016 compared to FY 2015. Labor hours are expected to decrease in FY 2017 commensurate with workload.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Performance Indicators:
The primary performance indicator is unit cost, which represents the average cost of delivering goods and services to customers.

Unit Cost (Expense Rate):	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$563.3	$562.6	$456.2
Workload (DLHs) (Millions)	4.191	4.414	3.539
Unit cost (per DLH)	$134.39	$127.47	$128.88

Unit Cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

In FY 2016, DMAG is projecting a lower unit cost per direct labor hour when compared to FY 2015 due to the increased amount of projected workload and direct labor hours. In FY 2017, DMAG is projected to execute fewer direct labor hours when compared to FY 2016, which will result in a slightly higher unit cost per direct labor hour.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

Stabilized / Composite Rates (Revenue Rate):	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$124.64	$127.51	$132.66
Change from Prior Year		$2.87	$5.15
Composite Rate Change		2.30%	4.04%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite revenue rate charged to customers incorporates both the stabilized costs and the reimbursable costs. The FY 2017 composite hourly rate reflects an increase of $5.15 from FY 2016.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Summary of Workload Indicators:

Performance Indicators:	FY 2015	FY 2016	FY 2017
Schedule Conformance	99.80%	99.80%	99.80%
Quality Deficiency Reports	0.1%	0.1%	0.1%
Inventory Turnover Ratio	7.0:1	7.8:1	6.3:1

It is DMAG's goal to always provide customers with affordable services that meet expected schedules.

Staffing:

Civilian/Military ES & Workyears:	FY 2015	FY 2016	FY 2017
Civilian End Strength	1,587	1,618	1,556
Civilian Workyears (straight time)	1,632	1,621	1,598
Military End Strength	11	11	11
Military Workyears	11	11	11

Civilian Personnel:
The DMAG's civilian personnel budget reflects workforce levels necessary to accommodate planned workload without excessive use of overtime hours. The DMAG utilizes contract artisans to supplement current workforce levels and meet demand fluctuations in workload.

Military Personnel:

Military end-strength is expected to be 11 throughout the budget. Military personnel levels are expected to stay constant in future years.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND
MARINE CORPS DEPOT MAINTENANCE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$3.7	$1.4	$3.4
Equipment, ADPE / Telecom	$0.0	$0.0	$0.0
Software Development	$0.0	$0.0	$0.0
Minor Construction	$2.2	$3.6	$1.8
Total	$5.9	$5.0	$5.2

Some totals may not add due to rounding.

The Capital Investment Program assists the DMAG in achieving its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: non-ADPE equipment and minor construction.

Carryover Compliance: ($Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$378.5	$248.4	$217.7
Allowable Carryover	$180.4	$223.5	$154.4
Calculated Actual Carryover	$202.2	$216.8	$134.4
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	$21.8	-$6.7	-$20.0

Some totals may not add due to rounding.

The DMAG received an approval to waive certain workload from the carryover calculation. More specifically, a carryover waiver of $45.7 million for FY 2015 has been approved for OCO funded reset workload. The total approved waiver value has been factored in as a reduction to the Calculated Actual Carryover in FY 2015.

Primarily due to various parts issues impacting the completion of workload, the DMAG exceeded the carryover ceiling amount in FY 2015 by $21.8 million. For FY 2016 and FY 2017, the DMAG expects to be under projected carryover ceilings.

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**563.3**
FY 2016 President's Budget:	**581.5**
Pricing Adjustments:	**-0.2**
Civilian Personnel	-1.2
General Purchase Inflation	1.0
Productivity Initiatives	-1.6
Marine Depot Maintenance Command (MDMC) Consolidation	-1.6
Program Changes:	**-1.4**
Direct Labor (Reduction in reset workload)	-3.5
Direct Material and Supplies (Higher costs due to workload mix)	1.5
Direct Contract Services (Use of contractors to augment workforce)	2.4
Direct Other Purchases (Reduced customer workload)	-1.8
Other Changes:	**-15.7**
Depreciation (Delay in getting CIP operational)	-0.8
Facilities Sustainment, Restoration & Modernization	-0.6
Indirect Labor (60 more production equivalents and overtime)	2.4
Indirect Materiel (less work load/material in achieving throughput)	-1.6
Indirect Contracts (Reduced Base Support projects/declining workload)	-14.2
VERA/VSIP (28 less personnel due to personnel restructing)	-0.7
Travel/Training (due to management efforts to control program cost)	-0.2
FY 2016 Current Estimate:	**562.6**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**562.6**
Pricing Adjustments:	**6.4**
Annualization of Prior Year Pay Raises	**0.4**
Civilian Personnel	0.4
Military Personnel	0.0
FY 2017 Pay Raise	**1.6**
Civilian Personnel	1.6
Military Personnel	0.0
Fuel Price Changes	-0.1
General Purchase Inflation	0.0
Other Price Changes (list)	**4.5**
Material/Supplies/Equipment	4.5
Program Changes:	**-107.8**
Direct Labor (increase due to pay raise)	3.7
Direct Material and Supplies (less workload)	-78.9
Direct Contract Services (less workload, less contractors needed)	-32.2
Direct Other Purchases	-0.4
Other Changes:	**-5.0**
Depreciation (getting capital equipment on line timely)	0.1
Facilities Sustainment, Restoration & Modernization (less requirements)	-0.2
Indirect Labor	0.4
Indirect Materiel (less material consumed while achieving throughput)	-4.0
Indirect Contracts (Reduction Base Support/Contractor Support)	3.2
VERA/VSIP (10 additional buyouts/restructuring personnel)	0.2
Travel/Training (Controling cost due to workload reduction)	-4.7
FY 2017 Estimate:	**456.2**

DEPOT MAINTENANCE SIX PERCENT CAPITAL INVESTMENT PLAN
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	REVENUE (Maintenance, Repair, Overhaul) 3 year average			BUDGETED CAPITAL (Modernization, Efficiency)		
	FY 12-14	FY 13-15	FY 14-16	FY 2015	FY 2016	FY 2017
	585.9	474.1	491.3			
	474.1	491.3	575.1			
	491.3	575.1	562.8			
Revenue (Avg)	517.1	513.5	543.1			
Working Capital Fund (Avg)	0.0	0.0	0.0			
Appropriations (Avg)	0.0	0.0	0.0			
Total Revenue (Avg)	0.0	0.0	0.0			
WCF Depot Maintenance Capital Investment						
Facilities/ Work Environment				24.5	15.0	10.5
Equipment				5.9	5.0	5.2
Equipment (Non-Capital Investment Program)				0.0	0.0	0.0
Processes				0.0	0.0	0.0
Total WCF Investment				30.4	20.0	15.7
Appropriated Funding - List by Appropriation						
MILCON				0.0	0.0	0.0
Procurement				0.0	0.0	0.0
Operation & Maintenance				0.0	0.0	0.0
Total Appropriated Funding				0.0	0.0	0.0
Component Total				30.4	20.0	15.7
Minimum 6% Investment				31.0	30.8	32.6
Investment Over/Under Requirement				-0.6	-10.8	-16.9
				5.9%	3.9%	2.9%

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2015
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**4**	**$3.680**	**3**	**$1.462**	**5**	**$3.400**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	4	$3.680	2	$0.812	3	$1.650
	- Support Equipment	0	$0.000	1	$0.650	2	$1.750
2	**ADPE and Telecom Equipment >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Computer Hardware (Production)	0	$0.000	0	$0.000	0	$0.000
	- Computer Hardware (Network)	0	$0.000	0	$0.000	0	$0.000
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**3**	**$2.244**	**4**	**$3.570**	**2**	**$1.750**
	- Replacement Capability	0	$0.000	1	$0.600	0	$0.000
	- New Construction	3	$2.244	3	$2.970	2	$1.750
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**7**	**$5.924**	**7**	**$5.032**	**7**	**$5.150**
	Total Capital Outlays		**$7.642**		**$6.484**		**$3.000**
	Total Depreciation Expense		**$5.143**		**$5.032**		**$5.153**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#001 - Non-ADP Equipment						Marine Corps Depots		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0	0	$0	0	0	$0	0	0	$0
Material Handling	0	0	$0	0	0	$0	0	0	$0
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	0	0	$0	0	0	$0	0	0	$0
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	4	920	$3,680	2	406	$812	3	550	$1,650
Support Equipment	0	0	$0	1	650	$650	2	875	$1,750
Total	4	920	$3,680	3	487	$1,462	5	680	$3,400

Justification:

Machinery

FY 2015

Machinery:

Installation of new machinery and upgrades to existing equipment are required in order to continue to meet the MDAQMD's standards for air quality in the Barstow, CA region. Additionally, a back up generator for an elevator at Production Plant Barstow (PPB) must be replaced in order to meet standards set by the American Disabilities Act (ADA). Installation of a small arms anodizer is required in order to increase efficiency at Production Plant Albany (PPA).

FY 2016

Large Computerized Numerical Control (CNC) Lathe (PPA) - $370 thousand The existing large cutting lathe has exceeded its life expectancy. The new lathe will enable machining of large parts for the AAV, LAV and MRAP vehicles. The new lathe will also be equipped with the latest technology for improved safety and efficiency and is expected to be in constant use.

Horizontal Boring Machine (PPB) - $442 thousand The air pollution control system that requires replacement is a single point of failure for seven paint booths which require extensive yearly maintenance. Regulations require that the plant has an effective volatile organic compounds (VOC) abatement system to eliminate their emission into the air. This project is to acquire a system with modular units that will operate independently for one or more paint booths but also work in tandem together to provide enough air flow to extract the paint fumes.

Continuted on Next Page

Justification:

Machinery

FY 2017

Intermediate CNC Lathe (PPA) - $300 thousand The existing large cutting lathe has exceeded its life expectancy. The new lathe will enable machining of large parts for the AAV, LAV and MRAP vehicles. The new lathe will also be equipped with the latest technology for improved safety and efficiency and is expected to be in constant use.

CNC Crankshaft Grinder (PPA) - $750 thousand The proposed new crankshaft grinder will be a modern CNC machine capable of handling the crankshafts from all engines supplied with the ground combat vehicles repaired at the production plant. The proposed machine will incorporate the latest technology for enhanced efficiency and operator safety. Many parts for the existing machine have become obsolete and the original manufacturer support no longer exists.

Vertical Machine Center (PPB) - $600 thousand The purchase of a Vertical Machine Center will allow the specific dedication of the machine to work in unison for high speed production, thereby reducing cycle time and reducing operational cost associated with this type of production. Our current equipment is well over 20 years old, and many of the safety features found with today's modern machinery do not exist. The dedicated machine center cell will help reduce valuable labor hours setting up and taking down tooling from various machines.

Support Equipment

FY 2016

Inline/Cross Drive Transmission Dyno Upgrade (PPB) - $650 thousand The Transmission Dynamometers are over ten years old and are well past their peak efficiency. PPB is experiencing numerous breakdowns that significantly affect our throughput and schedule. In addition, due to the age of our present equipment, parts are becoming increasingly difficult to obtain and many replacement parts must be custom fabricated at substantial cost. Procurement of a new Transmission Dynamometer Test Cell will help to reduce these problems.

FY 2017

Inline/Cross Drive Transmission Dyno Upgrade (PPA) - $750 thousand To support workload requirements PPA requires the procurement of Inline/Cross Drive Transmission Dynamometer Test Cell to support production. It is estimated that replacement of Transmission Dynamometers can increase throughput by approximately 50%. Our current and projected transmission workloads demand a testing rate, which exceeds the overall productive output capacity of the current transmission dynamometer test facility. This could lead to possibly outsourcing some of our transmission dynamometer testing in order to keep pace with production rates. This would lead to increased production costs and increases in repair cycle time. Our current productive capacity also limits our ability to take on additional workloads, which may occur as a result of increased customer requirements or expedited wartime demand.

Component Blast Equipment (PPA) - $1,000 thousand This proposed equipment procurement will provide a safe and efficient means of blasting vehicle components in preparation for painting. Moreover, the proposed system will allow for multiple parts to be fed and blasted simultaneously, reducing labor

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Depot Maintenance	#004 - Minor Construction ($250K - $750K)						Marine Corps Depots		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0	0	$0	1	600	$600	0	0	$0
New Construction	3	748	$2,244	3	990	$2,970	2	875	$1,750
Environmental Capability	0	0	$0	0	0	$0	0	0	$0
Total	3	748	$2,244	4	893	$3,570	2	875	$1,750

Justification:

Replacement
FY 2015
NONE

FY 2016
B2203 Clean Room (PPA) - $600 thousand The proposed clean room will be approximately 1500 square feet and be divided into two separate areas; one for rebuild activities and one for operational testing. Both spaces shall provide sound attenuation and climate control as well as provid e adequate protection from the elements to prevent delays in production as well as costly rework due to equipment/material damage. Engine components undergoing rebuild include fuel injection pumps, injectors, oil pumps, water pumps, blowers, turbochargers, etc. Operational testing of the injection pumps and injectors will also be co nducted.

FY 2017
NONE

New Construction
FY 2015
B2204 Testing Laboratory Production Plant Albany (PPA) - This proposed project was reprogrammed and will convert building 2204 to a functional testing lab for the risk management environmental section and chemical testing operations. These services are currently performed by off -site laboratories and causing turn-around time to be approximately one month. On site testing will provide a much faster response time and limit the number of potentially def ective components and lost man hours.

Hard Stand Improvement Production Plant Barstow (PPB) - This project was reprogrammed and was required in order to upgrade the main hardstand at PPB. The concrete is severely deteriorated due to heavy military vehicles and Mechanized Handling Equipment (MHE) equipment being driv en and towed on an average of six days per week. There are deep holes that have caused injuries to workers and there have been incidents of material falling f rom trailers when it is moved. 30,000 square feet of concrete needs to be poured in the Engineering Vehicle repair area.

Issue Point 4 Renovation (PPB) - This project was not awarded in the prior year and has been reprogrammed due to staffing issues at NAVFAC which delayed proce ssing and approval. This project has a cost increase based on the latest cost estimate. The project is critical to meeting the en vironmental compliance requirement to safely store hazardous paint inventory at the recommended temperature and contain hazardous spillage. Significant losses of paint supplies are incurred annually due to improper climate control of this area.

Continued on Next Page

Justification:

New Construction

FY 2016

Conversion Clearspan for Amphibious Assault Vehicle/Ground Transportation (AAV/GT) (PPA) - $990 thousand This clear span area is used to stage materials and components as well as accommodate minor repair work on AAV equipment. The proposed clearspan provides a sheltered area to protect equipment and personnel from the elements and will prevent production delays and costly rework due to equipment/material damage.

Paint Pit Alteration (PPA) - $990 thousand The existing paint booth pits located in building 2222 at PPA are no longer ideal for the types of combat vehicles repaired at PPA. Due to the increase in vehicle types modifications to armor kits, the pits require some structural alterations. The current layout requires precise vehicle placement depending on wheel base and consists of metal grating that must be removed and replaced continuously by production personnel to properly access the lower sides and undersides of vehicles when painting. Injuries have occurred when handling these parts and in addition to the production benefit, the alteration will increase safety. An engineering study and design will be performed through Naval Facilities Command (NAVFAC).

Material Handling Equipment (MHE) Hardstand Extension (PPB) - $990 thousand Minor construction project to aid MHE vehicles that support the staging, repair, overhaul modification and assembly for all production lines. The current need is for the HMMWV, LAV, AAV, LVSR, MTVR, MRAP, M777 Howitzer and other combat and tactical vehicles and equipment. This hardstand extension will provide protection from equipment damage and eliminate potential injuries to equipment operators.

FY 2017

Storm Water Network "B" Additions (PPA) - $850 thousand Per the Code of Federal Regulations, Part 1910_Occupational Safety and Health Standards, section 1910.22, Marine Depot Maintenance Command will provide safe work areas for employees by maintaining proper housekeeping including but not limited to providing dry work surfaces. Currently within, there are areas where storm water runoff sheets through work areas and accumulates. PPA is committed to safety and proposes to make improvements to the storm water collection system to alleviate the possible safety hazards that currently exist.

Logistics Vehicle System Replacement (LVSR) Clear Span (PPB) - $900 thousand The LVSR is one of the newest armored additions to the platforms worked at PPB. If permitted and installed, the proposed clear span will provide adequate covered space and utilities to complete the work load. Currently, the covered area is not large enough to meet production demands and the old sun shades require constant maintenance to prevent them from becoming a safety hazard since they are exposed to the elements. The proposed clear span will be constructed with pre-engineered steel framing and reinforced concrete support column footers. Additionally, the clear span

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$4.060**	**$3.680**	**-$0.380**	
			Machinery	$4.060	$3.680	-$0.380	Reprogrammed funds for Large Water Jet from Super Blast Renovation and Blast Dungeon Doors.
			Support Equipment	$0.000	$0.000	$0.000	Project changes made to support current operating tempo and future requirements.
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$2.335**	**$2.244**	**-$0.091**	
			Replacement	$0.000	$0.000	$0.000	Reprogrammed funds for Issue Point 4 Renovation to support current operating tempo and future requirements.
			New Construction	$2.335	$2.244	-$0.091	Reprogrammed funds to Enclosure Automotive Structure. Realigned funding from 2 minor contruction projects.
TOTAL FY 2015 CIP Program				**$6.395**	**$5.924**	**-$0.471**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$0.000**	**$1.462**	**$1.462**	
			Machinery	$0.000	$0.812	$0.812	Requests funding for projects to support current operating tempo and future requirments.
			Support Equipment	$0.000	$0.650	$0.650	Due to higher demands in the scope of requirments, Requests funds for projects to maintain and support current operating tempo measures.
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$0.000**	**$3.570**	**$3.570**	
			Replacement	$0.000	$0.600	$0.600	Requests funds for B2203 Clean Room.
			New Construction	$0.000	$2.970	$2.970	One (1) project moved from FY 2015 due to higher priority. Changes made to support current operating tempo.
TOTAL FY 2016 CIP Program				**$0.000**	**$5.032**	**$5.032**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$0.000**	**$3.400**	**$3.400**	
			Machinery	$0.000	$1.650	$1.650	Requests funding for an Intermediate CNC Lathe, a CNC Crankshaft Grinder, and a Vertical Machine Center to provide a safer working enviroment.
			Support Equipment	$0.000	$1.750	$1.750	Requests funding for an Inline/Cross Drive Transmission Dyno Upgrade and Component Blast Equipment to support current operating tempo and future requirements.
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$0.000**	**$1.750**	**$1.750**	
			New Construction	$0.000	$1.750	$1.750	Requests funding for the Storm Water Network "B" Additions and the Logistics Vehicle System Replacement (LVSR) Clear Span. Funds are required for facility drainage improvements. to create a safe working environment. Per Code of Federal Regulations (CFR) Part 1910 - Occupational Safety and Health Standards (OSHA), section 1910.22, Marine Corps Logistics Command (MCLC) will provide safe work areas for employees by maintaining dry work surfaces.
TOTAL FY 2017 CIP Program				**$0.000**	**$5.150**	**$5.150**	

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - DEPOT MAINTENANCE ACTIVITY GROUP
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	442.5	532.2	378.4
a. Orders from DoD Components:	435.6	525.0	371.3
Department of the Navy	388.0	405.4	311.3
O & M, Navy	2.5	3.0	2.7
O & M, Marine Corps	364.3	380.4	293.5
O & M, Navy Reserve	0.0	0.0	0.0
O & M, Marine Corp Reserve	9.6	18.0	13.0
Aircraft Procurement, Navy	0.9	0.0	0.0
Weapons Procurement, Navy	0.0	0.0	0.0
Ammunition Procurement, Navy/MC	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	0.0	0.0	0.0
Other Procurement, Navy	0.0	0.0	0.0
Procurement, Marine Corps	10.2	1.8	0.0
Family Housing, Navy/MC	0.0	0.0	0.0
Research, Dev., Test, & Eval., Navy	0.3	0.0	0.0
Military Construction, Navy	0.0	0.0	0.0
National Defense Sealift Fund	0.0	0.0	0.0
Other Navy Appropriations	0.0	2.2	2.2
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	10.2	24.2	0.0
Army Operation & Maintenance	9.8	24.2	0.0
Army Res, Dev, Test, Eval	0.2	0.0	0.0
Army Procurement	0.0	0.0	0.0
Army Other	0.3	0.0	0.0
Department of the Air Force	37.4	95.5	59.9
Air Force Operation & Maintenance	37.4	95.5	59.9
Air Force Res, Dev, Test, Eval	0.0	0.0	0.0
Air Force Procurement	0.0	0.0	0.0
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	0.1	0.0	0.0
Base Closure & Realignment	0.1	0.0	0.0
Operation & Maintenance Accounts	0.0	0.0	0.0
Res, Dev, Test & Eval Accounts	0.0	0.0	0.0
Procurement Accounts	0.0	0.0	0.0
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	0.0	0.0	0.0
b. Orders from other Fund Activity Groups	6.2	7.2	7.2
c. Total DoD	441.8	532.2	378.4
d. Other Orders:	0.7	0.0	0.0
Other Federal Agencies	0.0	0.0	0.0
Foreign Military Sales	0.3	0.0	0.0
Non Federal Agencies	0.3	0.0	0.0
2. Carry-In Orders	378.5	248.4	217.7
3. Total Gross Orders	821.0	780.6	596.1
a. Funded Carry-Over before Exclusions	248.4	217.7	135.3
4. Revenue(-)	572.6	562.8	460.9
5. End of Year Work-In-Process (-)	0.1	0.8	0.7
6. Carryover, FMS, BRAC, Non-Federal orders (-)	46.1	0.2	0.1
7. Funded Carryover	202.2	216.8	134.4

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - DEPOT MAINTENANCE ACTIVITY GROUP
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	378.5	248.4	217.7
2. Revenue	572.6	562.8	460.9
3. New Orders	442.5	532.2	378.4
4. Exclusions:			
Foreign Military Sales	0.3	0.0	0.0
Base Realignment and Closure	-0.1	0.0	0.0
Other Federal Department and Agencies	0.0	0.0	0.0
Non-Federal and Others	0.3	0.0	0.0
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	45.7	0.0	0.0
5. Orders for Carryover Calculation	396.2	532.2	378.4
6. Weighted Average Outlay Rate	57.8%	59.0%	59.4%
7. Carryover Rate	42.2%	41.0%	40.6%
8. Allowable Carryover	180.4	223.3	154.5
Allowable Carryover(First Year)	167.2	218.2	153.6
Allowable Carryover (Second Year Procurement-funded Orders)	13.2	5.1	0.8
Part II			
9. Balance of Customer Order at Year End	248.4	217.7	135.3
10. Work-in-progress	0.1	0.8	0.7
11. Exclusions:			
Foreign Military Sales	0.2	0.0	0.0
Base Realignment and Closure	0.1	0.1	0.1
Other Federal Department and Agencies	0.0	0.0	0.0
Non-Federal and Others	0.1	0.0	0.0
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	45.7	0.0	0.0
OCO Reset Workload	45.7		
12. Calculated Actuals Carryover	202.2	216.8	134.4

Some totals may not add due to rounding.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - DEPOT MAINTENANCE ACTIVITY GROUP
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	567.5	557.8	455.7
Capital Surcharges	0.0	0.0	0.0
Depreciation	5.1	5.0	5.2
Other Income			
Total Income	572.6	562.8	460.9
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	0.8	0.8	0.8
Civilian Personnel Compensation & Benefits	163.8	168.3	172.0
Travel and Transportation of Personnel	2.8	2.7	2.2
Material & Supplies (Internal Operations)	210.4	198.7	126.2
Equipment	16.1	15.9	9.2
Other Purchases from NWCF	1.3	2.6	2.5
Transportation of Things	0.0	0.0	0.0
Depreciation - Capital	5.1	5.0	5.2
Printing and Reproduction	0.1	0.2	0.2
Advisory and Assistance Services	0.0	0.0	0.0
Rent, Communication, Utilities & Misc Charges	5.8	10.0	10.3
Other Purchased Services	157.1	158.4	127.5
Total Expenses	563.3	562.6	456.2
Work in Process Adjustment	0.0	0.0	0.1
Comp Work for Activity Retention Adjustment	0.0	0.0	0.0
Cost of Goods Sold	563.3	562.7	456.2
Operating Result	9.3	0.2	4.7
Adjustments Affecting NOR	1.0	0.0	0.0
Capital Surcharges	0.0	0.0	0.0
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	1.0	0.0	0.0
Net Operating Result	9.3	0.2	4.7
PY AOR	-15.0	-4.8	-4.7
TOTAL AOR	-4.8	-4.7	0.0
Non-Recoverable Adjustments impacting AOR	-0.1	0.0	0.0
AOR for budget purposes	-4.8	-4.7	0.0

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

PY 2015

	Total	Mobilization	Peacetime: Operating	Peacetime: Other
Material Inventory BOP	$ 84.3	$ -	$ 84.3	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 184.6	$ -	$ 184.6	$ -
B. Purchase of long lead items in advance of customer orders	-	-	-	-
C. Other Purchases (List)	-	-	-	-
D. Total Purchases	$ 184.6	$ -	$ 184.6	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 193.0	$ -	$ 193.0	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions (List)	-	-	-	-
D. Total inventory adjustments	$ 193.0	$ -	$ 193.0	$ -
Material Inventory EOP	$ 75.9	$ -	$ 75.9	$ -

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY 2016

	Total	Mobilization	----- Peacetime ----- Operating	Other
Material Inventory BOP	$ 75.9	$ -	$ 75.9	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 182.5	$ -	$ 182.5	$ -
B. Purchase of long lead items in advance of customer orders	-	-	-	-
C. Other Purchases	-	-	-	-
D. Total Purchases	$ 182.5	$ -	$ 182.5	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 185.8	$ -	$ 185.8	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions	-	-	-	-
D. Total inventory adjustments	$ 185.8	$ -	$ 185.8	$ -
Material Inventory EOP	$ 72.6	$ -	$ 72.6	$ -

MATERIAL INVENTORY DATA
DEPARTMENT OF THE NAVY
DEPOT MAINTENANCE - MARINE CORPS DEPOTS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY 2017

	Total	Mobilization	----- Peacetime ----- Operating	Other
Material Inventory BOP	$ 72.6	$ -	$ 72.6	$ -
Purchases				
A. Purchases to Support Customer Orders	$ 110.4	$ -	$ 110.4	$ -
B. Purchase of long lead items in advance of customer orders	-	-		-
C. Other Purchases	-	-	-	-
D. Total Purchases	$ 110.4	$ -	$ 110.4	$ -
Material Inventory Adjustments				
A. Material Used in Maintenance	$ 111.0	$ -	$ 111.0	$ -
B. Disposals, theft, losses due to damages	-	-	-	-
C. Other reductions	-	-	-	-
D. Total inventory adjustments	$ 111.0	$ -	$ 111.0	$ -
Material Inventory EOP	$ 72.0	$ -	$ 72.0	$ -

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NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:
The Naval Air Warfare Center (NAWC) budget submission includes the Aircraft Division (AD) and the Weapons Division (WD). The NAWC mission is to provide the Navy with full spectrum research, development, test, evaluation (RDT&E); in-service engineering; aircraft weapons integration; assigned airborne electronic warfare systems; naval aircraft engines; avionics; aircraft support systems; weapons systems associated with air warfare (except antisubmarine warfare systems); missiles and missile subsystems; RDT&E, acquisition and life cycle support of training systems; and to maintain and operate the air, land, and sea test ranges complex. Major Range Test Facility Base funding (RDT&E,N appropriation) is received by the NAWC to maintain and support designated range facilities.

Activity Group Composition:
The NAWC is comprised of two business units, the Aircraft Division (AD), with the primary location at Patuxent River, MD, and the Weapons Division (WD), with the primary location at China Lake, CA.

Significant Changes Since the FY 2016 President's Budget:
There are no significant changes since the FY 2016 President's Budget.

Financial Profile:

	FY 2015	FY 2016	FY 2017
Orders	$4,279.1	$4,558.5	$4,161.9
Revenue	$4,375.3	$4,361.5	$4,440.5
Expense	$4,379.4	$4,391.3	$4,421.0
Operating Results	($4.1)	($29.8)	$19.5
Capital Surcharge	$0.0	($4.7)	$0.0
Net Operating Results (NOR)	($4.1)	($34.5)	$19.5
Other Changes Affecting AOR	$0.0	$0.0	$0.0
Accumulating Operating Result (AOR)	$14.9	($19.5)	$0.0

Some totals may not add due to rounding.

NWCF budget and manpower estimates have been updated from the FY 2016 President's Budget to reflect all known pricing and program/workload assumptions.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Orders, Revenue and Expense: The trend in orders, revenue and expense across the budget years reflects updated estimates for workload and pricing adjustments. The FY 2017 increase in revenue reflects anticipated Navy workload and working off carryover.

Collections/Disbursements/Outlays ($Millions):

	FY 2015	FY 2016	FY 2017
Collections	$4,327.1	$4,349.4	$4,427.6
Disbursements	$4,391.2	$4,383.3	$4,413.0
Net Outlays	$64.1	$33.9	($14.6)

Some totals may not add due to rounding.

Budgeted collections and disbursements are based on revenue, cost, and Capital Investment Program (CIP) outlay estimates.

Workload:

Direct Labor Hours (000):	FY 2015	FY 2016	FY 2017
Current Estimate	18,623.1	18,557.2	18,513.9

Direct Labor Hours - Rates are based on DLHs required for stabilized workload. The change in direct labor hours estimates relate to the supporting customer workload.

Performance Indicators: The NAWC outputs are scientific and engineering designs, developments, tests, evaluations, analyses and fleet support in NAWC assigned mission areas. The measure for these outputs is the direct labor hour worked for a customer. Customers are charged a predetermined stabilized billing rate per direct employee hour worked (revenue rate). The rate includes the salary and benefits costs of the performing employee (direct labor costs) and a share of the overhead costs of the NAWC, both general and administrative support and the unique production overhead costs of the performing employee's cost center. Non-labor, non-overhead costs, such as customer required material and equipment purchases, travel expenses, and contractual services, are charged to the customer on an actual cost reimbursable basis, and are excluded from the NAWC stabilized pricing structure. The NAWC use total stabilized cost per direct labor hour as their performance criterion.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$1,614.2	$1,658.2	$1,704.4
Workload (DLHs) (000)	15,584	15,946	15,720
Unit cost (per DLH)	$103.58	$103.98	$108.42

Unit Cost: Unit Cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$104.42	$104.15	$109.85
Change from Prior Year		-0.26%	5.47%
Composite Rate Change		1.22%	3.20%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs. The composite rate change in FY 2017 reflects adjustments to direct workload and pricing changes.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	14,617	14,363	14,272
Civilian Workyears (straight time)	14,120	14,068	14,043
Military End Strength	216	195	195
Military Workyears	197	164	171

Civilian Personnel: The civilian resource estimates are a baseline projection of civilian resources necessary to fulfill programming objectives coordination with customers. Civilian resource estimates have been adjusted to reflect a balanced program of civilian resources to funded workload.

Military Personnel: The Military resource estimates are a baseline projection of military personnel necessary to fulfill programming objectives and coordination with customers.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Military resource estimates have been adjusted to reflect a balanced program of military resources to funded workload.

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$19.2	$27.1	$27.3
Equipment, ADPE / Telecom	$12.6	$8.7	$5.7
Software Development	$2.1	$0.3	$3.9
Minor Construction	$6.2	$13.8	$10.6
Total	$40.1	$49.9	$47.6

Some totals may not add due to rounding.

The Capital Investment Program allows the NWCF to achieve its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. Minor construction includes projects meeting the criteria of the Defense Laboratory Revitalization Program. The projects will replace aging temporary buildings and upgrade and expand lab capability to accommodate workload growth and increase efficiency.

Carryover Compliance: ($Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$2,550.3	$2,454.1	$2,651.1
Allowable Carryover	$2,855.3	$2,917.5	$2,770.1
Calculated Actual Carryover	$1,986.3	$2,156.5	$1,899.7
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($869.0)	($761.0)	($870.4)

Some totals may not add due to rounding.

Budgeted carryover is within the ceiling allowed by outlay rates.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	4,344.6	4,313.9	4,392.9
Capital Surcharges	0.0	4.7	0.0
Depreciation	30.7	42.9	47.6
Other Income			
Total Income	4,375.3	4,361.5	4,440.5
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	15.1	13.2	14.3
Civilian Personnel Compensation & Benefits	1,887.6	1,951.8	1,964.2
Travel and Transportation of Personnel	69.2	59.9	60.3
Material & Supplies (Internal Operations)	325.0	385.5	381.2
Equipment	95.4	26.3	27.0
Other Purchases from NWCF	74.8	101.5	106.5
Transportation of Things	7.5	9.5	7.0
Depreciation - Capital	30.7	42.9	47.6
Printing and Reproduction	0.0	0.9	0.9
Advisory and Assistance Services	0.3	0.2	0.1
Rent, Communication, Utilities & Misc Charges	46.6	87.8	86.6
Other Purchased Services	1,827.1	1,711.6	1,725.4
Total Expenses	4,379.4	4,391.3	4,421.0
Work in Process Adjustment	0.0	0.0	0.0
Comp Work for Activity Retention Adjustment	0.0	0.0	0.0
Cost of Goods Sold	4,379.4	4,391.3	4,421.0
Operating Result	(4.1)	(29.8)	19.5
Adjustments Affecting NOR	(0.3)	(4.7)	0.0
Capital Surcharges	0.0	(4.7)	0.0
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	(0.3)	0.0	0.0
Net Operating Result	(4.1)	(34.5)	19.5
PY AOR	19.3	14.9	(19.5)
TOTAL AOR	14.9	(19.5)	0.0
Non-Recoverable Adjustments impacting AOR	0.0	0.0	0.0
AOR for budget purposes	14.9	(19.5)	0.0

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	4,279.1	4,558.5	4,161.9
a. Orders from DoD Components:	3,823.3	4,202.5	3,920.4
Department of the Navy	3,345.3	3,763.1	3,646.8
O & M, Navy	632.8	574.2	593.7
O & M, Marine Corps	23.7	6.4	7.3
O & M, Navy Reserve	0.9	0.5	0.6
O & M, Marine Corp Reserve	0.0	0.0	0.0
Aircraft Procurement, Navy	734.6	856.9	802.4
Weapons Procurement, Navy	63.0	55.7	58.5
Ammunition Procurement, Navy/MC	15.7	15.3	14.2
Shipbuilding & Conversion, Navy	84.8	111.5	22.7
Other Procurement, Navy	170.5	171.9	171.8
Procurement, Marine Corps	34.0	16.3	16.6
Family Housing, Navy/MC	0.1	0.1	0.1
Research, Dev., Test, & Eval., Navy	1,583.2	1,953.6	1,958.4
Military Construction, Navy	0.0	0.5	0.5
National Defense Sealift Fund	1.7	0.0	0.0
Other Navy Appropriations	0.0	0.0	0.0
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	110.2	109.9	69.1
Army Operation & Maintenance	40.4	36.8	19.2
Army Res, Dev, Test, Eval	23.0	16.2	14.8
Army Procurement	46.8	56.9	35.1
Army Other	0.0	0.0	0.0
Department of the Air Force	140.1	103.4	75.2
Air Force Operation & Maintenance	36.7	28.6	18.0
Air Force Res, Dev, Test, Eval	60.9	44.2	35.0
Air Force Procurement	42.5	30.7	22.1
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	227.7	226.1	129.3
Base Closure & Realignment	0.0	0.0	0.0
Operation & Maintenance Accounts	73.4	81.9	40.4
Res, Dev, Test & Eval Accounts	108.7	96.8	58.5
Procurement Accounts	39.4	40.4	23.6
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	6.2	7.0	6.8
b. Orders from other Fund Activity Groups	106.2	122.5	68.7
c. Total DoD	3,929.5	4,325.0	3,989.1
d. Other Orders:	349.6	233.6	172.8
Other Federal Agencies	50.1	39.3	21.6
Foreign Military Sales	274.5	171.6	134.3
Non Federal Agencies	25.0	22.6	16.9
2. Carry-In Orders	2,550.3	2,454.1	2,651.2
3. Total Gross Orders	6,829.4	7,012.6	6,813.1
a. Funded Carry-Over before Exclusions	2,454.1	2,651.2	2,372.6
4. Revenue(-)	4,375.3	4,361.5	4,440.5
5. End of Year Work-In-Process (-)	0.0	0.0	0.0
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	467.8	494.6	472.9
7. Funded Carryover	1,986.3	2,156.5	1,899.7

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Estimated Actuals	**4,379.4**
FY 2016 President's Budget:	**4,431.1**
Pricing Adjustments:	**143.6**
Civilian Personnel	157.2
Fuel Price	-13.0
General Purchase Inflation	-0.6
Productivity Initiatives and Other Efficiencies:	**-8.4**
CIVPERS FTE Reduction to Recapture 20% HQ Cut	-8.4
Program Changes:	**10.4**
Joint Strike Fighter (JSF) EMD	44.5
Test and Evaluation Support	39.3
EA-18G, EA-18 Squadrons, F/A-18 Squadrons	34.5
Joint Air-to-Ground Missile (JAGM)	4.5
Field Logistics	-4.7
Non-DOD	-4.8
MQ-8 Unmanned Aerial Vehicle (UAV)	-5.9
Multi-Mission Maritime Aircraft (MMA) (P-8A)	-6.7
Tomahawk Mission Planning	-6.9
Offensive Anti-Surface Warfare Weapons	-7.6
JT Standoff Weapons (JSOW)	-7.6
Electronic Warfare (EW) Development	-9.4
Other	-13.4
Retract Maple	-21.2
Common Avionics Changes	-24.5
Other Changes:	**-185.4**
Contract Realignment to Direct Labor	-176.4
Under Execution of G&A Contractual Services	-8.1
Other	-1.0
FECA	-0.5
Facilities Sustainment, Restoration & Modernization	0.5
FY 2016 Current Estimate:	**4,391.3**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**4,391.3**
Pricing Adjustments:	**42.2**
Annualization of Prior Year Pay Raises	**6.3**
Civilian Personnel	6.3
Military Personnel	0.0
FY 2017 Pay Raise	**20.5**
Civilian Personnel	20.4
Military Personnel	0.1
Fuel Price Changes	**-19.5**
General Purchase Inflation	**34.9**
Productivity Initiatives and Other Efficiencies:	**-21.0**
FTE Headquarters Reduction	-21.0
Program Changes:	**12.1**
Test and Evaluation Support	12.5
Other- Non-Navy	5.1
Air Systems Support	2.0
EA-18G, F/A-18 Squadrons	2.0
Joint Strike Fighter (JSF) Engineering, Manufacture, Design (EMD)	1.8
Mission and Other Flight Operations	1.6
Next Generation Jammer	1.5
A/V-8B Aircraft - Engine Development	1.3
Joint Air-to-Ground Missile (JAGM)	0.9
Offensive Anti-Surface Warfare Weapons	0.3
High-Speed Anti-Radiation Missile (HARM) Improvement	0.3
Navy Aerial Target and Decoy systems Program	-2.7
Support/Commerical Derivative Aircraft Program	-3.5
Navy Unmanned Combat Air Systems	-10.9
Other Changes:	**-3.6**
Under Execution of G&A Contractual Services	-6.3
Facilities Sustainment, Restoration & Modernization	-2.0
Contract Realignment to Direct Labor	-1.3
FEC Price Changes	-1.2
DFAS	-0.1
Depreciation	4.7
FIAR CIV Support	0.4
FECA	0.1
Other	2.1
FY 2017 Estimate:	**4,421.0**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**30**	**$19.183**	**25**	**$27.086**	**33**	**$27.322**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	18	$11.818	14	$17.851	18	$18.059
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	0	$0.000	2	$1.965	0	$0.000
	- Support Equipment	12	$7.365	9	$7.270	15	$9.263
2	**ADPE and Telecom Equipment >= $.250M**	**16**	**$12.556**	**11**	**$8.717**	**10**	**$5.712**
	- Computer Hardware (Production)	11	$7.675	4	$2.834	5	$2.059
	- Computer Hardware (Network)	2	$3.575	5	$4.597	4	$3.247
	- Computer Software (Operating)	1	$0.500	1	$0.650	0	$0.000
	- Telecommunications	1	$0.500	0	$0.000	0	$0.000
	- Other Support Equipment	1	$0.306	1	$0.636	1	$0.406
3	**Software Development >= $.250M**	**3**	**$2.129**	**1**	**$0.255**	**6**	**$3.882**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	3	$2.129	1	$0.255	6	$3.882
4	**Minor Construction (>= $.250M and <= $.750M)**	**9**	**$6.244**	**9**	**$13.832**	**8**	**$10.634**
	- Replacement Capability	0	$0.000	0	$0.000	0	$0.000
	- New Construction	8	$6.189	8	$11.492	8	$10.634
	- New Mission	1	$0.055	1	$2.340	0	$0.000
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**58**	**$40.112**	**46**	**$49.890**	**57**	**$47.550**
	Total Capital Outlays		**$39.198**		**$40.772**		**$44.222**
	Total Depreciation Expense		**$30.662**		**$42.876**		**$47.550**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#001 - Non-ADP Equipment						Naval Air Warfare Center		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0	0	$0	0	0	$0	0	0	$0
Material Handling	0	0	$0	0	0	$0	0	0	$0
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	18	0	$11,818	14	0	$17,851	18	0	$18,059
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	0	0	$0	2	0	$1,965	0	0	$0
Support Equipment	12	0	$7,365	9	0	$7,270	15	0	$9,263
Total	30		$19,183	25		$27,086	33		$27,322

Justification:

1. Projects within this sub-category will assist the Naval Air Warfare Center (NAWC) in its execution of new and ongoing engineering, research and development activities. Advances in the areas of research, development, engineering, and characterization routinely require equipment and capabilities using new technologies and processes. Current and future activities calling for these new and advanced capabilities include projects supporting the following areas: Air Vehicles, Propulsion and Power, Avionics, Human Systems, Aircraft Landing Recovery Equipment, Warfare Analysis and Integration, Research and Intelligence, Integrated systems, Experimentation and Test, Integrated Battlespace Simulation and Test.

2. The new Quality Control/Test equipment will enable NAWC to meet customer's expectations, improve in operational efficiencies, and provide new state-of-the-art technology to increase NAWC's customer support for all mission efforts.

3. Economic analysis were developed and included with individual project submissions.

4. Cost avoidance for the equipment in this capability will begin upon project completion.

5. If investment is not made, NAWC would be limited in our ability to increase our capabilities in support of aircraft carriers, networks, sensors, weapons, platforms and have a significant negative result on the success, efficiency and war fighting effectiveness of the Navy. This will also decrease innovative affordable technologies to the Fleet which support our nation's defense strategy and goals and reduce overall Naval war fighting effectiveness.

PROJECTS ABOVE $1M:
FY 2015

RDTE Equipment (Overhead Bridge Cranes)
This project will replace 2 overhead bridge cranes used to support the Prototype and Manufacturing Division at NAWCAD. These cranes are over 65 years old and are used all day in support of the manufacturing facility by loading parts that are ready to be machined, assisting in the assembly process, and testing components before they are shipped back to the Fleet. The Navy Crane Center (NCC) determined that the cranes are beyond repair, beyond service life, and will be a safety hazard if not replaced. Alternatives have been considered, but replacement is the most cost effective for the government.

Composite Materials and Structures Equipment
This project will acquire an autoclave with increased capabilities in terms of size, temperature, and pressure requirements in efforts to support on going RDT&E and rapid prototype work. Customer demand and mission requirements will no be met if not procured. Alternatives have been considered, but replacement is the most cost effective for the government.

PROJECTS ABOVE $1M:
FY 2016

Naval Power, Avionics, Thermal, & Hydraulic (NPATH) Laboratory Distributed Data Acquisition (DAQ)
The Electrical Power Systems Evaluation Facility (EPSEF) performs electrical power evaluation testing on both airborne and ground equipment during all phases of equipment development and production. The facility consists of numerous test capabilities designed to evaluate electrical power generation, battery and power conversion systems, electrical power distribution systems, electrical power quality, electrical starting and emergency electrical power systems, and various aircraft rotary equipment. The purpose of this project is to replace the existing Data Acquisition (DAQ) system which consists of stand-alone COTS instrumentation that cannot be upgraded to incorporate newly defined requirements, specifically, defining sampling rates amongst sets of channels. Alternatives have been considered, but replacement is the most cost effective for the government.

Jet Car Track Site (JCTS) Infrastructure Upgrade
This project supports the Aircraft Launch and Recovery Equipment (ALRE) test site mission at Lakehurst which is critical to direct fleet support. The tracks are used for certifications and simulations on track sites for simulated landings, live aircraft and evaluating the arresting gear performance in support of aircraft launch and recovery high energy testing. This project will upgrade the JTCS at Lakehurst to fleet representative configuration to allow for fleet representative testing of MK 7 MOD engine and 3/4 Arresting Gear (A/G) configuration. Alternatives have been considered, but replacement is the most cost effective for the government.

FY 2016 Continued:

Anti-armor surveillance and target acquisition radar (ASTARS) Radar
NAWCAD current radar is old and technologically obsolete. This project will procure a new radar to allow for continued radar mission testing. Alternatives have been considered, but replacement is the most cost effective for the government.

NANOENERGETICS SYNTHESIS, FORMULATION & CHARACTERIZATION
This investment seeks to bridge the gap between the study and application or use of nanoenergetic materials and strengthen our ability to synthesize, formulate and manufacture energetic materials and components by adopting additive manufacturing technologies. This will provide NAWCWD China Lake with an unparalleled ability to produce formulations with nanoenergetics while utilizing additive manufacturing techniques to formulate explosives, pyrotechnics and propellants with a level of precision and accuracy that is currently not possible. Importantly, nanoenergetics and additive manufacturing platforms each enable the use of the other. In the first phase of this effort we are looking to acquire capabilities and equipment to accurately characterize materials throughout the lifecycle, from the synthesis of nanoscale individual ingredients to a printed energetic formulation as well as process and formulate with nanoenergetic materials and develop new precursors, inks and materials for various additive manufacturing platforms. This will build on current, albeit limited capabilities at NAWCWD China Lake where recent investments have established a nanoenergetics lab and an energetic ink lab in 474000D as well as replace aging equipment essential to the synthesis and characterization of nanomaterials. The necessary tools and equipment infrastructure for each of these capabilities is briefly detailed as follows. Characterization equipment such as goniometer and tensiometer to better measure surface tension effects is needed. In addition, a more modern DLS could save significant analysis time while provide more reliable results on the size and distribution of the nanomaterial being produced. A combination DSC/mass spectrometer to determine the reactivity of the new nanoenergetics will be needed, as well as a lyophilizer, a digital microscope, and a particle vision and motion (PVM) detection probe to ensure robust process repeatability. For the synthesis of nanoenergetics and their subsequent formulation, a large centrifuge and supercritical fluid precipitation vessel, a homogenizer, roll mill, spray dryer, spherejet, and ultrasonic probe will be required to practically use nanomaterial's to formulate inks for additive manufacturing.

ADDITIVE MANUFACTURING INITIATIVE
This investment will provide for state-of-the-art Additive Manufacturing (AM) technology yielding fully functional metallic and hybrid components which will be applied to NAVAIR projects in support of research, development, test, and in-service fleet support requirements, to include several Strategic Thrust areas. Additionally, the proposed capability will increase responsiveness without increasing labor (personnel), allowing for rapid creation of product for the warfighter in response to emerging requirements. Specifically, this proposed investment will consist of a Selective Laser Sintering (SLS) machine capable of creating metallic product direct from the digital model of that product. Metallic powder will be selectively laser sintered to meet product profile requirements using a variety of common engineering metals (titanium, aluminum, and stainless steel in a variety of grades and chemistries).

FOTS_P302-ARL
The existing China Lake fiber optic cable plant (FOTS) is 30 years of age and is at its end of life. The age of NAWCWD's cable plant leads to brittle glass making repairs very difficult/impossible and costly. The location and placement of the existing cable plant when installed 30 years ago leads to troublesome access for repair equipment due to current environmental concerns. Multiple catastrophic breaks through the years, in addition to antiquated splicing techniques, have degraded the available bandwidth of the fibers. 4 out of 10 network spans are at 100% saturation point, 2 more spans are over 50% saturated leading to virtually no available capacity on many areas. This project would replace a portion of the original FOTS system in a key area of the base utilizing current technology and a divergent cable path.

PROJECTS ABOVE $1M:
FY 2017

Naval Power, Avionics, Thermal, & Hydraulic (NPATH) Laboratory Remote Control and Modeling LAB
The Electrical Power Systems Evaluation Facility (EPSEF) performs electrical power evaluation testing on both airborne and ground equipment during all phases of equipment development and production. The facility consists of numerous test capabilities designed to evaluate electrical power generation, battery and power conversion systems, electrical power distribution systems, electrical power quality, electrical starting and emergency electrical power systems, and various aircraft rotary equipment. Current facility controllers are limited to local user operation, which do not permit digital access to command and control architecture. This project will procure the necessary hardware for instantiating a central control system to integrate the command and control functionality for the remotely operable test facilities, NPATH DAQ, and other necessary auxiliary systems. Alternatives have been considered, but replacement is the most cost effective for the government.

AN/SPN-41
Current AN/TRN-28 Instrument Control Landing System (ICLS) is obsolete 1960's technology and is the primary ICLS reference for other shipboard landing systems . It is required to support resolving Fleet aircraft correlation issues. Procurement , assembly, and installation of an AN/SPN-41 to replace the current AN/TRN-28 and provide ICLS approaches that support developmental testing for ATC Equipment and various aircraft platforms and landing systems requirements. Alternatives have been considered, but replacement is the most cost effective for the government.

Horizontal Accelerator (HA) Servo Braking Sled
The NAWCAD Horizontal Accelerator Lab is the Navy's only crash test lab used to test crashworthy seating, restraints and crew gear. The current system is 30+ years old and does not support mission requirements. This project would upgrade HA Servo Braking System and would provide improved acceleration control capability, greater test fidelity, quicker reconfiguration to new test conditions, 40% increase in thrust, increased payload/max acceleration, support higher weight tests and support heavier test fixtures. Alternatives have been considered, but replacement is the most cost effective for the government.

CNC Horizontal Boring Mill
This project will procure a new CNC Horizontal Boring Mill (HBM) to enhance the Prototype and Manufacturing Division's capabilities and increase its capacity in order to meet the demands of the Fleet. The new HBM will support large work pieces and allow for work to be moved from CNC Vertical Mills to the more precise and accurate HBM. Alternatives have been considered, but replacement is the most cost effective for the government.

FY 2017 Continued:

Nanoenergetics Additive Manufacturing

This investment seeks to bridge the gap between the study and application or use of nanoenergetic materials and strengthen our ability to synthesize, formulate and manufacture energetic materials and components by adopting additive manufacturing technologies. This will provide NAWCWD China Lake with an unparalleled ability to produce formulations with nanoenergetics while utilizing additive manufacturing techniques to formulate explosives, pyrotechnics and propellants with a level of precision and accuracy that is currently not possible. Importantly, nanoenergetics and additive manufacturing platforms each enable the use of the other. In the first phase of this effort we are looking to acquire capabilities and equipment to accurately characterize materials throughout the lifecycle, from the synthesis of nanoscale individual ingredients to a printed energetic formulation as well as process and formulate with nanoenergetic materials and develop new precursors, inks and materials for various additive manufacturing platforms. This will build on current, albeit limited capabilities at NAWCWD China Lake where recent investments have established a nanoenergetics lab and an energetic ink lab in 474000D as well as replace aging equipment essential to the synthesis and characterization of nanomaterials. The necessary tools and equipment infrastructure for each of these capabilities is briefly detailed as follows. Characterization equipment such as goniometer and tensiometer to better measure surface tension effects is needed. In addition, a more modern DLS could save significant analysis time while provide more reliable results on the size and distribution of the nanomaterial being produced. A combination DSC/mass spectrometer to determine the reactivity of the new nanoenergetics will be needed, as well as a lyophilizer, a digital microscope, and a particle vision and motion (PVM) detection probe to ensure robust process repeatability. For the synthesis of nanoenergetics and their subsequent formulation, a large centrifuge and supercritical fluid precipitation vessel, a homogenizer, roll mill, spray dryer, spherejet, and ultrasonic probe will be required to practically use nanomaterial's to formulate inks for additive manufacturing.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#002 - ADP Equipment						Naval Air Warfare Center		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	11	0	$7,675	4	0	$2,834	5	0	$2,059
Computer Hardware (Network)	2	0	$3,575	5	0	$4,597	4	0	$3,247
Computer Software (Operating System)	1	0	$500	1	0	$650	0	0	$0
Telecommunications	1	0	$500	0	0	$0	0	0	$0
Other Support Equipment	1	0	$306	1	0	$636	1	0	$406
Total	16		12,556	11		8,717	10		5,712

Justification:

1. Projects within this category and capabilities will assist Naval Air Warfare Center (NAWC) in creating solutions that will enable us to address deficiencies in capabilities that will allow us to better perform mission efforts. New technologies, processes, and advances in various areas of engineering, research and development, and testing that is done at NAWC create a need to procure items for mission efforts. Projects will support various NAWC areas to include: Avionics, Human Systems, Aircraft Landing Recovery Equipment, Warfare Analysis and Integration, Research and Intelligence, Integrated systems, Experimentation and Test, Integrated Battlespace Simulation and Test, Information Technology and Information Management and Logistical and Industrial Operations.

2. The projects will enable NAWC to meet customer's expectations, improve in operational efficiencies, and provide new state-of-the-art technology to increase NAWC's customer support for all mission efforts.

3. Economic analysis were developed and included with individual project submissions.

4. Cost avoidance for the equipment in this capability will begin upon project completion.

5. If investment is not made, NAWC would be limited in our ability to increase our capabilities in support of aircraft carriers, networks, sensors, weapons, platforms and have a significant negative result on the success, efficiency and war fighting effectiveness of the Navy. This will also decrease innovative affordable technologies to the Fleet which support our nation's defense strategy and goals and reduce overall Naval war-fighting effectiveness.

PROJECTS ABOVE $1M:
FY 2015

Unmanned Systems - Training Experimentation
This project will create a Unmanned Systems Training Experimentation and Simulation Lab (US-TES) that will support current and future R&D for Human Systems and Training Systems solutions. NAWCTSD lacks the common UAS architecture to support current and future UAS Training Systems procurements. NAWCTSD lacks a UAS testbed to determine the best methods to train the cognitive tasks required of UAS operators. If US-TES is not realized, the UAS PMAs will continue to procure their UAS training solutions without the benefit of leveraging common simulation and training products, thereby, increasing program risk, schedule ,and cost. Alternatives have been considered, but replacement is the most cost effective for the government.

RDT&E Technology Infrastructure Upgrade
The NAWCAD RDT&E Enterprise Network supports all current test programs and laboratories /test facilities, by providing the single, protected data environment for processing and evaluating weapons system test performance on a variety of engineering platforms. The current infrastructure must change to support new platform and system developments that have increasingly higher data generation capabilities. This project will upgrade the network throughput from 1GB to 10GB. Failure to fund will directly impact data communications capability of NAWC-AD laboratories and facilities including modeling and simulation events and test data transfer. Alternatives have been considered, but replacement is the most cost effective for the government.

Operator in the Loop
Operator In The Loop (OITL) Simulators for Integration and Interoperability (I&I) Analysis and Assessments equipment purchase for I&I of platforms, sensors, and weapons within the battle space. This is a Weapons Division (WD) critical need to simulate integration and interoperability of kill chains of all platforms, weapons, and sensors. This integration / interoperability capability would support cross competency efforts and fully support multiple Integrated Product Teams (IPT).

PROJECTS ABOVE $1M:
FY 2016

RDT&E Distributed Monitoring
The NAWCAD RDT&E Enterprise Network supports all current test programs and laboratories /test facilities, by providing the single, protected data environment for processing and evaluating weapons system test performance on a variety of engineering platforms. Existing engineering troubleshooting processes required to correct degraded network operational performance issues are extremely complex, labor intensive, time consuming and fail to proactively predict developing failure modes that can shut down customer testing – all of which negatively impact customer mission requirements. This project will improve network management processes that will ensure better availability of network resources to laboratories and test facilities that use the RDT&E networks for data sharing and interoperability. Alternatives have been considered, but replacement is the most cost effective for the government.

FY 2016 Continued:

Virtual Desktop Infrastructure
RDT&E workstations and portable computer assets are configured independently and differently leading to inefficient device operations, cumbersome and inadequate administrative maintenance, and increased workload by system administrators to sustain DOD/DON configuration, patch and IA/STIG compliance. We lack the ability to rapidly configure, test, harden and deploy/use DOD/DON IA accredited OS images to new and existing computing assets. This project will eliminate/reduce the shortfalls by procuring new COTS technology, integrate with and leverage existing capabilities (SAN, Server Virtualization Environment, 10GigE upgrade) and install the core back-end infrastructure/components necessary to provide a standardized, robust virtual desktop/ workstation (thin/zero client) provisioning and OS deployment environment. Alternatives have been considered, but replacement is the most cost effective for the government.

Virtual Simulation to Support I&I
Virtual Simulators for Integration and Interoperability (I&I) Analysis and Assessments equipment purchase for I&I of platforms, sensors, and weapons within the battle space. This is a Weapons Division (WD) critical need to simulate integration and interoperability of kill chains of all platforms, weapons, and sensors. This integration / interoperability capability would support cross competency efforts and fully support multiple Integrated Product Teams (IPT).

PROJECTS ABOVE $1M:
FY 2017

1182 NSC Hosting Environment Refresh
1182 Network Services Center provides core RDT&E networking and hosting services. In FY17 major components will be at End of Life and not supportable by OEM maintenance. Modernization of the virtualized hosting environment is necessary to continue to provide reliable, agile, efficient, hosting services to all connected customers. This project is comprised primarily of replacing equipment at End of Life as well as providing new Disaster Recovery enhancements and new COOP enabled rapid backup and recovery solution. Alternatives have been considered, but replacement is the most cost effective for the government.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#003 - Software Development						Naval Air Warfare Center		
	FY 2015			FY 2016			FY 2017		
Software	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Internally Developed	0	0	$0	0	0	$0	0	0	$0
Externally Developed	3	0	$2,129	1	0	$255	6	0	$3,882
Total	3		$2,129	1		$255	6		$3,882

Justification:

1. Projects within this category and capability will assist NAWC in creating solutions to address deficiencies in capabilities and better perform mission efforts. New technologies, processes, and advances in various areas of engineering, research and development, and testing that is done at NAWC creates a need for SW mission efforts.

2. The projects will enable NAWC to meet customers' expectations, improve operational efficiencies, and provide new state-of-the-art technology to increase NAWC customer support for all mission efforts.

3. Economic analysis were developed and included with individual project submissions.

4. Cost avoidance for the equipment in this capability will begin upon project completion.

5. If investment is not made, NAWC would be limited in the ability to increase capabilities in support of aircraft carriers, networks, sensors, weapons, platforms and will have a significant negative result on the success, efficiency ,and war fighting effectiveness of the Navy.

PROJECTS ABOVE $1M:
FY 2015

Logicstics Engineering Data Management Initiative (LEDMI)
The purpose of this project is to build a master data table that will synchronize in real time over 30 information systems and serve as a single entry point of query for all related Fleet support data. Current Support Equipment (SE) and Aircraft Launch and Recovery Equipment (ALRE) maintenance, logictics, and other technical databases are disjointed, time consuming to access and often contain inconsistent or contradictory information, impairing the the ability of engineers and logisticians to achieve higher SE/ALRE reliability at a reduced cost. Alternatives have been considered, but replacement is the most cost effective for the government.

PROJECTS ABOVE $1M:
FY 2017

Safe Escape Automation Layer (SEAL) Modernization
NAWCAD maintains SEAL, a calculation tool used to determine Safe Escape for given mission planning scenarios. Safe Escape is required for all weapons/platforms. Safe Escape assesses the risk to the aircraft resulting from weapon fragmentation during employment. Flight clearances for weapons systems cannot be authorized until Safe Escape has been provided/evaluated. the SEAL tool software needs to be updated to execute real-time calcuations instead of database lookups . In addition, the current SEAL SW is projected to not be in compliance with proposed FY17/FY18 DoD/USN Information Assurance (IA) policies/regulations. This project will upgrade the SEAL SW and ensure comppliance with IA policies and regulations. Alternatives have been considered, but replacement is the most cost effective for the government.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#004 - Minor Construction ($250K - $750K)						Naval Air Warfare Center		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0	0	$0	0	0	$0	0	0	$0
New Construction	8	0	$6,189	8	0	$11,492	8	0	$10,634
New Mission	1	0	$55	1	0	$2,340	0	0	$0
Environmental Capability	0	0	$0	0	0	$0	0	0	$0
Total	8		$6,244	8		$13,832	8		$10,634

Justification:

1. Projects within this category and capabilities will assist Naval Air Warfare Center (NAWC) in creating solutions that will enable us to address deficiencies in capabilities that will allow us to better perform mission efforts. Minor Construction projects work to modify existing spaces, replace obsolete facilities, and construct new facilities that allow for improved efficiencies and provide greater security and suitable space to research, develop, acquire, test and evaluate aircraft systems (often in a secure environment) for the War fighter.

2. None of the minor construction projects will exceed the current Military Construction (MILCON) threshold.

3. If investment is not made, NAWC would be limited in our ability to increase our capabilities in support of aircraft carriers, networks, sensors, weapons, platforms and have a significant negative result on the success, efficiency and war fighting effectiveness of the Navy. This will also decrease innovative affordable technologies to the Fleet which support our nation's defense strategy and goals and reduce overall Naval war-fighting effectiveness.

PROJECTS ABOVE $1M:
FY 2015

Ballistics LRP
NAWCAD has personnel in a leased relocatable trailer. The lease on the trailer is expiring and a new building will be constructed as a permanent replacement for Ballistics personnel. Alternatives have been considered, but replacement is the most cost effective for the government.

ALRE Technology Integration Center (ATIC) LRP
Currently, NAWCAD does not have the capability to test or integrate new Aircraft Launch and Recovery Equipment (ALRE) Systems prior to installing the new equipment on ships. This CIP funds the modification of existing spaces (Bldg 123) for the A-TIC Lab for the future testing and integration of ALRE shipboard systems. Alternatives have been considered, but replacement is the most cost effective for the government.

Unmanned Air System (UAS) South Site High Facility. FAR: D41P0015
Construct a facility to conduct systems integration of Unmanned Air System (UAS) sensors of various types. Program requirement includes systems integration of sensors for intelligence, surveillance, and reconnaissance for the detection, localization, classification, and identification of ground, surface, aerospace and sub-surface targets. The project will facilitate systems integration in a facility designed for UAS operations separate from manned aircraft maintenance and integration facilities which currently exist. Facility is to be comprised of a high-bay (20') laboratory with sliding door capable of opening wide enough to allow passage of the largest family of UAS. Facility is to provide office space for approximately 10 persons, temporary engineering workstations for 10 persons, conference room capable of housing conferences for 30 persons, and must contain restrooms. Provides utilities, network connectivity, and security infrastructure to enable installation of sponsor-funded security enhancements. Approximate dimensions 150.5 SF x 94.5 SF and 36 FT High. BLDG would include an approximately 150.5 SF x 50 SF concrete apron.

PROJECTS ABOVE $1M:
FY 2016

RDT&E Webster Infrastucture Upgrade
The current Webster Field RDT&E network infrastructure does not currently connect to multiple new test capabilities, especially the emerging UAS (Unmanned Air Systems) that are being tested at that location. Additionally, the architecture of the network does not form a 'ring' for redundancy in case of a major cable cut/disruption. This project will build out duct banks and fiber connectivity to the new test capabilities at Webster Field and complete the fiber ring architecture (to duplicate the current Patuxent River architecture). Alternatives have been considered, but replacement is the most cost effective for the government.

Technical Center of Excellence Facility LRP
This project will construct an addition to an existing facility to provide high bay area for the safe and efficient reorganization of existing machinery. The addition will incorporate efficient process flows including space for materials, overhead crane, and an even elevation of floors. This project will eliminate the current poor layout where machines are located for fit within the current footprint rather than for efficient operations; improve geographically dispersed locations of associated functions; provide minimal space for storage of materials now housed in numerous Conex boxes, which are external to the facility. Also, this project will provide space where current operations can function in efficient ways with minimal disruptions. Alternatives have been considered, but replacement is the most cost effective for the government.

FY 2016 Continued:

UxS MAINTENANCE & OPERATION FACILTY. FAR: D41P0006
Construct an Equipment Maintenance Facility for multiple Unmanned Autonomous System (UAS) programs test support equipment. Program requirements include the ability to segregate the inventory into a responsible system in order to meet standard operating maintenance procedures. The project will facilitate UAS operational maintenance separate from manned aircraft maintenance and integration facilities which currently exist. Provides utilities, network connectivity, and security infrastructure to enable installation of sponsor-funded security enhancements. Approximate dimensions 80 SF x 175 SF and 36 FT High. This 14,000 SF facility is to be comprised of radiated heat, evaporative cooling, warehouse lighting, standard fire suppression - no fuels, no hazmat storage, one 30 FT rollup door. Chain link dividers, no interior walls but for a unisex restroom, utility room, fire room, and one 10x10 office.

PROJECTS ABOVE $1M:
FY 2017

Lead Capability Integration Facility (LCIF) LRP
Many emerging Naval Warfare System solutions are predicated on large, multi-system enclosures that require a solid floor integration space that is currently lacking at NAWCAD. This project will construct an addition to an existing facility that will provide additional space for Lead Capability Integration mission. Alternatives have been considered, but replacement is the most cost effective for the government.

Multilevel Security Facility. FAR: 400007
This project will renovate an existing facility into one that will allow for research at multiple levels of classification to occur simultaneously. The facility will support both the Integrated Warfare Capability (IWC) and Digital Precision Strike Suite (DPSS) Programs in their respective Missions.

WSL DROTT Roadway Extension. FAR: D4183007
Construction of split paved roadway for DROTT heavy lift equipment access to P-700 test site.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$18.534**	**$19.183**	**$0.649**	
			Quality Control/Testing	$11.265	$11.818	$0.553	Changes based on current mission needs.
			Support Equipment	$7.269	$7.365	$0.096	Changes based on current mission needs.
	2	**ADP**		**$12.409**	**$12.556**	**$0.147**	
			Computer Hardware (Production)	$7.523	$7.675	$0.152	Changes based on current mission needs.
			Computer Hardware (Network)	$3.580	$3.575	-$0.005	$5K reprogrammed to FY13.
			Computer Software (Operating)	$0.500	$0.500	$0.000	
			Telecommunications	$0.500	$0.500	$0.000	
			Other Support Equipment	$0.306	$0.306	$0.000	
	3	**Software**		**$2.127**	**$2.129**	**$0.002**	
			Externally Developed	$2.127	$2.129	$0.002	Changes based on current mission needs.
	4	**Minor Construction**		**$8.789**	**$6.244**	**-$2.545**	
			New Construction	$8.789	$6.189	-$2.600	Changes based on current mission needs.
			New Mission	$0.000	$0.055	$0.055	Reprogramming to correct to New Construction capability has been submitted.
TOTAL FY 2015 CIP Program				**$41.859**	**$40.112**	**-$1.747**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$26.794**	**$27.086**	**$0.292**	
			Quality Control/Testing	$17.559	$17.851	$0.292	Changes based on current mission needs.
			Machinery	$1.965	$1.965	$0.000	
			Support Equipment	$7.270	$7.270	$0.000	
	2	**ADP**		**$9.014**	**$8.717**	**-$0.297**	
			Computer Hardware (Production)	$2.834	$2.834	$0.000	
			Computer Hardware (Network)	$4.894	$4.597	-$0.297	Changes based on current mission needs.
			Computer Software (Operating)	$0.650	$0.650	$0.000	
			Other Support Equipment	$0.636	$0.636	$0.000	
	3	**Software**		**$0.250**	**$0.255**	**$0.005**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.250	$0.255	$0.005	Project cost increase
	4	**Minor Construction**		**$11.492**	**$13.832**	**$2.340**	
			New Construction	$11.492	$11.492	$0.000	
			New Mission	$0.000	$2.340	$2.340	Deferred FY15 project approved by OSD for FY16 authority
TOTAL FY 2016 CIP Program				**$47.550**	**$49.890**	**$2.340**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$27.322**	**$27.322**	**$0.000**	
			Quality Control/Testing	$18.059	$18.059	$0.000	
			Support Equipment	$9.263	$9.263	$0.000	
	2	**ADP**		**$5.712**	**$5.712**	**$0.000**	
			Computer Hardware (Production)	$2.059	$2.059	$0.000	
			Computer Hardware (Network)	$3.247	$3.247	$0.000	
			Other Support Equipment	$0.406	$0.406	$0.000	
	3	**Software**		**$3.882**	**$3.882**	**$0.000**	
			Externally Developed	$3.882	$3.882	$0.000	
	4	**Minor Construction**		**$10.634**	**$10.634**	**$0.000**	
			New Construction	$10.634	$10.634	$0.000	
TOTAL FY 2017 CIP Program				**$47.550**	**$47.550**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL AIR WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	2,550.3	2,454.1	2,651.2
2. Revenue	4,375.3	4,361.5	4,440.5
3. New Orders	4,279.1	4,558.5	4,161.9
4. Exclusions:			
Foreign Military Sales	274.5	171.6	134.3
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	50.1	39.3	21.6
Non-Federal and Others	25.0	22.6	16.9
Institutional Major Range & Test Facility Base	268.3	302.7	292.4
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	3,661.1	4,022.3	3,696.8
6. Weighted Average Outlay Rate	41.7%	41.7%	42.3%
7. Carryover Rate	58.3%	58.3%	57.7%
8. Allowable Carryover	2,855.4	2,917.5	2,770.1
Allowable Carryover(First Year)	2,135.8	2,345.9	2,133.2
Allowable Carryover (Second Year Procurement-funded Orders)	719.6	571.6	636.9
Part II			
9. Balance of Customer Order at Year End	2,454.1	2,651.2	2,372.6
10. Work-in-progress	0.0	0.0	0.0
11. Exclusions:			
Foreign Military Sales	235.3	234.5	203.6
Base Realignment and Closure	0.1	0.0	0.0
Other Federal Department and Agencies	56.0	50.6	41.0
Non-Federal and Others	27.8	26.0	22.3
Institutional Major Range & Test Facility Base	148.7	183.5	206.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	1,986.3	2,156.5	1,899.7

Some totals may not add due to rounding.

TAB #4 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 PROGRAM / BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Naval Surface Warfare Center provides research, development, test and evaluation; in-service engineering; and fleet and integrated logistic support for surface ship combat systems, surface and mine warfare combat systems, ordnance, explosive ordnance disposal technology, mines, amphibious warfare systems, mine countermeasures, special warfare and strategic systems, systems interfaces, weapon systems and subsystems, unique equipment and related expendable ordnance of the Navy surface fleet. In addition, they provide primary technical capability in energetics through engineering, fleet and operational support, manufacturing technology, limited production, industrial base support and research, development, test and evaluation for energetic materials, ordnance devices and components and related ordnance engineering standards. Central to our strategy is the sustainment and development of critical core capabilities that support legacy and emerging systems in the Fleet. Critical to our vision is the need to acquire, train, and retain top quality, diverse, scientists and engineers and to maintain the corresponding infrastructure necessary to support the Navy's future strategic requirements.

Activity Group Composition:

As of 1 October 2015, the Center is comprised of eight operating divisions whose operations and locations are described briefly below.

CARDEROCK DIVISION: The mission of Naval Surface Warfare Center (NSWC) Carderock Division is to provide research, development, test and evaluation, analysis, acquisition support, in-service engineering, logistics and integration of surface and undersea vehicles and associated systems. The Carderock Division also works to develop and apply science and technology associated with naval architecture and marine engineering, and provide support to the maritime industry, and to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center. The division has one primary operating site, Bethesda, MD, with smaller operating sites at Ft. Lauderdale, FL, Memphis, TN, Norfolk, VA, Bremerton, WA, and Bayview, ID.

CORONA DIVISION: The mission of this division is to serve warfighters and program managers as the Navy's independent performance assessment agent throughout systems' lifecycles by gauging the Navy's warfighting capability of weapons and integrated combat systems, from unit to force level. This is accomplished through assessment of those systems' performance, readiness, quality, supportability, and the adequacy of training, and to execute other responsibilities as assigned by Commander,

Naval Surface Warfare Center. The division has one primary operating site, Corona, CA, with a small engineering site at Seal Beach, CA.

CRANE DIVISION: The mission of this division is to provide acquisition engineering, in-service engineering and technical support for sensors, electronics, electronic warfare and special warfare weapons. The NSWC Crane Division also works to apply component and system-level product and industrial engineering to surface sensors, strategic systems, special warfare devices and electronic warfare/information operations systems, and to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center. The division has one primary operating site, Crane, IN, with a small engineering site at Fallbrook, CA.

DAHLGREN DIVISION: The mission of this division is to provide research, development, test and evaluation, analysis, systems engineering, integration and certification of complex naval warfare systems related to surface warfare, strategic systems, combat and weapons systems associated with surface warfare. The NSWC Dahlgren Division also works to provide system integration and certification for weapons, combat systems and warfare systems, and to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center. The division has two primary operating sites, Dahlgren, VA, and Dam Neck, VA.

INDIAN HEAD EXPLOSIVE ORDNANACE DISPOSAL (EOD) TECHNOLOGY DIVISION: The mission of this division is to provide research, development, engineering, manufacturing, test, evaluation and in-service support of energetic systems and energetic materials (chemicals, propellants and explosives) for ordnance, warheads, propulsion systems, pyrotechnic devices, fuzing, electronic devices, Cartridge Actuated Devices and Propellant Actuated Devices (CAD/PADs). In addition they provide Packaging, Handling, Storage, and Transportation (PHS&T), gun systems and special weapons for Navy, Joint Forces and the Nation. The division develops and delivers Explosive Ordnance Disposal (EOD) technology, knowledge, tools and equipment and their life cycle support through an expeditionary work force which meets the needs of the Department of Defense, combatant commanders and our foreign and interagency partners. It also supports the Executive Manager for EOD Technology and Training and executes other responsibilities as assigned by the Commander, Naval Surface Warfare Center. The primary site of operations is Indian Head, MD, with smaller operations at Rison, MD, MacAlester, OK, and Picatinny, NJ.

PANAMA CITY DIVISION: The mission of this division is to conduct research, development, test and evaluation, and in-service support of mine warfare systems, mines, naval special warfare systems and other missions that occur primarily in coastal

(littoral) regions. The NSWC Panama City Division also works to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center. The primary operating site is Panama City, FL.

PHILADELPHIA DIVISION: The mission of NSWC Philadelphia Division is to provide research, development, test and evaluation, acquisition support, engineering, systems integration, in-service engineering and fleet support with cyber-security, comprehensive logistics, and life-cycle savings through commonality. These are provided for surface and undersea vehicle machinery, ship systems, equipment and material. The NSWC Philadelphia works to execute other responsibilities as assigned by Commander, Naval Surface Warfare Center.

PORT HUENEME DIVISION: The mission of this division is to provide test and evaluation, systems engineering, integrated logistic support, in-service engineering and integration of surface ship weapons, combat systems and warfare systems. The NSWC Port Hueneme Division also works to provide the leading interface to the surface force for in-service maintenance and engineering support provided by the Warfare Centers and to execute other responsibilities as assigned by the Commander, Naval Surface Warfare Center. The primary operating site is Port Hueneme, CA. The division also operates a small detachment in Dam Neck, VA.

Significant Changes Since the FY 2016 President's Budget:
This submission reflects the Director of Navy Staff (DNS) approved Organizational Change Request (OCR) to realign the Naval Ship Systems Engineering Station (NAVSSES) as the Naval Surface Warfare Center (NSWC) Philadelphia Division effective October 1, 2015. Through FY 2015, NAVSSES was an echelon five command within NSWC Carderock Division (NSWCCD). With the realignment on 1 October 2015, NSWC Carderock Division and the new NSWC Philadelphia Division became be a separate echelon four Division of approximately equal size within NSWC. There is no change to budgeted cost, overhead or stabilized rates.

Contractor direct labor hours (DLHs) have been included in this submission. Traditionally overhead has only been recovered on civilian DLHs. The NSWC is currently running a pilot at Indian Head EOD Technology Division to test the feasibility of recovering overhead from on-site contractor DLHs. This facility usage rate recovers overhead cost associated with providing IT, facility maintenance, utilities, environmental management, safety, and security to the on-site contractors. Usage of contractors instead of civilians allows Indian Head EOD Technology Division to better manage workload surges within their manufacturing capabilities. These additional hours are rate neutral as the customer had previously budgeted for civilian workers.

Additionally, the disestablishment of the Machinery Service Cost Center (SCC) at Philadelphia Division has been reflected in FY16 and FY17. After review of existing SCCs, it was determined that the use of an hourly rate by the Machinery SCC was inappropriate and that the costs should be reflected as Production Overhead. This change is rate neutral as the customers budgets have previously been resourced for the costs.

Financial Profile:

Orders/Revenue/Expense/Operating Results ($Millions):	FY 2015	FY 2016	FY 2017
Orders	$3,709.6	$4,205.1	$4,234.5
Revenue	$3,688.9	$4,153.2	$4,236.8
Expense	$3,740.9	$4,162.5	$4,198.8
Operating Results	($52.0)	($9.4)	$37.9
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	($52.6)	($9.4)	$37.9
Other Changes Affecting AOR	($26.1)	$0.0	$0.0
Accumulated Operating Results (AOR)	($28.6)	($37.9)	($0.0)

Some totals may not add due to rounding.

Orders, Revenue and Expense: The NSWC has estimated reimbursable orders based on historical trends. The trend in revenue and expense from year-to-year reflects the completion of planned funded workload. The $26.1 Million adjustment to AOR in FY 2015 is to maintain operating cash associated with budgetary resources required for projected outlays. The FY 2017 revenue and expense reflect the completion of planned funded workload.

Collections/Disbursements/Outlays ($Millions):	FY 2015	FY 2016	FY 2017
Collections	$3,752.3	$4,153.2	$4,236.8
Disbursements	$3,809.2	$4,145.7	$4,196.8
Net Outlays	$56.9	($7.5)	($40.0)

Some totals may not add due to rounding.

Budgeted collections and disbursements are based on revenue, cost, Capital Investment Program (CIP) outlay estimates, anticipated changes in accounts payable/accrued labor expenses and accounts receivable.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 PROGRAM / BUDGET ESTIMATES
FEBRUARY 2016

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	22,913.0	23,372.3	23,047.7

Direct Labor Hours: Rates are based on DLHs required for stabilized workload. The workforce continues to be sized in accordance with funded workload. This budget submission includes on-site contractor DLHs associated with a pilot at Indian Head EOD Technology Division (FY 2015: 28.8K Hrs, FY 2016: 77.6K Hrs, FY 2017: 77.0K Hrs).

Performance Indicators: The NSWC outputs are scientific and engineering designs, developments, tests, evaluations, analyses and fleet support in NSWC assigned mission areas. The measure for these outputs is the direct labor hour worked for a customer. Customers are charged a predetermined stabilized billing rate per direct employee hour worked (revenue rate). The rate includes the salary and benefits costs of the performing employee (direct labor costs) and a share of the overhead costs of the NSWC, both general and administrative support and the unique production overhead costs of the performing employee's cost center. Non-labor, non-overhead costs, such as customer required material and equipment purchases, travel expenses, and contractual services, are charged to the customer on an actual cost reimbursable basis, and are excluded from the NSWC stabilized pricing structure. The NSWC use total stabilized cost per direct labor hour as their performance criterion.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$2,414.4	$2,432.3	$2,363.6
Workload (DLHs) (000)	22,942	23,450	23,074
Unit cost (per DLH)	$105.24	$103.72	$102.43

Unit Cost: Unit Cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services. The unit cost reflects a modest decrease from FY 2016 to FY 2017.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 PROGRAM / BUDGET ESTIMATES
FEBRUARY 2016

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$99.26	$100.21	$104.70
Change from Prior Year		0.96%	4.48%
Composite Rate Change		1.48%	3.22%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs. The composite rate change in FY 2017 reflects adjustments in direct workload and pricing changes.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	17,094	16,149	16,145
Civilian Workyears (straight time)	16,255	16,083	15,974
Military End Strength	211	193	188
Military Workyears	219	194	190

Civilian Personnel: Projected workyear and end strength estimates have been sized in accordance with anticipated funded workload.

Military Personnel: The FY 2017 decrease in military end strength and workyears reflects a decrease in the average fill rate. The fill rate is calculated by dividing actual average strength by the authorized end strength for each grade.

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$8.7	$14.1	$9.4
Equipment, ADPE / Telecom	$5.7	$10.5	$9.8
Software Development	$0.3	$0.5	$0.0
Minor Construction	$14.6	$23.6	$21.9
Total	$29.3	$48.7	$41.1

Some totals may not add due to rounding.

The Capital Investment Program allows the NWCF to achieve its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE);

non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. Minor construction includes projects meeting the criteria of the Defense Laboratory Revitalization Program. The projects will replace aging temporary buildings and upgrade and expand lab capability to accommodate workload growth and increase efficiency.

Carryover Compliance ($Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$1,903.6	$1,924.3	$1,976.2
Allowable Carryover	$2,312.9	$2,539.9	$2,640.8
Calculated Actual Carryover	$1,587.3	$1,670.3	$1,682.5
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($725.6)	($869.6)	($958.2)

Some totals may not add due to rounding.

Budgeted carryover is within the allowable target amount.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	3,662.2	4,113.1	4,195.7
Capital Surcharges	0.0	0.0	0.0
Depreciation	26.7	40.1	41.1
Other Income			
Total Income	3,688.9	4,153.2	4,236.8
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	15.3	14.0	14.5
Civilian Personnel Compensation & Benefits	2,209.1	2,229.1	2,234.4
Travel and Transportation of Personnel	119.7	130.2	131.1
Material & Supplies (Internal Operations)	220.6	239.6	244.0
Equipment	30.2	100.3	102.2
Other Purchases from NWCF	173.8	98.8	98.4
Transportation of Things	9.8	4.5	5.1
Depreciation - Capital	26.7	40.1	41.1
Printing and Reproduction	0.3	2.3	2.3
Advisory and Assistance Services	1.1	0.0	0.0
Rent, Communication, Utilities & Misc Charges	75.7	71.5	71.8
Other Purchased Services	858.7	1,232.2	1,254.0
Total Expenses	3,741.0	4,162.5	4,198.8
Work in Process Adjustment	0.0	0.0	0.0
Comp Work for Activity Retention Adjustment	(0.0)	0.0	0.0
Cost of Goods Sold	3,740.9	4,162.5	4,198.8
Operating Result	(52.0)	(9.4)	37.9
Adjustments Affecting NOR	(0.6)	0.0	0.0
Capital Surcharges	0.0	0.0	0.0
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	(0.6)	0.0	0.0
Net Operating Result	(52.0)	(9.4)	37.9
PY AOR	50.2	(28.6)	(37.9)
TOTAL AOR	(2.5)	(37.9)	0.0
Non-Recoverable Adjustments impacting AOR	(26.1)	0.0	0.0
AOR for budget purposes	(28.6)	(37.9)	0.0

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	3,709.6	4,205.1	4,234.5
a. Orders from DoD Components:	3,239.8	3,667.0	3,690.4
Department of the Navy	2,748.2	3,094.9	3,109.0
O & M, Navy	919.2	1,041.8	1,042.1
O & M, Marine Corps	61.1	60.3	60.5
O & M, Navy Reserve	2.2	3.7	3.8
O & M, Marine Corp Reserve	0.9	0.6	0.6
Aircraft Procurement, Navy	85.7	75.6	77.0
Weapons Procurement, Navy	83.5	116.0	118.2
Ammunition Procurement, Navy/MC	59.6	92.3	96.6
Shipbuilding & Conversion, Navy	264.1	289.5	289.5
Other Procurement, Navy	338.0	400.9	400.2
Procurement, Marine Corps	33.7	59.2	60.0
Family Housing, Navy/MC	0.0	0.0	0.0
Research, Dev., Test, & Eval., Navy	891.2	941.4	947.2
Military Construction, Navy	0.0	0.0	0.0
National Defense Sealift Fund	9.0	13.2	13.2
Other Navy Appropriations	0.0	0.3	0.3
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	69.4	101.7	107.1
Army Operation & Maintenance	18.8	19.1	19.7
Army Res, Dev, Test, Eval	23.1	17.3	17.9
Army Procurement	16.1	45.6	48.6
Army Other	11.4	19.7	20.9
Department of the Air Force	60.1	49.4	51.1
Air Force Operation & Maintenance	20.2	17.5	18.3
Air Force Res, Dev, Test, Eval	21.1	18.7	18.9
Air Force Procurement	18.9	13.3	13.9
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	362.2	420.9	423.1
Base Closure & Realignment	0.0	0.1	0.0
Operation & Maintenance Accounts	59.8	64.6	65.2
Res, Dev, Test & Eval Accounts	251.4	314.2	315.4
Procurement Accounts	45.4	34.2	34.5
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	5.6	8.0	7.9
b. Orders from other Fund Activity Groups	254.7	297.6	299.9
c. Total DoD	3,494.6	3,964.6	3,990.3
d. Other Orders:	215.0	240.5	244.2
Other Federal Agencies	49.0	74.6	75.5
Foreign Military Sales	148.0	147.0	149.4
Non Federal Agencies	18.0	18.9	19.4
2. Carry-In Orders	1,903.6	1,924.3	1,976.2
3. Total Gross Orders	5,613.2	6,129.4	6,210.7
a. Funded Carry-Over before Exclusions	1,924.3	1,976.2	1,974.0
4. Revenue(-)	3,688.9	4,153.2	4,236.8
5. End of Year Work-In-Process (-)	0.0	0.0	0.0
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	337.0	305.9	291.4
7. Funded Carryover	1,587.3	1,670.3	1,682.5

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**3,740.9**
FY 2016 President's Budget:	**4,341.4**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**20.0**
Pricing Adjustments:	**-1.5**
Civilian Personnel	0.1
General Inflation	-1.6
Program Changes:	**-197.3**
Decreased Direct Non-Labor (reduced accruals, shift of reimbursable to direct cite funds, shift to in-house labor)	-220.0
Increased Direct In-house Labor	22.7
Other Changes:	**0.0**
FY 2016 Current Estimate:	**4,162.5**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**4,162.5**
Pricing Adjustments:	**63.2**
Annualization of Prior Year Pay Raises	**7.3**
Civilian Personnel	7.2
Military Personnel	0.0
FY 2017 Pay Raise	**26.9**
Civilian Personnel	26.7
Military Personnel	0.2
Fuel Price Changes	-0.2
General Purchase Inflation	27.2
Other Price Changes	**2.0**
Working Capital Fund Price Changes	2.0
Program Changes:	**-24.2**
Decreased Direct In-house Labor	-24.2
Other Changes:	**-2.6**
Depreciation	1.0
Facilities Sustainment, Restoration & Modernization	-3.5
NGEN Centralized Funding	-0.1
FY 2017 Estimate:	**4,198.8**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**16**	**$8.663**	**21**	**$14.064**	**14**	**$9.364**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.120	3	$2.986	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	13	$7.067	11	$6.087	7	$4.396
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	3	$1.476	1	$0.456	3	$1.364
	- Support Equipment	0	$0.000	6	$4.535	4	$3.604
2	**ADPE and Telecom Equipment >= $.250M**	**9**	**$5.651**	**17**	**$10.502**	**13**	**$9.793**
	- Computer Hardware (Production)	7	$3.161	7	$3.430	5	$3.116
	- Computer Hardware (Network)	2	$2.490	9	$6.077	7	$5.577
	- Computer Software (Operating)	0	$0.000	0	$0.000	1	$1.100
	- Telecommunications	0	$0.000	1	$0.995	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**1**	**$0.317**	**1**	**$0.500**	**0**	**$0.000**
	- Internally Developed	1	$0.317	1	$0.500	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**18**	**$14.646**	**22**	**$23.648**	**16**	**$21.933**
	- Replacement Capability	5	$5.201	7	$10.534	5	$3.950
	- New Construction	13	$9.445	15	$13.114	11	$17.983
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**44**	**$29.277**	**61**	**$48.714**	**43**	**$41.090**
	Total Capital Outlays		**$29.020**		**$39.030**		**$39.030**
	Total Depreciation Expense		**$26.727**		**$40.113**		**$41.090**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#001 - Non-ADP Equipment						Naval Surface Warfare Center		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0		$0	0		$0	0		$0
Material Handling	0	#DIV/0!	$120	3	995	$2,986	0		$0
Installation Security	0		$0	0		$0	0		$0
Quality Control/ Testing	13	544	$7,067	11	553	$6,087	7	628	$4,396
Medical Equipment	0		$0	0		$0	0		$0
Machinery	3	492	$1,476	1	456	$456	3	455	$1,364
Support Equipment	0		$0	6	756	$4,535	4	901	$3,604
Total	16	541	$8,663	21	670	$14,064	14	669	$9,364

Justification:

Machinery These Non-ADPE equipment investments support the acquisition of mission essential research, development, test and evaluation equipment that include support new research and development initiatives. Equipment procurements will support initiatives such as: - Advanced munitions and high energy materials - New Shipboard technologies - Hypervelocity penetrating weapons and kinetic energy weapons - Thermobaric and variable yield warheads
Benefit: These provide research and development equipment to support new mission areas or new test and evaluation techniques to enhance the overall effectiveness of the warfare center mission. Investments categorized as machinery provide enabling technology insertion, and machinery integration into new acquisition programs and the deployment of machinery initiatives into the fleet. Impact: These investments support the Navy's Maritime strategy for maintaining readiness and building a relevant and future force for surface ships and their systems. Investments provide for new mission research and development equipment essential to the test and evaluation of emerging ship-board technologies.

Material Handling Equipment: These Non-ADP equipment investments support the acquisition of mission essential research, development, test and evaluation equipment that include support new research and development initiatives. Equipment procurements will support initiatives such as: - Advanced munitions and high energy materials - New Shipboard technologies - Hypervelocity penetrating weapons and kinetic energy weapons - Thermobaric and variable yield warheads
Benefit: These provide research and development equipment to support new mission areas or new test and evaluation techniques to enhance the overall effectiveness of the warfare center mission. Investments categorized as Material Handling include installed, portable, mobile or self propelled devices designed to move or pick-up component parts and materials used on Navy shipboard systems. Impact: These investments support the Navy's Maritime strategy for maintaining readiness and building a relevant and future force for surface ships and their systems. Investments provide for handling/transport equipment essential to the test and evaluation of emerging ship-board technologies.

Economic Analysis: There is 1 project greater than $1000K in budgeted cost. An economic analysis was performed on all individual projects greater than the DOD capitalization threshold. All non-ADPE Material Handling projects have an estimated useful life of 10 years and an average payback period of <2 years.

Quality Control/Testing Equipment: These investments provide capital equipment required to ensure that the development and/or maintenance methodology and standards used for quality control/assurance and testing of ship systems are adequate to meet Navy requirements. This is accomplished through diagnostic analysis, fault identification, testing and calibration for ship components. Products typically include electronic modules, circuit cards, power supplies, displays, assemblies and sub-assemblies of shipboard machinery and components. This equipment provides support for the development, production, and servicing of Navy weapon and combat systems.
Benefit: Quality Control/Assurance and Testing investments provide the Navy reliable processes and procedures to ensure technical specifications and functional requirements meet developed product/service standards. The identification of unit failures and poor service results in corrective action designed to improve the production or service process being measured to achieve the desired mission results.
Impact: These investments support the Navy's Maritime strategy for surface ships and their systems. Investments provide for quality control/assurance and test results that are accurate and emulate shipboard environments eliminating the need to schedule ship board testing and speeding the retest of ships systems.
Economic Analysis: There is 1 project equal to or greater than $1000K. An economic analysis was performed on all individual projects greater than the DOD capitalization threshold. All non-ADPE Quality Control/Testing projects have an estimated useful life of 10 years and an average payback period of 3.5 - <6 years.

Support Equipment: Non-ADPE support equipment investments support mission essential research, development, test and evaluation of equipment that is unsafe, beyond economical repair, technically obsolete, or otherwise unusable. Equipment supports Warfare Center Core Equities including ship/ship systems, ship weapon systems, ship combat systems, ordnance, and littoral combat systems. Equipment supporting this mission includes explosive detection equipment, ship hull test equipment, and test and evaluation equipment for various surface ship systems.
Benefit: Mission essential research and development equipment must operate at optimal efficiency to achieve proper test and evaluation results. Equipment is replaced with modern reliable equipment to support the research and development mission of the Naval Warfare Centers.
Impact of not Funding: The Naval Surface Warfare Center activities are responsible for new product testing as well as system In-Service-Engineering. The ability of the Surface Warfare Centers to provide mission essential research and development for new systems require mission essential investments for replacement of equipment will not be made resulting in work that produces obsolete results to the scientific community, economically inefficient operation, and possible risk to human life.
A cost analysis was performed on all individual projects greater than the DOD capitalization threshold. The useful life for these projects is 10 years and the average payback period is <6 years.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#002 - ADP Equipment						Naval Surface Warfare Center		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	7	452	$3,161	7	490	$3,430	5	623	$3,116
Computer Hardware (Network)	2	1,245	$2,490	9	675	$6,077	7	797	$5,577
Computer Software (Operating System)	0		$0	0		$0	1	1,100	$1,100
Telecommunications	0		$0	1	995	$995	0		$0
Other Support Equipment	0		$0	0		$0	0		$0
Total	9	628	$5,651	17	618	$10,502	13	753	$9,793

Justification:

ADP Equipment Computer Hardware (Network): These investments will support the acquisition of automated data processing and telecommunications equipment for the surface ship research and development community. Funds will provide networks/connectivity to all Naval Warfare Center activities and procurement of hardware for mission essential research and development computing needs and centralized system hosting including: Business System Replacement, High Speed Computing, and Research, Development, Test, and Evaluation Networks. Investments will include routers, servers, firewalls, etc..

Benefit: The projected benefits include technology tools for the research and development community and continuity of operations for standard business systems throughout the Warfare Center. Impact: ADP Equipment supporting the research and development community must remain on the cutting edge of technology for to conduct complex simulations, perform predictive analysis, and analyze surface ship system performance. The capability to conduct cutting edge scientific computing within the R&D community is in jeopardy if investments are not made. Current equipment supporting mission essential systems will no longer be supported by the manufacturer. To ensure continuity of business operations, new hardware platforms must be operational.

Economic Analysis: An economic analysis was performed on all individual projects greater than the DOD capitalization threshold.

Cyber Security Ice Lab($1.17M): FY17 project will provide a robust, centralized cyber security test and evaluation environment (up to TS classification) to test and verify cyber security throughout the acquisition life cycle and DOT&E's new emphasis on operational cyber testing. The Cyber ICE Lab will provide programs of record capability to conduct realistic and timely developmental testing enabling achievement of operational testing objectives. Net present value estimated at $11.1M.

Network Consolidation ($1.8M): FY16 project consolidates the following services under analysis : Web Proxy, ACAS, HBSS, Directory, DAR, Intrusion Detection, Firewall, VPN, Windows Patch, Linux Patch, 3rd Party Patch & Network Management. Future state design will be aligned with the Navy Lab Centers Coordination Group (NLCCG) RDT&E Network Architecture design document (currently under draft.)nformation assurance requirements. The fiber optic cabling will connect all servers and 11 ovens located in 4 buildings (complex) to provide continuous monitoring of energetic test facilities. This project will connect to the RDT&E network. Net present value estimated at $29.6M.

Research, Development, Test & Evaluation Classified Network Infrastructure Upgrade – Network Gear Upgrades ($1.2M): FY17 project will upgrade and enhance the current (classified) Secure Research, Development, Test &Evaluation (SRDT&E) Network Switches and Routers. This will dramatically improve network performance by increasing bandwidth from 1GB to a minimum of 10GB throughput on all network devices. Estimated net present value of $-1.2M and a payback of > 5 years.

Concept Exploration and Technology Assessment (CETA) Laboratory ($1.1M): FY17 project for a CETA laboratory is a full virtual environment addressing existing challenges in Combat System Development by assessing technology maturity, producing validated requirements based on fleet needs, and collecting quantifiable metrics demonstrating improved capability. The laboratory provides a venue for technology insertion into a Weapons/Combat system without impact on real systems. Net present value estimated at $2.4M.

ADP Equipment Computer Hardware (Production): These investments will support the acquisition of automated data processing and telecommunications equipment for the surface ship research and development community. Funds will provide networks/connectivity to all Naval Warfare Center activities and procurement of hardware for mission essential research and development computing needs and centralized system hosting including: Business System Replacement, High Speed Computing, and Research, Development,

Benefit: The projected benefits include technology tools for the research and development community and continuity of operations for standard business systems throughout the Warfare Center. Impact: ADP Equipment supporting the research and development community must remain on the cutting edge of technology for to conduct complex simulations, perform predictive analysis, and analyze surface ship system performance. The capability to conduct cutting edge scientific computing within the R&D community is in jeopardy if investments are not made. Current equipment supporting mission essential systems will no longer be supported by the manufacturer. To ensure continuity of business operations, new hardware platforms must be operational. Test, and Evaluation Networks. Investments will include routers, servers, firewalls, etc.
Economic Analysis: An economic analysis was performed on all individual projects greater than the DOD capitalization threshold.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#003 - Software Development						Naval Surface Warfare Center		
	FY 2015			FY 2016			FY 2017		
Software	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Internally Developed	1	317	$317	1	500	$500	0		$0
Externally Developed	0		$0	0		$0	0		$0
Total	1	317	$317	1	500	$500	0		$0

Justification:

Software Projects < $1.000M: Software projects in this budget support predictive maintenance capbility for Fleet electronics systems. This capability would develop an onboard ship system that could be used to predict and monitor electronic systems. In addition, the development of a Maritime Electronic Warfare Modeling and Simulation tool will allow the test community to analyze performance and interoperatbility from weapon system to battle force levels. The useful life of these investments average 5 years, with a payback of 2.5 - 3.5 years.

Benefits: These investments will directly support the transformation of the Warfare Centers to become a more agile support organization. By fully integrating authoritative data sources with collaborative tools, flexible display technologies, and robust content management we will be better able to support the Fleet's war fighters--from Force Level leadership, to the sailor on the deck plate -at any location and from any location. This evolution of Distance Support capability also enables us to be more proactive in developing life-cycle solutions by making the information required readily available at the workers desktop. All development will provide the collaborative structure which will contribute to achieving current / planned customer service levels.

Economic Analysis: An economic analysis was performed on all individual projects greater than the DOD capitalization threshold.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#004 - Minor Construction ($250K - $1M)						Naval Surface Warfare Center		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	5	1,040	$5,201	7	1,505	$10,534	5	790	$3,950
New Construction	13	727	$9,445	15	874	$13,114	11	1,635	$17,983
Environmental Capability	0		$0	0		$0	0		$0
Total	18	814	$14,646	22	1,075	$23,648	16	1,371	$21,933

Justification:

New Construction: Investments in Minor Construction enhance the Naval Warfare Center Mission by developing buildings, structures or other real property. Minor Construction projects will replace obsolete facilities, consolidate operations for productivity increases, provide state of the art processing areas for new R&D missions, and correct environmental deficiencies. Minor construction projects include all costs to deliver a complete and usable project. Minor Construction projects meet the DOD capitalization criteria, however, 16 MCON projects do exceed the threshold specified by 10 USC 2805. The below MCON projects utilize Sec. 2804 of the FY08 National Defense Authorization Act (NDAA) authority for the Lab Revitalization Demonstration Program (LDRP) and authority to correct Life, Safety & Health issues. Minor Construction is used at the Naval Warfare Centers to: - modify existing spaces and construct new facilities to provide suitable space to design and test new equipment for the surface warfare community. - improve security measures and provide increase security for new initiatives - reduce operating expenses by building or improving government owned facilities so that leased space, high maintenance space, or portable space may be vacated. - reduce energy consumption by installing energy efficient building systems - modify existing systems to bring facilities up to current building, safety, or environmental codes.

Economic Analysis: An economic analysis was performed on all individual projects greater than the DOD capitalization threshold.

High Energy Laser Integration Facility ($1.3M): FY16 construction of a high energy laser integration high bay facility with access road and test pad to support HEL weapon system development and direct testing on the Potomac River Test Range. Net present value estimated at $3.2M and payback is approximately 4 years.

Electromagnetic Maneuver Warfare (EMW) Facility ($3.9M): FY17 project constructs approximately 10,000 SF controlled access facility to accommodate approximately 60 personnel to support Real Time Spectrum Operations (RTSO) program and other EMW work. RTSO has been approved to become a Program of Record (POR) and selected by the CNO to receive funding as a Speed-to-Fleet (S2F) initiative, a program which rapidly transitions prototype technology to the fleet. Net present valueestimated at $4.4M.

Advanced Energetics Complex ($2M): FY17 construction of a one story ground level addition to building 558 at Indian Head, MD. The addition will be approximately 5280 SF and will consolidate lab test space for combustion research blending and scale-up, propellant development and production support, hazards characterization, and motor dissection.

Craft Integration Production Facility ($2M): FY16 construction of a facility for technology development, hardware and software integration, production, acceptance testing, staging, deliver, fleet support and repair of Expeditionary Systems projects. Net present value estimated at $9.8M and payback in 3 years.

Pyrotechnic Chemistry Laboratory Facility Upgrade: ($1.5M): FY17 project modernizes an existing building to relocate the existing explosive laboratory and provides additional capabilities to conduct testing and evaluation of explosive materials. Net present value estimated at <$200K.

Electromagnetic Manueuver Warfare Facility ($3.9M): FY17 project to construct approximately 10,000 SF controlled access facility to accommodate approximately 60 personnel to support Real Time Spectrum Operations (RTSO) program and other EMW work. RTSO has been approved to become a Program of Record (POR) and selected by the CNO to receive funding as a Speed-to-Fleet (S2F) initiative, a program which rapidly transitions prototype technology to the fleet. Net present value estimated at $4.4M.

Aegis Computer Infrastructure Lab ($4M): FY17 construction project to modernize and expand existing lab space to provide secure lab space for operations and analysis of onboard computer systems. Net present value estimated at $38M.

Replacement: Investments in Minor Construction enhance the Naval Warfare Center Mission by developing buildings, structures or other real property. Minor Construction projects will replace obsolete facilities, consolidate operations for productivity increases, provide state of the art processing areas for new R&D missions, and correct environmental deficiencies. Minor construction projects include all costs to deliver a complete and usable project. Minor Construction projects meet the DOD capitalization criteria, however, 8 MCON projects do exceed the threshold specified by 10 USC 2805. The below MCON projects utilize Sec. 2804 of the FY08 National Defense Authorization Act (NDAA) authority for the Lab Revitalization Demonstration Program (LDRP) and authority to correct Life, Safety & Health issues. Minor Construction is used at the Naval Warfare Centers to: - modify existing spaces and construct new facilities to provide suitable space to design and test new equipment for the surface warfare community. - improve security measures and provide increase security for new initiatives - reduce operating expenses by building or improving government owned facilities so that leased space, high maintenance space, or portable space may be vacated. - reduce energy consumption by installing energy efficient building systems - modify existing systems to bring facilities up to current building, safety, or environmental codes.
Economic Analysis: An economic analysis was performed on all individual projects greater than the DOD capitalization threshold.

UNDEX Test Pond Structural Upgrade ($2M): FY15 construction project will address the Underwater Explosion (UNDEX) Pond Structure upgrades to include: new reinforced concrete/shotcrete surface; caisson view wall coated with blast resistant coating, removal of bottom boulders and resurfaced bottom. Design will be accomplished in FY14. Estimated payback is 10 years.

IRCM Advanced Threat Analysis Science &Technology Lab ($1.9M): FY15 construction project will renovate 5,400 SF of unusable lab space to create an IRCM Advanced Threats Analysis S&T lab. Advanced S&T lab activities include analysis of alternatives with effects-based modeling, hardware-in-the-loop and engagement modeling, campaign levelmodeling, and physics based modeling. The end-state is to leverage the existing DoD Secure Defense Research and Engineering Network (SDREN) using a web-centric approach merging Live, Virtual, and Constructive (LVC) simulation capability and environments to defeat advanced technology threats. The renovation will include upgrading HVAC and electrical distribution; reconfiguration of spaces; removal of existing elevator, reconstruct stairway, reconfigure restrooms, and installation of sprinkler system. NPV estimated at $1.9M.

Multi-Sensor Test Pond Capability Upgrade ($2.2M): FY15 construction project to replace existing test pond filter system that is undersized for many current operations and emerging requirements. This project replaces the filter system and pond liner, thereby improving water clarity by increasing the filtration capacity. Estimated payback is less than 8 years.

RDT&E Network Efficiency & Safety Re-alignment ($1.8M): FY16 construction project relocates the RDT&E network into Joint Warfare Assessment Laboratory (JWAL) room 1109, consolidating 19 server racks currently located in room 1201 and one crypto rack in room 1202. The current equipment rack configuration requires environmental control of the existing 3,000 ft2 laboratory spaces and separate emergency shut off valves. The environmentally controlled space reductions and proposed RDT&E network re-alignment reduces total ownership costs, improves data security/integrity, consolidates personnel, and improves 24/7 secure data availability for warfighter testing and training. RDT&E networks provide data for collaborative Test and Evaluation (T&E) and Fleet exercise assessment during Combat System Ship Qualification Trials (CSSQTs), major Strike Group exercises, advanced Missile Defense Agency (MDA) Sea-Based Midcourse Defense (SMD) test programs, and other T&E programs. Estimated payback is < 5 years.

Bldg 38 Advanced System Integration Facility ($1.9M): FY16 construction project for additional laboratory space for accomodate the growing workload in Advanced System Integration . Renovate approximately 5,000 SF of the first floor north high bay to meet current laboratory standards, including upgrading HVAC and electrical distribution and reconfiguring the existing spaces. Installation of a sprinkler system and communication systems are also included. Net present value estimated at $9.3M and estimated payback is < 4 years.

Light Test Tunnel Modernization ($2.8M): FY16 construction project relocates the existing light test tunnel capability from Building 2869 to Building 365. The test tunnel itself along with the load room will be established inside Bay 1. The control room and optics/spec lab area will be placed in the Building 365 Annex. Bay 2 will house some support equipment. This move will also include procuring and installing a new baghouse system which will account for ~$1M of the budget. This project will not utilize all of Bldg 365; the building will have additional space to be utilized by another independent group if needed. Net present value estimated at $-833K and estimated paybck < 20 years.

Operating Materials and Supplies Storage Facility ($2M): FY15 construction project to build a 13,500 square foot warehouse to store project materials and supplies. Available offsite leased space does not support technical storage requirements due to distance from project integration areas. Additional costs would be incurred for transport and maintenance of inventoried items. Proposed new warehouse space supports local NSWC Corona technical projects not performed at other activities. Corona is at risk of non-compliance with the current Navy ERP OM&S requirement for proper accountability andphysical control of project materiel. Estimated payback is 6.9 years.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$9.810**	**$8.663**	**-$1.147**	
			Material Handling	$0.415	$0.120	-$0.295	CIP Reprogram
			Quality Control/Testing	$8.336	$7.067	-$1.269	CIP Reprogram
			Machinery	$1.059	$1.476	$0.417	CIP Reprogram
	2	**ADP**		**$5.934**	**$5.651**	**-$0.283**	
			Computer Hardware (Production)	$3.165	$3.161	-$0.004	Pricing
			Computer Hardware (Network)	$2.769	$2.490	-$0.279	CIP Reprogram
	3	**Software**		**$0.320**	**$0.317**	**-$0.003**	
			Internally Developed	$0.320	$0.317	-$0.003	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$26.360**	**$14.646**	**-$11.714**	
			Replacement	$12.664	$5.201	-$7.463	CIP Reprogrammed to FY 2013 CIP authority
			New Construction	$11.579	$9.445	-$2.134	CIP Reprogram
			Productivity	$2.117	$0.000	-$2.117	CIP Reprogrammed to FY 2013 CIP authority
TOTAL FY 2015 CIP Program				**$42.424**	**$29.277**	**-$13.147**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$10.384**	**$14.064**	**$3.680**	
			Material Handling	$1.931	$2.986	$1.055	Program Restructure
			Quality Control/Testing	$4.030	$6.087	$2.057	Program Restructure
			Machinery	$0.956	$0.456	-$0.500	Program Restructure
			Support Equipment	$3.467	$4.535	$1.068	Program Restructure
	2	**ADP**		**$9.679**	**$10.502**	**$0.823**	
			Computer Hardware (Production)	$2.385	$3.430	$1.045	Program Restructure
			Computer Hardware (Network)	$7.294	$6.077	-$1.217	Program Restructure
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.995	$0.995	Program Restructure
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$0.000**	**$0.500**	**$0.500**	
			Internally Developed	$0.000	$0.500	$0.500	Program Restructure
	4	**Minor Construction**		**$18.208**	**$23.648**	**$5.440**	
			Replacement	$7.233	$10.534	$3.301	Program Restructure - FY15 Authority moved
			New Construction	$10.975	$13.114	$2.139	Program Restructure - FY15 Authority moved
TOTAL FY 2016 CIP Program				**$38.271**	**$48.714**	**$10.443**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$9.364**	**$9.364**	**$0.000**	
			Quality Control/Testing	$4.396	$4.396		
			Machinery	$1.364	$1.364		
			Support Equipment	$3.604	$3.604		
	2	**ADP**		**$9.793**	**$9.793**	**$0.000**	
			Computer Hardware (Production)	$3.116	$3.116		
			Computer Hardware (Network)	$5.577	$5.577		
			Computer Software (Operating)	$1.100	$1.100		
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000		
			Externally Developed	$0.000	$0.000		
	4	**Minor Construction**		**$21.933**	**$21.933**	**$0.000**	
			Replacement	$3.950	$3.950		
			New Construction	$17.983	$17.983		
TOTAL FY 2017 CIP Program				**$41.090**	**$41.090**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL SURFACE WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	1,903.6	1,924.3	1,976.2
2. Revenue	3,688.9	4,153.2	4,236.8
3. New Orders	3,709.6	4,205.1	4,234.5
4. Exclusions:			
Foreign Military Sales	148.0	147.0	149.4
Base Realignment and Closure	0.0	-0.1	0.0
Other Federal Department and Agencies	49.0	74.6	75.5
Non-Federal and Others	18.0	18.9	19.4
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	3,494.6	3,964.7	3,990.3
6. Weighted Average Outlay Rate	45.4%	45.7%	45.6%
7. Carryover Rate	54.6%	54.3%	54.4%
8. Allowable Carryover	2,312.9	2,539.9	2,640.8
Allowable Carryover(First Year)	1,908.9	2,152.8	2,169.5
Allowable Carryover (Second Year Procurement-funded Orders)	404.0	387.1	471.3
Part II			
9. Balance of Customer Order at Year End	1,924.3	1,976.2	1,974.0
10. Work-in-progress	0.0	0.0	0.0
11. Exclusions:			
Foreign Military Sales	248.7	216.4	200.7
Base Realignment and Closure	0.3	0.2	0.2
Other Federal Department and Agencies	62.4	66.0	68.4
Non-Federal and Others	25.6	23.3	22.3
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	1,587.3	1,670.3	1,682.5

Some totals may not add due to rounding.

TAB #5 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:
The mission of the Naval Undersea Warfare Center (NUWC) is to operate the Navy's full spectrum research, development, test and evaluation, engineering and fleet support center for submarines, autonomous underwater systems and offensive and defensive weapon systems associated with Undersea Warfare.

Activity Group Composition:
The Naval Undersea Warfare Center was established in January 1992, and is composed of two divisions, located in Newport, RI and Keyport, WA, and several detachments. The NUWC Headquarters organization is located at Newport RI.

NEWPORT DIVISION: The mission of this division is to provide research, development, test and evaluation, engineering, analysis and assessment, and fleet support capabilities for submarines, autonomous underwater systems, and offensive and defensive undersea weapon systems, and stewards existing and emerging technologies in support of undersea warfare. Execute other responsibilities as assigned by the Commander, Naval Undersea Warfare Center. The primary operating site is in Newport, RI with smaller operations at West Palm Beach, FL, Andros Island Bahamas and Norfolk, VA.

KEYPORT DIVISION: The mission of this division is to provide test and evaluation; in-service engineering, maintenance, and repair; Fleet readiness, and industrial-base support for undersea warfare systems, countermeasures, and sonar systems. Execute other responsibilities as assigned by the Commander, Naval Undersea Warfare Center. The major operating site is at Keyport WA, with detachments in Hawthorne NV, San Diego CA, Pearl Harbor and Ford Island Hawaii, Nanoose British Columbia, and Naval Sea Logistics Center Mechanicsburg Pennsylvania**.**

Significant Changes Since the FY 2016 President's Budget: Accumulated Operating Results (AOR) for FY2016 is unchanged and the FY2017 rate growth meets the controlled amount.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Orders	$1,060.7	$1,126.3	$1,126.8
Revenue	$1,056.6	$1,122.1	$1,116.8
Expense	$1,048.8	$1,117.9	$1,121.7
Operating Results	$7.8	$4.3	($4.9)
Capital Surcharge	$0.0	($1.8)	$0.0
Net Operating Results (NOR)	$6.7	$2.4	($4.9)
Other Changes Affecting AOR	($2.2)	$0.0	$0.0
Accumulated Operating Results (AOR)	$2.5	$4.9	$0.0

Some totals may not add due to rounding.

Orders, Revenue and Expense: Estimates for FY 2016 through FY 2017 reflect anticipated customer workload that results in NUWC achieving a projected zero AOR in FY 2017. The $2.2 million adjustment to AOR in FY 2015 is to maintain operating cash associated with budgetary resources required for projected outlays.

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	1,084.0	1,121.9	1,116.8
Disbursements	1,061.4	1,119.9	1,120.1
Net Outlays	-22.7	-2.1	3.4

Some totals may not add due to rounding.

Budgeted collections and disbursements are based on revenue, costs and Capital Investment Program (CIP) outlay estimates.

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	6,311.1	6,172.3	6,011.4

Direct Labor Hours: Rates are based on DLHs required for stabilized workload. The workforce continues to be sized in accordance with funded workload. A slight increase in direct labor hours from the FY 2016 President's Budget is reflected for FY 2016. The NUWC is projecting a decrease in FY 2017.

Performance Indicators: The NUWCs outputs are scientific and engineering designs, developments, tests, evaluations, analyses and fleet support in NUWC's assigned mission areas. The measure for these outputs is the direct labor hour worked for a customer. Customers are charged a predetermined stabilized billing rate per direct

employee hour worked (revenue rate). The rate includes the salary and benefits costs of the performing employee (direct labor costs) and a share of the overhead costs of the NUWC, both general and administrative support and the unique production overhead costs of the performing employee's cost center. Non-labor, non-overhead costs, such as customer required material and equipment purchases, travel expenses, and contractual services, are charged to the customer on an actual cost reimbursable basis, and are excluded from the SSCs' stabilized pricing structure. The NUWC use total stabilized cost per direct labor hour as their performance criterion.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$638.5	$632.2	$571.9
Workload (DLHs) (000)	6,311	6,172	5,691
Unit cost (per DLH)	$101.16	$102.43	$100.49

Unit Cost - Unit cost represents the average cost of delivering goods and services to our customers. It is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$99.35	$99.69	$99.63
Change from Prior Year		0.35%	-0.06%
Composite Rate Change		1.21%	0.91%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs. The composite rate change in FY 2017 reflects adjustments to direct workload and pricing changes.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	4,966	4,541	4,541
Civilian Workyears (straight time)	4,665	4,593	4,510
Military End Strength	37	35	35
Military Workyears	26	32	32

Civilian Personnel: The NUWC's civilian personnel are aligned with customer demand, and are relatively stable from FY 2016 to FY 2017.

Military Personnel: Military end strength remain relatively stable over FY 2015 to FY 2017.

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$4.2	$4.6	$7.1
Equipment, ADPE / Telecom	$5.9	$5.7	$3.4
Software Development	$1.4	$3.0	$1.2
Minor Construction	$2.0	$3.2	$3.1
Total	$13.6	$16.6	$14.7

Some totals may not add due to rounding.

The Capital Investment Program allows the NWCF to achieve its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. Minor construction includes projects meeting the criteria of the Defense Laboratory Revitalization Program. The projects will replace aging temporary buildings and upgrade and expand lab capability to accommodate workload growth and increase efficiency.

NARRATIVE
DEPARTMENT OF THE NAVY
NAVY WORKING CAPITAL FUND - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Carryover Compliance: (Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$581.6	$585.7	$589.9
Allowable Carryover	$637.3	$659.3	$686.8
Calculated Actual Carryover	$392.7	$405.7	$422.6
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($244.6)	($253.6)	($264.2)

Some totals may not add due to rounding.

Carryover for each budgeted year is within the allowable carryover limit.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	1,045.0	1,106.3	1,102.0
Capital Surcharges	0.0	1.8	0.0
Depreciation	11.6	14.0	14.8
Other Income			
Total Income	1,056.6	1,122.1	1,116.8
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	3.3	2.9	3.1
Civilian Personnel Compensation & Benefits	619.3	628.9	622.9
Travel and Transportation of Personnel	27.9	29.0	29.4
Material & Supplies (Internal Operations)	51.9	49.8	49.4
Equipment	2.8	3.9	3.9
Other Purchases from NWCF	75.5	64.9	66.3
Transportation of Things	4.0	2.0	2.0
Depreciation - Capital	11.6	14.0	14.8
Printing and Reproduction	1.1	1.1	1.1
Advisory and Assistance Services	0.0	0.0	0.0
Rent, Communication, Utilities & Misc Charges	21.2	20.5	20.3
Other Purchased Services	230.4	301.0	308.5
Total Expenses	1,049.2	1,117.9	1,121.7
Work in Process Adjustment	0.0	0.0	0.0
Comp Work for Activity Retention Adjustment	-0.4	0.0	0.0
Cost of Goods Sold	1,048.8	1,117.9	1,121.7
Operating Result	7.8	4.3	-4.9
Adjustments Affecting NOR	-1.0	-1.8	0.0
Capital Surcharges	0.0	-1.8	0.0
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	-1.0	0.0	0.0
Net Operating Result	7.8	2.4	-4.9
PY AOR	-2.1	2.5	4.9
TOTAL AOR	4.7	4.9	0.0
Non-Recoverable Adjustments impacting AOR	-2.2	0.0	0.0
AOR for budget purposes	2.5	4.9	0.0

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	1,060.7	1,126.3	1,126.8
a. Orders from DoD Components:	900.6	954.8	957.1
Department of the Navy	845.3	923.1	925.5
O & M, Navy	265.5	284.0	281.1
O & M, Marine Corps	2.0	1.5	1.5
O & M, Navy Reserve	0.7	1.0	1.0
O & M, Marine Corp Reserve	0.0	0.0	0.0
Aircraft Procurement, Navy	5.3	12.3	13.3
Weapons Procurement, Navy	73.2	76.8	78.9
Ammunition Procurement, Navy/MC	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	90.8	114.8	116.9
Other Procurement, Navy	124.7	146.8	146.3
Procurement, Marine Corps	0.4	1.4	1.4
Family Housing, Navy/MC	0.0	0.0	0.0
Research, Dev., Test, & Eval., Navy	281.6	284.0	284.7
Military Construction, Navy	0.0	0.0	0.0
National Defense Sealift Fund	0.9	0.5	0.5
Other Navy Appropriations	0.0	0.0	0.0
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	4.5	3.6	3.6
Army Operation & Maintenance	0.9	0.9	0.9
Army Res, Dev, Test, Eval	1.2	0.8	0.8
Army Procurement	2.0	1.9	1.9
Army Other	0.3	0.0	0.0
Department of the Air Force	3.4	2.7	2.7
Air Force Operation & Maintenance	0.2	1.4	1.4
Air Force Res, Dev, Test, Eval	1.2	0.8	0.8
Air Force Procurement	0.0	0.5	0.5
Air Force Other	2.0	0.0	0.0
DOD Appropriation Accounts	47.4	25.4	25.4
Base Closure & Realignment	0.0	0.0	0.0
Operation & Maintenance Accounts	4.5	3.1	3.1
Res, Dev, Test & Eval Accounts	41.7	20.7	20.7
Procurement Accounts	1.0	1.3	1.3
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	0.3	0.2	0.2
b. Orders from other Fund Activity Groups	64.3	79.8	77.8
c. Total DoD	964.9	1,034.5	1,034.9
d. Other Orders:	95.8	91.8	91.9
Other Federal Agencies	5.6	5.3	5.3
Foreign Military Sales	55.5	70.7	70.8
Non Federal Agencies	34.6	15.8	15.9
2. Carry-In Orders	581.6	585.7	589.9
3. Total Gross Orders	1,642.3	1,712.0	1,716.7
a. Funded Carry-Over before Exclusions	585.7	589.9	599.9
4. Revenue(-)	1,056.6	1,122.1	1,116.8
5. End of Year Work-In-Process (-)	0.0	0.0	0.0
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	193.0	184.2	177.4
7. Funded Carryover	392.7	405.7	422.6

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**1,048.8**
FY 2016 President's Budget:	**1,121.8**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**2.4**
Pricing Adjustments:	**(0.1)**
Civilian Personnel	0.2
General Inflation	(0.4)
Program Changes:	**(10.3)**
Decreased Direct Non-Labor (reduced accruals, shift of reimbursable to direct cite funds, shift to in-house labor)	(19.9)
Increased Direct In-house Labor	9.6
Other Changes:	**4.2**
Increases in overhead costs associated with compliance and FIAR	4.2
FY 2016 Current Estimate:	**1,117.9**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**1,117.9**
Pricing Adjustments:	**15.1**
Annualization of Prior Year Pay Raises	**1.8**
Civilian Personnel	1.8
Military Personnel	0.0
FY 2017 Pay Raise	**8.2**
Civilian Personnel	8.1
Military Personnel	0.1
Fuel Price Changes	(1.3)
General Purchase Inflation	6.6
Other Price Changes	**(0.2)**
Working Capital Fund Price Changes	(0.2)
Program Changes:	**(10.9)**
Decreased In-house direct labor	(10.9)
Other Changes:	**(0.4)**
Depreciation	0.8
Sustainment Model Funded Percentage Decrease	(1.2)
FY 2017 Estimate:	**1,121.7**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**11**	**$4.157**	**9**	**$4.618**	**11**	**$7.051**
	- Vehicles	0	$0.000	0	$0.000	1	$0.700
	- Material Handling	0	$0.000	1	$0.500	1	$0.550
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	1	$0.384	3	$1.276	4	$2.511
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	5	$1.577	1	$0.935	0	$0.000
	- Support Equipment	5	$2.196	4	$1.907	5	$3.290
2	**ADPE and Telecom Equipment >= $.250M**	**11**	**$5.912**	**11**	**$5.735**	**8**	**$3.425**
	- Computer Hardware (Production)	2	$0.748	6	$2.390	5	$1.964
	- Computer Hardware (Network)	8	$4.893	4	$2.990	3	$1.461
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	1	$0.271	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	1	$0.355	0	$0.000
3	**Software Development >= $.250M**	**4**	**$1.444**	**3**	**$2.985**	**3**	**$1.165**
	- Internally Developed	3	$1.184	2	$2.595	3	$1.165
	- Externally Developed	1	$0.260	1	$0.390	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**4**	**$2.049**	**8**	**$3.245**	**7**	**$3.055**
	- Replacement Capability	0	$0.000	0	$0.000	2	$0.900
	- New Construction	4	$2.049	6	$2.100	5	$2.155
	- Environmental Capability	0	$0.000	2	$1.145	0	$0.000
	Grand Total	**30**	**$13.562**	**31**	**$16.583**	**29**	**$14.696**
	Total Capital Outlays		**$10.191**		**$13.609**		**$14.872**
	Total Depreciation Expense		**$11.643**		**$14.015**		**$14.768**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#001 - Non-ADP Equipment						Naval Undersea Warfare Center		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0		$0	0		$0	1	700	$700
Material Handling	0		$0	1	500	$500	1	550	$550
Installation Security	0		$0	0		$0	0		$0
Quality Control/ Testing	1	384	$384	3	425	$1,276	4	628	$2,511
Medical Equipment	0		$0	0		$0	0		$0
Machinery	5	315	$1,577	1	935	$935	0		$0
Support Equipment	5	439	$2,196	4	477	$1,907	5	658	$3,290
Total	11	378	$4,157	9	513	$4,618	11	641	$7,051

Justification:

These Non-ADP investments fund the acquisition of mission essential equipment that support research and development, test and evaluation of current and newly developed submarine and undersea systems. Investments include the replacement of equipment that is unsafe, beyond economical repair; technically obsolete; or otherwise unusable, as well as, support equipment for new capabilities. These investments support submarine and undersea warfare systems including advanced sonar and combat systems, autonomous vehicles, weapons system, sensors and payload integration, advanced launcher systems, communications/imaging systems, rangecraft, material depot, and range systems. Equipment procurements will support initiatives such as:

- Undersea warfare systems test and evaluation
- Undersea tracking range development and operation
- Environmental and marine mammal mitigation measures
- Undersea communication system development and testing
- Autonomous and advanced sensor systems
- USW sonar systems calibration and testing
- Rapid prototyping and fabrication of USW systems
- Torpedo and unmanned systems in-service engineering
- USW obsolescence engineering
- USW materials fabrication
- Material handling

The Naval Undersea Warfare Center is the Navy's source for undersea systems expertise and technology providing the Navy with innovative, effective and affordable systems and services. If this equipment is not acquired, the Warfare Center will be unable to support and test critical undersea warfare components and provide the Navy with affordable, innovative capabilities to meet future fleet needs. The Warfare Center can expect to incur loss of personnel productivity, decreased customer satisfaction, rapidly escalating maintenance costs, reduced services to the technical community, and technical obsolescence. Not being able to test and evaluate systems early in the development phase will increase the cost to the Navy by increasing development time and at-sea testing. Consequently, the Warfare Center will be unable to protect the fleet and make the necessary contributions to prepare for the future.

An economic analysis was performed on all projects equal to or greater than $1M. A cost comparison analysis was performed on all individual projects less than $1M. All non-ADPE projects have an estimated useful life of 10 years and a range of payback periods from 0.8 – 11.9 years.

Titanium Manufacturing System - FY17 $1.120K - This CIP will cement a enterprise level, production class Additive Manufacturing capability within NUWC. This will be achieved by purchasing a Direct Metal Laser Sintering (DMLS) as part of a coherent additive manufacturing capability at NUWC. This purchase would bring the tools and capabilities, as well as design practices standard within industry to NUWC in order to reduce costs, design time and improve product quality. The payback period of this investment is 2.5 years for FY17.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#002 - ADP Equipment						Naval Undersea Warfare Center		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	2	374	$748	6	398	$2,390	5	393	$1,964
Computer Hardware (Network)	8	612	$4,893	4	748	$2,990	3	487	$1,461
Computer Software (Operating System)	0		$0	0		$0	0		$0
Telecommunications	1	271	$271	0		$0	0		$0
Other Support Equipment	0		$0	1	355	$355	0		$0
Total	11	537	$5,912	11	521	$5,735	8	428	$3,425

Justification:

These investments will support the acquisition of automated data processing and telecommunications equipment for the undersea research and development community. Funds will provide networks/connectivity between shore-based Undersea Warfare systems and procurement of hardware for mission essential research, development, test and evaluation and high speed computing needs. Investments will include submarine networks (simulated integrated combat systems), integrated networked simulation visualization systems and information assurance and security upgrades.
In order to provide the necessary scientific computer resources at the Naval Undersea Warfare Center, adequate resources must be acquired to meet the research, development, test and evaluation needs. These computational engines, visualization engines and repositories of DoD high performance computer systems are required for engineers and scientists to develop innovative undersea warfare solutions. Replacement of obsolete computer equipment will provide the Warfare Center with more reliable and more cost effective resources which will ensure that the technical areas have the capabilities they need to meet requirements. Increased reliability will reduce maintenance costs, increase overall efficiency, and enhance compatibility throughout the Warfare Center. Investment in equipment will also provide enhanced test and evaluation capabilities which will help the Warfare Center implement technologies and reach back capability that enables forward deployed technical resources to be more efficient and effective.
ADP Equipment supporting the research and development community must remain on the cutting edge of technology to conduct complex simulations, perform predictive analysis, and analyze undersea system performance. The capability to conduct cutting edge scientific computing within the R&D community is in jeopardy if investments are not made. Current equipment supporting mission essential systems will no longer be supported by the manufacturer. Investment in network infrastructure to support RDT&E laboratories at the Warfare Center is required in order to support Fleet customers. Without a network infrastructure in place, the RDT&E laboratories will not be able to function, support their customers or allow the Warfare Center to pursue its mission. If these investments are not made the Navy will be limited in their capability for the shore-based development, integration and testing of new submarine sonar, combat and weapon systems.

An economic analysis was performed on all projects equal to or greater than $1M. A cost comparison analysis was performed on all individual projects less than $1M. ADPE Projects have an average useful life of 5 years according to guidance provided in the OMB A-94 circular. These projects have a range of payback periods from 0.8 - 9.6 years.

Bldg. Access Cardreader System Replacement (FY15 - $1M) Keyport - Computer Hardware Network
Replacement of existing Access Control/Intrusion Detection System (ACS/IDS) with one that used Common Access Card (CAC) as the access control card. Upgrade will ensure compliance with HSPD-12 (Homeland Security Presidential Directive) and FIPS-201 (Federal Information Process Standard). Impact if not funded will include loss of Authority to Operate with existing ACS/IDS, which would result in increased cost due to the required 24/7 monitoring of all secured spaces. The payback period of this investment is 4.9 years for FY15.

Bldg. Access Control (FY15 - $1M) Newport - Computer Hardware Network
Upgrade will ensure compliance with HSPD-12 (Homeland Security Presidential Directive) and FIPS-201 (Federal Information Process Standard). Impact if not funded will include loss of Authority to Operate with existing ACS/IDS, which would result in increased cost due to the required 24/7 monitoring of all secured spaces. The payback period of this investment is 6.8 years for FY15

Classified Fiber Encryption - (FY16 - $1.938K) Newport - Computer Hardware Network - Procure and install NSA Type 1 encryptors into the Naval Undersea Warfare Center Division Newport Classified Fiber. The NUWCDIVNPT classified fiber infrastructure must be become compliant with IA Pub 5239-22. The payback period of this investment is 9.6 years for FY16.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#003 - Software Development						Naval Undersea Warfare Center		
	FY 2015			FY 2016			FY 2017		
Software	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Internally Developed	3	395	$1,184	2	1,298	$2,595	3	388	$1,165
Externally Developed	1	260	$260	1	390	$390	0		$0
Total	4	361	$1,444	3	995	$2,985	3	388	$1,165

Justification:

These investments will support the acquisition or development of software for the more effective and efficient operation of navy owned towed array calibration facilities, improve simulated submarine networks and more closely integrate submarine systems including sonar, combat control and communication systems. These investments will also improve the Navy's capabilities in obsolescence management, and in USW modeling and simulation, and in support of business functions.

These investments will directly support the transformation of the Warfare Centers to become a more agile support organization. These investments will improve the Navy's modeling and simulation capabilities and test and evaluation capabilities for submarine networks and systems. These modeling and simulation capabilities also enable the Warfare Centers to be more proactive in developing life-cycle solutions by providing the capability to model end-to-end mission/platform level naval engagements.
Without these investments, the warfare center will be unable to continue development, test and integration of submarine systems in a common, integrated fashion. Undersea warfare models need to be reviewed in light of modern computing architectures and futuristic ASW concepts such as distributed netted systems (DNS) and improved, redesigned, or replaced as appropriate so that NUWC's mission-level USW modeling and analysis capability can be sustained for the next generation of analysis problems. Without these investments, the undersea simulation environment will not be fully equipped for high-level architecture (HLA) operation to support high-fidelity Hardware in the Loop (HWIL) Synthetic Ocean for joint warfighting training operations. Furthermore, the simulation environment will not have the flexibility to tailor training scenarios to any realistic scenario future operational commanders need to intensively prepare for and strategic/tactical analysis. Without investments, programs will continue to invest in unique software solutions leading to higher costs and time to develop and integrate submarine systems into the Fleet.

An economic analysis was performed on the project equal to or greater than $1M. A cost comparison analysis was performed on all individual projects less than $1M. The useful life for these projects is 5 years and a range of payback periods from .5 - 4.3 years.

eCraft Enterprise Solution - (FY16 - $2,200) Software Development Internal
Project will upgrade and enhance DIVNPT's eCraft system and develop a common post award contract management tool (with required interfaces to authoritative data sources) to deploy across NAVSEA WCs. The objective is for eCraft to serve as the single, end to end corporate commercial acquisition management solution for NAVSEA WC's. The payback period of this investment is .5 years for FY16.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#004 - Minor Construction ($250K - $750K)						Naval Undersea Warfare Center		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0		$0	0		$0	2	450	$900
New Construction	4	512	$2,049	6	350	$2,100	5	431	$2,155
Environmental Capability	0		$0	2	573	$1,145	0		$0
Total	4	512	$2,049	8	406	$3,245	7	436	$3,055

Justification:

Investments in Minor Construction enhance the Naval Warfare Center Mission by developing buildings, structures or other real property. Minor Construction projects will replace obsolete facilities, consolidate operations for productivity increases, provide state of the art processing areas for new R&D missions, and correct environmental deficiencies. Minor construction projects include all costs to deliver a complete and usable project. Minor Construction projects meet the DOD capitalization criteria, however, 3 MCON projects do exceed the threshold specified by 10 USC 2805. The below MCON projects utilize Sec. 2804 of the FY08 National Defense Authoriztion Act (NDAA) authority for the Lab Revitaliztion Demonstration Program (LDRP) and authority to correct Life, Safety & Health issues.

Minor Construction is used at the Naval Warfare Centers to:

- modify existing spaces and construct new facilities to provide suitable space to design and test new equipment for the surface warfare community.
- improve security measures and provide increase security for new initiatives
- reduce operating expenses by building or improving government owned facilities so that leased space, high maintenance space, or portable space may be vacated.
- reduce energy consumption by installing energy efficient building systems
- modify existing systems to bring facilities up to current building, safety, or environmental codes.

Economic Information:

An economic analysis was performed on the project equal to or greater than $1M. A cost comparison analysis was performed on all individual projects less than $1M. Projects have an average useful life of 20 years according to guidance provided in the OMB A-94 circular. These projects have a range of payback periods from 1.3 - 15.5 years.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$5.304**	**$4.157**	**-$1.147**	
			Quality Control/Testing	$0.585	$0.384	-$0.201	Reprogramming / Actuals
			Machinery	$1.580	$1.577	-$0.003	Reprogramming / Actuals
			Support Equipment	$3.139	$2.196	-$0.943	Reprogramming / Actuals
	2	**ADP**		**$4.556**	**$5.912**	**$1.356**	
			Computer Hardware (Production)	$0.900	$0.748	-$0.152	Reprogramming / Actuals
			Computer Hardware (Network)	$3.656	$4.893	$1.237	Reprogramming / Actuals
			Telecommunications	$0.000	$0.271	$0.271	Reprogramming / Actuals
	3	**Software**		**$1.745**	**$1.444**	**-$0.301**	
			Internally Developed	$1.185	$1.184	-$0.001	Reprogramming / Actuals
			Externally Developed	$0.560	$0.260	-$0.300	Reprogramming / Actuals
	4	**Minor Construction**		**$2.695**	**$2.049**	**-$0.646**	
			Replacement	$0.375	$0.000	-$0.375	Reprogramming / Actuals
			New Construction	$2.320	$2.049	-$0.271	Reprogramming / Actuals
TOTAL FY 2015 CIP Program				**$14.300**	**$13.562**	**-$0.738**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$5.731**	**$4.618**	**-$1.113**	
			Material Handling	$0.550	$0.500	-$0.050	Reprogramming
			Quality Control/Testing	$2.891	$1.276	-$1.615	Reprogramming
			Machinery	$0.600	$0.935	$0.335	Reprogramming
			Support Equipment	$1.690	$1.907	$0.217	Reprogramming
	2	**ADP**		**$3.629**	**$5.735**	**$2.106**	
			Computer Hardware (Production)	$1.264	$2.390	$1.126	Reprogramming
			Computer Hardware (Network)	$1.990	$2.990	$1.000	Reprogramming
			Other Support Equipment	$0.375	$0.355	-$0.020	Reprogramming
	3	**Software**		**$2.940**	**$2.985**	**$0.045**	
			Internally Developed	$2.640	$2.595	-$0.045	Reprogramming
			Externally Developed	$0.300	$0.390	$0.090	Reprogramming
	4	**Minor Construction**		**$3.558**	**$3.245**	**-$0.313**	
			New Construction	$3.158	$2.100	-$1.058	Reprogramming
			Environmental Capability	$0.400	$1.145	$0.745	Reprogramming
TOTAL FY 2016 CIP Program				**$15.858**	**$16.583**	**$0.725**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$7.051**	**$7.051**	**$0.000**	
			Vehicles	$0.700	$0.700		
			Material Handling	$0.550	$0.550		
			Quality Control/Testing	$2.511	$2.511		
			Support Equipment	$3.290	$3.290		
	2	**ADP**		**$3.425**	**$3.425**	**$0.000**	
			Computer Hardware (Production)	$1.964	$1.964		
			Computer Hardware (Network)	$1.461	$1.461		
	3	**Software**		**$1.165**	**$1.165**	**$0.000**	
			Internally Developed	$1.165	$1.165		
	4	**Minor Construction**		**$3.055**	**$3.055**	**$0.000**	
			Replacement	$0.900	$0.900		
			New Construction	$2.155	$2.155		
TOTAL FY 2017 CIP Program				**$14.696**	**$14.696**	**$0.000**	

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CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL UNDERSEA WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	581.6	585.7	589.9
2. Revenue	1,056.6	1,122.1	1,116.8
3. New Orders	1,060.7	1,126.3	1,126.8
4. Exclusions:			
Foreign Military Sales	55.5	70.7	70.8
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	5.6	5.3	5.3
Non-Federal and Others	34.6	15.8	15.9
Institutional Major Range & Test Facility Base	63.8	70.7	67.2
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	901.1	963.8	967.7
6. Weighted Average Outlay Rate	43.7%	44.3%	44.1%
7. Carryover Rate	56.3%	55.7%	55.9%
8. Allowable Carryover	637.3	659.3	686.8
Allowable Carryover(First Year)	507.5	537.2	541.4
Allowable Carryover (Second Year Procurement-funded Orders)	129.8	122.1	145.4
Part II			
9. Balance of Customer Order at Year End	585.7	589.9	599.9
10. Work-in-progress	0.0	0.0	0.0
11. Exclusions:			
Foreign Military Sales	136.5	129.7	124.2
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	1.8	2.0	1.6
Non-Federal and Others	33.2	31.6	26.7
Institutional Major Range & Test Facility Base	21.5	20.9	24.8
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	392.7	405.7	422.6

Some totals may not add due to rounding.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Space and Naval Warfare Systems Centers (SSCs) bring knowledge superiority to the warfighter. Their mission is to provide Naval, Joint, and National knowledge superiority through quality Research, Development, Test, and Evaluation (RDT&E) and acquisition; to rapidly deploy and provide full cycle support for sustainable, survivable, and interoperable Command, Control, Communication, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR), Information Operations (IO), Enterprise Information Services (EIS) and space capabilities. The Space and Naval Warfare Systems Command (SPAWAR) is the Navy's information dominance systems command, and the SSCs are SPAWAR's principal technical agent. Information dominance is the ability to seize and control the information domain "high ground" when, where, and however required for decisive competitive advantage across the range of Navy missions.

The SSCs are the C4ISR providers of choice for hundreds of customers throughout Navy and Department of Defense (DoD), and play an important role in the support of related technologies for Homeland Security, the Federal Bureau of Investigation, Department of State, and other federal agencies. As such, the SSCs must maintain innovative scientific and technical expertise, facilities, and the understanding of defense requirements to ensure that the Navy can develop, acquire, and maintain the systems needed to meet customer requirements at an acceptable price. The SSCs provide cradle-to-grave products and services including:

- Warfare systems analysis
- Plan and conduct effective technology programs
- Cost conscious systems engineering and technical support to program managers in all phases of systems development and acquisition
- Test and evaluation support including RDT&E and measurement facilities
- Technical input to the development of operational tactics
- Electronics material support (technical and management) for systems and equipment
- Specialized technical support to the Fleet for quick-reaction requirements

Activity Group Composition:

The SSCs are under the management of the SPAWAR. This organizational structure facilitates the entire cycle of systems engineering from research and development through waterfront support. SSC Pacific has its headquarters in San Diego, CA, with offices in Philadelphia, PA; Pearl Harbor, HI; Guam; and Japan. SSC Atlantic has its headquarters in Charleston, SC, with offices in Norfolk, VA; and Washington, DC.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Significant Changes Since the FY 2016 President's Budget: There are no significant changes in the activity group or composition since the FY 2016 President's Budget.

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	FY 2015	FY 2016	FY 2017
Orders	$2,194.0	$2,372.0	$2,283.7
Revenue	$2,224.2	$2,381.3	$2,363.4
Expense	$2,217.6	$2,371.8	$2,394.4
Operating Results	$6.6	$9.6	($31.0)
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	$6.6	$9.6	($31.0)
Prior Year AOR	$20.5	$21.4	$31.0
Other Changes Affecting AOR	($5.6)	$0.0	$0.0
Accumulated Operating Results (AOR)	$21.4	$31.0	$0.0

Some totals may not add due to rounding.

Orders, Revenue and Expense: Changes in orders from FY 2015 to FY 2017 are based on updated new orders estimates as coordinated with customers. Contributing to the change in revenue and expense from FY 2015 to FY 2017 are changes in civilian labor estimates required to support anticipated customer workload. Other changes to revenue and expense are a result of inflation/pricing changes, the impact of one additional work day in FY 2016, the increase of the Federal Employees Retirement System (FERS) employer contribution, Cybersecurity Workforce Certification, and an increase to facilities restoration and modernization requirements. The $5.6 million adjustment to AOR in FY 2015 is to maintain operating cash associated with budgetary resources required for projected outlays.

Collections/Disbursements/Outlays ($Millions):	FY 2015	FY 2016	FY 2017
Collections	$2,214.0	$2,281.5	$2,283.8
Disbursements	$2,206.5	$2,311.5	$2,323.0
Net Outlays	($7.5)	$30.0	$39.1

Some totals may not add due to rounding.

Current net outlay projections reflect changes in workload and updated operating estimates.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	10,036	10,290	10,153

Direct Labor Hours: Rates are based on DLHs required for stabilized workload. The changes in direct labor hours estimates relate to supporting customer workload for efforts like Cyber, U.S. Strategic Command C2, and the Lightweight Survivable System.

Performance Indicators: The Centers' outputs are scientific and engineering designs, developments, tests, evaluations, analyses, installations, and fleet support for systems in the SSCs' mission areas. The measure for these outputs is the direct labor hour worked for a customer. Customers are charged a predetermined stabilized billing rate per direct employee hour worked. The revenue rate includes the salary and benefits costs of the performing employee (direct labor costs) and a share of the overhead costs of the SSCs, both general and administrative support and the unique production overhead costs of the performing employee's cost center. Non-labor, non-overhead costs, such as customer required material and equipment purchases, travel expenses, and contractual services, are charged to the customer on an actual cost reimbursable basis, and are excluded from the SSCs' stabilized pricing structure. The SSCs use total stabilized cost per direct labor hour as their performance criterion.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$1,092.46	$1,129.05	$1,131.72
Workload (DLHs) (000)	10,036	10,290	10,153
Unit cost (per DLH)	$108.86	$109.73	$111.46

Unit Costs: Unit Cost is an expense rate method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$107.12	$108.29	$108.42
Change from Prior Year		1.09%	0.12%
Composite Rate Change		1.62%	1.04%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs. The composite rate change in FY 2017 reflects adjustments to direct workload and pricing changes.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	8,271	8,157	8,082
Civilian Workyears (straight time)	7,960	8,044	7,970
Military End Strength	80	82	80
Military Workyears	89	82	80

Civilian Personnel: The SSCs continue their efforts to revitalize the workforce, balance the skills mix, and shape force capabilities to address current and future threats.

Military Personnel: Military workforce levels are projected to remain stable.

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$0.0	$0.0	$0.6
Equipment, ADPE / Telecom	$1.0	$1.5	$0.6
Software Development	$0.0	$0.0	$0.0
Minor Construction	$6.8	$10.0	$6.8
Total	$7.9	$11.4	$8.0

Some totals may not add due to rounding.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

The Capital Investment Program allows the NWCF to achieve its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. Minor construction includes projects meeting the criteria of the Defense Laboratory Revitalization Program. The projects will replace aging temporary buildings and upgrade and expand lab capability to accommodate workload growth and increase efficiency.

Carryover Compliance: (Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$1,151.4	$1,121.3	$1,112.0
Allowable Carryover	$1,459.4	$1,406.9	$1,384.0
Calculated Actual Carryover	$867.3	$867.0	$824.0
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($592.1)	($539.9)	($560.0)

Some totals may not add due to rounding.

Budgeted carryover is within the allowable ceiling target amount.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	2,218.2	2,372.8	2,355.4
Capital Surcharges	0.0	0.0	0.0
Depreciation	6.0	8.5	8.0
Other Income			
Total Income	2,224.2	2,381.3	2,363.4
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	7.9	7.7	7.9
Civilian Personnel Compensation & Benefits	1,085.4	1,109.4	1,112.0
Travel and Transportation of Personnel	41.4	43.3	44.4
Material & Supplies (Internal Operations)	167.1	199.3	204.8
Equipment	52.6	67.7	69.1
Other Purchases from NWCF	27.6	25.4	25.9
Transportation of Things	8.3	4.3	4.4
Depreciation - Capital	6.0	8.5	8.0
Printing and Reproduction	0.2	0.2	0.2
Advisory and Assistance Services	0.0	0.0	0.0
Rent, Communication, Utilities & Misc Charges	45.7	28.2	28.3
Other Purchased Services	775.5	877.7	889.6
Total Expenses	2,217.6	2,371.8	2,394.4
Work in Process Adjustment	0.0	0.0	0.0
Comp Work for Activity Retention Adjustment	0.0	0.0	0.0
Cost of Goods Sold	2,217.6	2,371.8	2,394.4
Operating Result	6.6	9.6	-31.0
Adjustments Affecting NOR	0.0	0.0	0.0
Capital Surcharges	0.0	0.0	0.0
Extraordinary Expenses Unmatched	0.0	0.0	0.0
Other Changes Affecting NOR (All Others)	0.0	0.0	0.0
Net Operating Result	6.6	9.6	-31.0
PY AOR	20.5	21.4	31.0
TOTAL AOR	27.0	31.0	0.0
Non-Recoverable Adjustments impacting AOR	-5.6	0.0	0.0
AOR for budget purposes	21.4	31.0	0.0

*Reflects adjustments to AOR to maintain operating cash associated with budgetary resources required for projected outlays

Some totals may not add due to rounding

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	2,194.0	2,372.0	2,283.7
a. Orders from DoD Components:	1,877.3	2,006.6	1,988.2
Department of the Navy	1,466.0	1,555.3	1,522.7
O & M, Navy	476.9	505.9	509.6
O & M, Marine Corps	83.6	124.8	111.6
O & M, Navy Reserve	5.4	11.7	11.0
O & M, Marine Corp Reserve	0.3	0.5	0.5
Aircraft Procurement, Navy	9.8	10.8	10.9
Weapons Procurement, Navy	0.6	1.4	1.3
Ammunition Procurement, Navy/MC	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	58.4	72.0	68.4
Other Procurement, Navy	544.2	513.1	473.9
Procurement, Marine Corps	38.3	35.9	54.4
Family Housing, Navy/MC	0.6	0.7	0.8
Research, Dev., Test, & Eval., Navy	246.1	275.3	278.0
Military Construction, Navy	1.4	1.2	1.2
National Defense Sealift Fund	0.5	0.7	0.8
Other Navy Appropriations	0.0	1.3	0.6
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	63.0	64.4	60.3
Army Operation & Maintenance	24.1	24.0	24.8
Army Res, Dev, Test, Eval	15.0	17.7	16.7
Army Procurement	24.4	21.7	17.8
Army Other	0.4	1.0	1.0
Department of the Air Force	91.3	112.7	125.2
Air Force Operation & Maintenance	42.4	50.1	56.7
Air Force Res, Dev, Test, Eval	41.2	55.7	61.4
Air Force Procurement	7.8	6.8	7.0
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	257.0	274.2	280.0
Base Closure & Realignment	0.0	0.0	0.0
Operation & Maintenance Accounts	64.6	72.1	72.9
Res, Dev, Test & Eval Accounts	106.9	115.3	120.2
Procurement Accounts	15.0	20.4	20.5
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	70.6	66.4	66.4
b. Orders from other Fund Activity Groups	83.9	88.8	86.5
c. Total DoD	1,961.2	2,095.4	2,074.7
d. Other Orders:	232.8	276.6	208.9
Other Federal Agencies	174.8	198.0	148.8
Foreign Military Sales	43.9	43.2	31.9
Non Federal Agencies	14.2	35.4	28.2
2. Carry-In Orders	1,151.4	1,121.3	1,112.0
3. Total Gross Orders	3,345.5	3,493.3	3,395.6
a. Funded Carry-Over before Exclusions	1,121.3	1,112.0	1,032.2
4. Revenue(-)	2,224.2	2,381.3	2,363.4
5. End of Year Work-In-Process (-)	0.0	0.0	0.0
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	253.9	244.9	208.2
7. Funded Carryover	867.3	867.0	824.0

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**2,217.645**
FY 2016 President's Budget:	**2,510.896**
Estimated Impact in FY 2015 of Actual FY 2014 Experience:	**0.0**
Pricing Adjustments:	**-1.103**
Civilian Personnel	0.058
General Inflation	-1.161
Fuel Price	
Program Changes:	**-140.314**
Dept of State Support Services	-32.270
USMC Communications, Tactical and Enterprise Architecture Support Services	-37.665
Navy Tactical Command Support System (NTCSS)	-14.185
Medical Informatics	-13.739
National Science Foundation U. S. Antarctic Program Engineering and Operations Support	-12.647
Consolidated Afloat Networks and Enterprise Services (CANES)	-12.532
Unified Capabilities Voice Solutions	-8.979
Distributed Common Ground Systems-Navy (DCGS-N)	-8.297
Other Changes:	**2.276**
Depreciation	0.239
Facilities Sustainment, Restoration & Modernization	1.728
Other	0.309
FY 2016 Current Estimate:	**2,371.755**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**2,371.755**
Pricing Adjustments:	**35.459**
Annualization of Prior Year Pay Raises	**3.942**
Civilian Personnel	3.915
Military Personnel	0.027
FY 2017 Pay Raise	**13.022**
Civilian Personnel	12.932
Military Personnel	0.090
Fuel Price Changes	-0.099
General Purchase Inflation	19.717
Other Price Changes	**-1.123**
Working Capital Fund Price Changes	-1.123
Program Changes:	**-17.703**
CANES and Navy Multiband Terminal (NMT)	-17.703
Other Changes:	**4.887**
Depreciation	-0.526
Cybersecurity Workforce Training	5.582
Other	-0.169
FY 2017 Estimate:	**2,394.398**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**1**	**$0.600**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	0	$0.000	0	$0.000	0	$0.000
	- Support Equipment	0	$0.000	0	$0.000	1	$0.600
2	**ADPE and Telecom Equipment >= $.250M**	**2**	**$1.036**	**2**	**$1.450**	**1**	**$0.600**
	- Computer Hardware (Production)	1	$0.300	1	$0.250	0	$0.000
	- Computer Hardware (Network)	1	$0.736	1	$1.200	1	$0.600
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $4.000M)**	**4**	**$6.830**	**6**	**$9.954**	**4**	**$6.764**
	- Replacement Capability	0	$0.000	1	$1.051	2	$3.264
	- New Construction	4	$6.830	5	$8.903	2	$3.500
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**6**	**$7.866**	**8**	**$11.404**	**6**	**$7.964**
	Total Capital Outlays		**$8.441**		**$11.033**		**$10.973**
	Total Depreciation Expense		**$6.049**		**$8.490**		**$7.964**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#004 - Minor Construction ($250K - $1M)						Space and Naval Warfare Systems Centers		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0	0	$0	1	1,051	$1,051	2	1,632	$3,264
New Construction	4	1,708	$6,830	5	1,781	$8,903	2	1,750	$3,500
Environmental Capability	0	0	$0	0	0	$0	0	0	$0
Total	4	1,708	$6,830	6	1,659	$9,954	4	1,691	$6,764

Justification:

All projects are within the $4 million threshold for minor construction afforded by the Defense Laboratory Revitalization Act.

REPLACEMENT

PROJECTS UNDER $1M

One of the projects in replacement capability will reconfigure existing laboratory space, Information Technology (IT) server room, shipping and receiving area in building 198. This reconfiguration will require changes to the fire protection, Heating Ventilation and Air Conditioning (HVAC) and electrical infrastructure. The space will provide a laboratory platform in support of many systems. In addition, reconfigured space will provide upgraded laboratory space including server room, collaborative area, and testing and integration work areas. Another project in the replacement capability will expand current Lab space that supports several projects by providing classified environment with Secure Wide Area Network (SWAN), Enterprise, Engineering and Certification (E2C), and the Input/Output (I/O) Range. The expansion of the Lab will enhance current capabilities in Research, Development, Test and Evaluation (RDT&E) work and future requirements. An economic and cost analysis has been performed on these projects. However, reconfiguration of Building Space and Lab expansion will not provide any cost savings/cost avoidance. There are no other laboratory platforms that support many systems and there are no other classified lab space that can support RDT&E work and future requirements. If Building 198 is not reconfigure, it will be underutilized and operated inefficiently. Possibility of security incident increases if classified space is not available and a periods processing environment needs to be established.

PROJECTS ABOVE $1M:

The "**High Voltage Laboratory**" project for SPAWAR SYSTEM CENTER (SSC) Pacific in FY 17**.** The existing facilities provide basic storage and a facility which is capable of radio frequency (RF) breakdown testing of materials that is limited by the ceiling height, room size and similar safety considerations. Current capabilities are limited by facilities that do not satisfy safety and HAZMAT requirements. The facilities barely meet the needs of a single program, which as a result requires travel to other locations to complete testing. Expansion of capabilities to take advantage of expertise and equipment at SSC Pacific will open up high voltage and power testing on site to multiple projects and programs. This project will allow one-stop services for evaluation of systems for high power vulnerabilities, potential use of new materials, environmental testing and functional RF testing. This investment would also allow us to work with any Command, Control, Communication, Computers & Intelligence (C4I) devices developed in academia or industry using nanomaterials, or develop our own devices. Alternatives considered were permanently moving business areas away from SSC Pacific San Diego to other sites, use of more contractors, and adaptation of existing facilities. These alternatives will result in higher cost and would be detrimental to the overall Navy effort. An economic analysis was performed. Having an onsite facility will lower the travel cost. By not investing in improved high power testing, it will be required for beneficiary projects and programs to go off site for high voltage and high power testing. In the current travel constrained environment, this means giving up this business area. Without investing in modern facilities SSC Pacific will be unable to recruit or keep experts in nanomaterials and maintain its role as a full spectrum C4ISR leader. This project is Lab Revitalization Demonstration Program (LRDP).

NEW CONSTRUCTION

No existing facilities currently support the necessary new mission capability. A cost analysis has been performed for all projects and estimated savings/cost avoidance for the projects over the cost benefit period are minimal.

PROJECTS UNDER $1M

Current space and power and cooling configuration is insufficient to meet current mission requirements for support of projects. One project will provide a back-up power generator. Another project will provide electrical upgrades in order to provide adequate power and cooling so they could operate at full capacity. These projects are needed in order to prevent a catastrophic power failure which could result in hundreds of thousands of dollars in lost productivity due to data corruption and protection of hardware and equipment jeopardizing cost, schedule, and performance for supported projects, as well as ability to conduct critical work for the DoD warfighter. Cost analysis has been performed and no cost savings are expected for these projects. However, there could be some cost avoidance by ensuring an uninterrupted power supply. Another project will construct a boat washing facility which will improve the efficiency of the boat launch and recovery process, and at-sea operations. The ability to clean boats in a separate area will free up the ramp for launch and recovery of other boats as well as enable "emergent" launches and recoveries. In addition, it will also eliminate boat washing activities that discharge to the Bay. Cost analysis has been performed. Cost savings are expected for this project due to less labor and maintenance cost required for the new facility.

PROJECTS ABOVE $1M:

The "**Cyber Warfare Range Lab**" project for SSC Atlantic in FY 15 will enable a revolution in the nation's ability to conduct cyber operations by providing a persistent cyber range. The Department of the Navy has made information dominance a top priority. Integrated Cyber Operations Capabilities (IC)/Battlespace Awareness (BA) portfolio business plan's mission and goals require dedicated facilities to enable the rapid fielding of game-changing interoperable cyber capabilities. The Cyber Warfare Range Lab will provide rapid and automated configurability and scalability for users across maritime and urban environments where virtual and physical domains meet. It will provide a large reduction in the time and cost to test and evaluate new cyber tools while improving confidence in the real world performance of these tools. The Cyber Warfare Range Lab will be designed to allow potentially virulent code to be introduced and tested on the range without compromising the range itself. Additionally, multiple experiments will be able to run on the range simultaneously at different security levels, maximizing the range's use across multiple government agencies. If this project is not completed it will compromise SSC Atlantic's capability to properly conduct and institute the Cyber Warfare Range, causing a loss of potential customer and innovative work to be conducted in the near future. This project is part of the LRDP.

SSC Pacific utilizes a 3000-square-foot building for medium- and large-vehicle development. They are rotating development space between projects, staging equipment and vehicles outside during the day to afford indoor working space around the remaining vehicles and sensor systems. The existing infrastructure is insufficient to meet the needs of current projects, leaving no space to accommodate new project requirements. The "**Robotics Software Test Facility, Seaside**" project in FY 15 is proposed to meet the need of multiple testing environments. The facility is a multi-purpose building that could be utilized for a wide variety of assembly, integration, experimentation, and test applications. With this project, SSC Pacific would be able to expand its role from unmanned systems research, development, and integration to include test, evaluation, and verification that will expedite the delivery of mission critical systems to the Warfighters. Stakeholders will be able to confidently use performance data captured in standard test methods to directly compare the experimental results between competing systems. This can help guide procurement and deployment decisions while setting realistic expectations regarding system performance for a given mission set. Developers will be able to refine their assumptions regarding performance objectives required to complete tasks. The rapid test, integration, and experimentation will allow them to iteratively refine system designs and configurations. Program Managers can use the test methods to clearly articulate program goals in terms of desired robotic capabilities, encourage innovation, and periodically measure outcomes. This facility will allow us to offer test, integration, and experimentation capabilities to Navy and industry partners, further expanding our expertise and business area. While the costs savings would be minimal, the integration and testing work that is currently accepted and performed will be executed much more efficiently. A dedicated facility located in close proximity to existing facilities will enable SSC Pacific to test more frequently and avoid inefficiencies due to setting up test infrastructure at off-site locations. The proposed facility would afford us the ability to meet current project objectives and requirements, as well as support our estimated growth. The Warfighter will benefit from unmanned systems and autonomous capabilities that are cheaper, more effective, and more reliable. This project is part of the LRDP.

The "**Cyber Warfare Lab**" project for SSC Atlantic in FY16 will provide a unique facility to support cyber requirements with labs to enable a highly trained cyber workforce to conduct information assurance (IA) , computer network operations, cyber forensics, and cyber security and to develop and deploy command and control, communications, computer, intelligence, surveillance, and reconnaissance systems for the Navy. SSC Atlantic is currently unable to accept additional Cyber Forensics work due to the lack of adequate facilities. Without this investment, SSC Atlantic would be unable to perform the required research, development, and testing of network defense, network exploitation and network attack tools/capabilities necessary to support the warfighter. Not making this investment would also hinder the ability to adequately hone the skills of the current and future cyber workforce. This project is part of the LRDP.

The "**Building 3146 Mechanical Upgrades**" project for SSC Atlantic in FY 16 will increase the HVAC capacity/capabilities of the facility which will create additional power usage. Building 3146 is a 57,640 square feet facility that was constructed in 2007. The Electrical, Electronics & Communications Integration Lab and the associated administrative space is currently housed in this building. However, full utilization of the Electrical, Electronics & Communications Integration Lab space is hampered by insufficient cooling capacity. The laboratory is considered mission critical space and must be capable of 24 hours a day operations. Currently, there is insufficient cooling capacity from the existing chiller and Computer Room Air Conditioning (CRAC) units to ensure continued operations. This project consists of installing an additional chilled water pump in the mechanical room to control the chilled water loop. Additionally, a second chiller will be pad mounted on the exterior of the facility and additional CRAC units will be installed in the Electrical, Electronics and Communications Integration Lab. The mission critical equipment in Building 3146 will continue to be in jeopardy and at risk of "hot spot" equipment failure if the cooling systems in the building are not upgraded. This project is part of the LRDP.

The "**Building 171 Modernization** project for SSC Atlantic in FY 16. This building houses an Electrical, Electronics & Communications Integration Lab and the associated administrative space. The laboratory is considered mission critical and requires upgrades to its overall infrastructure. The project will increase the electrical and mechanical HVAC capacity/capabilities by installing supplemental panel boxes and switching equipment and larger capacity air conditioning units. Modernization and upgrades to the deteriorating raised floor decking, and damaged or deteriorating floor and ceiling tiles will be included. The power resources and cooling capacity in Building 171 have reached maximum capacity and at times have risked equipment shut downs. The mission critical operations in Building 171 will continue to be in jeopardy without the needed power and HVAC upgrades. This project is part of the LRDP.

The "**Mobile Information and Cellular Communications Technology Engineering Center (MICCTEC)**" project in FY 16 will create a facility and applications for Naval RDT&E that do not currently exist at any US Navy government facility. These facilities do not currently exist due to the high cost of cellular communication equipment and the relatively large amount of laboratory floor space and resources (HVAC and power) this equipment requires. The purpose of this new facility is to become the home of a Naval RDT&E and sustainment capability for mobile cellular communications technology and applications. It will house the communications, network and applications development equipment for 3G Wideband Code Division Multiple Access (WCDMA), 4G Long Term Evolution (LTE), 4G Worldwide Interoperability for Microwave Access (WiMAX), and Mobile Objective User System (MUOS) WCDMA cellular mobile communications. In FY16, the Program Office plans to move the MUOS Test-Radio Access Facility (T-RAF) Satellite Communications (SATCOM) Control and WCDMA equipment suite, the MUOS Reference Implementation Laboratory (RIL), and the WCDMA equipment suite to SSC Pacific. Due to increasing Cyber protection, IT engineering, and IT sustainment support needed by the Navy, there is no laboratory space at SSC Pacific currently existing that would meet the requirements of the MUOS Program. The MUOS RIL supports MUOS networking waveform development and test, WCDMA engineering support, and program of record (POR) and Non-Developmental Item (NDI) radio development and test. Without this project, the MUOS RIL will have inadequate lab space and will have to limit the number of POR and NDI contractors doing developmental testing in their laboratory. Since the MUOS waveform is based on modifications to commercial cellular WCDMA technology this encourages a natural progression for the MICCTEC to also be the potential home of any fourth generation (4G) Long Term Evolution (LTE) and 4G Worldwide Interoperability for Microwave Access (WiMAX) communications suites for RDT&E support of Naval Customers. Savings to the Navy will begin in FY16 for an estimated 4 years after this facility has been completed and the MUOS T-RAF equipment has been installed, tested, and made ready for use. It is estimated that having this equipment at a government facility would have cost avoidace of over $6M in WCDMA waveform engineering support and ground system sustainment support versus placing this equipment at a contractor facility and purchasing a subset test capability for government engineering support. MUOS is one of the Navy's key future SATCOM systems and its 3G cellular WCDMA, protected capabilities will revolutionize Navy small deck, littoral, and ground operations communications. If this project is not completed, SSC Pacific would be unable to support the MUOS T-RAF requirement as there is not currently a facility large enough. The development and deployment of MUOS user terminals and the development of user communications CONOPS and Cyber protection knowledge would be hindered. Also, there are no current communication laboratory facilities with the capacity needed for naval 4G Cellular communications development, test and evaluation. Without this capability the Navy will not be able to evaluate 4G technologies for tactical use and cyber protection. This project is part of the LRDP.

The "**V53 Modernization**" project for SSC Atlantic in FY 17 consists of a 9,910 square feet Communication Lab on the second deck and associated administrative space. The laboratory is considered mission critical and requires upgrades to its overall infrastructure. The project will increase the electrical and mechanical (HVAC) capacity/capabilities by installing supplemental panel boxes and switching equipment and larger capacity air conditioning units. Modernization and upgrades to the floor decking, and damaged or deteriorating floor and ceiling tiles will be included. This project will increase the electrical and mechanical capacity/capabilities of the facility which will create additional power usage. The current power resources and cooling capacity in the Building V53 lab have reached maximum capacity and at times have risked equipment shut downs. The mission critical operations in the lab will continue to be in jeopardy without the needed power and HVAC upgrades. This project is part of the LRDP.

The "**Complex D Lab Revitalization**" project for SSC Atlantic in FY 17 will identify a facility to be replaced in the SSC Atlantic Complex D area of Weapons Station Charleston. Project will provide a new facility (NF) and removal of the structure being replaced. Complex D facilities were constructed between 1918 and 1943. Existing lab operations are limited by facilities with old and outdated electrical and HVAC infrastructure and by overcrowding of personnel and equipment overloading electrical and HVAC equipment and infrastructure. Project will provide new laboratory space such as collaborative areas, laboratories, Radio Frequency (RF), and satellite and radio infrastructure in support of Satellite Communication (SATCOM). Facilities/labs will continue to operate efficiently and with limited capabilities if project fails to be approved. This project is part of the LRDP.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#001 - Non-ADP Equipment						Space and Naval Warfare Systems Centers		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0	0	$0	0	0	$0	0	0	$0
Material Handling	0	0	$0	0	0	$0	0	0	$0
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	0	0	$0	0	0	$0	0	0	$0
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	0	0	$0	0	0	$0	0	0	$0
Support Equipment	0	0	$0	0	0	$0	1	600	$600
Total	0	0	$0	0	0	$0	1	600	$600

Justification:

Exisiting data center infrastructure support capability is being provided by outdated and over-utilized facility spaces. Current industry best practice for data centers includes use of modules (typically shipping containers/pods) to provide dense server hosting in an energy efficient package. Potential applications for the "**Modular IT Shelter**"containers include; the ability to utilize commercial service providers (on campus and on network), expanded people space in labs by moving computers out of labs; every 66 racks of servers saves approx 2,000 square feet (sq ft) of floor space, evaluating use of containerized Information Technology (IT) for deployment on ships, anticipate energy savings from modules vice our traditional open computer labs, ability to utilize various containers that will support high-capacity and high-density computing in a highly agile environment. The use of pods would provide IT infrastructure for the common development environment approach . Current Enterprise Engineering and Certification (E2C) lab space is limited for combined demand signal for hardware and operator space. Moving some or all of the IT hardware into a modular data center could free up lab space for people. This would also provide key element of the way ahead for the SPAWAR SYSTEM CENTER (SSC) Pacific Research, Development, Test and Evaluation (RDTE) network expanded capability to support virtualized servers and workstations (platform as a service) in support of sponsor projects. A cost analysis was performed. Over 2,000 square foot of savings per removal of 66 racks in current labs. The increased energy efficiency and ability to use containerized computing environments tailored to needs instead of future new construction. Compared to a traditional raised floor data center, the use of a pod will provide savings in space and energy. If the Modular IT Shelter is not funded, SSC Pacific would not be able to take advantage of industry best practice for IT infrastructure hosting practices. SSC Pacific will continue to not meet demand signal for lab space, increase energy costs, and not have the ability to take advantage of commercial IT infrastructure services in support of Navy projects.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#002 - ADP Equipment						Space and Naval Warfare Systems Centers		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	1	300	$300	1	250	$250	0	0	$0
Computer Hardware (Network)	1	736	$736	1	1,200	$1,200	1	600	$600
Computer Software (Operating System)	0	0	$0	0	0	$0	0	0	$0
Telecommunications	0	0	$0	0	0	$0	0	0	$0
Other Support Equipment	0	0	$0	0	0	$0	0	0	$0
Total	2	518	$1,036	2	725	$1,450	1	600	$600

Justification:

PROJECT UNDER $1M

Investments in the computer hardware (production) capability will serve to enhance and add more breadth to existing technological capabilities at SPAWAR Systems Centers. More powerful, analytical, long range tools will be added as well as memory and processor upgrades, which will enhance system performance and provide additional storage, backup capability, and associated licenses. These enhancements will allow data and reporting products to be easily sent from coast to coast, allowing for shared strategic planning and analysis. In addition, database tuning software will analyze and correct inefficient user queries in real-time, resulting in increased performance. Increased performance, along with state of the art "green" technology will result in reduced power requirements and Heating, Ventilation, and Air Conditioning (HVAC) requirements. Cost analyses were performed for all projects. If these investment are not made, it will hinder the ability to easily share data and reporting products and to coordinate in strategic planning. Without these investments there will be continued limited memory capacity and degraded unit capability through-put for database queries, and will hinder SPAWAR's ability to effectively serve the Navy and other Department of Defense (DoD) customers.

Investments in the computer hardware (network) capability will provide a technology refresh that will allow the network to continue operations and support future needs of SPAWAR. The current capability provides a local area network for laboratories as well as a high-speed connection to the Defense Research and Engineering Network (DREN) and Non-Classified Internet Protocol Router Network (NIPRNET) using both Transmission Control Protocol/Internet Protocol (TCP/IP) and Asynchronous Transfer Mode (ATM) protocols. A pre-investment cost analysis was performed for this project. Without this upgrade, portions of the current Research, Development, Test & Evaluation (RDT&E) network architecture will not support the future networking needs of the research, development, and in-service engineering communities at SPAWAR. If this investment is not made it will result in a lack of networking support, continued limited computer and storage capability, and limit ability to RDT&E virtualization/hosting efforts for the Navy. These efforts are key to the success of the Navy and DoD operations now and in the future.

PROJECT ABOVE $1M

The "**RDT&E Network Upgrade** " project FY 16 in the computer hardware (network) capability will provide a technology refresh that will allow the network to continue operations and support future needs of SPAWAR. The current capability provides a local area network for laboratories as well as a high-speed connection to the DREN and NIPRNET using both TCP/IP and ATM protocols. Specifically, the FY 16 project adds capacity that will provide cost effective virtualized environment to support Navy lab consolidation efforts. The investment will support increased performance, along with state of the art "GREEN" technology that will result in reduced power, HVAC and floor space requirements. A pre-investment cost analysis was performed for this project. Without this upgrade, portions of the current RDT&E network architecture will not support the future networking needs of the research, development, and in-service engineering communities at SPAWAR. If this investment is not made it will result in a lack of networking support, continued limited computer and storage capability, and limit ability to RDT&E virtualization/hosting efforts for the Navy. These efforts are key to the success of the Navy and DoD operations now and in the future.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$0.000**	**$0.000**	**$0.000**	
	2	**ADP**		**$1.200**	**$1.036**	**-$0.164**	
			Computer Hardware (Production)	$0.700	$0.300	-$0.400	Funding adjusted as projects were reprioritized
			Computer Hardware (Network)	$0.500	$0.736	$0.236	Funding adjusted as projects were reprioritized
	3	**Software**		**$0.909**	**$0.000**	**-$0.909**	
			Internally Developed	$0.909	$0.000	-$0.909	Funding adjusted as projects were reprioritized
	4	**Minor Construction**		**$6.598**	**$6.830**	**$0.232**	
			New Construction	$6.598	$6.830	$0.232	Funding adjusted as projects were reprioritized
TOTAL FY 2015 CIP Program				**$8.707**	**$7.866**	**-$0.841**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$0.000**	**$0.000**	**$0.000**	
	2	**ADP**		**$1.200**	**$1.450**	**$0.250**	
			Computer Hardware (Production)	$0.000	$0.250	$0.250	Funding adjusted as projects were reprioritized
			Computer Hardware (Network)	$1.200	$1.200	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$7.051**	**$9.954**	**$2.903**	
			Replacement	$0.038	$1.051	$1.013	Funding adjusted as projects were reprioritized
			New Construction	$7.013	$8.903	$1.890	Funding adjusted as projects were reprioritized
TOTAL FY 2016 CIP Program				**$8.251**	**$11.404**	**$3.153**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$0.600**	**$0.600**	**$0.000**	
			Support Equipment	$0.600	$0.600	$0.000	
	2	**ADP**		**$0.600**	**$0.600**	**$0.000**	
			Computer Hardware (Network)	$0.600	$0.600	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$6.764**	**$6.764**	**$0.000**	
			Replacement	$3.264	$3.264	$0.000	
			New Construction	$3.500	$3.500	$0.000	
TOTAL FY 2017 CIP Program				**$7.964**	**$7.964**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - SPACE AND NAVAL WARFARE SYSTEMS CENTERS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	1,151.4	1,121.3	1,112.0
2. Revenue	2,224.2	2,381.3	2,363.4
3. New Orders	2,194.0	2,372.0	2,283.7
4. Exclusions:			
Foreign Military Sales	43.9	43.2	31.9
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	174.8	198.0	148.8
Non-Federal and Others	14.2	35.4	28.2
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	1,961.2	2,095.4	2,074.7
6. Weighted Average Outlay Rate	42.1%	45.5%	45.8%
7. Carryover Rate	57.9%	54.5%	54.2%
8. Allowable Carryover	1,459.4	1,406.9	1,384.0
Allowable Carryover(First Year)	1,135.8	1,142.2	1,125.4
Allowable Carryover (Second Year Procurement-funded Orders)	323.6	264.7	258.6
Part II			
9. Balance of Customer Order at Year End	1,121.3	1,112.0	1,032.2
10. Work-in-progress	0.0	0.0	0.0
11. Exclusions:			
Foreign Military Sales	37.1	36.2	28.5
Base Realignment and Closure	1.4	1.2	1.1
Other Federal Department and Agencies	192.5	180.9	161.0
Non-Federal and Others	22.9	26.5	17.6
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	867.3	867.0	824.0

Some totals may not add due to rounding.

TAB #7 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Naval Research Laboratory (NRL), the Navy's single, integrated corporate laboratory, provides the Navy with a broad foundation of in-house expertise from scientific through advanced development activity. Specific leadership responsibilities are assigned in the following areas: primary in-house research in the physical, engineering, space, and environmental sciences; broadly based exploratory and advanced development program in response to identified and anticipated Navy and Marine Corps needs; broad multidisciplinary support to the Naval Warfare Centers; and space systems technology development and support.

NRL operates as the Navy's full-spectrum corporate laboratory, conducting a broadly based multidisciplinary program of scientific research and advanced technological development directed toward maritime applications of new and improved materials, techniques, equipment, systems and ocean, atmospheric, and space sciences and related technologies. In fulfillment of this mission, NRL initiates and conducts broad scientific research of a basic and long-range nature in scientific areas of interest to the Navy; conducts exploratory and advanced technological development deriving from or appropriate to the scientific program areas; develops prototype systems applicable to specific projects; assumes responsibility as the Navy's principal R&D activity in areas of unique professional competence upon designation from appropriate Navy or DoD authority; performs scientific research and development for other Navy activities and, where specifically qualified, for other agencies of the Department of Defense and, in defense-related efforts, for other Government agencies; serves as the lead Navy activity for space technology and space systems development and support; and serves as the lead Navy activity for mapping, charting, and geodesy marine chemistry & geochemistry research and development for the National Geospatial-Intelligence Agency.

Activity Group Composition:

In addition to its Washington, D.C. campus of about 131 acres and 89 main buildings, NRL maintains 14 other research sites, including a vessel for fire research and a Flight Squadron. The many diverse scientific and technological research and support facilities include a large facility located at the Stennis Space Center in Bay St. Louis, Mississippi, a facility at the Naval Support Activity, Monterey Bay in Monterey, California, the Chesapeake Bay Detachment in Maryland, and additional sites located in Maryland, Virginia, Alabama, and Florida.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

SCIENTIFIC DEVELOPMENT SQUADRON ONE (VXS-1): This division is located aboard the Patuxent River Naval Air Station in Lexington Park, Maryland, operates and maintains three uniquely configured P-3 Orion and two RC-12 Huron turboprop aircraft as airborne research platforms for worldwide scientific research operations.

CHESAPEAKE BAY DETACHMENT: The detachment occupies a 168-acre site near Chesapeake Beach, Maryland, and provides facilities and support services for research in radar, electronic warfare, optical devices, materials, communications, and fire rescue. Because of its location high above the Chesapeake Bay on the western shore, unique experiments can be performed in conjunction with the Tilghman Island site 16 km across the bay.

NRL STENNIS SPACE CENTER (NRL-SSC): NRL-SSC is a tenant activity at NASA's Stennis Space Center. Other Navy tenants at the Stennis Space Center include the Naval Meteorology and Oceanography Command and the Naval Oceanographic Office, who are major operational users of the oceanographic and atmospheric research and development performed by the NRL. This unique concentration of operational and research oceanographies makes NRL-SSC the center of naval oceanography and the largest such grouping in the western world.

MARINE METEOROLOGY DIVISION: Located in Monterey, California, this division is a tenant activity of the Naval Support Activity, Monterey Bay, is collocated with the Fleet Numerical Meteorology and Oceanography Center to support development of numerical atmospheric prediction systems and related user products. This collocation allows easy access to a large vector classified supercomputer mainframe, providing real time as well as archived global atmospheric and oceanographic databases for research at Monterey and at other NRL locations.

Significant Changes Since the FY 2016 President's Budget:
There are no significant changes in the activity group or composition since the FY 2016 President's Budget.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Orders	$843.0	$742.5	$750.9
Revenue	$840.3	$768.5	$772.3
Expense	$852.3	$778.1	$797.6
Operating Results	($12.0)	($9.6)	($25.2)
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	($12.0)	($9.6)	($25.2)
Other Changes Affecting AOR	$46.8	$34.8	$25.2
Accumulated Operating Results (AOR)	$34.8	$25.2	($0.0)

Some totals may not add due to rounding.

Orders, Revenue and Expense: The changes in orders primarily reflect updated workload projections. The increase in revenue and expense between FY 2016 and FY 2017 primarily reflect updated pricing estimates and investments in critical Laboratory Facility Sustainment, Restoration, and Modernization (FSRM).

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$832.0	$764.2	$770.7
Disbursements	$838.0	$782.0	$787.5
Net Outlays	$6.1	$17.8	$16.8

Some totals may not add due to rounding.

Fluctuations in net outlays primarily reflect the timing of end-of-year billings and the impact of anticipated net operating results, discussed above.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	2,938.8	3,041.7	3,018.8

Direct Labor Hours: The direct workforce (scientists and engineers) remain relatively steady in the budget years. Decrease in FY 2017 Direct Hours is primarily due to less workable days in the fiscal year.

Performance Indicators: The NRL outputs are scientific and engineering designs, developments, tests, evaluations, analyses and fleet support in NRL assigned mission areas. The measure for these outputs is the direct labor hour worked for a customer. Customers are charged a predetermined stabilized billing rate per direct employee hour worked (revenue rate). The revenue rate includes the salary and benefits costs of the performing employee (direct labor costs) and a share of the overhead costs of NRL, both general and administrative support and the unique production overhead costs of the performing employee's cost center. Non-labor, non-overhead costs, such as customer required material and equipment purchases, travel expenses, and contractual services, are charged to the customer on an actual cost reimbursable basis, and are excluded from the NRL stabilized pricing structure. The NRL use total stabilized cost per direct labor hour as their performance criterion.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$441.9	$460.4	$472.8
Workload (DLHs) (000)	2,939	3,042	3,019
Unit cost (per DLH)	$150.4	$151.4	$156.6

Unit Cost: Unit Cost is an expense rate method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

FY 2017 unit cost reflects stabilized costs per associated stabilized hours as an expense rate.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$122.74	$144.04	$142.79
Change from Prior Year		17.4%	-0.9%
Composite Rate Change		9.8%	0.5%

The Stabilized Rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs. The composite rate change in FY 2017 reflects adjustments to direct workload and pricing changes.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	2,466	2,528	2,523
Civilian Workyears (straight time)	2,415	2,470	2,478
Military End Strength	59	54	58
Military Workyears	56	54	58

Civilian Personnel: Civilian strength levels, measured by both end strength and full-time equivalents (FTEs). Civilian strength levels remain relatively steady in the budget years.

Military Personnel: The Military resource estimates are a baseline projection of military personnel necessary to fulfill programming objectives and coordination with customers. Military resource estimates have been adjusted to reflect a balanced program of military resources to funded workload.

NARRATIVE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT – NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$13.0	$12.0	$12.8
Equipment, ADPE / Telecom	$0.3	$3.1	$2.8
Software Development	$0.0	$0.0	$0.0
Minor Construction	$0.0	$8.0	$4.0
Total	$13.3	$23.1	$19.6

Some totals may not add due to rounding.

The Capital Investment Program allows the NWCF to achieve its mission by reinvesting in plant equipment and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; automated data processing software, internally or externally developed; and minor construction. Minor construction includes projects meeting the criteria of the Defense Laboratory Revitalization Program. The projects will replace aging buildings and upgrade and expand lab capability to accommodate workload growth and increase efficiency.

Carryover Compliance ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$378.0	$380.6	$354.6
Allowable Carryover	$395.4	$353.2	$356.9
Calculated Actual Carryover	$336.6	$324.2	$308.0
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($58.8)	($29.0)	($48.9)

Some totals may not add due to rounding.

Budgeted carryover is within the allowable ceiling target amount.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	826.0	749.4	752.8
Capital Surcharges	0.0	0.0	0.0
Depreciation	14.4	19.1	19.6
Other Income			
Total Income	840.3	768.5	772.3
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	3.7	3.5	3.7
Civilian Personnel Compensation & Benefits	345.5	352.5	357.4
Travel and Transportation of Personnel	9.1	9.2	9.3
Material & Supplies (Internal Operations)	46.6	39.6	40.2
Equipment	47.7	28.5	29.0
Other Purchases from NWCF	15.3	16.9	17.4
Transportation of Things	1.1	1.6	1.7
Depreciation - Capital	14.4	19.1	19.6
Printing and Reproduction	0.1	0.1	0.1
Advisory and Assistance Services	0.0	0.0	0.0
Rent, Communication, Utilities & Misc Charges	22.1	33.5	34.2
Other Purchased Services	346.3	273.4	284.9
Total Expenses	851.8	778.1	797.6
Work in Process Adjustment	0.4	0.0	0.0
Comp Work for Activity Retention Adjustment	0.0	0.0	0.0
Cost of Goods Sold	852.3	778.1	797.6
Operating Result	-12.0	-9.6	-25.2
Adjustments Affecting NOR	0.4	0.0	0.0
Capital Surcharges	0.0	0.0	0.0
Extraordinary Expenses Unmatched	0.5	0.0	0.0
Other Changes Affecting NOR (All Others)	-0.1	0.0	0.0
Net Operating Result	-11.5	-9.6	-25.2
PY AOR	46.4	34.8	25.2
TOTAL AOR	34.8	25.2	0.0
Non-Recoverable Adjustments impacting AOR	0.0	0.0	0.0
AOR for budget purposes	34.8	25.2	0.0

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	843.0	742.5	750.9
a. Orders from DoD Components:	761.7	683.6	691.1
Department of the Navy	496.4	482.7	488.0
O & M, Navy	48.1	42.4	42.9
O & M, Marine Corps	0.0	0.5	0.5
O & M, Navy Reserve	0.0	0.0	0.0
O & M, Marine Corp Reserve	0.0	0.0	0.0
Aircraft Procurement, Navy	1.0	3.0	3.1
Weapons Procurement, Navy	0.0	0.0	0.0
Ammunition Procurement, Navy/MC	0.0	0.0	0.0
Shipbuilding & Conversion, Navy	3.1	3.0	3.1
Other Procurement, Navy	7.6	6.1	6.1
Procurement, Marine Corps	0.4	0.4	0.4
Family Housing, Navy/MC	0.0	0.0	0.0
Research, Dev., Test, & Eval., Navy	436.2	427.2	431.9
Military Construction, Navy	0.0	0.0	0.0
National Defense Sealift Fund	0.0	0.0	0.0
Other Navy Appropriations	0.0	0.0	0.0
Other Marine Corps Appropriations	0.0	0.0	0.0
Department of the Army	17.2	13.4	13.5
Army Operation & Maintenance	5.3	2.2	2.2
Army Res, Dev, Test, Eval	9.9	9.1	9.2
Army Procurement	0.0	0.8	0.8
Army Other	2.0	1.3	1.3
Department of the Air Force	145.9	104.0	105.1
Air Force Operation & Maintenance	7.7	4.0	4.1
Air Force Res, Dev, Test, Eval	103.6	75.8	76.6
Air Force Procurement	34.6	24.2	24.4
Air Force Other	0.0	0.0	0.0
DOD Appropriation Accounts	102.3	83.6	84.5
Base Closure & Realignment	0.0	0.0	0.0
Operation & Maintenance Accounts	11.3	3.0	3.1
Res, Dev, Test & Eval Accounts	88.0	76.3	77.1
Procurement Accounts	1.5	3.0	3.1
Defense Emergency Relief Fund	0.0	0.0	0.0
DOD Other	1.5	1.3	1.3
b. Orders from other Fund Activity Groups	10.1	6.8	6.9
c. Total DoD	771.7	690.5	698.0
d. Other Orders:	71.2	52.0	52.8
Other Federal Agencies	64.4	47.7	48.5
Foreign Military Sales	0.3	0.3	0.3
Non Federal Agencies	6.6	4.0	4.1
2. Carry-In Orders	378.0	380.6	354.6
3. Total Gross Orders	1,221.0	1,123.1	1,105.5
a. Funded Carry-Over before Exclusions	380.6	354.6	333.2
4. Revenue(-)	840.3	768.5	772.3
5. End of Year Work-In-Process (-)	0.1	0.1	0.1
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	43.9	30.3	25.1
7. Funded Carryover	336.6	324.2	308.0

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**852.3**
FY 2016 President's Budget:	**757.9**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**0.0**
Pricing Adjustments:	**2.3**
Civilian Personnel	2.3
Fuel Price	
Program Changes:	**10.6**
VXS-1 Flight Center	-2.6
Project Fountainhead Direct Contractual Services	11.0
Project Phoenix Direct Contractual Services	4.0
Decreased Direct In-house labor	-1.8
Other Changes:	**7.3**
Facilities Sustainment, Restoration & Modernization	7.6
Non-labor inflation change impacts	-0.3
FY 2016 Current Estimate:	**778.1**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**778.1**
Pricing Adjustments:	**13.7**
Annualization of Prior Year Pay Raises	**1.2**
Civilian Personnel	1.2
Military Personnel	0.0
FY 2017 Pay Raise	**5.5**
Civilian Personnel	5.4
Military Personnel	0.1
Fuel Price Changes	-0.3
General Purchase Inflation	7.1
Other Price Changes	**0.1**
Defense Finance & Accounting Service (DFAS) Pricing Adjustment	0.1
Productivity Initiatives and Other Efficiencies:	**0.0**
Program Changes:	**5.8**
Depreciation	0.5
Facilities Sustainment, Restoration & Modernization	5.3
Other Changes:	**0.0**
FY 2017 Estimate:	**797.6**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**28**	**$13.039**	**26**	**$11.979**	**20**	**$12.752**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	1	$0.824	0	$0.000	0	$0.000
	- Support Equipment	27	$12.215	26	$11.979	20	$12.752
2	**ADPE and Telecom Equipment >= $.250M**	**1**	**$0.297**	**3**	**$3.121**	**5**	**$2.807**
	- Computer Hardware (Production)	1	$0.297	3	$3.121	5	$2.807
	- Computer Hardware (Network)	0	$0.000	0	$0.000	0	$0.000
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**0**	**$0.000**	**4**	**$8.000**	**1**	**$4.000**
	- Replacement Capability	0	$0.000	4	$8.000	1	$4.000
	- New Construction	0	$0.000	0	$0.000	0	$0.000
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**29**	**$13.336**	**33**	**$23.100**	**26**	**$19.559**
	Total Capital Outlays		**$5.940**		**$23.100**		**$19.559**
	Total Depreciation Expense		**$14.363**		**$19.100**		**$19.559**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#001 - Non-ADP Equipment						Naval Research Laboratory		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0	0	$0	0	0	$0	0	0	$0
Material Handling	0	0	$0	0	0	$0	0	0	$0
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	0	0	$0	0	0	$0	0	0	$0
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	1	824	$824	0	0	$0	0	0	$0
Support Equipment	27	452	$12,215	26	461	$11,979	20	638	$12,752
Total	28	466	$13,039	26	461	$11,979	20	638	$12,752

Justification:

Support Equipment

Equipment acquisition in the support equipment capability for FY 2016 and FY 2017 will preserve, enhance and support requirements to maintain a technologically advanced, state-of-the-art laboratory and are tied directly to NRL's science and technology mission. NRL's largest investment will be in FY 2016 with the "Spin Balance System," costing more than one million dollars. This investment will support space research and is a self-contained and fully automatic system for the measurement of dynamic balance, product of inertia, moment of inertia and center of gravity offset in a single setup. This new investment will directly support NRL and help to meet system requirements, and increase efficiency in integration and test schedule, by allowing for a one stop measurement process for large spacecraft spinning and balancing.

Additional investments for both years will be made in the following research areas: optical imaging research, laser monitoring, antenna and satellite correlation and robotic systems that allow human-autonomous system interaction and improved team behaviors. Pre-investment economic analyses were performed for all investments.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#002 - ADP Equipment						Naval Research Laboratory		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	1	297	$297	3	1,040	$3,121	5	561	$2,807
Computer Hardware (Network)	0	0	$0	0	0	$0	0	0	$0
Computer Software (Operating System)	0	0	$0	0	0	$0	0	0	$0
Telecommunications	0	0	$0	0	0	$0	0	0	$0
Other Support Equipment	0	0	$0	0	0	$0	0	0	$0
Total	1	297	$297	3	1,040	$3,121	5	561	$2,807

Justification:

Computer Hardware (Production)

Several investments in computer hardware (production) are proposed for FY 2016 and FY 2017. In FY 2016, the investments will enable research, development and testing of electromagnetic spectrum dominance technologies, data-parallel computation and high performance computing system communications.

In FY 2017, some of the investments will benefit the following areas: technology advancing for data assimilation and system modeling, workflow modernization and also research that provides cost effective and scalable satellite command and control capabilities. Pre-investment economic analyses were performed for all investments.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Research and Development	#004 - Minor Construction ($250K - $1M)						Naval Research Laboratory		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0	0	$0	4	2,000	$8,000	1	4,000	$4,000
New Construction	0	0	$0	0	0	$0	0	0	$0
Environmental Capability	0	0	$0	0	0	$0	0	0	$0
Total	0	0	$0	4	2,000	$8,000	1	4,000	$4,000

Justification:

No project described herein exceeds the current Military Construction (MILCON) threshold.
All projects are within the $4 million threshold for minor construction afforded by the Defense Laboratory Revitalization Act.

REPLACEMENT
A cost analysis has been performed for all projects and estimated savings/cost avoidance for the projects over the cost benefit period are minimal.

PROJECTS UNDER $1M
During FY 2016, NRL will provide upgrades to fire protection systems. This investment is envisioned to meet the emergent needs of the Naval Research Laboratory and support critical research efforts. A pre-investment economic analysis was performed for the investment.

PROJECTS ABOVE $1M
The "**Solid State Electronic Devices Laboratory**" project, budgeted for FY 2016 execution, will provide for approximately 7,800 square feet of additional support space as well as the renovation of approximately 19,700 square feet for the Solid State Electronic Devices Branch to meet the future requirements of research in Electronics Science and Technology. This investment is envisioned to fully repair and modernize the infrastructure to meet the laboratory requirements to perform hands-on fabrication of solid-state electronic devices and circuits. This investment will support efforts in multiple highly specialized research areas which include, but is not limited to, Radio Frequency amplifiers for radar, communications, and electronic warfare; infrared imaging; and optoelectronic devices for multi-junction solar cells. A pre-investment economic analysis was performed for this investment.

The FY 2016 "**Backup Systems**" project is for a backup cooling unit and emergency generator system. A 25-ton direct expansion unit for cooling and a 150 KVA emergency backup generator will provide emergency power to meet the emergent needs of the Computational Physics and Fluid Dynamics Branch. This investment is envisioned to meet the branch's requirement of constant utilities without interruption to perform research leading to and the application of advanced analytical and numerical capabilities. The investment will support efforts in multiple highly specialized areas which include, but is not limited to, compressible and incompressible fluid dynamics, reactive flows, fluid/structure interactions including submarine and aerospace applications, atmospheric and solar geophysics, magnetoplasma dynamics, application of parallel processing to large-scale problems, advanced propulsion concepts, flame dynamics, jet noise reduction and other disciplines of continuum computational physics. A pre-investment economic analysis was performed for this investment.

PROJECTS ABOVE $1M (continued):

The FY2016 "**Install Central Hot Water Heating Plant**" project will provide a hot water loop inside the Naval Center for Space Technology that will utilize one steam-to-hot water conversion with one set of pumps, receivers, heat exchangers, valves, etc. and will be sized to accommodate the entire building. The investment is envisioned to modernize the current steam system and reduce maintenance costs. The investment will support efforts in multiple highly specialized areas which include, but is not limited to, developing spacecraft, systems using these spacecraft, and ground command and control stations. A pre-investment economicanalysis was performed for this investment.

The FY 2017 Laboratory Revitalization Demonstration Program (LRDP) investment of $4M is for the "**Compound Semiconductor Processing Facility**" project. The Compound Semiconductor Processing Facility project provides for approximately 4,000 squarefeet of new clean room laboratory space to meet the future requirements of research in Electronics Science and Technology. This investment is envisioned to meet the stringent clean room requirements to perform hands-on fabrication of solid-state electronic devices and circuits. This investment will support efforts in multiple highly specialized research areas which include, but is not limited to, Radio Frequency amplifiers for radar, communications, and electronic-warfare; infrared imaging; and optoelectronic devices for multi-junction solar cells. A pre-investment economic analysis was performed for this investment.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$12.686**	**$13.039**	**$0.353**	
			Machinery	$0.255	$0.824	$0.569	Funding adjusted as projects were reprioritized
			Support Equipment	$12.431	$12.215	-$0.216	Funding adjusted as projects were reprioritized
	2	**ADP**		**$0.650**	**$0.297**	**-$0.353**	
			Computer Hardware (Production)	$0.650	$0.297	-$0.353	Funding adjusted as projects were reprioritized
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$4.000**	**$0.000**	**-$4.000**	
			Replacement	$4.000	$0.000	-$4.000	Funding adjusted as projects were reprioritized
TOTAL FY 2015 CIP Program				**$17.336**	**$13.336**	**-$4.000**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$11.429**	**$11.979**	**$0.550**	
			Support Equipment	$11.429	$11.979	$0.550	Funding adjusted as projects were reprioritized
	2	**ADP**		**$3.671**	**$3.121**	**-$0.550**	
			Computer Hardware (Production)	$3.671	$3.121	-$0.550	Funding adjusted as projects were reprioritized
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$4.000**	**$8.000**	**$4.000**	
			Replacement	$4.000	$8.000	$4.000	Project rescheduled from FY 2015
TOTAL FY 2016 CIP Program				**$19.100**	**$23.100**	**$4.000**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$12.752**	**$12.752**	**$0.000**	
			Support Equipment	$12.752	$12.752		
	2	**ADP**		**$2.807**	**$2.807**	**$0.000**	
			Computer Hardware (Production)	$2.807	$2.807		
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000		
			Externally Developed	$0.000	$0.000		
	4	**Minor Construction**		**$4.000**	**$4.000**	**$0.000**	
			Replacement	$4.000	$4.000		
TOTAL FY 2017 CIP Program				**$19.559**	**$19.559**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
RESEARCH AND DEVELOPMENT - NAVAL RESEARCH LABORATORY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	378.0	380.6	354.6
2. Revenue	840.3	768.5	772.3
3. New Orders	843.0	742.5	750.9
4. Exclusions:			
Foreign Military Sales	0.3	0.3	0.3
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	64.4	47.7	48.5
Non-Federal and Others	6.6	4.0	4.1
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
5. Orders for Carryover Calculation	771.7	690.5	698.0
6. Weighted Average Outlay Rate	50%	50%	50%
7. Carryover Rate	50%	50%	50%
8. Allowable Carryover	395.4	353.2	356.9
Allowable Carryover(First Year)	383.0	343.7	347.4
Allowable Carryover (Second Year Procurement-funded Orders)	12.4	9.5	9.5
Part II			
9. Balance of Customer Order at Year End	380.6	354.6	333.2
10. Work-in-progress	0.1	0.1	0.1
11. Exclusions:			
Foreign Military Sales	0.1	0.1	0.1
Base Realignment and Closure	0.0	0.0	0.0
Other Federal Department and Agencies	38.7	27.3	22.8
Non-Federal and Others	5.1	2.9	2.1
Institutional Major Range & Test Facility Base	0.0	0.0	0.0
OUSD(C) Approved Carryover Waiver	0.0	0.0	0.0
12. Calculated Actuals Carryover	336.6	324.2	308.0

Some totals may not add due to rounding.

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NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Military Sealift Command (MSC) is the single manager-operating agency for sealift services. Over ocean movement of supplies and provisions to the deployed operating forces is a primary focus of MSC; it also maintains prepositioned equipment and supplies as well as other special mission services. These combine to support the Navy and Marine Corps in deterring potential threats and promptly responding to crisis in the maritime crossroads. This submission addresses MSC's Navy mission operating within the Navy Working Capital Fund (NWCF), providing support to the Fleet Commanders (FLTCOMs) and other DOD activities by providing unique vessels and programs. Ship availability for MSC customers is the metric for evaluating mission performance in the sealift transportation business area.

Activity Group Composition:

MSC supports Commander, U.S. Pacific Fleet (COMPACFLT) and United States Fleet Forces Command (USFFC), the Naval Sea Systems Command (NAVSEA), the Space and Naval Warfare Systems Command (SPAWAR), the Strategic Systems Programs (SSP), U.S. Marine Corps (USMC), and the US Air Force with unique vessels and programs.

The five programs budgeted through the Navy Working Capital Fund (NWCF) are:

1. Combat Logistics Force (CLF): Provides support utilizing civilian mariner manned non-combatant ships for material support.

2. Special Mission Ships (SMS): Provides unique seagoing platforms, operation of Navy Command Ships, and contracted Harbor Tugs.

3. Afloat Prepositioning Force: Navy (APF-N): Deploys advance material for strategic lifts for the Marine Expeditionary Forces.

4. Service Support Ships (SSS): Provides Navy with towing, rescue and salvage, submarine support and cable laying repair series as well as command and control platform and floating medical facilities.

5. Joint High Speed Vessels – Navy (JHSV): Program is a cooperative effort for a high-speed, shallow draft vessel intended for rapid intra-theater transport of medium sized cargo payloads. JHSV will reach speeds of 35-45 knots (65-83 km/h; 40-52 mph) and allow for the rapid transit and deployment of conventional or special forces as well as equipment and supplies. This program also contains the HST USNS GUAM and USNS PUERTO RICO.

NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Significant Changes Since the FY 2016 President's Budget:

FY 2015 to FY 2016:

CLF – The USNS JOSHUA HUMPHREYS (T-AO 188) will operate as a per diem ship in FY2016.

SMS – A full year of operational costs will be recognized in FY 2016 for USNS MAURY (T-AG 66).

APF-N – USNS MONTFORD POINT (MLP-1) and USNS JOHN GLENN (MLP-2) will operate a full year as a per diem ship vice reimbursable. In addition, the USNS JOHN GLENN (MLP-2) will operate in a Full Operating Status (FOS).

SSS – USS PONCE and USNS LEWIS B. PULLER (MLP-3) will operate a full year as per diem vice reimbursable and USNS GRAPPLE (T-ARS 53) will be deactivated in FY 2016. The T-AH operated two Humanitarian FOS missions in FY 2015 compared to one in FY 2016.

JHSV - JHSV 1 – JHSV 5 will operate a full year as per diem, the USNS BRUNSWICK (JHSV-6) will operate a little less than full year as per diem, and the USNS CARSON CITY (JHSV-7) will be fully operational for half of the year as per diem. Pre-delivery costs will be recognized for the USNS YUMA (JHSV-8).

FY 2016 to FY 2017:

CLF – The USNS T-AOE 7 RAINER will not be operational in FY 2017.

SMS – The USNS DOMINATOR's steaming days will be reduced by 45 days. T-AGOS will reduce 75 underway days (15 days per five ships) as well as a 10% reduction in maintenance and readiness funds. T-AGS will reduce 270 underway days (45 days per six ships) and defer survey requirements to future years. These actions were required for the Department of the Navy to comply with fiscal constraints.

APF-N – No major changes.

SSS – The USNS SAFEGUARD (T-ARS 50) and the USNS NAVAJO (T-ATF 169) will deactivate in FY 2017. The T-AH Humanitarian Mission will be cancelled in FY 2017 and the USNS COMFORT (T-AH 20) crew will be reduced from ROS-5 in FY16 to a ROS-45 in FY 2017. The USS EMORY S. LAND and USS FRANK CABLE will reduce 37 steaming days as required for the Department of the Navy to comply with fiscal constraints..

NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

JHSV – The USNS CARSON CITY (JHSV-7) will operate a full year as per diem and the USNS YUMA (JHSV-8) will operate a little less than full year as per diem. Pre-delivery costs will be recognized for USNS BISMARK (JHSV-9) and USNS BURLINGTON (JHSV-10) and post shakedown availability costs will be recognized for USNS CARSON CITY (JHSV-7) and USNS YUMA (JHSV-8) in FY 2017. JHSV 1 – JHSV 8 will decrease underway days by 274 (34 days per 8 ships and 2 days for JHSV 9) as required for the Department of the Navy to comply with fiscal constraints..

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Revenue	$2,888.9	$2,943.9	$2,972.5
Expense	$2,987.7	$2,906.9	$2,702.8
Operating Results	($98.8)	$37.0	$269.6
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	($98.8)	$37.0	$269.6
Other Changes Affecting AOR	($101.9)	$0.0	($300.0)
Accumulated Operating Results (AOR)	($6.6)	$30.4	$0.0

Some totals may not add due to rounding.

Orders, Revenue and Expense: The variations in revenue and expense from year to year are associated with the changes in ship fleet within the following classes as discussed in the significant changes section above; T-AO, T-AOE, T-AGS, T-AH, T-ATF, T-ARS, MLP, and JHSV. FY 2017 reflects adjustments to AOR to maintain operating cash associated with budgetary resources required for projected outlays.

Net Operating Result (NOR): The FY 2016 President's Budget reflected a NOR of $7.2 vice the current estimate of $37.0 for FY 2016. The variance is a result of changes in ship fleet within the T-AO, T-AOE, T-AGS, T-AH, T-ATF, T-ARS, MLP, and JHSV as reflected in the significant changes section above. All changes have been incorporated into the FY 2017 rates.

NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$2,851.4	$2,943.9	$2,972.5
Disbursements	$3,003.0	$2,906.5	$2,700.4
Outlays	-$151.6	$37.4	$272.1

Some totals may not add due to rounding.

Collections: FY 2015, FY 2016 and FY 2017 reflect expected revenue based on current estimates adjusted for changes in accounts receivable.

Disbursements: FY 2015, FY 2016 and FY 2017 represent budgeted expenses and Capital Investment Program (CIP) outlays adjusted for changes in accounts payable.

Workload:

	FY 2015	**FY 2016**	**FY 2017**
CLF	10,585	10,980	10,585
SMS	7,665	8,052	8,030
APF-N	5,110	5,856	5,840
SSS	4,976	4,392	4,745
JHSV	0	2,357	3,020

Workload for MSC refers to the number of per diem days associated with each of the five MSC programs.

CLF - The increase in FY 2016 is due to USNS JOSHUA HUMPHREYS (T-AO 188) operating as a per diem ship vice reimbursable. The decrease in FY 2017 is due to the USNS T-AOE 7 Rainer no longer operating in FY 2017.

SMS – Increase in FY 2016 is due to a full year of operational costs being recognized for USNS MAURY (T-AG 66).

APF-N – Increase in FY 2016 is due to the USNS MONTFORD POINT (MLP-1) and the USNS JOHN GLENN (MLP-2) operating a full year as a per diem ship vice reimbursable.

SSS - The decrease in FY 2016 is due to the retirement of USNS GRAPPLE (T-ARS 52), and the USNS SAFEGUARD (T-ARS 50), USNS CATAWBA (T-ATF 168), and USNS NAVAJO (T-ATF 169) will be operating as reimbursable vice per diem. The decrease in FY 2016 is partially offset by the USS PONCE and USNS LEWIS B. PULLER (MLP-3) operating as per diem vice

reimbursable. The increase in FY 2017 is due to the USNS CATAWBA (T-ATF 168) operating as per diem vice reimbursable.

JHSV – The USNS BRUNSWICK (JHSV-6) and the USNS CARSON CITY (JHSV-7) will operate a full year as per diem and the USNS YUMA (JHSV-8) and the USNS BISMARK (JHSV-9) will operate part of the year as per diem (324 days and 141 days respectively).

Reimbursable Orders ($ Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	$2,897.0	$2,943.9	$2,972.5

Orders for MSC equate to revenue. Variances are due to changes in per diem days, fuel price changes, and requirement to attain zero AOR in FY 2017.

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	18,291	18,188	17,654

Direct Labor Hours: Increase from FY 2015 to FY 2016 is due to the delivery schedule of additional JHSVs. The decrease in FY 2017 is due to the deactivation of USNS NAVAJO (T-ATF 169), USNS SAFEGUARD (T-ARS 50) and USNS RAINER (T-AOE 7).

Performance Indicators: Program Performance is measured by ship availability days, which measures days against plan that ships are actually available to perform the function for which they were intended. Any change in ship operations such as FOS to ROS, transitioning ships between coasts, or changing ship status (e.g., from ROS-15 days, ROS-30 days or ROS-45 days) are coordinated with the respective MSC customer.

A summary of performance goals is reflected below:

Performance Measure	Goal	FY 2015	FY 2016	FY 2017
Ship Availability	95%	95%	95%	95%

NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
CLF	$137,491	$128,754	$122,892
SMS	$35,224	$38,882	$36,095
APF-N	$63,343	$64,052	$64,008
SSS	$69,379	$99,290	$79,699
JHSV	$0	$75,152	$64,117

Unit Cost: MSC operates under five distinct unit cost goals - one for each of the programs. All programs have cost/per day as the unit cost basis (costs include only per diem expenses in the annual operating budget (AOB). Ship mix – (e.g., class of ships and operating status) impacts unit cost levels. Costs in all years are primarily a function of approved escalation, fuel, CIVMAR salaries, ship mix, and Maintenance and Repair (M&R).

Performance Rate Change From Prior Year	**FY 2015**	**FY 2016**	**FY 2017**
CLF	15.0%	-0.1%	-3.5%
SMS	0.2%	10.1%	-4.9%
APF-N	27.8%	2.3%	77.4%
SSS	8.0%	54.3%	-28.1%
JHSV	0.0%	0.0%	-30.0%

Percentages reflect the change in unit cost from year to year and reflects changes in ship mix stated in the significant changes section.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	6,983	7,082	6,827
Civilian Workyears (straight time)	9,055	8,888	8,724
Military End Strength	151	183	165
Military Workyears	149	183	165

Civilian Personnel: End Strength changes associated mainly with new ships coming on and off line. Workyear variance is primarily a function of decreasing lapse rate.

Military Personnel: Variances are due primarily with additional end strength needed to support realignment of MSC resources.

NARRATIVE
DEPARTMENT OF THE NAVY
TRANSPORTATION – MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$0.0	$0.0	$0.0
Equipment, ADPE / Telecom	$3.8	$5.5	$9.4
Software Development	$2.5	$7.6	$3.6
Minor Construction	$0.0	$0.0	$0.0
Total	$6.3	$13.2	$13.0

Some totals may not add due to rounding.

The Capital Investment Program assists MSC in achieving their mission by reinvesting in equipment and facilities.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
TRANSPORTATION - MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	2,878.1	2,930.7	2,960.3
Capital Surcharges	-	-	-
Depreciation	10.7	13.2	12.2
Other Income			
Total Income	2,888.9	2,943.9	2,972.5
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	14.6	16.2	15.3
Civilian Personnel Compensation & Benefits	806.2	834.4	821.9
Travel and Transportation of Personnel	36.0	35.9	35.6
Material & Supplies (Internal Operations)	600.9	628.3	474.1
Equipment	100.0	100.8	100.4
Other Purchases from NWCF	1.9	2.0	1.7
Transportation of Things	10.8	10.1	10.0
Depreciation - Capital	10.7	13.2	12.2
Printing and Reproduction	0.2	0.3	0.3
Advisory and Assistance Services	-	-	-
Rent, Communication, Utilities & Misc Charges	390.6	355.2	353.1
Other Purchased Services	1,015.8	910.5	878.2
Total Expenses	2,987.7	2,906.9	2,702.8
Work in Process Adjustment	-	-	-
Comp Work for Activity Retention Adjustment	-	-	-
Cost of Goods Sold	2,987.7	2,906.9	2,702.8
Operating Result	(98.8)	37.0	269.6
Adjustments Affecting NOR	-	-	-
Capital Surcharges	-	-	-
Extraordinary Expenses Unmatched	-	-	-
Other Changes Affecting NOR (All Others)	-	-	-
Net Operating Result	(98.8)	37.0	269.6
PY AOR	194.1	(6.6)	30.4
TOTAL AOR	(6.6)	30.4	300.0
Non-Recoverable Adjustments impacting AOR*	-	-	(300.0)
AOR for budget purposes	(6.6)	30.4	-

*Reflects adjustments to AOR to maintain operating cash associated with budgetary resources required for projected outlays.

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
TRANSPORTATION - MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	2,897.0	2,943.9	2,972.5
a. Orders from DoD Components:	2,889.9	2,936.7	2,965.3
Department of the Navy	2,828.8	2,867.7	2,904.3
O & M, Navy	2,795.1	2,841.5	2,860.7
O & M, Marine Corps	31.9	26.2	25.8
O & M, Navy Reserve	-	-	-
O & M, Marine Corp Reserve	-	-	-
Aircraft Procurement, Navy	-	-	-
Weapons Procurement, Navy	-	-	-
Ammunition Procurement, Navy/MC	-	-	-
Shipbuilding & Conversion, Navy	-	-	-
Other Procurement, Navy	1.9	-	17.7
Procurement, Marine Corps	-	-	-
Family Housing, Navy/MC	-	-	-
Research, Dev., Test, & Eval., Navy	-	-	-
Military Construction, Navy	-	-	-
National Defense Sealift Fund	-	-	-
Other Navy Appropriations	-	-	-
Other Marine Corps Appropriations	-	-	-
Department of the Army	-	-	-
Army Operation & Maintenance	-	-	-
Army Res, Dev, Test, Eval	-	-	-
Army Procurement	-	-	-
Army Other	-	-	-
Department of the Air Force	31.7	38.3	29.1
Air Force Operation & Maintenance	31.7	38.3	29.1
Air Force Res, Dev, Test, Eval	-	-	-
Air Force Procurement	-	-	-
Air Force Other	-	-	-
DOD Appropriation Accounts	29.3	30.6	31.9
Base Closure & Realignment	-	-	-
Operation & Maintenance Accounts	29.3	30.6	31.9
Res, Dev, Test & Eval Accounts	-	-	-
Procurement Accounts	-	-	-
Defense Emergency Relief Fund	-	-	-
DOD Other	-	-	-
b. Orders from other Fund Activity Groups	7.2	7.2	7.2
c. Total DoD	2,897.0	2,943.9	2,972.5
d. Other Orders:	-	-	-
Other Federal Agencies	-	-	-
Foreign Military Sales	-	-	-
Non Federal Agencies	-	-	-
2. Carry-In Orders	406.6	414.8	414.8
3. Total Gross Orders	3,303.6	3,358.6	3,387.2
a. Funded Carry-Over before Exclusions	414.8	414.8	414.8
4. Revenue(-)	2,888.9	2,943.9	2,972.5
5. End of Year Work-In-Process (-)	-	-	-
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	4.8	4.8	4.8
7. Funded Carryover	410.0	410.0	410.0

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
TRANSPORTATION- MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**2,987.7**
FY 2016 President's Budget:	**2,851.0**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**0.0**
List	
Pricing Adjustments:	**-75.2**
Civilian Personnel	0.0
Fuel Price	-74.0
General Inflation	-1.2
Program Changes:	**131.1**
Restore T-AOE Rainer to Full Operating Status (FOS)	55.8
Increased Blocking Vessel Cost due to Purchase	11.6
Decreased T-AGOS cost due to New Contract Award	-3.9
Restore T-ATF Navajo, T-ATF Catawba, T-ARS Safeguard	21.3
Decreased Joint High Speed Vessel (JHSV) Costs Due to Delivery Schedule Changes	-9.3
Increase in Various Regular Over Haul (ROH) Requirements	55.6
FY 2016 Current Estimate:	**2,906.8**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
TRANSPORTATION- MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**2,906.8**
Pricing Adjustments:	**-62.7**
Annualization of Prior Year Pay Raises	**7.3**
Civilian Personnel	7.3
Military Personnel	0.0
FY 2017 Pay Raise	**4.1**
Civilian Personnel	3.9
Military Personnel	0.2
Fuel Price Changes	**-101.5**
General Purchase Inflation	**27.4**
Program Changes:	**-140.3**
T-AOE Rainier will no longer operate in FY17	-73.4
Retire T-ARS Safeguard and T-ATF Navajo	-21.4
Increase in Mt Whitney Reimbursables	24.1
Deactivation T-ARS Safeguard and T-ATF Navajo	2.7
T-AH Humanaritary Mission (Mercy)	-19.7
Reduce T-AH Comfort Crew from Reduced Operating Status - 5 (ROS) to ROS-45	-1.5
Increased operating costs for JHSV 7 CARSON CITY (172 to 365 FOS days)	18.0
Increased operating costs for JHSV 8 YUMA (0 to 324 FOS days)	27.9
Increased operating costs for JHSV 9 BISMARK (0 to 141 FOS days)	15.4
JHSV Pre-Delivery and Post Delivery requirements	3.1
T-AH Mercy Service Life Exetension (SLEP)	3.0
Decrease Post Delivery cost for LEWIS PULLER	-15.4
Decrease in Sub-Tenders Operating costs in support of foreign port visits	-3.8
Decrease in Various Mantenance & Repair ROH Requirements	-51.1
Decrease steaming days as required for the Department of the Navy to comply with the Bipartisan Budget Act of 2015	-48.2
Other Changes:	**-1.0**
Depreciation	-1.0
FY 2017 Estimate:	**2,702.8**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
TRANSPORTATION- MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Vehicles	0	$0.000	0	$0.000	0	$0.000
	- Material Handling	0	$0.000	0	$0.000	0	$0.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	0	$0.000	0	$0.000	0	$0.000
	- Support Equipment	0	$0.000	0	$0.000	0	$0.000
2	**ADPE and Telecom Equipment >= $.250M**	**2**	**$3.781**	**2**	**$5.546**	**2**	**$9.437**
	- Computer Hardware (Production)	2	$3.781	2	$5.546	2	$9.437
	- Computer Hardware (Network)	0	$0.000	0	$0.000	0	$0.000
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**3**	**$2.468**	**4**	**$7.612**	**1**	**$3.550**
	- Internally Developed	3	$2.468	4	$7.612	1	$3.550
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Replacement Capability	0	$0.000	0	$0.000	0	$0.000
	- New Construction	0	$0.000	0	$0.000	0	$0.000
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**5**	**$6.249**	**6**	**$13.158**	**3**	**$12.987**
	Total Capital Outlays		**$0.000**		**$0.000**		**$0.000**
	Total Depreciation Expense		**$10.733**		**$13.158**		**$12.180**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
DEPARTMENT OF THE NAVY/ TRANSPORTATION	#002 - ADP Equipment						Military Sealift Command		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	2	1,891	$3,781	2	2,773	$5,546	2	4,719	$9,437
Computer Hardware (Network)	0	0	$0	0	0	$0	0	0	$0
Computer Software (Operating System)	0	0	$0	0	0	$0	0	0	$0
Telecommunications	0	0	$0	0	0	$0	0	0	$0
Other Support Equipment	0	0	$0	0	0	$0	0	0	$0
Total	2	1,891	$3,781	2	2,773	$5,546	2	4,719	$9,437

Justification:

FY15

Next Generation Wideband system (NGW)

NGW will replace current Bandwidth Efficiency Satellite Transport (BEST) system which will be obsolete and no longer supported. NGW solution is Mission Critical to maintain shipboard communications with no interruption as current BEST satellites begin to fail.

FY15, FY16, FY17

Consolidated Afloat Network Enterprise Services (CANES)

The project will address MSC requirements to implement unclassified and classified LANS at all ships, offices, area command, and headquarters world-wide.

FY16, FY17

Shipboard Management Information Systems

The project will address MSC requirements to upgrade hardware for unclassified and classified LANS at all ships and ANOC. Non Windows 7 compliant systems will be categorized as a CAT I vulnerability that can impact ship's ability to obtain operational networks ATO. "

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
DEPARTMENT OF THE NAVY/ TRANSPORTATION	#003 - Software Development						Military Sealift Command		
	FY 2015			FY 2016			FY 2017		
Software	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Internally Developed	3	823	$2,468	4	1,903	$7,612	1	3,550	$3,550
Externally Developed	0	0	$0	0	0	$0	0	0	$0
Total	3	823	$2,468	4	1,903	$7,612	1	3,550	$3,550

Justification:

FY15, FY16

IS Portal Development:

Various modules integrate existing worldwide procurement system with developing/deploying financial sytem which will ensure validation of accounting data at time of origination.

FY16

Information System: IS Portal:

This is a standards based web application that will seamlessly integrate shipboard and shore-side information technology functions

FY15, FY16

FMS (Financial Management System):

This is a DOD/DFAS migratory finance and accounting system. It is consistent wi th the requirements of the Financial Integrity Act, Anti-Deficiency Act, Joint Financial Management Improvement Program (JMIP,) and the Chief Financial Officer (CFO) Act. The upgrade will provde various improvements such as the integration of budget system with other MSC business systems. Software addresses remediation of DOD IG audit findings.

FY15, FY16, FY17

MSC HRMS (Human Resources Management System)

MSC has consolidated its CIVMAR personnel functions at the Afloat Personnel Management Center (APMC). This funding will satisfy the requirement to migrate to a paperless environment - i.e. total automation of the AP process, automated workflow and documentation management utilizing Oracle Human Resource (HR) and Payroll. Implementation of HR also will provide the ability to integrate with MSC's corporate data environment.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
TRANSPORTATION- MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$0.000**	**$0.000**	**$0.000**	
			Vehicles	$0.000	$0.000	$0.000	
			Material Handling	$0.000	$0.000	$0.000	
			Installation Security	$0.000	$0.000	$0.000	
			Quality Control/Testing	$0.000	$0.000	$0.000	
			Medical Equipment	$0.000	$0.000	$0.000	
			Machinery	$0.000	$0.000	$0.000	
			Support Equipment	$0.000	$0.000	$0.000	
	2	**ADP**		**$3.867**	**$3.781**	**-$0.086**	
			Computer Hardware (Production)	$3.867	$3.781	-$0.086	Actual cost less than planned
			Computer Hardware (Network)	$0.000	$0.000	$0.000	
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.000	$0.000	
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$7.612**	**$2.468**	**-$5.144**	
			Internally Developed	$7.612	$2.468	-$5.144	Change in requirements
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$0.000**	**$0.000**	**$0.000**	
			Replacement	$0.000	$0.000	$0.000	
			New Construction	$0.000	$0.000	$0.000	
			Environmental Capability	$0.000	$0.000	$0.000	
TOTAL FY 2015 CIP Program				**$11.479**	**$6.249**	**-$5.230**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$0.000**	**$0.000**	**$0.000**	
			Vehicles	$0.000	$0.000	$0.000	
			Material Handling	$0.000	$0.000	$0.000	
			Installation Security	$0.000	$0.000	$0.000	
			Quality Control/Testing	$0.000	$0.000	$0.000	
			Medical Equipment	$0.000	$0.000	$0.000	
			Machinery	$0.000	$0.000	$0.000	
			Support Equipment	$0.000	$0.000	$0.000	
	2	**ADP**		**$5.546**	**$5.546**	**$0.000**	
			Computer Hardware (Production)	$5.546	$5.546	$0.000	
			Computer Hardware (Network)	$0.000	$0.000	$0.000	
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.000	$0.000	
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$7.612**	**$7.612**	**$0.000**	
			Internally Developed	$7.612	$7.612	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$0.000**	**$0.000**	**$0.000**	
			Replacement	$0.000	$0.000	$0.000	
			New Construction	$0.000	$0.000	$0.000	
			Environmental Capability	$0.000	$0.000	$0.000	
TOTAL FY 2016 CIP Program				**$13.158**	**$13.158**	**$0.000**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$0.000**	**$0.000**	**$0.000**	
			Vehicles	$0.000	$0.000		
			Material Handling	$0.000	$0.000		
			Installation Security	$0.000	$0.000		
			Quality Control/Testing	$0.000	$0.000		
			Medical Equipment	$0.000	$0.000		
			Machinery	$0.000	$0.000		
			Support Equipment	$0.000	$0.000		
	2	**ADP**		**$9.437**	**$9.437**	**$0.000**	
			Computer Hardware (Production)	$9.437	$9.437		
			Computer Hardware (Network)	$0.000	$0.000		
			Computer Software (Operating)	$0.000	$0.000		
			Telecommunications	$0.000	$0.000		
			Other Support Equipment	$0.000	$0.000		
	3	**Software**		**$3.550**	**$3.550**	**$0.000**	
			Internally Developed	$3.550	$3.550		
			Externally Developed	$0.000	$0.000		
	4	**Minor Construction**		**$0.000**	**$0.000**	**$0.000**	
			Replacement	$0.000	$0.000		
			New Construction	$0.000	$0.000		
			Environmental Capability	$0.000	$0.000		
TOTAL FY 2017 CIP Program				**$12.987**	**$12.987**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
TRANSPORTATION - MILITARY SEALIFT COMMAND
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	406.6	414.8	414.8
2. Revenue	2,888.9	2,943.9	2,972.5
3. New Orders	2,897.0	2,943.9	2,972.5
4. Exclusions:			
Foreign Military Sales	-	-	-
Base Realignment and Closure	-	-	-
Other Federal Department and Agencies	-	-	-
Non-Federal and Others	-	-	-
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
5. Orders for Carryover Calculation	2,897.0	2,943.9	2,972.5
6. Weighted Average Outlay Rate	64.4%	64.5%	64.2%
7. Carryover Rate	35.6%	35.5%	35.8%
8. Allowable Carryover	1,031.3	1,047.2	1,064.1
Allowable Carryover(First Year)	1,030.6	1,046.5	1,064.1
Allowable Carryover (Second Year Procurement-funded Orders)	0.7	0.7	-
Part II			
9. Balance of Customer Order at Year End	414.8	414.8	414.8
10. Work-in-progress	-	-	-
11. Exclusions:			
Foreign Military Sales	4.8	4.8	4.8
Base Realignment and Closure	-	-	-
Other Federal Department and Agencies	-	-	-
Non-Federal and Others	-	-	-
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
12. Calculated Actuals Carryover	410.0	410.0	410.0

Some totals may not add due to rounding.

TAB #9 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The mission of the Facilities Engineering Commands (FECs) is to provide utility services, facilities sustainment, transportation support, engineering services and environmental services required by afloat, ashore operating forces and other activities. As a member of the Naval Facilities Engineering Command (NAVFAC), the FECs strengthen Navy and Marine Corps readiness through work across the facility lifecycle while providing quality public works support services to the Navy, Department of Defense (DoD), and other federal and non-federal clients. The FECs strive to reduce total cost for services, increase productivity, improve quality/client satisfaction, and provide a safe and productive work environment. Investments in key components of the FECs' infrastructure help achieve energy goals and enable the FECs to operate in the most effective and efficient way possible.

Activity Group Composition:

Activity	Location
FEC Europe - Africa - Southwest Asia	Naples, Italy
FEC Far East	Yokosuka, Japan
FEC Marianas	Agana, Guam, Marianas Islands
FEC Hawaii	Pearl Harbor, Hawaii
FEC Mid-Atlantic	Norfolk, Virginia
FEC Northwest	Silverdale, Washington
FEC Southeast	Jacksonville, Florida
FEC Southwest	San Diego, California
FEC Washington	Washington, D.C.

Base Support Products and Services

Utilities and Energy Management: Utilities and energy management represents 67% of the Base Support budget and higher purchased utility costs continue to impact the cost of operations. In order to mitigate these higher costs, the FECs are implementing energy conservation measures that are reducing the quantities of electricity and natural gas consumed. These initiatives include managing the kinds of fuel purchased; implementing efficient ways of using fuel to produce steam; aggressive energy management and system recap based on linear segments and consistent system condition information; maximizing the use of energy projects; where feasible, increasing the use of alternative sources of energy such as geothermal, ocean thermal, wind, solar, and wave; and deploying information assured industrial control systems. There are twenty-two Restoration and Modernization Energy (RMe) projects in the FY 2017 President's Budget. These projects primarily involve replacement or upgrades to utility

distribution systems that will reduce or eliminate line loss and provide for more efficient operations. A few RMe projects included in the FY 2017 budget are:

- Replacement of existing underground steam piping with failed insulation with above ground piping, saving energy at Naval Station Norfolk
- Replacement of three rotary air compressors with two, more efficient, variable speed drive air compressors at Naval Base Point Loma
- Conversion of backup generators from fuel oil to fuel oil/natural gas at Annapolis
- Reparation of deteriorated steam and piping insulation, electrical wiring and panels for power distribution to the sump pumps, and piping from sump pumps to the sewer at Naval Shipyard Portsmouth

Utilities Operations and Sustainment: Utilities operations and sustainment results in increased reliability and decreased loss of service frequency/duration involving utility systems, reducing impacts to Navy missions. Operational services include preventative maintenance, replacement of components at the end of their useful life, and repair of critical utility infrastructure, equipment, and distribution networks. Sustainment investments help prevent increased environmental violations for system operations, accelerated rates of deterioration, shortened service lives of utility systems, and increased restoration costs as systems and equipment degrade.

Maintenance and Repair: Maintenance and repair or facilities sustainment addresses minor maintenance repairs, preventative maintenance, and repairs and upgrades of buildings and other non-utilities infrastructure. It corrects decreased reliability and increased loss of service frequency/duration involving buildings and other critical infrastructure, reducing impacts to Navy missions.

Base Support Vehicles and Equipment (BSVE): Budgeted initiatives to standardize and lower vehicles and equipment operating costs include:

- Central management of BSVE NWCF rates and recapitalization
- Management of BSVE across product lines at all FECs
- Lease passenger carrying vehicles from General Services Administration
- Institutionalize Vehicle Allocation Methodology across all FECs
- Downsize vehicles and equipment to minimum requirements, including neighborhood electric vehicles and other slow moving vehicles to reduce the per mile cost including fuel

- Reduce number of vehicles based on usage and consideration of other Fleet Management decisions (e.g. car share, vehicle pooling, etc.)
- Standardize vehicle and equipment type, sizes, and configurations
- Optimize use of lease and short term rentals for vehicles and heavy equipment

Facility Support Contract Management and Facility Services (FMFS): The cost of facility sustainment, utility, and BSVE facility support contracts is trending down slightly due to market forces and economies of scale through maximizing the use of regional contracts. Continued investment in facility support contracts program management and acquisition enables leveraging best practices and process initiatives that have a potential for large return on investment by improving contract performance and reducing procurement costs. Recent rule changes will allow for longer-term limits for Base Operating Support (BOS) contracts which will reduce the frequency and, therefore, cost of re-procurement.

In order to create efficiencies for BOS contract specification writers, FMFS developed a facility support contract template that standardizes required performance levels across the Department of the Navy for each of the shore installation service areas (janitorial, facility maintenance, port operations, galley operations, utility system operations and maintenance, BSVE operations and maintenance, grounds maintenance). The FEC or Public Works Department uses these templates when renewing service contracts. Each template has the current list of Commander, Naval Installations (CNIC) Common Output Levels (COL), which are defined as differing levels of service for a particular shore installation service area. In addition, these support contract templates are formatted to attain contractor proposals in a clear and concise manner that allows the government to understand cost changes associated with different COLs, which have a range of COL1 through COL4. This initiative will minimize the amount of tailoring required by the NAVFAC contracting workforce when defining customer requirements.

Significant Changes Since the FY 2016 President's Budget:

Civilian labor reflects actuals in FY 2015 and FY 2016 estimates were adjusted to levels commensurate with the current execution, which are lower than previously budgeted due to a difficulty in hiring for vacant positions. At some locations NAVFAC delivers BOS commodities, such as urgent and emergency maintenance and repair service calls, sustainment, special project, and in-house BSVE drivers. Work has had to be contracted out in cases where in-house labor was insufficient to support demand for these services, which has resulted in cost increases for contractor labor support.

FY 2016 reflects costs associated with Cybersafe and Risk Management Framework (RMF) initiatives that will protect Navy utility industrial controls systems against cyberattacks.

Productivity Initiatives and Other Efficiencies:

The FY 2017 budget reflects cost reductions made possible through privatization and military construction investment. Removal of natural gas, where privatized, for FEC Washington is expected to save customers $3.9 million annually. Decentralization of the steam commodity at FECs Mid-Atlantic and Washington will save NWCF customers $17.8 million annually.

Utilities Restoration and Modernization Energy (RMe) investments produce significant energy savings and support compliance with Navy energy goals. FY 2017 estimate includes $9.0 million in cost reductions associated with prior year RMe investments. FY 2017 includes an investment of $26.4 million in RMe projects, which are estimated to produce $1.9 million in future annual energy savings.

Operating Results (Financial Profile):

Revenue/Expense/Operating Results ($Millions):	FY 2015	FY 2016	FY 2017
Orders	$2,963.9	$3,184.0	$2,998.8
Revenue	$2,993.1	$3,097.2	$2,963.1
Expense	$2,945.4	$3,185.9	$3,047.9
Operating Results	$47.7	($88.6)	($84.8)
Other Changes Affecting NOR	($1.5)	($13.0)	$0.0
Net Operating Results (NOR)	$46.2	($101.6)	($84.8)
Other Changes Affecting AOR	($48.1)	$0.0	$0.0
Accumulated Operating Results (AOR)	$186.4	$84.8	$0.0

Some totals may not add due to rounding.

Revenue and Expense:

The downward profile in orders between FY 2016 and FY 2017 is primarily due to initiatives reducing consumption across all commodities. Further, significant analysis of cost requirements, teamed with execution and customer demand, led to reductions in areas such as fuel (barrel) purchases, equipment and facilities maintenance. Hiring challenges have also affected financial estimates.

The -$48.1 million adjustment to AOR in FY 2015 is to maintain operating cash associated with budgetary resources required for projected outlays.

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Cash Management:

Collections/Disbursements/Outlays ($Millions):	FY 2015	FY 2016	FY 2017
Collections	$3,131.2	$3,081.4	$3,015.9
Disbursements	$2,969.2	$2,982.7	$3,021.4
Outlays	($162.0)	($98.7)	$5.5

Some totals may not add due to rounding.

Foreign Currency Issues:

Foreign currency exchange rates impact the FECs' operating and outlay results. The table below shows the estimated value of FEC costs that are subject to payment in foreign currency:

Costs Subject to Foreign Currency ($Millions):	FY 2015	FY 2016	FY 2017
Costs to be Paid in EUROS	$81.1	$69.7	$78.9
Costs to be Paid in YEN	$190.1	$181.8	$216.1
Total Costs to be Paid in Foreign Currency	$271.2	$251.4	$295.0

Workload:

Direct Labor Hours (000):	FY 2015	FY 2016	FY 2017
Current Estimate	12,642	12,606	12,412

Direct Labor Hours: Direct labor hours are driven by workload and mission requirements.

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Unit Cost: The FEC's specific outputs and associated unit costs are identified in the following table.

PRODUCT/SERVICE	UNIT OF MEASURE	UNIT COST FY 15	UNIT COST FY 16	UNIT COST FY 17
UTILITY SERVICES				
ELECTRICITY	MWH	148.73	174.08	167.45
POTABLE WATER	KGAL	10.22	9.19	9.50
SALT/RIVER WATER	KGAL	1.00	1.49	1.32
STEAM	MBTU	42.15	44.66	46.43
SEWAGE	KGAL	11.45	10.08	10.78
NATURAL GAS	MBTU	9.32	9.89	10.82
COMPRESSED AIR	KCF	1.57	2.59	2.36
SANITATION SERVICES				
REFUSE COLL & DISPOSAL I	CUYD	14.67	15.21	16.72
REFUSE COLL & DISPOSAL II	TONS	334.66	298.54	367.64
PEST CONTROL	HOURS	58.91	56.32	59.70
HAZ WASTE I	GAL	14.61	1.71	1.92
HAZ WASTE II	LBS	1.75	1.88	1.82
INDUST WASTE	KGAL	64.10	41.06	71.04
ENVIRONMENTAL ENG	HOURS	96.09	110.95	115.03
ENVIRONMENTAL LAB	TEST	50.35	60.60	58.71
TRANSPORTATION SERVICES				
EQUIP RENTAL	HOURS	5.47	5.93	5.39
VEHICLE OPS	HOURS	68.15	67.26	68.61
VEHICLE MAINTENANCE	SRO	174.95	187.71	176.35
MAINTENANCE & REPAIR	DLH	85.75	76.26	78.86

Units of Measure Acronym List

MBTU	Million British Thermal Units	MWH	Mega Watt Hour
CUYD	Cubic Yard	SRO	Shop Repair Order
KCF	Thousand Cubic Feet	LBS	Pounds
KGAL	Thousand Gallons	TONS	Tons
DLH	Direct Labor Hours		

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

The FEC's units used in determining unit cost above are identified in the following table.

PRODUCT/SERVICE	UNIT OF MEASURE	UNITS FY 15	UNITS FY 16	UNITS FY 17
UTILITY SERVICES				
ELECTRICITY	MWH	7,110,121	7,416,335	7,221,967
POTABLE WATER	KGAL	21,938,520	23,984,468	22,541,909
SALT/RIVER WATER	KGAL	8,818,176	7,551,103	7,768,143
STEAM	MBTU	6,311,919	7,068,696	6,178,024
SEWAGE	KGAL	16,189,799	17,522,812	16,396,423
NATURAL GAS	MBTU	3,773,179	4,333,436	4,082,317
COMPRESSED AIR	KCF	17,007,808	12,697,006	12,746,697
SANITATION SERVICES				
REFUSE COLL & DISPOSAL I	CUYD	766,317	955,971	781,974
REFUSE COLL & DISPOSAL II	TONS	33,268	35,061	30,697
PEST CONTROL	HOURS	65,915	67,629	66,844
HAZ WASTE I	GAL	349,958	95,000	95,000
HAZ WASTE II	LBS	18,347,232	17,068,235	17,914,496
INDUST WASTE	KGAL	199,131	374,678	227,367
ENVIRONMENTAL ENG	HOURS	34,312	37,358	37,358
ENVIRONMENTAL LAB	TEST	119,568	101,612	99,525
TRANSPORTATION SERVICES				
EQUIP RENTAL	HOURS	33,810,906	36,917,631	38,139,819
VEHICLE OPS	HOURS	868,988	963,813	917,542
VEHICLE MAINTENANCE	SRO	90,031	77,129	83,442
MAINTENANCE & REPAIR	DLH	5,769,847	5,741,555	5,636,112

Units of Measure Acronym List

MBTU Million British Thermal Units
CUYD Cubic Yard
KCF Thousand Cubic Feet
KGAL Thousand Gallons
DLH Direct Labor Hours
MWH Mega Watt Hour
SRO Shop Repair Order
LBS Pounds
TONS Tons

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Rate Changes:	**FY 2015**	**FY 2016**	**FY 2017***
Composite Rate	-6.23%	-0.34%	-4.33%
Utilities	-8.99%	3.51%	-6.05%
Sanitation Services and Other Base Support	-0.48%	-8.38%	-0.77%

**Sanitation realigned to Other Base Support in FY 2017*

Performance Measures:

Among the key financial indicators for the FECs are operating results, annual rate changes, and unit costs. Other key corporate performance measures include timeliness, workforce safety, and client satisfaction. Timeliness is an extremely important client satisfaction indicator in the area of facilities sustainment. The Emergency Work Response Time – Schedule Adherence metric represents the percent of time that emergency work crews arrive on-scene within prescribed timelines. Another metric, Service/Minor/Specific Work Completion Date – Schedule Adherence, reflects the percent of time that work is completed on schedule. The minimum goal in either case is 90% as identified in the measures below. FY 2015 reflects actual results for the specified performance measures.

Performance Measure:	**FY 2015**	**FY 2016**	**FY 2017**
Emergency Work Response Time-Schedule Adherence	86.0%	90.0%	90.0%
Service/Minor/Specific Work Completion Date-Schedule Adherence	79.0%	90.0%	90.0%

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	9,332	9,337	9,340
Civilian Workyears (straight time)	9,142	9,271	9,275
Military End Strength	79	78	78
Military Workyears	72	78	78

Civilian Personnel: Personnel resources are one of the most valuable assets to the FEC organization. The NWCF FEC management team continues to focus on the optimal mix and quantity of personnel required to ensure effectiveness in providing quality products and services to our customers. Ultimately, the FECs continue to size the civilian workforce in response to mission and regulatory requirements.

Military Personnel: Military end strength remains stable.

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Capital Investment Program (CIP):

CIP Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Equipment, Non-ADP / Telecom	$8.5	$16.9	$8.9
Equipment, ADPE / Telecom	$0.0	$0.0	$0.0
Software Development	$0.0	$0.0	$0.0
Minor Construction	$7.4	$12.4	$6.4
Total	$15.9	$29.3	$15.4

Some totals may not add due to rounding.

Capital investments for the FECs are a modest, but important element of successful operations. Increases in the FY 2016 CIP request reflect required investments in facilities and infrastructure. FEC's CIP will acquire affordable and efficient capabilities to support customer requirements.

Carryover Compliance: (Millions)	**FY 2015**	**FY 2016**	**FY 2017**
Net Carry-In	$240.1	$210.9	$297.6
Allowable Carryover	$957.8	$1,046.0	$978.5
Calculated Actual Carryover	$176.1	$259.4	$305.2
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($781.7)	($786.6)	($673.3)

Some totals may not add due to rounding.

Budgeted carryover is within the allowable ceiling target amounts.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	2,978.1	3,068.0	2,947.8
Capital Surcharges	-	13.0	-
Depreciation	15.0	16.3	15.4
Other Income			
Total Income	2,993.1	3,097.2	2,963.1
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	10.1	9.9	9.6
Civilian Personnel Compensation & Benefits	729.8	742.4	746.0
Travel and Transportation of Personnel	8.5	6.0	6.7
Material & Supplies (Internal Operations)	295.9	322.5	286.5
Equipment	70.3	68.0	68.6
Other Purchases from NWCF	30.0	29.9	29.0
Transportation of Things	5.4	1.5	1.5
Depreciation - Capital	15.0	16.3	15.4
Printing and Reproduction	0.8	1.4	1.3
Advisory and Assistance Services	0.1	0.1	1.8
Rent, Communication, Utilities & Misc Charges	1,056.4	1,228.9	1,194.1
Other Purchased Services	723.2	759.0	687.4
Total Expenses	2,945.4	3,185.9	3,047.9
Work in Process Adjustment	-	-	-
Comp Work for Activity Retention Adjustment	-	-	-
Cost of Goods Sold	2,945.4	3,185.9	3,047.9
Operating Result	47.7	(88.6)	(84.8)
Adjustments Affecting NOR	(1.5)	(13.0)	-
Capital Surcharges	-	(13.0)	-
Extraordinary Expenses Unmatched	-	-	-
Other Changes Affecting NOR (All Others)	(1.5)	-	-
Net Operating Result	46.2	(101.6)	(84.8)
PY AOR	188.3	186.4	84.8
TOTAL AOR	234.5	84.8	-
Non-Recoverable Adjustments impacting AOR	(48.1)	-	-
AOR for budget purposes	186.4	84.8	-

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	2,963.9	3,184.0	2,998.8
a. Orders from DoD Components:	2,245.3	2,467.1	2,256.7
Department of the Navy	2,040.3	2,220.9	1,999.8
O & M, Navy	1,903.1	2,056.5	1,829.2
O & M, Marine Corps	34.3	45.0	45.8
O & M, Navy Reserve	20.6	25.1	25.3
O & M, Marine Corp Reserve	1.8	3.6	3.6
Aircraft Procurement, Navy	0.0	0.2	0.2
Weapons Procurement, Navy	-	-	-
Ammunition Procurement, Navy/MC	-	-	-
Shipbuilding & Conversion, Navy	1.4	3.3	3.4
Other Procurement, Navy	0.5	0.6	0.6
Procurement, Marine Corps	-	-	-
Family Housing, Navy/MC	66.9	81.7	86.7
Research, Dev., Test, & Eval., Navy	0.5	2.9	2.9
Military Construction, Navy	2.1	1.0	1.1
National Defense Sealift Fund	0.0	0.0	0.0
Other Navy Appropriations	9.0	1.0	1.1
Other Marine Corps Appropriations	0.0	-	-
Department of the Army	31.4	54.4	56.0
Army Operation & Maintenance	5.8	18.8	19.4
Army Res, Dev, Test, Eval	0.5	0.8	1.2
Army Procurement	0.0	0.0	0.0
Army Other	25.1	34.7	35.3
Department of the Air Force	17.8	12.0	12.1
Air Force Operation & Maintenance	8.9	8.2	8.5
Air Force Res, Dev, Test, Eval	0.0	0.1	0.1
Air Force Procurement	3.8	-	-
Air Force Other	5.2	3.7	3.5
DOD Appropriation Accounts	155.8	179.8	188.8
Base Closure & Realignment	0.4	7.6	7.6
Operation & Maintenance Accounts	47.3	82.5	85.2
Res, Dev, Test & Eval Accounts	4.3	2.7	2.7
Procurement Accounts	3.3	1.1	0.7
Defense Emergency Relief Fund	-	-	-
DOD Other	101.2	85.9	92.6
b. Orders from other Fund Activity Groups	399.4	413.2	431.7
c. Total DoD	2,644.7	2,880.3	2,688.4
d. Other Orders:	319.1	303.7	310.4
Other Federal Agencies	24.9	24.5	27.0
Foreign Military Sales	0.3	0.3	0.4
Non Federal Agencies	294.0	278.9	283.0
2. Carry-In Orders	240.1	210.9	297.6
3. Total Gross Orders	3,204.0	3,394.8	3,296.4
a. Funded Carry-Over before Exclusions	210.9	297.6	333.3
4. Revenue(-)	2,993.1	3,097.2	2,963.1
5. End of Year Work-In-Process (-)	-	-	-
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	34.8	38.2	28.1
7. Funded Carryover	176.1	259.4	305.2

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**2,945.4**
FY 2016 President's Budget:	**3,186.0**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**0.0**
Pricing Adjustments:	**9.6**
Civilian Personnel - locality pay adjustments	0.7
Fuel Price	
Net increase in Purchase Utility costs due to local utility provider price increases	11.1
Decrease in budgeted inflation rate	-2.2
Program Changes:	**-31.6**
Reduction in General Services Administration (GSA) vehicle rental costs	-2.5
Reduction in Federal Employees Compensation Act (FECA) charges	-4.3
Reduction in onboard personnel due to protracted effects of the hiring freeze	-24.8
Other Changes:	**21.8**
Higher contracts cost to offset labor hiring under execution	19.6
Cybersafe and Risk Management Framework (RMF) initiatives	1.3
Increase in costs for disposal of hazardous waste	0.9
FY 2016 Current Estimate:	**3,185.9**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**3,185.9**
Pricing Adjustments:	**30.9**
Annualization of Prior Year Pay Raises	**2.6**
Civilian Personnel	2.5
Military Personnel	0.0
FY 2017 Pay Raise	**8.5**
Civilian Personnel	8.5
Military Personnel	0.1
Fuel Price Changes	-16.0
General Purchase Inflation	35.8
Productivity Initiatives and Other Efficiencies:	**-30.8**
Decrease in Centralized Steam costs due to initiatives at NSF Indian Head, NS Great Lakes, and NS Norfolk	-17.8
Energy savings resulting from investment in prior year Energy Restoration and Modernization Projects (RMe)	-9.0
Decrease in Natural Gas costs based on privatization of Natural Gas delivery at FEC Washington Public Works Departments (PWDs)	-3.9
Program Changes:	**-140.4**
Restoration and Modernization - Energy Program (RMe) investment	26.4
Compliance with Occupational Safety and Health Administration guidelines associated with Arc Flash	9.4
Sustainment costs associated with the Utility Infrastructure Condition Assessment Program	8.0
Costs to increase annual training for direct tradesmen	3.6
Costs for rail car disposal at PWDs Crane, IN. and Seal Beach, CA.	2.6
Realignment of SmartGrid Test Bed costs	2.0
Decrease in GSA vehicle rental charges	-3.3
Decrease in Facilities Sustainment Program from 80 to 73%	-39.1
Decrease due to change in budgeted Euro and Yen exchange rates	-58.3
Decrease in costs as a result of Baseline Review energy conservation savings and decreased customer demand for other commodities	-91.8
Other Changes:	**2.4**
Increase in employer's share of Federal Employees Retirement System (FERS)	4.1
Decrease in two paid days	-5.7
Increase in Indirect Hire Local National employees' costs in Japan	4.0
FY 2017 Estimate:	**3,047.9**

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**13**	**$8.470**	**19**	**$16.896**	**11**	**$8.935**
	- Vehicles	6	$1.562	5	$1.792	2	$1.050
	- Material Handling	6	$6.531	11	$13.479	7	$7.100
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	0	$0.000	0	$0.000	0	$0.000
	- Support Equipment	1	$0.378	3	$1.625	2	$0.785
2	**ADPE and Telecom Equipment >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Computer Hardware (Production)	0	$0.000	0	$0.000	0	$0.000
	- Computer Hardware (Network)	0	$0.000	0	$0.000	0	$0.000
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**15**	**$7.396**	**20**	**$12.357**	**10**	**$6.428**
	- Replacement Capability	4	$1.004	6	$4.135	2	$1.167
	- New Construction	11	$6.392	11	$6.822	7	$4.696
	- Environmental Capability	0	$0.000	3	$1.400	1	$0.565
	Grand Total	**28**	**$15.867**	**39**	**$29.253**	**21**	**$15.363**
	Total Capital Outlays		**$13.712**		**$13.842**		**$13.812**
	Total Depreciation Expense		**$14.971**		**$16.261**		**$15.363**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Base Support	#001 - Non-ADP Equipment						Facilities Engineering Commands		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	6	260	$1,562	5	358	$1,792	2	525	1,050
Material Handling	6	1,088	$6,531	11	1,225	$13,479	7	1,014	7,100
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	0	0	$0	0	0	$0	0	0	$0
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	0	0	$0	0	0	$0	0	0	$0
Support Equipment	1	378	$378	3	542	$1,625	2	393	785
Total	13	652	$8,470	19	889	$16,896	11	812	$8,935

Justification:

As the Department of the Navy's provider of public works support and services, the Facilities Engineering Commands (FECs) depend heavily on Civil Engineering Support Equipment (CESE) to accomplish it's mission. In the broadest sense, CESE encompasses automotive vehicles, construction equipment, railway equipment, fire-fighting equipment, and mobile weight handling equipment.

Requested CESE will replace over-aged, deteriorated, or obsolete inventory covering the full range of public works functions, e.g., utilities and maintenance. All budgeted CESE has been determined to meet activity allowances and replacement economic criteria. All requested replacements are in support of public works workload. The age of existing equipment frequently contributes to increased downtime, increased maintenance cost, and lost customer revenue. In particular, inventories of large equipment experiencing operational delays for repair or safety downtimes are offset by leasing where and when available. However, leasing equipment frequently ranges from 30% to 60% higher in cost per hour than in-house equipment. Replacements provide for more efficient and safe operations. Additionally, replacements offer the latest technology in public works support capabilities.

The timing of placement of these new assets into operation varies depending on the size, complexity, vendor availability, and shipping. Generally, equipment cost avoidance begins within 30-60 days from receipt of item.

Each FEC has conducted a comprehensive review of equipment inventories and determined an optimal economic approach to containing costs as well as maintaining minimum interruption to services. Proposed investments are essential to this strategy. If the proposed equipment is not purchased, substantial opportunity to provide safe and reliable services at the least cost to the Navy will be lost.

Examples of Vehicle requests include replacement of equipment at FEC Southwest that is in violation of the California Air Resources Board (CARB) Truck & Bus rules for diesel emission compliance. Another example from FY 2015 includes two refuse collection trucks at FEC Northwest.

Examples of Material Handling requests includes cranes at multiple FECs, which are necessary in accomplishing mission requirements.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Base Support	#004 - Minor Construction ($250K - $750K)						Facilities Engineering Commands		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	4	251	$1,004	6	689	$4,135	2	584	$1,167
New Construction	11	581	$6,392	11	620	$6,822	7	671	$4,696
Environmental Capability	0	0	$0	3	467	$1,400	1	565	$565
Total	15	493	$7,396	20	618	$12,357	10	643	$6,428

Justification:

FEC minor construction projects represent the full range of public works facilities requirements for transportation, utilities, storage and maintenance. The proposed projects are limited to and strictly controlled by the Capital Investment Program (CIP) thresholds. None of the projects in this budget exceed current MILCON thresholds. Budgeted projects are for construction, expansion, or improvement of a complete and useable building, structure, or other real property.

Each FEC has conducted a comprehensive business review of its facilities needs and determined an optimal economic approach to cost containment, while ensuring that health and safety requirements are met and service interruptions are minimized. The proposed project priorities are determined by economic analyses which are based on cost effective payback solutions which produce the fastest return on investment. Generally, FEC projects have a payback on the initial investment of 5 years or less. Completion of health/safety and environmental compliance projects will provide for cost avoidance resulting from elimination of potential hazmat situations.

The proposed budget is essential to providing planned cost control and service reliability of the FEC plant account. If proposed projects are not approved, substantial opportunity to provide safe, environmentally compliant, and effective services at the least cost to the Navy will be lost.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$8.554**	**$8.470**	**-$0.084**	
			Vehicles	$1.740	$1.562	-$0.178	Purchases cancelled
			Material Handling	$6.314	$6.531	$0.217	Crane purchase, increase cost
			Installation Security	$0.000	$0.000	$0.000	
			Quality Control/Testing	$0.000	$0.000	$0.000	
			Medical Equipment	$0.000	$0.000	$0.000	
			Machinery	$0.000	$0.000	$0.000	
			Support Equipment	$0.500	$0.378	-$0.122	Estimate decreased
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
			Computer Hardware (Production)	$0.000	$0.000	$0.000	
			Computer Hardware (Network)	$0.000	$0.000	$0.000	
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.000	$0.000	
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$8.131**	**$7.396**	**-$0.735**	
			Replacement	$1.788	$1.004	-$0.784	Mobile Steam Plant cancelled
			New Construction	$6.343	$6.392	$0.049	Cancelled projects offset by emergent requests.
			Environmental Capability	$0.000	$0.000	$0.000	
TOTAL FY 2015 CIP Program				**$16.685**	**$15.867**	**-$0.818**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$16.896**	**$16.896**	**$0.000**	
			Vehicles	$1.792	$1.792	$0.000	
			Material Handling	$13.479	$13.479	$0.000	
			Installation Security	$0.000	$0.000	$0.000	
			Quality Control/Testing	$0.000	$0.000	$0.000	
			Medical Equipment	$0.000	$0.000	$0.000	
			Machinery	$0.000	$0.000	$0.000	
			Support Equipment	$1.625	$1.625	$0.000	
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
			Computer Hardware (Production)	$0.000	$0.000	$0.000	
			Computer Hardware (Network)	$0.000	$0.000	$0.000	
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.000	$0.000	
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$12.357**	**$12.357**	**$0.000**	
			Replacement	$4.135	$4.135	$0.000	
			New Construction	$6.822	$6.822	$0.000	
			Environmental Capability	$1.400	$1.400	$0.000	
TOTAL FY 2016 CIP Program				**$29.253**	**$29.253**	**$0.000**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$8.935**	**$8.935**	**$0.000**	
			Vehicles	$1.050	$1.050	$0.000	
			Material Handling	$7.100	$7.100	$0.000	
			Installation Security	$0.000	$0.000	$0.000	
			Quality Control/Testing	$0.000	$0.000	$0.000	
			Medical Equipment	$0.000	$0.000	$0.000	
			Machinery	$0.000	$0.000	$0.000	
			Support Equipment	$0.785	$0.785	$0.000	
	2	**ADP**		**$0.000**	**$0.000**	**$0.000**	
			Computer Hardware (Production)	$0.000	$0.000	$0.000	
			Computer Hardware (Network)	$0.000	$0.000	$0.000	
			Computer Software (Operating)	$0.000	$0.000	$0.000	
			Telecommunications	$0.000	$0.000	$0.000	
			Other Support Equipment	$0.000	$0.000	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
			Internally Developed	$0.000	$0.000	$0.000	
			Externally Developed	$0.000	$0.000	$0.000	
	4	**Minor Construction**		**$6.428**	**$6.428**	**$0.000**	
			Replacement	$1.167	$1.167	$0.000	
			New Construction	$4.696	$4.696	$0.000	
			Environmental Capability	$0.565	$0.565	$0.000	
TOTAL FY 2017 CIP Program				**$15.363**	**$15.363**	**$0.000**	

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
BASE SUPPORT - FACILITIES ENGINEERING COMMANDS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	240.1	210.9	297.6
2. Revenue	2,993.1	3,097.2	2,963.1
3. New Orders	2,963.9	3,184.0	2,998.8
4. Exclusions:			
Foreign Military Sales	0.3	0.3	0.4
Base Realignment and Closure	(0.4)	7.6	7.6
Other Federal Department and Agencies	24.9	24.5	27.0
Non-Federal and Others	294.0	278.9	283.0
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
5. Orders for Carryover Calculation	2,645.1	2,872.7	2,680.9
6. Weighted Average Outlay Rate	63.8%	63.7%	63.6%
7. Carryover Rate	36.2%	36.3%	36.4%
8. Allowable Carryover	957.8	1,046.0	978.5
Allowable Carryover(First Year)	957.0	1,043.7	976.6
Allowable Carryover (Second Year Procurement-funded Orders)	0.8	2.3	1.9
Part II			
9. Balance of Customer Order at Year End	210.9	297.6	333.3
10. Work-in-progress	-	-	-
11. Exclusions:			
Foreign Military Sales	0.1	0.2	0.3
Base Realignment and Closure	0.0	0.0	7.2
Other Federal Department and Agencies	4.7	5.3	6.2
Non-Federal and Others	30.0	32.7	14.4
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
12. Calculated Actuals Carryover	176.1	259.4	305.2

Some totals may not add due to rounding.

TAB #10 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT
NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement / Overview:

The Naval Facilities Engineering and Expeditionary Warfare Center (EXWC) is a Navy-wide technical center, delivering quality products and services in:

- Energy and Utilities
- Amphibious and Expeditionary Systems
- Environmental
- Ocean Facilities
- Shore, and Waterfront Facilities

As a member of the Naval Facilities Engineering Command (NAVFAC), EXWC provides worldwide support services to the Navy, Marine Corps and other Department of Defense (DoD) agencies. These support services provide solutions to problems through engineering; design; construction; consultation; test and evaluation; technology demonstration; implementation, and program management support. In accomplishing these services the center leverages technology to enhance customer effectiveness and efficiency. EXWC uses existing technology where possible, identifies and adapts breakthrough technology when appropriate, and performs technology development when required.

Executive Summary:

EXWC is the principal Navy provider of specialized engineering services and products for shore and offshore facilities, energy and utilities, environmental support, and amphibious and expeditionary systems. The work performed is accomplished by mobilizing the proper mix of personnel expertise and other technological resources to address customer requirements. The center provides a synergism of expertise and practical experience to solve field activity and fleet needs. As such, the center supports a very broad range of Navy and Marine Corps customers with focus on delivering quality products and services.

The energy and utilities mission focuses on the Navy's ashore establishment energy program. Efforts focus on utilities and energy management, conservation systems, data management, technology transfer, utility control systems, utility systems engineering, and thermal and power plant engineering. EXWC is able to partner with other DoD and government agencies to leverage best value technologies and business practices to save energy and reduce utility costs. Some examples include:

- Performance testing of photo-voltaic energy producing systems in harsh climate areas such as Djibouti
- Demonstration and validation of micro grid energy management technology
- Demonstration of advanced lighting and sustainable building technologies
- Improved energy storage systems

The amphibious and expeditionary systems mission involves developing and providing support and enhancements to Naval Construction Battalions and Marine Corps advanced base construction and operations, amphibious force operations, and combat engineer operations. Efforts focus on amphibious systems, combat engineer systems, expeditionary facilities, and logistics engineering. A recent undertaking focuses on Expeditionary Environmental Control Unit development, which will reduce heating and air-conditioning fuel consumption for expeditionary force camp shelters by fifty percent; thereby, reducing the requirement for fuel transport convoys.

The environmental mission entails planning, reviewing, and analyzing Navy-wide functions, and assembling and deploying customized technology to meet the environmental requirements of the naval shore establishment. Efforts focus on environmental restoration, compliance, data management, technology transfer, waste management, pollution prevention, indoor air management, and the oil spill program. EXWC also conducts marine mammal research that focuses on the development of planning, monitoring, and mitigating tools to aid the fleet in minimizing contact with and the potential harassment of protected marine wildlife during operations. In addition, EXWC has also established a climate change initiative to evaluate technology-based solutions to problems arising from increasing greenhouse gas concentrations in the atmosphere. Preliminary efforts are underway in the following areas:

- The impact of the rise in sea level on shore facilities
- Carbon sequestration at power and heating plants
- Hurricane abatement

The ocean facilities mission is to develop, implement, and improve the Navy's capabilities for the design, construction, maintenance, and repair of fixed ocean facilities. Efforts focus on marine geo-techniques, anchor systems, ocean structures, undersea warfare, underwater cable facilities, hyperbaric facilities, mooring systems, magnetic silencing facilities, underwater inspection, ocean construction equipment inventory, coastal facilities, seafloor surveys, and pipeline integrity assessment. EXWC also maintains technical diving and consultation services to facilitate and streamline planning and accomplishment of military at sea testing and training requirements as well as new construction for supported commands.

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT
NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

The shore and waterfront facilities mission is to provide innovative engineering solutions, designs, technological tools and field services to support a viable naval shore establishment. Efforts focus on waterfront facilities such as pier and wharf condition assessment, aviation facilities, physical security, ordnance facilities, materials and coatings, computer aided design, facilities life cycle management, base survivability electronics, and thermal and power plant engineering.

EXWC efforts also include reducing the Department of the Navy's total facility ownership costs by standardizing best technical practices, solutions, material and processes while meeting operational and readiness requirements. A few areas that EXWC delivers naval facilities life cycle technical solutions are aircraft engine test facilities; airfield pavements; corrosion prevention and control; explosion effects and consequences; physical security technologies; and oversight for maintenance and repair projects administered by NAVFAC such as the Ford Island Bridge project in Hawaii.

EXWC is a dual funded organization, with NWCF and appropriated (mission-funded) efforts remaining separate and distinct. The above overview reflects the NWCF operations.

Activity Group Composition:

EXWC Headquarters	Port Hueneme, CA.
East Coast Detachment	Navy Yard, Washington, DC.

Significant Changes Since the FY 2016 President's Budget:

The FY 2016 budget reflects a $10 million decrease in cost since the FY 2016 President's Budget. This cost reduction is associated with the difficulty in hiring for vacant positions which require particular technical skillsets, and as a result, has impacted orders and work accomplishment. In some cases, funding from customers had to be returned or work diverted to contract. As an example, EXWC's Petroleum, Oil and Lubricant Program only has twenty-two of forty-three authorized personnel on board. EXWC has attempted to supplement the shortfall with contractors and active duty personnel, but still has not been able to adequately satisfy demand. This resulted in the inability to return sixty-six fuel tanks to service in FY 2015.

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT
NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Operating Results (Financial Profile):

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Orders	$68.0	$77.9	$73.4
Revenue	$70.3	$76.4	$76.3
Expense	$71.8	$74.9	$76.0
Operating Results	($1.4)	$1.6	$0.3
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	($1.4)	$1.6	$0.3
Other Changes Affecting AOR	($0.5)	($1.9)	($0.3)
Accumulated Operating Results (AOR)	($1.9)	($0.3)	($0.0)

Some totals may not add due to rounding.

Revenue and Expense:

Revenue and expenses are expected to remain stable through the budget period, and is consistent with known customer requirements.

Cash Management:

Collections/Disbursements/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$73.5	$74.4	$65.6
Disbursements	$74.8	$73.1	$63.4
Outlays	$1.4	($1.4)	($2.1)

Some totals may not add due to rounding.

Net Outlays are projected to remain relatively stable from FY 2016 to FY 2017.

Workload:

Direct Labor Hours (000):	**FY 2015**	**FY 2016**	**FY 2017**
Current Estimate	476.7	459.9	452.7

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT
NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Direct Labor Hours:

Direct labor hours reflect demand for the EXWC specialized, engineering services. Each year, customer demand and required services are estimated and reviewed to ensure the command is correctly resourcing and leveraging engineering expertise needed to provide the right mix of engineering services and to maintain the correct level of organic capability to meet recurring customer demand.

Performance Measures: The primary performance indicator is unit cost, which represents the average cost of delivering goods and services to our customers.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Total Stabilized Cost ($Millions)	$54.2	$53.5	$54.5
Workload (DLHs) (000)	477	460	453
Unit cost (per DLH)	$113.66	$116.41	$120.29

Unit Cost: Unit cost is the method established to authorize and control costs. Unit cost goals allow activities to respond to workload changes in execution by encouraging reduced costs when workload declines and allowing appropriate increases in costs when customers request additional services.

Stabilized / Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Stabilized Rate	$97.10	$113.70	$125.43
Change from Prior Year		17.09%	10.32%
Composite Rate Change		11.20%	7.09%

The stabilized rate consists of direct labor and applied overhead. Unique direct non-labor costs are billed on a reimbursable basis to the customer. The composite rate change incorporates both the stabilized costs and the reimbursable costs.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	383	363	363
Civilian Workyears (straight time)	363	354	354
Military End Strength	3	3	3
Military Workyears	3	3	3

NARRATIVE
DEPARTMENT OF THE NAVY
BASE SUPPORT
NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER (EXWC)
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Civilian Personnel:

Civilian end strength and work years remain stable through the budget years and are based on workload requirements.

Military Personnel:

Military end strength and work years remain stable through the budget years.

Capital Investment Program (CIP):

The EXWC does not have any CIP authority.

Carryover Compliance: (Millions)	FY 2015	FY 2016	FY 2017
Net Carry-In	$33.1	$30.8	$32.3
Allowable Carryover	$32.1	$35.9	$35.8
Calculated Actual Carryover	$28.3	$29.8	$26.9
Delta (Actual-Allowable): Above Ceiling (+)/Below Ceiling (-)	($3.8)	($6.1)	($8.9)

Some totals may not add due to rounding.

Budgeted carryover is within the allowable ceiling target amounts.

REVENUE AND EXPENSES
DEPARTMENT OF THE NAVY
BASE SUPPORT - NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	70.3	76.4	76.3
Capital Surcharges	-	-	-
Depreciation	0.0	0.0	0.0
Other Income			
Total Income	70.3	76.4	76.3
Expenses			
Cost of Materiel Sold from Inventory			
Salaries and Wages:			
Military Personnel Compensation & Benefits	0.4	0.4	0.4
Civilian Personnel Compensation & Benefits	49.9	49.9	50.3
Travel and Transportation of Personnel	3.9	4.6	4.7
Material & Supplies (Internal Operations)	2.2	2.1	2.0
Equipment	2.7	0.9	1.0
Other Purchases from NWCF	1.3	2.0	1.9
Transportation of Things	0.4	0.3	0.3
Depreciation - Capital	0.0	0.0	0.0
Printing and Reproduction	0.0	0.0	0.0
Advisory and Assistance Services	-	-	-
Rent, Communication, Utilities & Misc Charges	0.6	0.6	0.6
Other Purchased Services	10.3	14.0	14.7
Total Expenses	71.8	74.9	76.0
Work in Process Adjustment	-	-	-
Comp Work for Activity Retention Adjustment	-	-	-
Cost of Goods Sold	71.8	74.9	76.0
Operating Result	(1.4)	1.6	0.3
Adjustments Affecting NOR	-	-	-
Capital Surcharges	-	-	-
Extraordinary Expenses Unmatched	-	-	-
Other Changes Affecting NOR (All Others)	-	-	-
Net Operating Result	(1.4)	1.6	0.3
PY AOR	(0.5)	(1.9)	(0.3)
TOTAL AOR	(1.9)	(0.3)	-
Non-Recoverable Adjustments impacting AOR	-	-	-
AOR for budget purposes	(1.9)	(0.3)	-

SOURCES OF NEW ORDERS & REVENUE
DEPARTMENT OF THE NAVY
BASE SUPPORT - NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders	68.0	77.9	73.4
a. Orders from DoD Components:	64.1	68.8	63.6
Department of the Navy	55.5	61.9	56.3
O & M, Navy	36.0	30.6	25.2
O & M, Marine Corps	1.6	1.3	1.4
O & M, Navy Reserve	0.6	0.1	0.1
O & M, Marine Corp Reserve	0.0	-	-
Aircraft Procurement, Navy	-	-	-
Weapons Procurement, Navy	-	-	-
Ammunition Procurement, Navy/MC	-	-	-
Shipbuilding & Conversion, Navy	-	-	-
Other Procurement, Navy	2.7	6.3	6.7
Procurement, Marine Corps	0.6	-	-
Family Housing, Navy/MC	-	-	-
Research, Dev., Test, & Eval., Navy	11.3	21.6	20.8
Military Construction, Navy	2.7	1.6	1.7
National Defense Sealift Fund	-	-	-
Other Navy Appropriations	0.1	0.3	0.3
Other Marine Corps Appropriations	-	0.1	0.1
Department of the Army	2.2	2.7	2.9
Army Operation & Maintenance	1.2	1.1	1.2
Army Res, Dev, Test, Eval	0.9	1.5	1.6
Army Procurement	-	0.1	0.1
Army Other	0.0	-	-
Department of the Air Force	2.5	1.6	1.7
Air Force Operation & Maintenance	0.0	0.2	0.2
Air Force Res, Dev, Test, Eval	2.3	1.4	1.5
Air Force Procurement	-	-	-
Air Force Other	0.2	-	-
DOD Appropriation Accounts	3.9	2.5	2.7
Base Closure & Realignment	0.8	0.8	0.9
Operation & Maintenance Accounts	0.2	0.1	0.1
Res, Dev, Test & Eval Accounts	2.8	1.6	1.7
Procurement Accounts	-	-	-
Defense Emergency Relief Fund	-	-	-
DOD Other	0.2	-	-
b. Orders from other Fund Activity Groups	2.3	8.0	8.6
c. Total DoD	66.3	76.8	72.2
d. Other Orders:	1.6	1.2	1.2
Other Federal Agencies	1.1	0.9	1.0
Foreign Military Sales	0.1	-	-
Non Federal Agencies	0.4	0.3	0.3
2. Carry-In Orders	33.1	30.8	32.3
3. Total Gross Orders	101.1	108.7	105.6
a. Funded Carry-Over before Exclusions	30.8	32.3	29.3
4. Revenue(-)	70.3	76.4	76.3
5. End of Year Work-In-Process (-)	-	-	-
6. FMS, BRAC, Other Federal, Non-Federal orders, and Inst. MRTFB (-)	2.5	2.5	2.5
7. Funded Carryover	28.3	29.8	26.9

Note: Line 5 (End of Year Work-In-Process) is adjusted for Non-DOD BRAC, FMS, and Institutional MRTFB

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
BASE SUPPORT - NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2015 Actuals	**71.8**
FY 2016 President's Budget:	**84.9**
Estimated Impact in FY 2016 of Actual FY 2015 Experience:	**0.0**
Pricing Adjustments:	**0.1**
Increase in DFAS accounting costs	0.1
Other Changes:	**-10.1**
Reduction in Federal Employees Compensation Act (FECA) charges	-0.3
Reduction in cost associated difficulty in hiring for vacant positions	-9.8
FY 2016 Current Estimate:	**74.9**

CHANGES IN THE COSTS OF OPERATIONS
DEPARTMENT OF THE NAVY
BASE SUPPORT - NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	Costs
FY 2016 Current Estimate:	**74.9**
Pricing Adjustments:	**1.0**
Annualization of Prior Year Pay Raises	**0.2**
Civilian Personnel	0.2
Military Personnel	0.0
FY 2017 Pay Raise	**0.6**
Civilian Personnel	0.6
Military Personnel	0.0
Fuel Price Changes	-0.1
General Purchase Inflation	0.3
Other Changes:	**0.1**
Increase in employer's share of Federal Employees Retirement System (FERS)	0.3
Decrease in two paid days	-0.1
FY 2017 Estimate:	**76.0**

CARRYOVER RECONCILIATION
DEPARTMENT OF THE NAVY
BASE SUPPORT - NAVAL FACILITIES ENGINEERING AND EXPEDITIONARY WARFARE CENTER
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Part 1			
1. Net Carry-In	33.1	30.8	32.3
2. Revenue	70.3	76.4	76.3
3. New Orders	68.0	77.9	73.4
4. Exclusions:			
Foreign Military Sales	0.1	-	-
Base Realignment and Closure	0.8	0.8	0.9
Other Federal Department and Agencies	1.1	0.9	1.0
Non-Federal and Others	0.4	0.3	0.3
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
5. Orders for Carryover Calculation	65.5	75.9	71.3
6. Weighted Average Outlay Rate	54.8%	54.0%	53.0%
7. Carryover Rate	45.2%	46.0%	47.0%
8. Allowable Carryover	32.1	35.9	35.8
Allowable Carryover(First Year)	29.8	34.6	33.4
Allowable Carryover (Second Year Procurement-funded Orders)	2.3	1.3	2.4
Part II			
9. Balance of Customer Order at Year End	30.8	32.3	29.3
10. Work-in-progress	-	-	-
11. Exclusions:			
Foreign Military Sales	0.1	0.1	0.1
Base Realignment and Closure	1.4	1.4	1.4
Other Federal Department and Agencies	0.6	0.6	0.6
Non-Federal and Others	0.3	0.3	0.3
Institutional Major Range & Test Facility Base	-	-	-
OUSD(C) Approved Carryover Waiver	-	-	-
12. Calculated Actuals Carryover	28.3	29.8	26.9

Some totals may not add due to rounding.

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TAB #11 GOES HERE

Back of Tab

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement/Overview:

The mission of Navy Supply Management is to perform inventory management functions resulting in the sale of aviation and shipboard components, and ship's store stock and consumables to a wide variety of customers. Supply Management ensures the right material is provided where it matters, when it matters, and at the right cost is vital to equipping and sustaining Navy and Marine Corps warfighting units. Other major customers include Department of the Navy (DON) shore activities, Army, Air Force, Defense Agencies, other government agencies and foreign governments. Supply Management also provides strong sailor and family support through contracting, resale, transportation, food service, and other quality of life programs. Costs related to supplying this material to customers are recouped through stabilized rate recovery elements such as prior year gains and losses, inventory maintenance, repair costs including attrition, and local elements. Navy Supply Management is divided into six Budget Projects (BP) in order to organize the financial operations of the fund.

	Budget Project
Wholesale	
Aviation Consumables	BP34
Ship Repairables and Consumables	BP81
Aviation Repairables	BP85
Retail	
Ship's Store	BP21
General Consumables	BP28
Operations	
Operations and Reimbursables	BP91

Activity Group Composition:

Navy Working Capital Fund Supply Management (NWCF-SM) activity group is comprised of:
Naval Supply Systems Command Weapon Systems Support (NAVSUP WSS):
- NAVSUP WSS Mechanicsburg, PA
- NAVSUP WSS Philadelphia, PA

NAVSUP Global Logistics Support:
- NAVSUP Fleet Logistics Center, San Diego, CA
- NAVSUP Fleet Logistics Center, Jacksonville, FL
- NAVSUP Fleet Logistics Center, Norfolk, VA
- NAVSUP Fleet Logistics Center, Pearl Harbor, HI
- NAVSUP Fleet Logistics Center, Puget Sound, WA
- NAVSUP Fleet Logistics Center, Yokosuka, JP
- NAVSUP Fleet Logistics Center, Sigonella, IT
- NAVSUP Fleet Logistics Center, Manama, BH

NAVSUP Business Systems Center, Mechanicsburg, PA

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Significant Changes Since the FY 2016 President's Budget:
The following significant changes have occurred since the FY 2016 President's Budget:

The FY 2017 President's budget reflects increases in most categories of NAVSUP's financial profile due to the Navy being in a transition period. The Navy is supporting legacy systems/platforms, while at the same time establishing and maturing support for new systems/platforms. These transitions are planned on a schedule to meet enterprise, service, and defense-wide mission objectives supporting operational commanders.

Cost Reductions
The Department of the Navy's (DON's) FY 2017 budget estimates reflect the impact of Navy Enterprise Resource Planning (ERP) implementation, including legacy Information Technology (IT) system retirement and inventory savings. The impact of these initiatives on customer pricing is a reduction of $139.7 million in FY 2015, FY 2016, and FY 2017. In addition, ERP effectiveness includes budget estimate reductions for material obligations of $76 million in FY 2015.

Consumable Item Transfer (CIT)
In accordance with the Financial Management Regulation (FMR), all services may request from Defense Logistics Agency (DLA) reimbursement for the value of inventory due-in from procurement at the time of each logistics reassignment transfer. Navy collected $95.1 million in FY 2015, of which $11.1 million was from the Fleet Readiness Center (FRC) Inventory Management Stock Positioning (IMSP) transfers. The FY 2016 and FY 2017 planned reimbursements are $22.0 million and $2.5 million respectively.

Financial Profile:

Revenue/Expense/Operating Results ($Millions):

	FY 2015	FY 2016	FY 2017
Net Revenue	$6,405.0	$6,665.3	$6,979.3
Expense	$6,332.5	$6,748.7	$6,868.0
Operating Results	$72.5	($83.4)	$111.4
Capital Surcharge	$2.2	$1.4	($1.7)
Net Operating Results (NOR)	$74.7	($82.0)	$109.6
Prior Year AOR	$173.1	$122.3	($109.6)
Other Changes Affecting AOR	($125.4)	($150.0)	$0.0
Accumulated Operating Results (AOR)	$122.3	($109.6)	$0.0

Note: Amounts may not add due to rounding

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Revenue and Expense: FY 2015 reflects actuals. Revenue in FY 2016 increases from the FY 2016 President's budget due to Maritime basic business demand increases and special program sales, along with the Aviation Outfitting Allowance (AOA) sales from FY 2015 re-phasing. In FY 2017 revenue increases by $314 million from FY 2016 associated with Aviation Special Program sales, current Flying Hour Program projections and a Fleet Readiness Center rate increase. Expense changes are consistent with revenue adjustments. Growth in FY 2016 expense is driven by an increase in wholesale cost of goods sold. This growth is offset by lower cost recovery rates causing revenue to remain consistent with FY 2016.

Obligation Authority ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Wholesale	$4,360.3	$4,608.6	$4,590.3
Retail	$746.3	$780.7	$784.7
Operating	$1,150.8	$1,308.2	$1,306.7
CIP	$4.6	$5.0	$8.0
Total	$6,262.1	$6,702.5	$6,689.7

Note: Amounts may not add due to rounding

Wholesale: The FY 2015 obligations reflect actuals. FY 2016 obligations reflect an increase of $297 million from the 2016 President's Budget. Obligation authority for the Supply Management portion of the Working Capital Fund, is closely linked to a demand signal from the Fleet and placed on contract a lead time away. The Navy is in a transition period establishing and maturing support for new platforms and systems to include P-8A, Gerald R. Ford class carriers, Littoral Combat Ships (LCS), DDG-1000, and DDG-51, while at the same time maintaining legacy platforms/systems to include F/A-18, C-2A, PCs, Virginia Class submarines and MCMs. These transitions are planned on a schedule to meet enterprise, service, and defense-wide mission objectives supporting operational commanders. The combined effects described above ultimately support the Optimized Fleet Response Plan (OFRP) and Navy's ability to provide the required capabilities to support assigned missions. If Navy is not able to meet and sustain OFRP requirements, further service life extensions of legacy platforms/systems will likely occur. The FY 2017 obligations reflect a continuation of these requirements.

Retail: The FY 2015 obligations reflect actuals. There are no significant changes in obligations forecasted from FY 2016 to FY 2017.

Operating: The FY 2015 obligations reflect actuals. There are no significant changes in obligations forecasted from FY 2016 to FY 2017.

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Collections/Disbursement/Outlays ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Collections	$6,512.3	$6,642.1	$6,973.3
Disbursements	$6,370.9	$6,850.0	$6,674.8
Transfers (CIT Reimbursement)	$95.1	$22.0	$2.5
Outlays (Incorporates CIT)	($236.5)	$185.9	($301.0)

Note: Amounts may not add due to rounding.

As a primary consideration of this budget, NAVSUP has carefully balanced concerns of cash balances, impacts of potential changes to customer rates, and customer support effectiveness. Current net outlay projections reflect changes in workload and updated operating estimates.

Sales:

Gross Sales ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Wholesale	$5,471.0	$5,693.2	$5,999.6
Retail	$783.6	$784.9	$788.9
Total	$6,254.6	$6,478.1	$6,788.5

Note: Amounts may not add due to rounding

Wholesale & Retail: Sales are tied to customer funding and NAVSUP Weapon Systems Support's ability to fill orders. Retail sales remain consistent with the FY 2016 President's budget.

Metrics: Metrics provide information on the scope of work performed by Navy Supply Management.

Items Managed	373,498	344,730	318,110
Requisitions Received	433,455	454,852	445,999
Receipts	519,019	582,888	657,617
Issues	823,369	824,276	823,340
Contracts Executed	27,745	26,941	25,184

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Undelivered Orders ($Millions): Undelivered vendor orders (UDOs) represent contracts or orders for goods in which a liability has not yet accrued. The accrual of the liability creates an outlay requirement.

Undelivered Orders ($Millions)	$5,418.1	$5,254.6	$5,269.5

War Reserve Material (WRM): WRM funding supports the procurement, replenishment, reconstitution, stock, and contracted asset availability guarantee of consumable and reparable items deemed necessary for war reserve. No obligation authority is anticipated during this budget cycle.

Performance Indicators: Performance indicators establish the expected level of performance for Supply Management.

	FY 2015	FY 2016	FY 2017
Customer Wait Time (CWT) in days	16.5	16.0	16.0
Ship Operating Time w/C3/C4 CASREP			
Deployed	40%	25%	25%
Non-deployed	29%	28%	28%
Aircraft Non Mission Capable Supply			
Deployed	5%	10%	10%
Non-Deployed	7%	10%	10%
Supply Material Availability	80%	85%	85%

Unit Cost: Unit cost provides cost per unit sold based on total cost and the total anticipated number of sales. Unit cost can change in the year of execution.

Unit Cost:	FY 2015	FY 2016	FY 2017
Wholesale	$ 0.977	$ 1.006	$ 0.950
Retail	$ 0.952	$ 1.001	$ 1.001

Composite Rates:	FY 2015	FY 2016	FY 2017
Annual Price Change (APC)*	1.250%	3.483%	4.945%
Composite Cost Recovery Rate (CRR)	16.172%	15.901%	18.694%

*FY 2017 rate computation reflects individual price change per unit sold.

NARRATIVE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT – NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Staffing:

Civilian/Military ES & Workyears:	FY 2015	FY 2016	FY 2017
Civilian End Strength	7,071	6,901	6,904
Civilian Workyears (straight time)	6,619	6,896	6,899
Military End Strength	364	364	364
Military Workyears	364	364	364

Civilian Personnel: FY 2015 End Strength (ES) and Full Time Equivalents (FTEs) reflect actuals. FTEs were adjusted in FY 2016 to reflect anticipated workload. FTEs remain consistent from FY 2016 to FY 2017 and is based on workload demand and reflected in NAVSUP's hiring plan.

Military Personnel: No change.

Capital Investment Program (CIP): The Capital Investment Program sustains NAVSUP in mission achievement by reinvesting in plant equipment, cranes and facilities. Included in the capital budget are the following types of assets: automated data processing equipment (ADPE); non-ADPE equipment; and minor construction.

CIP Authority ($Millions):	FY 2015	FY 2016	FY 2017
Equipment, Non-ADPE* / Telecom	$3.7	$2.2	$6.3
Equipment, ADPE / Telecom	$0.9	$0.9	$0.9
Software Development	$0.0	$0.0	$0.0
Minor Construction	$0.0	$1.9	$0.8
Total	$4.6	$5.0	$8.0

*Automatic Data Processing Equipment (ADPE)
Note: Amounts may not add due to rounding.

REVENUE AND EXPENSE SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	6,249.957	6,473.090	6,780.489
Capital Surcharge	(2.196)	(1.421)	1.707
Depreciation except Maj Const	6.822	6.421	6.293
Total Gross Sales	6,254.583	6,478.090	6,788.489
Major Construction Dep	0.000	0.000	0.000
Other Income	380.062	403.327	407.076
Refunds/Discounts (- Credit Sales)	(229.667)	(216.156)	(216.249)
TOTAL INCOME	6,404.978	6,665.261	6,979.316
Expenses:			
Cost of Material Sold from Inventory	5,174.891	5,434.054	5,555.003
Salaries and Wages:			
Military Personnel	30.618	30.637	31.448
Civilian Personnel	564.292	587.012	592.792
Travel & Transportation of Personnel	9.975	12.479	12.704
Materials & Supplies	4.635	5.126	5.218
Equipment	0.000	0.000	0.000
Other Purchases from Revolving Funds	190.935	220.847	203.003
Transportation of Things	110.691	163.677	166.623
Depreciation - Capital	6.822	6.421	6.293
Printing and Reproduction	3.078	4.243	4.319
Advisory and Assistance Services	0.000	0.000	0.000
Rent, Communication, Utilities & Misc	67.549	67.183	68.392
Other Purchased Services	169.020	216.981	222.169
TOTAL EXPENSES	6,332.506	6,748.660	6,867.964
Operating Result	72.472	(83.399)	111.352
Capital Surcharge reservation	2.196	1.421	(1.707)
Plus Appro Affecting NOR/AOR	0.000	0.000	0.000
Plus Other Changes Affecting NOR	0.000	0.000	0.000
Net Operating Result	74.668	(81.978)	109.645
Prior Year AOR	173.074	122.333	(109.645)
Other Changes Affecting AOR	0.000	0.000	0.000
Accumulated Operating Result	247.742	40.355	(0.000)
Non-Recoverable Adjustments impacting AOR*	(125.409)	(150.000)	0.000
AOR for budget purposes	122.333	(109.645)	0.000

*Reflects adjustments to AOR to maintain operating cash associated with budgetary resources required for projected outlays

SOURCES OF REVENUE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders			
a. Orders from DoD Components:			
Own Component			
Military Personnel, M.C.	-	-	-
O&M Marine Corps	4.984	5.278	5.666
Reserve Personnel, M.C.	-	-	-
Procurement, M.C.	0.313	0.332	0.356
Military Construction, Navy	-	-	-
RDT & E, Navy	7.065	7.482	8.032
Reserve Personnel, Navy	-	-	-
Military Personnel, Navy	-	-	-
Aircraft Procurement, Navy	839.517	947.979	884.285
Weapons Procurement, Navy	6.500	1.800	0.800
Shipbuilding & Conv. Navy	16.800	30.700	30.700
O&M, Navy	4,337.865	4,516.961	4,998.413
O&M, Navy Reserve	71.249	74.191	82.100
Other Procurement, Navy	63.100	83.700	63.500
Navy Working Capital Fund	162.593	166.746	189.713
	5,509.987	5,835.170	6,263.564
Orders from other DoD Components			
Army	7.730	8.186	8.787
Air Force	214.269	226.915	243.574
Other DoD	33.183	35.142	37.722
	255.182	270.242	290.082
b. Orders from other Fund Business Areas:			
Distribution Depots, Navy	-	-	-
Logistics Support, Navy	-	-	-
	-	-	-
c. Total DoD	5,765.169	6,105.412	6,553.647
d. Other Orders:			
Other Federal Agencies	7.356	7.790	8.362
Trust Fund	-	-	-
Non-Federal Agencies *	120.560	131.275	132.509
Foreign Military Sales (FMS)	136.335	144.381	154.981
	264.251	283.446	295.852
Total New Orders	6,029.420	6,388.858	6,849.499
2. Carry-In Orders	1,801.812	1,576.649	1,487.417
3. Total Gross Orders	7,831.232	7,965.507	8,336.916
4. Carry-Out Orders (-)	1,576.649	1,487.417	1,548.427
5. Gross Sales	6,254.583	6,478.090	6,788.489
Reimbursable Orders (BP 91)	380.062	403.327	407.076
6. Credit (-)	229.667	216.156	216.249
7. Net Sales	6,404.978	6,665.261	6,979.316

* Non-federal agencies line includes cash sales

CAPITAL INVESTMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		FY 2015		FY 2016		FY 2017	
Line #	Description	Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
1	**Non-ADPE and Telecom Equipment >= $.250M**	**0**	**$3.733**	**0**	**$2.200**	**0**	**$6.300**
	- Vehicles	0	$0.273	0	$1.200	0	$0.300
	- Material Handling	0	$0.956	0	$1.000	0	$1.000
	- Installation Security	0	$0.000	0	$0.000	0	$0.000
	- Quality Control/Testing	0	$0.000	0	$0.000	0	$0.000
	- Medical Equipment	0	$0.000	0	$0.000	0	$0.000
	- Machinery	0	$2.505	0	$0.000	0	$5.000
	- Support Equipment	0	$0.000	0	$0.000	0	$0.000
2	**ADPE and Telecom Equipment >= $.250M**	**0**	**$0.893**	**0**	**$0.900**	**0**	**$0.900**
	- Computer Hardware (Production)	0	$0.893	0	$0.900	0	$0.900
	- Computer Hardware (Network)	0	$0.000	0	$0.000	0	$0.000
	- Computer Software (Operating)	0	$0.000	0	$0.000	0	$0.000
	- Telecommunications	0	$0.000	0	$0.000	0	$0.000
	- Other Support Equipment	0	$0.000	0	$0.000	0	$0.000
3	**Software Development >= $.250M**	**0**	**$0.000**	**0**	**$0.000**	**0**	**$0.000**
	- Internally Developed	0	$0.000	0	$0.000	0	$0.000
	- Externally Developed	0	$0.000	0	$0.000	0	$0.000
4	**Minor Construction (>= $.250M and <= $2.000M)**	**0**	**$0.000**	**0**	**$1.900**	**0**	**$0.800**
	- Replacement Capability	0	$0.000	0	$1.900	0	$0.800
	- New Construction	0	$0.000	0	$0.000	0	$0.000
	- Environmental Capability	0	$0.000	0	$0.000	0	$0.000
	Grand Total	**0**	**$4.626**	**0**	**$5.000**	**0**	**$8.000**
	Total Capital Outlays		**$4.206**		**$5.050**		**$5.000**
	Total Depreciation Expense		**$6.822**		**$6.421**		**$6.293**

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Supply	#001 - Non-ADP Equipment						Supply Management - Navy		
	FY 2015			FY 2016			FY 2017		
Non-ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Vehicles	0	0	$273	0	0	$1,200	0	0	$300
Material Handling	0	0	$956	0	0	$1,000	0	0	$1,000
Installation Security	0	0	$0	0	0	$0	0	0	$0
Quality Control/ Testing	0	0	$0	0	0	$0	0	0	$0
Medical Equipment	0	0	$0	0	0	$0	0	0	$0
Machinery	0	0	$2,505	0	0	$0	0	0	$5,000
Support Equipment	0	0	$0	0	0	$0	0	0	$0
Total	0	0	$3,733	0	0	$2,200	0	0	$6,300

Justification:

This program funds the procurement of new/initial outfitting and replacement of Material Handling Equipment (MHE) and Automated Material Handling Systems (AMHS) to satisfy operational requirements within the Navy Supply System. Replacement MHE is for over aged non-repairable equipment used in material handling operations at various activities. With a large inventory of equipment at the various Fleet Logistics Centers (FLCs) there will always be units eligible for replacement through procurement. Supply readiness and logistical support are dependent upon the availability of reliable MHE. Replacement of non-repairable equipment with new and more efficient models will reduce costs attributed to repair/overhaul, downtime and maintenance. New equipment will enhance productivity and enable users to meet handling and logistics requirements in an efficient and effective manner.

According to a FY14 survey completed by the Navy Crane Center NAVSUP's large bridge crane and numerous smaller ones are now in need of replacement. Having functioning cranes is essential to maintaining NAVSUP's operations and a safe working environment.

Naval Supply Systems Command (NAVSUP) is also responsible for replacing and maintaining aging Civil Engineering Support Equipment (CESE) necessary for fuel depot operations throughout the Navy. This equipment is required to maintain and improve the working conditions and assist NAVSUP operations employees. Safety, reliability, maintenance cost and customer support are directly impacted by age and condition of this equipment.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Supply	#002 - ADP Equipment						Supply Management - Navy		
	FY 2015			FY 2016			FY 2017		
ADP Equipment	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Computer Hardware (Production)	0	0	$893	0	0	$900	0	0	$900
Computer Hardware (Network)	0	0	$0	0	0	$0	0	0	$0
Computer Software (Operating System)	0	0	$0	0	0	$0	0	0	$0
Telecommunications	0	0	$0	0	0	$0	0	0	$0
Other Support Equipment	0	0	$0	0	0	$0	0	0	$0
Total	0	0	$893	0	0	$900	0	0	$900

Justification:

NAVSUP Business Systems Center (BSC) - Funds provide support to the BSC Legacy/Non-Navy/Marine Corps Intranet (NMCI) Network Plan. As part of the plan, NAVSUP BSC is upgrading its NETWARCOM approved legacy network, which will replace obsolete non-NMCI ADP equipment to provide an environment for client/server development. Upgrading and standardizing hardware infrastructure will allow NAVSUP BSC to use the network to deploy the latest legacy/non-NMCI software products. As NAVSUP moves forward with reducing system and Information Technology (IT) costs and improving business processes, a critical area identified for analysis is allowancing. In order to optimize the allowance systems and align with key Enterprise efforts such as Navy ERP and Single Supply Baseline (SSB), NAVSUP will be streamlining current Readiness Suite and Re-Engineering Maritime Allowance Development (ReMAD) systems via merging the associated databases, standardizing data validations rules and leveraging synergies resulting from combining the platforms. This effort will position NAVSUP to respond to future Enterprise integration/transition requirements.

CAPITAL INVESTMENT JUSTIFICATION				FISCAL YEAR (FY) 2017 BUDGET ESTIMATES					
(DOLLARS IN THOUSANDS)				FEBRUARY 2016					
Department of the Navy/ Supply	#004 - Minor Construction ($250K - $750K)						Supply Management - Navy		
	FY 2015			FY 2016			FY 2017		
Minor Construction	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost	Quant	Unit Cost	Total Cost
Replacement	0	0	$0	0	0	$1,900	0	0	$800
New Construction	0	0	$0	0	0	$0	0	0	$0
Environmental Capability	0	0	$0	0	0	$0	0	0	$0
Total	0	0	$0	0	0	$1,900	0	0	$800

Justification:

Minor Construction: NAVSUP is responsible for the minor construction portion of Real Property Maintenance (RPM) of facilities occupied and operated. These NWCF Supply Management projects are necessary to maintain and improve the working conditions for NAVSUP claimancy employees. Projects include Minor Construction requirements of facilities as well as Quality of Life and correction of Safety deficiencies. Minor Construction funding requested supports the overall RPM objectives of the NAVFAC recommended spending limits. Economic analysis are not performed since Minor Construction funding limits keep investment percentage to such a small percentage of the total facility value. Cost savings if identified are provided as part of the project documentation developed. Each minor construction project must be less that $1,000,000. No minor construction project exceeds the current MILCON threshold.

CAPITAL BUDGET EXECUTION
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2015	**1**	**Non ADP**		**$4.100**	**$3.733**	**-$0.367**	underexecution
			Vehicles	$0.400	$0.273	-$0.128	
			Material Handling	$1.000	$0.956	-$0.045	
			Machinery	$2.700	$2.505	-$0.195	
	2	**ADP**		**$0.900**	**$0.893**	**-$0.007**	underexecution
			Computer Hardware (Production)	$0.900	$0.893	-$0.007	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$0.000**	**$0.000**	**$0.000**	
TOTAL FY 2015 CIP Program				**$5.000**	**$4.626**	**-$0.374**	underexecution

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2016	**1**	**Non ADP**		**$2.200**	**$2.200**	**$0.000**	
			Vehicles	$1.200	$1.200	$0.000	
			Material Handling	$1.000	$1.000	$0.000	
	2	**ADP**		**$0.900**	**$0.900**	**$0.000**	
			Computer Hardware (Production)	$0.900	$0.900	$0.000	
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$1.900**	**$1.900**	**$0.000**	
			Replacement	$1.900	$1.900	$0.000	
TOTAL FY 2016 CIP Program				**$5.000**	**$5.000**	**$0.000**	

FY	Line Item	Category	Capability/Project	Initial Request	Current Proj Cost	Approved Change	Explanation
2017	**1**	**Non ADP**		**$6.300**	**$6.300**	**$0.000**	
			Vehicles	$0.300	$0.300		
			Material Handling	$1.000	$1.000		
			Machinery	$5.000	$5.000		
	2	**ADP**		**$0.900**	**$0.900**	**$0.000**	
			Computer Hardware (Production)	$0.900	$0.900		
	3	**Software**		**$0.000**	**$0.000**	**$0.000**	
	4	**Minor Construction**		**$0.800**	**$0.800**	**$0.000**	
			Replacement	$0.800	$0.800		
TOTAL FY 2017 CIP Program				**$8.000**	**$8.000**	**$0.000**	

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

DIVISION		NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP21										
	Approved	67.760	67.760	68.500	0.000	68.500	0.000	68.500	0.000	0.000
	Request	63.057	63.057	61.806	0.000	61.806	0.000	61.806	0.000	0.000
	Delta	(4.703)	(4.703)	(6.694)	0.000	(6.694)	0.000	(6.694)	0.000	0.000
BP28										
	Approved	700.048	700.048	700.048	0.000	700.048	0.000	700.048	0.000	4.888
	Request	720.567	720.567	684.523	0.000	684.523	0.000	684.523	0.000	0.000
	Delta	20.519	20.519	(15.525)	0.000	(15.525)	0.000	(15.525)	0.000	(4.888)
BP34										
	Approved	183.707	204.621	126.264	0.000	126.264	31.894	158.158	0.000	0.208
	Request	165.031	171.073	73.592	0.000	73.592	0.000	73.592	0.000	1.312
	Delta	(18.676)	(33.548)	(52.672)	0.000	(52.672)	(31.894)	(84.566)	0.000	1.104
BP81										
	Approved	1,020.787	1,075.600	799.507	0.000	799.507	72.160	871.667	0.000	10.000
	Request	1,086.956	1,098.294	970.115	0.000	970.115	0.000	970.115	0.000	17.355
	Delta	66.169	22.694	170.608	0.000	170.608	(72.160)	98.448	0.000	7.355
			*** REPAIR->*	338.054						
BP85										
	Approved	3,910.257	3,959.212	3,068.603	0.000	3,068.603	339.270	3,407.873	0.000	179.796
	Request	3,749.095	3,971.925	3,316.630	0.000	3,316.630	0.000	3,316.630	0.000	211.000
	Delta	(161.162)	12.713	248.027	0.000	248.027	(339.270)	(91.243)	0.000	31.204
			*** REPAIR->*	2,412.052						
BP91										
	Approved	0.000	396.594	1,265.811	0.000	1,265.811	0.000	1,265.811	5.000	0.000
	Request	0.000	380.062	1,150.793	0.000	1,150.793	0.000	1,150.793	4.626	0.000
	Delta	0.000	(16.532)	(115.018)	0.000	(115.018)	0.000	(115.018)	(0.374)	0.000
TOTAL										
	Approved	5,882.559	6,403.835	6,028.733	0.000	6,028.733	443.324	6,472.057	5.000	194.892
	Request	5,784.706	6,404.978	6,257.459	0.000	6,257.459	0.000	6,257.459	4.626	229.667
	Delta	(97.853)	1.143	228.726	0.000	228.726	(443.324)	(214.598)	(0.374)	34.775

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

DIVISION		NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP21										
	Approved	68.760	68.760	69.500	0.000	69.500	0.000	69.500	0.000	0.000
	Request	65.173	65.173	65.890	0.000	65.890	0.000	65.890	0.000	0.000
	Delta	(3.587)	(3.587)	(3.610)	0.000	(3.610)	0.000	(3.610)	0.000	0.000
BP28										
	Approved	714.048	714.048	714.048	0.000	714.048	0.000	714.048	0.000	4.888
	Request	714.821	714.821	714.821	0.000	714.821	0.000	714.821	0.000	4.888
	Delta	0.773	0.773	0.773	0.000	0.773	0.000	0.773	0.000	(0.000)
BP34										
	Approved	223.739	223.732	139.566	0.000	139.566	31.894	171.460	0.000	0.207
	Request	197.165	197.159	82.104	0.000	82.104	14.846	96.950	0.000	0.407
	Delta	(26.574)	(26.573)	(55.616)	0.000	(55.616)	(18.894)	(74.510)	0.000	0.200
BP81										
	Approved	1,070.549	1,070.549	909.332	0.000	909.332	72.160	981.492	0.000	10.000
	Request	1,190.234	1,250.397	987.152	0.000	987.152	197.000	1,184.152	0.000	20.000
	Delta	119.685	179.848	77.820	0.000	77.820	124.840	202.660	0.000	10.000
			*** REPAIR->*	400.761						
BP85										
	Approved	3,902.319	3,949.494	3,262.713	0.000	3,262.713	339.270	3,601.983	0.000	190.861
	Request	4,005.309	4,034.384	3,539.361	0.000	3,539.361	615.000	4,154.361	0.000	190.861
	Delta	102.990	84.890	276.648	0.000	276.648	275.730	552.378	0.000	0.000
			*** REPAIR->*	2,407.296						
BP91										
	Approved	0.000	403.327	1,296.104	0.000	1,296.104	0.000	1,296.104	5.000	0.000
	Request	0.000	403.327	1,308.185	0.000	1,308.185	0.000	1,308.185	5.000	0.000
	Delta	0.000	0.000	12.081	0.000	12.081	0.000	12.081	0.000	0.000
TOTAL										
	Approved	5,979.415	6,429.910	6,391.263	0.000	6,391.263	443.324	6,834.587	5.000	205.956
	Request	6,172.702	6,665.261	6,697.513	0.000	6,697.513	826.846	7,524.359	5.000	216.156
	Delta	193.287	235.351	306.250	0.000	306.250	383.522	689.772	0.000	10.200

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

DIVISION		NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP21										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	65.173	65.173	65.890	0.000	65.890	0.000	65.890	0.000	0.000
	Delta	65.173	65.173	65.890	0.000	65.890	0.000	65.890	0.000	0.000
BP28										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	718.831	718.831	718.831	0.000	718.831	0.000	718.831	0.000	4.888
	Delta	718.831	718.831	718.831	0.000	718.831	0.000	718.831	0.000	4.888
BP34										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	207.898	207.971	76.676	0.000	76.676	13.000	89.676	0.000	0.500
	Delta	207.898	207.971	76.676	0.000	76.676	13.000	89.676	0.000	0.500
BP81										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	1,228.954	1,230.575	899.462	0.000	899.462	176.000	1,075.462	0.000	20.000
	Delta	1,228.954	1,230.575	899.462	0.000	899.462	176.000	1,075.462	0.000	20.000
			*** REPAIR->*	266.617						
BP85										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	4,412.394	4,349.690	3,614.196	0.000	3,614.196	636.000	4,250.196	0.000	190.861
	Delta	4,412.394	4,349.690	3,614.196	0.000	3,614.196	636.000	4,250.196	0.000	190.861
			*** REPAIR->*	2,592.868						
BP91										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	0.000	407.076	1,306.668	0.000	1,306.668	0.000	1,306.668	8.000	0.000
	Delta	0.000	407.076	1,306.668	0.000	1,306.668	0.000	1,306.668	8.000	0.000
TOTAL										
	Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	Request	6,633.250	6,979.316	6,681.723	0.000	6,681.723	825.000	7,506.723	8.000	216.249
	Delta	6,633.250	6,979.316	6,681.723	0.000	6,681.723	825.000	7,506.723	8.000	216.249

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 34
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Total
F/A-18 / EA-18G	7.1 / 9.3	3.604	0.000	0.373	3.977
AV-8B / T-45	9.5 / 5.4	0.856	0.000	0.060	0.915
EA-6B	8.8	0.000	0.000	0.370	0.370
V-22	10.2	4.999	0.000	4.876	9.875
P-3	6.7	0.050	0.000	0.076	0.127
C-130	6.8	0.355	0.000	0.017	0.371
P-8	8.1	10.585	0.000	4.057	14.642
E-2 / C-2	7.1 / 8.0	3.911	0.000	0.219	4.130
Common Systems	n/a	0.404	0.000	0.187	0.591
Aircraft Engines	n/a	0.000	0.000	15.630	15.630
Aviation Support Systems	n/a	0.000	0.000	2.489	2.489
H-1	11.2	2.761	0.000	0.317	3.078
H-46	4.3	0.000	0.000	0.062	0.062
H-53	10.5	0.000	0.000	0.223	0.223
H-60	5.2	8.711	0.000	0.131	8.841
VTUAV	n/a	0.357	0.000	0.119	0.476
Multi-application	n/a	0.000	0.000	0.336	0.336
Efficiencies/Self Financing		(1.201)	0.000	0.000	(1.201)
Full PBL		0.000	0.000	6.223	6.223
Logistics Engineering Change Proposals		0.000	0.000	(3.776)	(3.776)
ERP Inventory Reduction		0.000	0.000	6.212	6.212
Total		35.391	0.000	38.201	73.592

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 34
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Total
F/A-18 / EA-18G	7.1 / 9.3	3.159	0.000	13.841	17.001
AV-8B / T-45	9.5 / 5.4	0.000	0.000	0.153	0.153
EA-6B	8.8	0.000	0.000	0.540	0.540
V-22	10.2	0.310	0.000	0.000	0.310
P-3	6.7	0.722	0.000	2.181	2.903
C-130	6.8	0.010	0.000	0.159	0.169
P-8	8.1	0.805	0.000	0.002	0.808
E-2 / C-2	7.1 / 8.0	3.381	0.000	3.504	6.885
Common Systems	n/a	2.393	0.000	2.164	4.557
Aircraft Engines	n/a	0.605	0.000	4.694	5.299
Aviation Support Systems	n/a	0.000	0.000	16.323	16.323
RQ-21 UAS	n/a	0.000	0.000	3.629	3.629
H-1	11.2	2.864	0.000	1.091	3.954
H-46	4.3	0.000	0.000	0.001	0.001
H-53	10.5	0.000	0.000	0.392	0.392
H-60	5.2	7.190	0.000	1.741	8.931
VTUAV	n/a	0.801	0.000	2.384	3.185
Multi-application	n/a	0.000	0.000	0.294	0.294
Efficiencies/Self Financing		(0.383)	0.000	(1.846)	(2.229)
Full PBL		0.000	0.000	8.200	8.200
Logistics Engineering Change Proposals		0.000	0.000	0.800	0.800
Total		21.858	0.000	60.246	82.104

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 34
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Total
F/A-18 / EA-18G	7.1 / 9.3	1.324	0.000	12.471	13.795
AV-8B / T-45	9.5 / 5.4	0.000	0.000	0.138	0.138
EA-6B	8.8	0.000	0.000	0.486	0.486
V-22	10.2	0.303	0.000	0.000	0.303
P-3	6.7	1.458	0.000	1.965	3.422
C-130	6.8	0.000	0.000	0.143	0.143
P-8	8.1	0.000	0.000	0.002	0.002
E-2 / C-2	7.1 / 8.0	5.664	0.000	3.186	8.849
Common Systems	n/a	2.340	0.000	1.950	4.290
Aircraft Engines	n/a	0.959	0.000	4.229	5.188
Aviation Support Systems	n/a	0.000	0.000	14.678	14.678
RQ-21 UAS	n/a	0.000	0.000	3.269	3.269
H-1	11.2	4.054	0.000	0.983	5.037
H-46	4.3	0.000	0.000	0.001	0.001
H-53	10.5	0.000	0.000	0.353	0.353
H-60	5.2	3.339	0.000	1.569	4.908
VTUAV	n/a	0.252	0.000	2.148	2.401
Multi-application	n/a	0.000	0.000	0.268	0.268
Efficiencies/Self Financing		(0.458)	0.000	0.000	(0.458)
Full PBL		0.000	0.000	8.200	8.200
Logistics Engineering Change Proposals		0.000	0.000	1.400	1.400
Total		19.237	0.000	57.439	76.676

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 81
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Weapon System	Basic Replen	Outfitting	Special Programs	Rework	Total
AMPHIBIOUS	1.455	1.604	3.704	3.053	9.816
NUCLEAR	89.492	9.423	26.853	7.714	133.482
SUBSAFE LI/ASDS/DSSP	38.946	0.504	7.196	11.492	58.138
EXPEDITIONARY	4.895	0.000	28.731	(3.083)	30.543
COMMON ELECTRIC	15.111	29.858	45.369	37.876	128.214
COMMON HM&E	34.453	10.160	29.319	21.326	95.258
CRUDES	65.501	17.795	47.224	105.703	236.223
LITTORAL	1.509	0.491	20.571	11.765	34.336
SUBMARINE	11.508	3.419	63.480	56.556	134.963
CVN	2.538	1.093	19.667	8.006	31.304
FULL PBL	13.910	0.000	0.000	77.646	91.556
ERP INV SAVINGS	(13.718)	0.000	0.000	0.000	(13.718)
Total	265.600	74.347	292.114	338.054	970.115

Platform	FY15 POTF *
AIRCRAFT CARRIERS	73%
AMPHIBIOUS WARFARE	49%
COMBAT LOGISTICS SHIPS	100%
MINE WARFARE SHIPS	43%
SUBMARINES (SSN)	92%
SUBMARINES (SSBN)	100%
SUBMARINES (SSGN)	87%
LITTORAL	84%
SURFACE COMBATANTS	56%
MISCELLANEOUS	74%
ACROSS ALL PLATFORMS	67%

* POTF (Percentage of Time Free) is an accepted Department of Defense readiness metric and is used in assessing ship and submarine readiness vice NMCS (aviation metric). It measures the percentage of operating time free of mission-degrading casualties for active ships in all fleets (i.e. the percentage of operating time that a platform has no C3/C4 casualty reports (CASREPs). POTF is measured by platform. There is no means of obtaining POTF data at the Weapon System level. FY15 POTF is based on actuals.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 81
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Weapon System	Basic Replen	Outfitting	Special Programs	Rework	Total
AMPHIBIOUS	3.097	4.164	2.639	6.200	16.100
NUCLEAR	97.474	9.610	28.502	8.700	144.286
SUBSAFE LI/ASDS/DSSP	52.356	0.504	5.800	14.300	72.960
EXPEDITIONARY	0.792	0.000	19.008	4.400	24.200
COMMON ELECTRIC	32.465	15.982	20.757	70.396	139.600
COMMON HM&E	17.299	6.385	38.492	33.887	96.063
CRUDES	80.307	23.710	21.348	99.556	224.921
LITTORAL	2.593	1.221	5.426	6.900	16.140
SUBMARINE	11.916	2.928	16.456	47.700	79.000
CVN	1.693	1.016	8.891	8.200	19.800
FULL PBL	53.560	0.000	0.000	100.522	154.082
Total	353.552	65.520	167.319	400.761	987.152

Platform	FY16 POTF *
AIRCRAFT CARRIERS	73%
AMPHIBIOUS WARFARE	49%
COMBAT LOGISTICS SHIPS	100%
MINE WARFARE SHIPS	43%
SUBMARINES (SSN)	92%
SUBMARINES (SSBN)	100%
SUBMARINES (SSGN)	87%
LITTORAL	84%
SURFACE COMBATANTS	56%
MISCELLANEOUS	74%
ACROSS ALL PLATFORMS	67%

* POTF (Percentage of Time Free) is an accepted Department of Defense readiness metric and is used in assessing ship and submarine readiness vice NMCS (aviation metric). It measures the percentage of operating time free of mission-degrading casualties for active ships in all fleets (i.e. the percentage of operating time that a platform has no C3/C4 casualty reports (CASREPs). POTF is measured by platform. There is no means of obtaining POTF data at the Weapon System level. FY16 POTF projections are carried forward from FY15.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 81
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Weapon System	Basic Replen	Outfitting	Special Programs	Rework	Total
AMPHIBIOUS	4.987	1.874	9.765	3.266	19.892
NUCLEAR	103.469	9.804	29.927	8.700	151.900
SUBSAFE LI/ASDS/DSSP	58.102	0.000	2.955	15.600	76.657
EXPEDITIONARY	3.690	0.000	16.810	3.900	24.400
COMMON ELECTRIC	23.253	25.056	38.016	32.761	119.086
COMMON HM&E	28.032	4.405	48.050	10.097	90.584
CRUDES	77.720	28.850	27.169	56.143	189.882
LITTORAL	2.575	0.496	7.729	2.000	12.800
SUBMARINE	6.458	2.148	21.241	29.652	59.499
CVN	1.663	2.049	3.088	1.900	8.700
FULL PBL	43.464	0.000	0.000	102.598	146.062
Total	353.413	74.682	204.750	266.617	899.462

Platform	FY17 POTF *
AIRCRAFT CARRIERS	73%
AMPHIBIOUS WARFARE	49%
COMBAT LOGISTICS SHIPS	100%
MINE WARFARE SHIPS	43%
SUBMARINES (SSN)	92%
SUBMARINES (SSBN)	100%
SUBMARINES (SSGN)	87%
LITTORAL	84%
SURFACE COMBATANTS	56%
MISCELLANEOUS	74%
ACROSS ALL PLATFORMS	67%

* POTF (Percentage of Time Free) is an accepted Department of Defense readiness metric and is used in assessing ship and submarine readiness vice NMCS (aviation metric). It measures the percentage of operating time free of mission-degrading casualties for active ships in all fleets (i.e. the percentage of operating time that a platform has no C3/C4 casualty reports (CASREPs). POTF is measured by platform. There is no means of obtaining POTF data at the Weapon System level. FY17 POTF projections are carried forward from FY15.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 85
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
F/A-18 / EA-18G	7.1 / 9.3	67.561	155.740	33.772	304.705	561.778
AV-8B / T-45	9.5 / 5.4	16.273	0.000	0.968	74.862	92.103
EA-6B	8.8	0.000	0.000	6.637	39.827	46.464
VTUAV	n/a	6.785	0.000	0.000	2.314	9.099
V-22	10.2	90.262	19.475	12.232	122.350	244.318
C-130	6.8	3.042	0.000	1.766	2.663	7.471
P-3	6.7	0.956	0.000	5.120	42.324	48.400
P-8	8.1	186.622	0.000	39.180	0.000	225.802
E-2 / C-2	7.1 / 8.0	85.195	37.979	7.792	38.070	169.035
Common Systems	n/a	7.386	3.318	6.679	53.314	70.697
Aircraft Engines	n/a	0.000	0.591	10.017	123.980	134.587
Aviation Support Systems	n/a	0.000	3.766	1.458	25.959	31.184
H-1	11.2	47.592	13.677	6.391	62.041	129.701
H-46	4.3	0.000	0.000	0.000	0.000	0.000
H-53	10.5	0.000	21.036	12.788	133.510	167.334
H-60	5.2	55.076	0.000	3.699	36.108	94.883
Multi-application	n/a	0.000	0.000	29.603	274.164	303.767
Initiatives (SHORCAL Iwakuni)		73.367	0.000	0.000	0.000	73.367
Efficiencies/Self Financing		(153.186)	0.000	0.000	0.000	(153.186)
Carcass Losses		0.000	0.000	18.000	0.000	18.000
Full PBL		0.000	0.000	21.772	1,087.026	1,108.798
LECP Investment/Savings		0.000	0.000	2.699	(11.165)	(8.466)
ERP Inventory Reduction		0.000	0.000	(58.506)	0.000	(58.506)
Total		486.930	255.582	162.066	2,412.052	3,316.630

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 85
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
F/A-18 / EA-18G	7.1 / 9.3	58.532	436.158	0.141	326.456	821.287
AV-8B / T-45	9.5 / 5.4	0.000	6.674	13.656	59.238	79.568
EA-6B	8.8	0.000	0.000	0.376	37.147	37.523
VTUAV	n/a	14.448	0.000	0.000	2.487	16.935
V-22	10.2	12.005	28.613	6.147	114.117	160.881
C-130	6.8	13.518	0.000	0.060	(0.552)	13.026
P-3	6.7	0.182	0.000	0.017	34.847	35.046
P-8	8.1	58.527	0.000	44.112	63.385	166.025
E-2 / C-2	7.1 / 8.0	42.955	45.124	0.067	35.507	123.654
Common Systems	n/a	10.944	0.000	0.013	49.726	60.683
Aircraft Engines	n/a	0.000	0.000	0.004	115.637	115.641
Aviation Support Systems	n/a	0.000	0.000	0.573	24.213	24.786
RQ-21 UASI	n/a	5.603	0.000	0.000	0.000	5.603
H-1	11.2	51.385	52.684	(0.005)	57.866	161.930
H-46	4.3	0.000	0.000	0.000	0.000	0.000
H-53	10.5	0.000	0.000	0.115	124.526	124.642
H-60	5.2	130.319	0.000	0.005	33.678	164.002
Multi-application	n/a	0.000	0.000	0.016	258.458	258.474
Initiatives (SHORCAL Iwakuni)		132.326	0.000	0.000	0.000	132.326
Efficiencies/Self Financing		(84.005)	0.000	0.000	0.000	(84.005)
Carcass Losses		0.000	0.000	18.000	0.000	18.000
Full PBL		0.000	0.000	12.000	1,088.339	1,100.339
LECP Investment/Savings		0.000	0.000	20.778	(17.781)	2.997
Total		446.738	569.253	116.074	2,407.296	3,539.361

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BP 85
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Weapon System	NMCS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
F/A-18 / EA-18G	7.1 / 9.3	26.036	382.987	16.115	327.517	752.654
AV-8B / T-45	9.5 / 5.4	0.000	0.000	0.360	59.672	60.032
EA-6B	8.8	0.000	0.000	3.870	37.419	41.289
VTUAV	n/a	4.918	0.000	0.000	2.505	7.423
V-22	10.2	28.013	26.406	3.284	114.952	172.655
C-130	6.8	0.000	0.000	0.898	(3.381)	(2.483)
P-3	6.7	0.000	0.000	3.571	33.536	37.107
P-8	8.1	106.342	0.000	16.032	68.241	190.615
E-2 / C-2	7.1 / 8.0	43.941	0.000	5.636	35.767	85.345
Common Systems	n/a	18.672	0.000	2.646	50.090	71.408
Aircraft Engines	n/a	0.000	0.000	10.116	116.484	126.600
Aviation Support Systems	n/a	0.000	0.000	1.290	24.390	25.680
RQ-21 UAS	n/a	5.905	0.000	0.000	0.000	5.905
ARIP	n/a	250.966	0.000	0.000	0.000	250.966
H-1	11.2	77.917	0.000	3.930	58.289	140.136
H-46	4.3	0.000	0.000	0.000	0.000	0.000
H-53	10.5	0.000	0.000	8.058	125.438	133.496
H-60	5.2	62.384	0.000	2.096	33.925	98.404
Multi-application	n/a	0.000	0.000	26.808	260.350	287.158
Efficiencies/Self Financing		(167.208)	0.000	0.000	0.000	(167.208)
Carcass Losses		0.000	0.000	18.000	0.000	18.000
Full PBL		0.000	0.000	12.000	1,267.536	1,279.536
LECP Investment/Savings		0.000	0.000	19.339	(19.863)	(0.524)
Total		457.886	409.393	154.049	2,592.868	3,614.196

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BUDGET PROJECT SUMMARY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

	Total	Mobilization	Operating	Other
1. INVENTORY BOP	53,490.994	0.000	27,569.831	25,921.163
2. BOP INVENTORY ADJUSTMENTS	716.460	0.000	4,589.140	(3,872.680)
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	4,205.263	(4,205.263)
B. PRICE CHANGE AMOUNT (memo)	716.460	0.000	383.877	332.583
C. INVENTORY RECLASSIFIED AND REPRICED	54,207.454	0.000	32,158.971	22,048.483
3. RECEIPTS AT STANDARD	3,549.656	0.000	3,458.102	91.554
4. SALES AT STANDARD	6,254.583	0.000	6,254.583	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	2,365.680	0.000	2,303.607	62.073
B. RETURNS FROM CUSTOMERS FOR CREDIT	229.667	0.000	222.675	6.992
C. RETURNS FROM CUSTOMERS, NO CREDIT	14,658.961	0.000	7,025.405	7,633.556
D. RETURNS TO SUPPLIERS (-)	0.000	0.000	0.000	0.000
E. TRANSFERS TO PROP. DISPOSAL (-)	(1,626.189)	0.000	0.000	(1,626.189)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(141.542)	0.000	(17.223)	(124.319)
G. OTHER (listed in Section 9)	(16,454.067)	0.000	(12,094.152)	(4,359.915)
H. TOTAL ADJUSTMENTS	(967.490)	0.000	(2,559.688)	1,592.198
6. INVENTORY EOP	50,535.037	0.000	26,802.802	23,732.235
7. INVENTORY EOP (REVALUED)	32,880.690	0.000	18,694.341	14,186.349
A. APPROVED ACQUISITION OBJECTIVE (memo)				10,068.708
B. ECONOMIC RETENTION (memo)				1,293.673
C. CONTINGENCY RETENTION (memo)				1,093.177
D. POTENTIAL DOD REUTILIZATION (memo)				40.569
8. INVENTORY ON ORDER EOP (memo)	2,109.060	0.000	2,099.094	9.966
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	(4,678.884)	0.000	(3,789.419)	(889.465)
Strata Transfers	0.000	0.000	3,470.450	(3,470.450)
Net/Standard Difference	(11,775.183)	0.000	(11,775.183)	0.000
Total	(16,454.067)	0.000	(12,094.152)	(4,359.915)

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BUDGET PROJECT SUMMARY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

	Total	Mobilization	Operating	Other
1. INVENTORY BOP	50,535.037	0.000	26,802.802	23,732.235
2. BOP INVENTORY ADJUSTMENTS	1,731.966	0.000	5,497.346	(3,765.380)
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	4,269.855	(4,269.855)
B. PRICE CHANGE AMOUNT (memo)	1,731.966	0.000	1,227.491	504.475
C. INVENTORY RECLASSIFIED AND REPRICED	52,267.003	0.000	32,300.148	19,966.855
3. RECEIPTS AT STANDARD	3,409.953	0.000	3,404.418	5.535
4. SALES AT STANDARD	6,478.090	0.000	6,478.090	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	2.501	0.000	28.586	(26.085)
B. RETURNS FROM CUSTOMERS FOR CREDIT	216.156	0.000	10.352	205.804
C. RETURNS FROM CUSTOMERS, NO CREDIT	19,033.233	0.000	10,019.472	9,013.761
D. RETURNS TO SUPPLIERS (-)	0.000	0.000	0.000	0.000
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,161.166)	0.000	0.000	(3,161.166)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(17.652)	0.000	(17.652)	0.000
G. OTHER (listed in Section 9)	(12,580.103)	0.000	(11,119.454)	(1,460.649)
H. TOTAL ADJUSTMENTS	3,492.968	0.000	(1,078.696)	4,571.665
6. INVENTORY EOP	52,691.835	0.000	28,147.780	24,544.055
7. INVENTORY EOP (REVALUED)	32,211.759	0.000	18,635.811	13,575.948
A. APPROVED ACQUISITION OBJECTIVE (memo)				10,966.017
B. ECONOMIC RETENTION (memo)				1,369.612
C. CONTINGENCY RETENTION (memo)				1,196.690
D. POTENTIAL DOD REUTILIZATION (memo)				43.629
8. INVENTORY ON ORDER EOP (memo)	2,514.999	0.000	2,513.742	1.257
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	(112.388)	0.000	(121.667)	9.279
Strata Transfers	0.000	0.000	1,469.928	(1,469.928)
Net/Standard Difference	(12,467.715)	0.000	(12,467.715)	0.000
Total	(12,580.103)	0.000	(11,119.454)	(1,460.649)

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - NAVY
BUDGET PROJECT SUMMARY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

	Total	Mobilization	Operating	Other
1. INVENTORY BOP	52,691.835	0.000	28,147.780	24,544.055
2. BOP INVENTORY ADJUSTMENTS	2,693.856	0.000	6,826.748	(4,132.892)
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	4,224.312	(4,224.312)
B. PRICE CHANGE AMOUNT (memo)	2,693.856	0.000	2,602.436	91.420
C. INVENTORY RECLASSIFIED AND REPRICED	55,385.691	0.000	34,974.528	20,411.163
3. RECEIPTS AT STANDARD	3,424.247	0.000	3,422.115	2.132
4. SALES AT STANDARD	6,788.489	0.000	6,788.489	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	2.548	0.000	29.129	(26.581)
B. RETURNS FROM CUSTOMERS FOR CREDIT	216.249	0.000	322.140	(105.891)
C. RETURNS FROM CUSTOMERS, NO CREDIT	20,657.637	0.000	11,212.120	9,445.517
D. RETURNS TO SUPPLIERS (-)	0.000	0.000	0.000	0.000
E. TRANSFERS TO PROP. DISPOSAL (-)	(3,280.890)	0.000	0.000	(3,280.890)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(23.987)	0.000	(23.987)	0.000
G. OTHER (listed in Section 9)	(14,141.598)	0.000	(13,742.708)	(398.890)
H. TOTAL ADJUSTMENTS	3,429.959	0.000	(2,203.306)	5,633.265
6. INVENTORY EOP	55,451.408	0.000	29,404.848	26,046.560
7. INVENTORY EOP (REVALUED)	31,890.262	0.000	18,481.050	13,409.212
A. APPROVED ACQUISITION OBJECTIVE (memo)				10,800.337
B. ECONOMIC RETENTION (memo)				1,361.333
C. CONTINGENCY RETENTION (memo)				1,205.481
D. POTENTIAL DOD REUTILIZATION (memo)				42.061
8. INVENTORY ON ORDER EOP (memo)	2,549.578	0.000	2,548.428	1.150
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	(174.763)	0.000	(182.099)	7.336
Strata Transfers	0.000	0.000	406.226	(406.226)
Net/Standard Difference	(13,966.835)	0.000	(13,966.835)	0.000
Total	(14,141.598)	0.000	(13,742.708)	(398.890)

TAB #12 GOES HERE

Back of Tab

DEPARTMENT OF THE NAVY
NAYV WORKING CAPITAL FUND
SUPPLY MANAGEMENT – MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Mission Statement/Overview:

The Marine Corps, Supply Management Activity Group (MC SMAG) performs inventory management functions that result in the sale of consumable and reparable items to support Department of Defense (DoD), federal, and non-federal war fighting weapon systems supply needs. Costs related to providing such inventory (material) support to customers are recouped through the application of stabilized rates that include recovery for cost elements such as oversight/inventory management and cost required to stock, store, receive, and issue such assets. The MC SMAG is divided into four Budget Projects to organize the financial operation of the fund.

	Budget Project
Wholesale	
Depot Level Reparables	**BP84**
Retail	
Consumable Retail Centrally Managed/Direct Support Stock Control	**BP28**
Fuel	**BP38**
Operations	
Cost of Operations	**BP91**

Activity Group Composition:

The Navy Working Capital Fund-Marine Corps (NWCF-MC), SMAG is comprised of:

Weapon System Management Center, Marine Corps Logistics Command, Albany, GA
Direct Support Stock Control, Marine Corps Logistics Base, Barstow, CA
Consolidated Material and Service Center, Marine Corps Base Camp Pendleton, CA

DEPARTMENT OF THE NAVY
NAYV WORKING CAPITAL FUND
SUPPLY MANAGEMENT – MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Significant Changes Since the FY 2016 President's Budget:
In FY 2015 the following MC SMAG Activities transitioned to GSA and were removed from the above Activity Group Composition listing.

Direct Support Stock Control, Marine Corps Logistics Base, Albany, GA
Direct Support Stock Control, Marine Corps Base, Quantico, VA
Business Logistics Support Department, Marine Corps Base Camp Lejeune, NC

Retail operations, for both gross sales and obligations are expected to decline in Fiscal Year (FY) 2016 and FY 2017 based on the Marine Corps transitioning many of its supply operation functions to the General Services Administration (GSA) via the Fourth Party Logistics (4PL) process. This process aims to preserve all capabilities previously provided by the Marine Corps, while utilizing GSA's knowledge and expertise in supply management. Once fully implemented, the transition will significantly reduce future retail Obligation Authority (OA) requirements.

In the FY 2016 President's budget the full transition to GSA was not expected to be completed until FY 2016. The Consolidated Material and Service Center at Camp Pendleton completed its transition to GSA in October 2015. As a result, Retail OA requests were reduced in FY 2016 and FY 2017.

Financial Profile:

Revenue/Expense/Operating Results ($Millions):	**FY 2015**	**FY 2016**	**FY 2017**
Net Revenue	$149.1	$125.8	$101.5
Expense	$146.7	$120.9	$101.9
Operating Results	$2.5	$4.9	($0.4)
Capital Surcharge	$0.0	$0.0	$0.0
Net Operating Results (NOR)	$2.5	$4.9	($0.4)
Prior Year AOR	($7.0)	($4.5)	$0.4
Accumulated Operating Results (AOR)	($4.5)	$0.4	$0.0

Note: Amounts may not add due to rounding

Revenue and Expenses: Annual revenue and expenses decrease from FY 2015 to FY 2017 based on projected demand from the operating forces. This is the result of the planned decline in the Marine Corps' total end strength, the right sizing of Authorized Acquisition Objectives (AAOs) and Tables of Equipment (T/Es), and a decrease in operating tempo resulting from the drawdown from major Oversees Contingency Operations (OCO).

DEPARTMENT OF THE NAVY
NAYV WORKING CAPITAL FUND
SUPPLY MANAGEMENT – MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Operating Results: Net Operating Result fluctuates across the budget years due to changes in operating tempo and the projected demand pattern from our customers. The net result is a balanced budget that achieves a zero AOR in FY 2017.

Obligations:

Obligation Authority ($Millions):	FY 2015	FY 2016	FY 2017
Wholesale	$73.6	$84.5	$79.4
Retail	$32.9	$23.4	$4.8
Total	$106.5	$107.9	$84.2

Note: Amounts may not add due to rounding

Wholesale: OA supports the acquisition and repair of reparable spare parts as well as the cost of operating the SMAG wholesale enterprise. The increase in FY 2016 is based on projected demand from the operating forces. The decrease in FY 2017 is due to projected demand, resulting from operating forces drawdown from major Overseas Contingency Operations (OCO).

Retail: OA for retail operations declines throughout the budget as result of transitioning from the Marine Corps to GSA.

Collections/Disbursement/Outlays ($Millions):	FY 2015	FY 2016	FY 2017
Collections	$138.1	$115.2	$81.9
Disbursements	$99.8	$111.2	$80.2
Transfers	$0.0	$0.0	$0.0
Outlays	($38.3)	($4.0)	($1.7)

Note: Amounts may not add due to rounding.

Collections: Collections trend downwards across the budget years and are based on revenue projections.

Disbursements: Disbursements increase in FY 2016 due to anticipated receipt of on-order items, repair/receipt of assets and DLA storage costs. Disbursements in FY 2017 are projected to decrease commensurate with decreasing demand.

DEPARTMENT OF THE NAVY
NAYV WORKING CAPITAL FUND
SUPPLY MANAGEMENT – MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Sales:

Gross Sales:	**FY 2015**	**FY 2016**	**FY 2017**
Wholesale	$115.2	$104.6	$98.7
Retail	$35.1	$23.4	$4.8
Total (Less Provisioning)	$150.3	$128.0	$103.5

Note: Amounts may not add due to rounding

Wholesale: Gross sales decrease across the budget years due to changes in operating tempo and projected customer demands.

Retail: Sales from retail operations declines throughout the budget as the transition to GSA finalized.

Metrics:	**FY 2015**	**FY 2016**	**FY 2017**
Items Managed	4,790	4,927	4,927
Requisitions Received	3,503	3,615	3,615
Receipts	1,322	1,114	1,114
Issues	4,663	4,211	4,211
Contracts Executed	163	162	162

Undelivered Orders: Undelivered vendor orders represent contracts or orders for goods for which a liability has not yet accrued. The accrual of the liability creates an outlay requirement.

	FY 2015	**FY 2016**	**FY 2017**
Undelivered Orders:	$70.8	$71.3	$71.8

War Reserve Material (WRM): WRM funding supports the procurement, replenishment, reconstitution, stock and contracted asset availability guarantee of consumable and reparable items deemed necessary for war reserve. No OA or direct appropriations are required during this budget cycle.

DEPARTMENT OF THE NAVY
NAYV WORKING CAPITAL FUND
SUPPLY MANAGEMENT – MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016

Performance Indicators: In addition to core metrics such as net and accumulated operating results, Supply Chain Channel Performance measures the capacity of the supply chain to respond to customer demand.

Performance Indicators:	**FY 2015**	**FY 2016**	**FY 2017**
Supply Chain Fill Rates	70%	75%	85%

Unit Cost: Unit cost provides cost per unit sold based on total cost and the total anticipated number of sales. Unit cost can change in the year of execution.

Unit Cost:	**FY 2015**	**FY 2016**	**FY 2017**
Wholesale	0.649	0.829	0.825
Retail	0.936	0.999	1.006

Composite Rates:	**FY 2015**	**FY 2016**	**FY 2017**
Annual Price Change (APC)	5.340%	5.210%	-3.890%
Composite Cost Recovery Rate (CRR)	21.910%	27.890%	20.150%

The cost categories within the CRR include civilian pay, distribution depot costs, transportation costs, other Department of Defense bills associated with supply operations, and costs to replace inventory losses. The FY 2017 CRR decreases due to supplier costs coupled with increased demand for Marine Corps managed assets. The CRR is tied to customer funding and Marine Corps Weapons Systems Support's ability to fill customer orders.

Staffing:

Civilian/Military ES & Workyears:	**FY 2015**	**FY 2016**	**FY 2017**
Civilian End Strength	26	26	26
Civilian Workyears (straight time)	26	26	26
Military End Strength	0	0	0
Military Workyears	0	0	0

Civilian staffing remains stable and provides continuous support.

Capital Investment Program (CIP):
MC SMAG does not have a CIP budget request.

REVENUE AND EXPENSE SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
Revenue:			
Gross Sales			
Operations	150.204	127.950	103.499
Capital Surcharge	0.000	0.000	0.000
Depreciation	0.000	0.000	0.000
Total Gross Sales	150.204	127.950	103.499
Other Income	0.000	0.000	0.000
Refunds/Discounts (- Credit Sales)	(1.058)	(2.174)	(1.975)
Total Income	149.146	125.776	101.524
Expenses:			
Cost of Material Sold from Inventory	131.751	104.184	85.328
Salaries and Wages:			
Military Personnel	0.000	0.000	0.000
Civilian Personnel	2.099	2.514	2.533
Travel & Transportation of Personnel	0.003	0.070	0.070
Materials & Supplies	0.007	0.010	0.010
Equipment	0.000	0.000	0.000
Other Purchases from Revolving Funds	11.522	12.358	12.210
Transportation of Things	0.037	0.078	0.078
Depreciation - Capital	0.000	0.000	0.000
Printing and Reproduction	0.000	0.000	0.000
Advisory and Assistance Services	0.000	0.000	0.000
Rent, Communication, Utilities & Misc	0.014	0.020	0.020
Other Purchased Services	1.217	1.650	1.650
Total Expenses	146.650	120.884	101.899
Operating Result	2.496	4.892	(0.375)
Less Capital Surcharge reservation	0.000	0.000	0.000
Plus Appropriations Affecting NOR/AOR - WRM	0.000	0.000	0.000
Plus Other Changes Affecting NOR	0.000	0.000	0.000
Net Operating Result	2.496	4.892	(0.375)
Prior Year AOR	(7.013)	(4.517)	0.375
Other Changes Affecting AOR	0.000	0.000	0.000
Accumulated Operating Result	(4.517)	0.375	(0.000)

SOURCES OF NEW ORDERS AND REVENUE
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	FY 2015	FY 2016	FY 2017
1. New Orders			
a. Orders from DoD Components:			
Dept. of Navy			
Military Personnel, Marine Corps	-	-	-
O & M Marine Corps	101.741	79.244	61.379
O & M Marine Corps Reserve	-	-	-
O&M, Navy	0.613	0.738	0.748
	-	-	-
Other Services (O&M)	-	-	-
Army	14.111	16.990	17.740
Air Force	0.488	0.224	0.196
Other DoD	-	-	-
Subtotal	116.953	97.196	80.063
b. Orders from other Fund Business Areas:			
Marine Corps Depot Maintenance	18.375	6.373	9.355
c. Total DoD	135.328	103.569	89.418
d. Other Orders:			
Other Federal Agencies	8.295	9.362	9.595
Non-Federal Agencies	0.082	0.015	0.025
Foreign Military Sales (FMS)	3.085	3.174	3.821
Subtotal	11.462	12.551	13.441
2. Toal New Orders	146.790	116.120	102.859
3. Carry-In Orders	32.144	28.730	16.900
4. Total Gross Orders	178.934	144.850	119.759
5. Carry-Out Orders (-)	28.730	16.900	16.260
6. Gross Sales	150.204	127.950	103.499

FUEL DATA
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

		PROCURED FROM DLA ENERGY			PROCURED BY SERVICE			
FY	**PRODUCT**	**BARRELS**	**U/P**	**EXT COST**	**BARRELS**	**U/P**	**EXT COST**	**STABILIZED PRICE ($)**
2015	Jet Fuel: JP-8	0.002	136.92	0.308	0.000	0.00	0.000	136.920
	Propane	0.000	0.00	0.000	0.000	0.00	0.000	
	Natural Gas (CNG)	0.000	0.00	0.000	0.000	63.00	0.002	
	TOTAL	0.002		0.308	0.000		0.002	
2016	Jet Fuel: JP-8	0.003	144.06	0.390	0.000	0.00	0.000	144.060
	Propane	0.000	0.00	0.000	0.000	0.00	0.000	
	Natural Gas (CNG)	0.000	0.00	0.000	0.000	63.00	0.002	
	TOTAL	0.003		0.390	0.000		0.002	
2017	Jet Fuel: JP-8	0.001	105.00	0.061	0.000	0.00	0.000	105.000
	Propane	0.000	0.00	0.000	0.000	0.00	0.000	
	Natural Gas (CNG)	0.000	0.00	0.000	0.000	63.00	0.001	
	TOTAL	0.001		0.061	0.000		0.001	

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

DIVISION	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP 28 RCM									
Approved	1.119	1.119	1.120	0.000	1.120	20.000	21.120	0.000	0.000
Request	(6.606)	2.371	0.809	0.000	0.809	20.000	20.809	0.000	0.000
Delta	7.725	(1.252)	0.311	0.000	0.311	0.000	0.311	0.000	0.000
BP 28 DSSC									
Approved	33.643	33.643	33.558	0.000	33.558	0.000	33.558	0.000	0.000
Request	32.710	32.710	31.763	0.000	31.763	0.000	31.763	0.000	0.000
Delta	0.933	0.933	1.795	0.000	1.795	0.000	1.795	0.000	0.000
BP 38									
Approved	0.555	0.555	0.578	0.000	0.578	0.000	0.578	0.000	0.000
Request	0.065	0.065	0.310	0.000	0.310	0.000	0.310	0.000	0.000
Delta	0.490	0.490	0.268	0.000	0.268	0.000	0.268	0.000	0.000
BP 84									
Approved	83.311	86.914	65.736	0.000	65.736	18.250	83.986	0.000	5.474
Request	120.621	114.000	58.726	0.000	58.726	18.250	76.976	0.000	1.219
Delta	(37.310)	(27.086)	7.010	0.000	7.010	0.000	7.010	0.000	4.255
BP 91									
Approved	0.000	0.000	12.275	0.000	12.275	0.000	12.275	0.000	0.000
Request	0.000	0.000	14.899	0.000	14.899	0.000	14.899	0.000	0.000
Delta	0.000	0.000	(2.624)	0.000	(2.624)	0.000	(2.624)	0.000	0.000
TOTAL									
Approved	107.394	122.231	113.267	0.000	113.267	38.250	151.517	0.000	5.474
Request	146.790	149.146	106.507	0.000	106.507	38.250	144.757	0.000	1.219
Delta	(39.396)	(26.915)	6.760	0.000	6.760	0.000	6.760	0.000	4.255

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

DIVISION	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP 28 RCM									
Approved	1.110	1.110	1.110	0.000	1.110	20.000	21.110	0.000	0.000
Request	0.477	2.709	2.710	0.000	2.710	20.000	22.710	0.000	0.000
Delta	0.633	(1.599)	(1.600)	0.000	(1.600)	0.000	(1.600)	0.000	0.000
BP 28 DSSC									
Approved	30.489	30.489	30.271	0.000	30.271	0.000	30.271	0.000	0.000
Request	20.299	20.299	20.279	0.000	20.279	0.000	20.279	0.000	0.000
Delta	10.190	10.190	9.992	0.000	9.992	0.000	9.992	0.000	0.000
BP 38									
Approved	0.353	0.353	0.578	0.000	0.578	0.000	0.578	0.000	0.000
Request	0.392	0.392	0.392	0.000	0.392	0.000	0.392	0.000	0.000
Delta	(0.039)	(0.039)	0.186	0.000	0.186	0.000	0.186	0.000	0.000
BP 84									
Approved	85.778	86.210	65.736	0.000	65.736	15.675	81.411	0.000	4.174
Request	94.952	102.376	67.799	0.000	67.799	15.675	83.474	0.000	2.174
Delta	(9.174)	(16.166)	(2.063)	0.000	(2.063)	0.000	(2.063)	0.000	2.000
BP 91									
Approved	0.000	0.000	12.325	0.000	12.325	0.000	12.325	0.000	0.000
Request	0.000	0.000	16.700	0.000	16.700	0.000	16.700	0.000	0.000
Delta	0.000	0.000	(4.375)	0.000	(4.375)	0.000	(4.375)	0.000	0.000
TOTAL									
Approved	117.725	118.162	110.020	0.000	110.020	35.675	145.695	0.000	4.174
Request	116.120	125.776	107.880	0.000	107.880	35.675	143.555	0.000	2.174
Delta	1.605	(7.614)	2.140	0.000	2.140	0.000	2.140	0.000	2.000

SUPPLY MANAGEMENT SUMMARY
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

DIVISION	NET CUSTOMER ORDERS	NET SALES	OPERATING	MOBILIZATION	TOTAL OBLIGATIONS	VARIABILITY TARGET	TARGET TOTAL	CAPITAL IMPROVEMENT PROGRAM	CREDIT SALES
BP 28 RCM									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	1.388	1.408	1.409	0.000	1.409	20.000	21.409	0.000	0.000
Delta	(1.388)	(1.408)	(1.409)	0.000	(1.409)	(20.000)	(21.409)	0.000	0.000
BP 28 DSSC									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	3.330	3.330	3.358	0.000	3.358	0.000	3.358	0.000	0.000
Delta	(3.330)	(3.330)	(3.358)	0.000	(3.358)	0.000	(3.358)	0.000	0.000
BP 38									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	0.062	0.062	0.062	0.000	0.062	0.000	0.062	0.000	0.000
Delta	(0.062)	(0.062)	(0.062)	0.000	(0.062)	0.000	(0.062)	0.000	0.000
BP 84									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	98.079	96.724	62.838	0.000	62.838	13.456	76.294	0.000	1.975
Delta	(98.079)	(96.724)	(62.838)	0.000	(62.838)	(13.456)	(76.294)	0.000	(1.975)
BP 91									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	0.000	0.000	16.571	0.000	16.571	0.000	16.571	0.000	0.000
Delta	0.000	0.000	(16.571)	0.000	(16.571)	0.000	(16.571)	0.000	0.000
TOTAL									
Approved	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Request	102.859	101.524	84.238	0.000	84.238	33.456	117.694	0.000	1.975
Delta	(102.859)	(101.524)	(84.238)	0.000	(84.238)	(33.456)	(117.694)	0.000	(1.975)

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 84 - WHOLESALE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	5.0	0.000	0.000	6.339	0.138	6.477
TOTAL GUIDED MISSILES AND EQUIPMENT	5.0	0.000	0.000	0.000	0.293	0.293
TOTAL COMMUNICATION AND ELECTRONICS	5.0	0.000	0.000	10.887	33.255	44.142
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	5.0	0.000	0.000	1.392	0.066	1.458
TOTAL GENERAL PROPERTY	5.0	0.083	0.000	6.247	0.109	6.356
Total		0.083	0.000	24.865	33.861	58.726

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 84 - WHOLESALE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	5.0	0.000	0.000	8.674	10.571	19.245
TOTAL GUIDED MISSILES AND EQUIPMENT	5.0	0.000	0.000	3.082	8.954	12.036
TOTAL COMMUNICATION AND ELECTRONICS	5.0	0.000	0.000	10.364	8.147	18.511
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	5.0	0.000	0.000	5.987	5.449	11.436
TOTAL GENERAL PROPERTY	5.0	0.083	0.000	3.257	3.314	6.571
Total		0.083	0.000	31.364	36.435	67.799

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 84 - WHOLESALE
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	5.0	0.000	0.000	8.364	9.147	17.511
TOTAL GUIDED MISSILES AND EQUIPMENT	5.0	0.000	0.000	1.299	8.671	9.970
TOTAL COMMUNICATION AND ELECTRONICS	5.0	0.000	0.000	7.254	7.654	14.908
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	5.0	0.000	0.000	5.310	4.247	9.557
TOTAL GENERAL PROPERTY	5.0	0.083	0.000	5.364	5.528	10.892
Total		0.083	0.000	27.591	35.247	62.838

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 28 - RCM
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	0.0	0.000	0.000	0.818	0.000	0.818
TOTAL GUIDED MISSILES AND EQUIPMENT	0.0	0.000	0.000	0.098	0.000	0.098
TOTAL COMMUNICATION AND ELECTRONICS	0.0	0.000	0.000	(0.397)	0.000	(0.397)
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.0	0.000	0.000	0.489	0.000	0.489
TOTAL GENERAL PROPERTY	0.0	0.000	0.000	0.123	0.000	0.123
Total		0.000	0.000	1.131	0.000	1.131

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 28 - RCM
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	0.0	0.000	0.000	0.504	0.000	0.504
TOTAL GUIDED MISSILES AND EQUIPMENT	0.0	0.000	0.000	0.874	0.000	0.874
TOTAL COMMUNICATION AND ELECTRONICS	0.0	0.000	0.000	0.247	0.000	0.247
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.0	0.000	0.000	1.024	0.000	1.024
TOTAL GENERAL PROPERTY	0.0	0.000	0.000	0.061	0.000	0.061
Total		0.000	0.000	2.710	0.000	2.710

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

OPERATING REQUIREMENTS BY WEAPON SYSTEM
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
BP 28 - RCM
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Weapon System	NMCRS Rates[1]	Buy-in Outfitting	Special Programs	Basic Replen	Repair	Total
TOTAL ORDNANCE TANK AUTOMOTIVE	0.0	0.000	0.000	0.524	0.000	0.524
TOTAL GUIDED MISSILES AND EQUIPMENT	0.0	0.000	0.000	0.348	0.000	0.348
TOTAL COMMUNICATION AND ELECTRONICS	0.0	0.000	0.000	0.214	0.000	0.214
TOTAL ENGINEER SUPPORT AND CONSTRUCTION	0.0	0.000	0.000	0.183	0.000	0.183
TOTAL GENERAL PROPERTY	0.0	0.000	0.000	0.140	0.000	0.140
Total		0.000	0.000	1.409	0.000	1.409

[1]Not Mission Capable Supply (NMCS) - Percentage of time aircraft are Not Mission Capable due to a supply shortage. Used in conjunction with Not Mission Capable Maintenance (NMCM) to determine total Not Mission Capable rate (inverse of MC). NMCS is computed only for weapon systems. NMCS is not computed for weapon system parts, such as engines.

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
SUMMARY OF WHOLESALE AND RETAIL
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

			---Peacetime---	
	Total	Mobilization	Operating	Other
1. INVENTORY BOP	1,450.217	29.497	1,082.899	337.821
2. BOP INVENTORY ADJUSTMENTS	3.659	0.000	0.000	0.000
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	0.000	0.000
B. PRICE CHANGE AMOUNT (memo)	3.659	0.000	0.000	0.000
C. INVENTORY RECLASSIFIED AND REPRICED	1,450.217	29.497	1,082.899	337.821
3. RECEIPTS AT STANDARD	68.659	0.000	68.659	0.000
4. SALES AT STANDARD	209.736	0.000	209.736	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	22.574	0.026	22.548	0.000
B. RETURNS FROM CUSTOMERS FOR CREDIT	106.491	0.000	106.491	0.000
C. RETURNS FROM CUSTOMERS, NO CREDIT	415.366	0.000	415.366	0.000
D. RETURNS TO SUPPLIERS (-)	(52.916)	0.000	(52.916)	0.000
E. TRANSFERS TO PROP. DISPOSAL (-)	(129.209)	0.000	(129.209)	0.000
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(80.952)	0.000	(79.868)	(1.084)
G. OTHER (listed in Section 9)	159.469	3.855	172.048	(16.434)
H. TOTAL ADJUSTMENTS	440.823	3.881	454.461	(17.518)
6. INVENTORY EOP	1,749.964	33.378	1,396.283	320.303
7. INVENTORY EOP (REVALUED)	1,298.692	32.433	973.258	293.001
A. APPROVED ACQUISITION OBJECTIVE (memo)				
B. ECONOMIC RETENTION (memo)				18.920
C. CONTINGENCY RETENTION (memo)				255.899
D. POTENTIAL DOD REUTILIZATION (memo)				0.000
8. INVENTORY ON ORDER EOP (memo)	22.880	0.000	22.880	0.000
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	60.853	3.855	73.004	(16.006)
Strata Transfers	0.000	0.000	0.000	0.000
Net/Standard Difference	0.000	0.000	0.000	(0.428)
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Total	60.853	3.855	73.432	(16.434)

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
SUMMARY OF WHOLESALE AND RETAIL
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

			---Peacetime---	
	Total	Mobilization	Operating	Other
1. INVENTORY BOP	1,749.964	33.378	1,396.283	320.300
2. BOP INVENTORY ADJUSTMENTS	17.434	0.553	16.554	0.327
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	0.000	0.000
B. PRICE CHANGE AMOUNT (memo)	17.434	0.553	16.554	0.327
C. INVENTORY RECLASSIFIED AND REPRICED	1,767.398	33.931	1,412.837	320.630
3. RECEIPTS AT STANDARD	55.882	0.000	55.882	0.000
4. SALES AT STANDARD	127.950	0.000	127.950	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(6.358)	0.000	(6.358)	0.000
B. RETURNS FROM CUSTOMERS FOR CREDIT	4.174	0.000	4.174	0.000
C. RETURNS FROM CUSTOMERS, NO CREDIT	286.401	0.000	286.401	0.000
D. RETURNS TO SUPPLIERS (-)	(127.229)	0.000	(59.909)	(67.320)
E. TRANSFERS TO PROP. DISPOSAL (-)	(189.171)	0.000	(160.776)	(28.395)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(74.034)	0.000	(49.034)	(25.000)
G. OTHER (listed in Section 9)	(7.818)	0.000	(103.533)	95.715
H. TOTAL ADJUSTMENTS	(114.035)	0.000	(89.035)	(25.000)
6. INVENTORY EOP	1,581.295	33.931	1,251.734	295.630
7. INVENTORY EOP (REVALUED)	1,171.311	32.676	825.487	313.148
A. APPROVED ACQUISITION OBJECTIVE (memo)				0.000
B. ECONOMIC RETENTION (memo)				35.270
C. CONTINGENCY RETENTION (memo)				277.878
D. POTENTIAL DOD REUTILIZATION (memo)				0.000
8. INVENTORY ON ORDER EOP (memo)	56.250	0.000	56.250	0.000
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	(7.818)	0.000	(103.533)	95.715
Strata Transfers	0.000	0.000	0.000	0.000
Net/Standard Difference	0.000	0.000	0.000	0.000
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Total	(7.818)	0.000	(103.533)	95.715

INVENTORY STATUS
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
SUMMARY OF WHOLESALE AND RETAIL
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

			---Peacetime---	
	Total	Mobilization	Operating	Other
1. INVENTORY BOP	1,581.295	33.931	1,251.734	295.630
2. BOP INVENTORY ADJUSTMENTS	26.951	0.675	26.406	(0.130)
A. RECLASSIFICATION CHANGE (memo)	0.000	0.000	0.000	0.000
B. PRICE CHANGE AMOUNT (memo)	26.951	0.675	26.406	(0.130)
C. INVENTORY RECLASSIFIED AND REPRICED	1,608.246	34.606	1,278.140	295.500
3. RECEIPTS AT STANDARD	25.554	0.000	25.554	0.000
4. SALES AT STANDARD	104.980	0.000	104.980	0.000
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATIONS + or (-)	(6.358)	0.000	(6.358)	0.000
B. RETURNS FROM CUSTOMERS FOR CREDIT	3.974	0.000	3.974	0.000
C. RETURNS FROM CUSTOMERS, NO CREDIT	273.152	0.000	273.152	0.000
D. RETURNS TO SUPPLIERS (-)	(121.841)	0.000	(54.521)	(67.320)
E. TRANSFERS TO PROP. DISPOSAL (-)	(174.746)	0.000	(146.351)	(28.395)
F. ISSUES/RECEIPTS WITHOUT REIMBURSEMENT + or (-)	(73.484)	0.000	(48.484)	(25.000)
G. OTHER (listed in Section 9)	(10.317)	0.000	(106.032)	95.715
H. TOTAL ADJUSTMENTS	(109.620)	0.000	(84.620)	(25.000)
6. INVENTORY EOP	1,419.200	34.606	1,114.094	270.500
7. INVENTORY EOP (REVALUED)	1,047.993	33.212	726.763	288.018
A. APPROVED ACQUISITION OBJECTIVE (memo)				0.000
B. ECONOMIC RETENTION (memo)				33.020
C. CONTINGENCY RETENTION (memo)				254.998
D. POTENTIAL DOD REUTILIZATION (memo)				0.000
8. INVENTORY ON ORDER EOP (memo)	71.849	0.000	71.849	0.000
9. NARRATIVE:				
Other adjustments (Total posted to line 5g):				
Other Gains/Losses	(10.317)	0.000	(106.032)	95.715
Strata Transfers	0.000	0.000	0.000	0.000
Net/Standard Difference	0.000	0.000	0.000	0.000
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Total	(10.317)	0.000	(106.032)	95.715

WAR RESERVE MATERIAL
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2015

Stockpile Status			
	Total	WRM Protected	WRM Other
1. Inventory BOP @ std	29.497	29.497	0.000
2. Price Change	0.001	0.001	0.000
3. Reclassification	29.498	29.498	0.000
Inventory Changes			
a. Receipts @ std	0.000	0.000	0.000
(1). Purchases	0.000	0.000	0.000
(2). Returns from customers	0.000	0.000	0.000
b. Issues @ std	0.000	0.000	0.000
(1). Sales	0.000	0.000	0.000
(2). Returns to suppliers	0.000	0.000	0.000
(3). Disposals	0.000	0.000	0.000
c. Adjustments @ std	3.881	3.881	0.000
(1). Capitalizations	0.026	0.026	0.000
(2). Gains and losses	0.000	0.000	0.000
(3). Other	3.855	3.855	0.000
Inventory EOP	33.379	33.379	0.000
Stockpile Costs			
1. Storage	0.000	0.000	0.000
2. Management	0.000	0.000	0.000
3. Maintenance/Other	0.000	0.000	0.000
Total Cost	0.000	0.000	0.000
WRM Budget Request			
1. Obligations @ cost			
a. Additional WRM Investment	0.000	0.000	0.000
b. Replen./Repair WRM Reinvest.	0.000	0.000	0.000
c. Stock Rotation/Obsolescence	0.000	0.000	0.000
d. Assemble/Disassemble	0.000	0.000	0.000
e. Other	0.000	0.000	0.000
Total Request	0.000	0.000	0.000

WAR RESERVE MATERIAL
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2016

Stockpile Status			
	Total	WRM Protected	WRM Other
1. Inventory BOP @ std	33.379	33.378	0.000
2. Price Change	0.741	0.553	0.000
3. Reclassification	33.931	33.931	0.000
Inventory Changes			
a. Receipts @ std	0.000	0.000	0.000
(1). Purchases	0.000	0.000	0.000
(2). Returns from customers	0.000	0.000	0.000
b. Issues @ std	0.000	0.000	0.000
(1). Sales	0.000	0.000	0.000
(2). Returns to suppliers	0.000	0.000	0.000
(3). Disposals	0.000	0.000	0.000
c. Adjustments @ std	0.000	0.000	0.000
(1). Capitalizations	0.000	0.000	0.000
(2). Gains and losses	0.000	0.000	0.000
(3). Other	0.000	0.000	0.000
Inventory EOP	33.931	33.931	0.000
Stockpile Costs			
1. Storage	0.000	0.000	0.000
2. Management	0.000	0.000	0.000
3. Maintenance/Other	0.000	0.000	0.000
Total Cost	0.000	0.000	0.000
WRM Budget Request			
1. Obligations @ cost			
a. Additional WRM Investment	0.000	0.000	0.000
b. Replen./Repair WRM Reinvest.	0.000	0.000	0.000
c. Stock Rotation/Obsolescence	0.000	0.000	0.000
d. Assemble/Disassemble	0.000	0.000	0.000
e. Other	0.000	0.000	0.000
Total Request	0.000	0.000	0.000

WAR RESERVE MATERIAL
DEPARTMENT OF THE NAVY
SUPPLY MANAGEMENT - MARINE CORPS
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)
FY 2017

Stockpile Status			
	Total	WRM Protected	WRM Other
1. Inventory BOP @ std	33.931	33.931	0.000
2. Price Change	0.583	0.675	0.000
3. Reclassification	34.606	34.606	0.000
Inventory Changes			
a. Receipts @ std	0.000	0.000	0.000
(1). Purchases	0.000	0.000	0.000
(2). Returns from customers	0.000	0.000	0.000
b. Issues @ std	0.000	0.000	0.000
(1). Sales	0.000	0.000	0.000
(2). Returns to suppliers	0.000	0.000	0.000
(3). Disposals	0.000	0.000	0.000
c. Adjustments @ std	0.000	0.000	0.000
(1). Capitalizations	0.000	0.000	0.000
(2). Gains and losses	0.000	0.000	0.000
(3). Other	0.000	0.000	0.000
Inventory EOP	34.606	34.606	0.000
Stockpile Costs			
1. Storage	0.000	0.000	0.000
2. Management	0.000	0.000	0.000
3. Maintenance/Other	0.000	0.000	0.000
Total Cost	0.000	0.000	0.000
WRM Budget Request			
1. Obligations @ cost			
a. Additional WRM Investment	0.000	0.000	0.000
b. Replen./Repair WRM Reinvest.	0.000	0.000	0.000
c. Stock Rotation/Obsolescence	0.000	0.000	0.000
d. Assemble/Disassemble	0.000	0.000	0.000
e. Other	0.000	0.000	0.000
Total Request	0.000	0.000	0.000

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Back of Tab

DEPOT MAINTENANCE SIX PERCENT CAPITAL INVESTMENT PLAN
DEPARTMENT OF THE NAVY
FISCAL YEAR (FY) 2017 BUDGET ESTIMATES
FEBRUARY 2016
(DOLLARS IN MILLIONS)

	REVENUE (Maintenance, Repair, Overhaul) 3 year average			BUDGETED CAPITAL (Modernization, Efficiency)		
	FY 12-14	FY 13-15	FY 14-16	FY 2015	FY 2016	FY 2017
	7,008.7	6,419.6	6,754.1			
	6,419.6	6,754.1	7,098.5			
	6,754.1	7,098.5	7,701.7			
Revenue (Avg)	6,727.5	6,757.4	7,184.8			
Working Capital Fund (Avg)	2,057.1	1,928.9	1,996.0			
Appropriations (Avg)	12,460.0	12,945.0	13,937.0			
Total Revenue (Avg)	14,517.1	14,873.9	15,933.1			
WCF Depot Maintenance Capital Investment						
Facilities / Work Environment				63.1	68.9	70.6
Equipment				34.7	55.2	47.7
Equipment (Non-Capital Investment Program)				9.6	9.4	9.6
Processes				0.7	1.2	1.2
Total WCF Investment				108.1	134.7	129.1
Appropriated Funding						
MILCON				27.3	91.2	58.4
Procurement				53.0	55.8	64.6
Operation & Maintenance				314.0	225.2	254.8
Total Appropriated Funding				394.3	372.1	377.8
Component Total				502.4	506.9	506.9
Minimum 6% Investment				403.7	405.4	431.1
Investment Over/Under Requirement				98.7	101.4	75.8
				7.5%	7.5%	7.1%

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