

ARMY WORKING CAPITAL FUND FISCAL YEAR 2016 BUDGET ESTIMATES



SUBMITTED TO CONGRESS FEBRUARY 2015

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Soldiers prepared a hook up for sustainment supplies during sling load operations.

The estimated cost of this report for the Department of Defense (DOD) is approximately \$27,000 for Fiscal Year 2016. This includes \$800 in expenses and \$26,200 in DOD labor.

All photographs in this document were obtained from official U.S. Department of Defense web sites.



Army Civilian Corps Creed

I am an Army civilian – a member of the Army team.

I am dedicated to our Army, our Soldiers and civilians.

I will always support the mission.

I provide stability and continuity during war and peace.

I support and defend the Constitution of the United States and consider it an honor to serve our nation and our Army.

I live the Army values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage.

Army Overview

Background

Working capital funds were established by Congress to more effectively control and account for the cost of programs and work performed in the Department of Defense. Under the provisions of Title 10 United States Code, § 2208, the Secretary of Defense may establish working capital funds to finance inventories of supplies and industrial-type activities that provide common services such as repair, manufacturing, or remanufacturing. Unlike profit-oriented commercial businesses, the revolving fund's goal is to break even by returning any monetary gains to appropriated fund customers through lower rates or collecting any monetary losses from customers through higher rates. Revolving fund prices are generally stabilized or fixed during the year of execution to protect customers from unforeseen fluctuations that would impact their ability to execute the programs approved by Congress.

The basic tenet of the revolving fund structure is to create a customer-provider relationship between military operating units and support organizations. This relationship is designed to make managers of the Army Working Capital Fund (AWCF) and decision-makers at all levels more aware of costs for goods and services.



A Soldier guiding a driver of an Avenger weapon system.

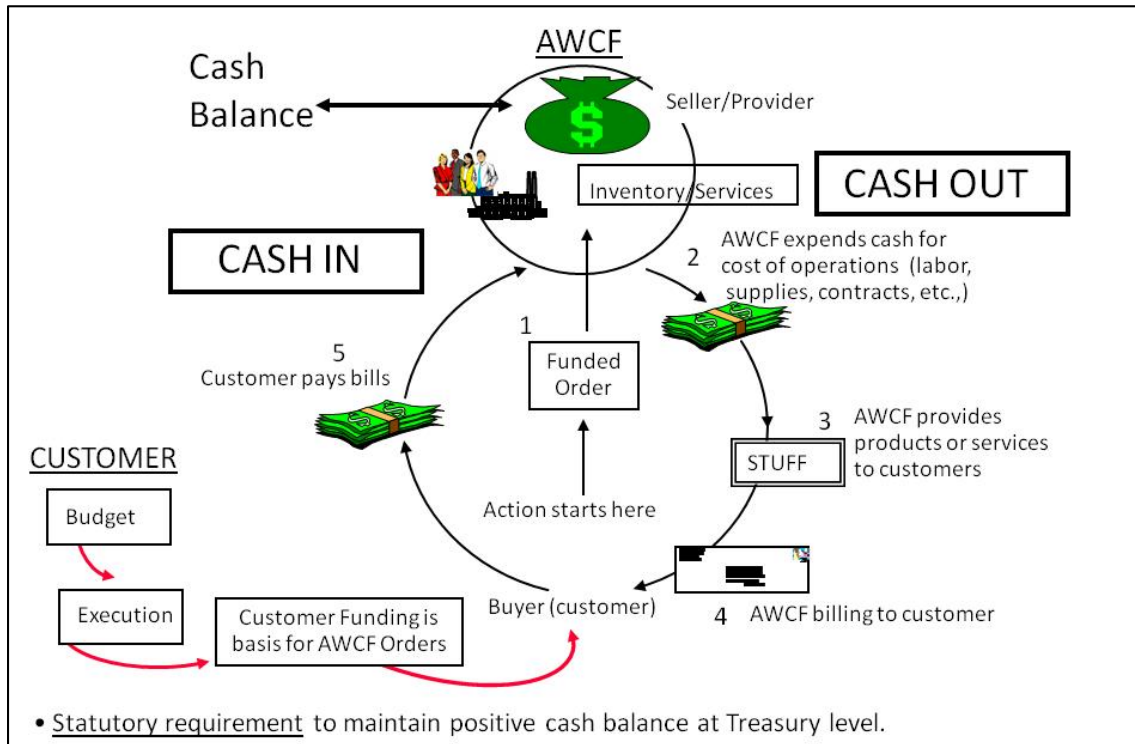
The Army's revolving fund activities evolved from two separate types of funds. The first type, known as the Stock Fund, procured spare parts in volume to either sell to customers or hold in inventory. The second type, known as the Industrial Fund, provided industrial services to customers, such as depot maintenance, munitions and weapon systems component manufacturing, and ammunition storage. Both types of revolving funds were financed primarily by reimbursements from customer appropriated accounts.

Figure 1 on the next page shows the interaction between customers' appropriated funds, AWCF business operations, and cash. Customer appropriated funding is synchronized with AWCF workload forecasts during budget development. During the year of execution, appropriated fund customers



submit funded orders (1) to AWCF providers requesting services (repair, overhaul, or manufacturing) or supplies (spare or repair parts). This obligates appropriated funds. In step 2, AWCF Supply Management purchases inventory for resale to customers. Also in step 2, Industrial Operations orders materiel and hires labor, supporting the projected workload (CASH OUT). In step 3, the customer receives the completed product or service and a bill (4) for payment. The customer pays the AWCF (5) for the materiel or services (CASH IN). Proper pricing of inventory and services, and accurately forecasting workload allows a balance between CASH OUT and CASH IN. Variance between these actions results in either a gain or loss of AWCF cash. Gains are returned to customers through lower future prices while losses are recouped through higher future prices.

Figure 1



Introduction

The FY 2016 AWCF budget request supports the Army's vision to sustain and maintain a scalable, ready, and modern force, recapitalize combat equipment, and reset assets to equip a robust, ready, regionally engaged, and responsive force structure. The AWCF directly supports the materiel readiness of operating units.

The revolving fund structure encourages cost-effectiveness, flexibility, and adaptability to meet changing workload requirements in the year of execution. It also supports full cost visibility and full cost recovery while protecting appropriated fund customer accounts from year of execution price changes. The AWCF consists of the Supply Management and Industrial Operations activity groups, with operations spanning across seventeen cities and local areas within fourteen states. The exact locations are shown in each business activity's portion of the budget. The AWCF activities disbursed approximately \$8.2 billion in FY 2014 to maintain the readiness and sustainability of military equipment.

Performance Measures

Key financial measures are net operating result, accumulated operating result, and unit cost.

The net operating result (NOR) represents the difference between revenue and expenses within a fiscal year. Accumulated operating result (AOR) represents the summation of all operating gains or losses since activity group inception along with any prior period adjustments. Prices and rates are set at a level that brings the accumulated gains and losses to zero over the budget cycle. The unit cost is a metric primarily used in the Supply Management activity group to relate operating costs to each dollar of sales. It is measured by dividing gross operating cost (the sum of total obligations, depreciation expense, and credit) by gross sales. Adjusting the unit cost determines how much obligation authority may be distributed based on gross sales.



A Soldier prepared to fire a Javelin at the National Training Center, Fort Irwin, CA.

In addition to financial measures (NOR, AOR, and unit cost), operational measures assess how well the financial inputs reflected in the AWCF budget support Army strategic goals and operational readiness. Operational measures



include productive yield (an indicator of whether direct labor employees can support projected workload) and stock availability (a measure of the ability of AWCF inventory to fill a customer's requisition). These are identified within each activity group's narrative.

Logistics Modernization Program

The Army's Logistics Modernization Program (LMP) provides a modernized logistics and finance solution that allows the U.S. Army Materiel Command (AMC) to provide world-class logistics readiness to Soldiers. LMP delivers a fully integrated suite of software and business processes, providing streamlined data on maintenance, repair and overhaul, finance, acquisition, spare parts, and materiel. It is the Army's core logistics information technology (IT) initiative, which meets the Army's IT logistics vision of transformation from legacy applications to a modernized logistics enterprise solution.

LMP manages approximately four million transactions daily and is integrated with more than 70 DOD systems including interfaces with Army's other enterprise resource planning systems: Army Enterprise Systems Integration Program; Global Combat Support System-Army; and General Fund Enterprise Business Systems. LMP is currently used by more than 21,000 users at more than 50 Army and DOD locations. Enhancements and system changes continue to be applied to LMP to ensure compliance with statutory and regulatory requirements.



A snow covered CH-47 Chinook Helicopter at Bagram Air Field, Afghanistan.



Activity Groups

Supply Management

The Supply Management activity group buys and manages spare and repair parts for sale to its customers, primarily Army operating units. The activity group is committed to supporting and building readiness for present and future challenges. The Army's equipment and operational readiness, and the strength to win the Nation's wars, are directly linked to the availability of spare parts. Supply Management administers spare parts inventory for Army managed items, non-Army managed materiel (NAMM) and war reserve secondary items. It also maintains a protected inventory of spares in Army Prepositioned Stocks, which is released to support deploying combat units. The Life Cycle Management Commands assigned to the Army Materiel Command manages the Supply Management activity, which consists of four major commodity groups: aviation and missile; communications-electronics; tank-automotive and armament; and NAMM. The war reserve stocks contain materiel from all commodity groups. As new equipment is added to the Army's operational and training forces, new spare parts are also scheduled for inclusion in the Supply Management inventory.

Industrial Operations

The Industrial Operations activity group provides the Army an organic industrial capability to: conduct depot level maintenance, repair and upgrade; produce munitions and large caliber weapons; and store, maintain, and demilitarize materiel for all branches of DOD. Industrial Operations is comprised of thirteen government owned and operated installation activities, each with unique core competencies. These include five hard-iron maintenance depots, three arsenals, two munitions production facilities, and three storage sites. Although comprised of diverse organic industrial capabilities, the preponderance of workload and associated estimates in the Industrial Operations budget submission relate to depot level maintenance, repair, and upgrade. The complex operational environment continues to place tremendous demands on equipment, resulting in higher usage rates than in routine peacetime operations. The Industrial Operations activities play an integral role in resetting equipment as it retrogrades from combat operations.



Non-mission ready M1114 up-armored Humvees awaiting transport to the refurbish shop for repair.



The Army's equipment Reset program is defined as a set of actions restoring equipment to a level of pre-deployment capability commensurate with a unit's future mission. Army equipment reset will replace¹, recapitalize², or repair³ equipment to meet 10/20 and operational requirements. The Industrial Operations activity group is involved with both the recapitalization and repair efforts. The budget incorporates depot workload assumptions associated with the Reset program (Overseas Contingency Operations funding) and peacetime training operations.

Budget Highlights

Overview

The FY 2016 AWCF budget request supports the Army's plans to maintain and strengthen its war fighting readiness. The budget supports ongoing global efforts, as well as home-based training requirements. The AWCF has experienced record levels of sales and revenue due to wartime operations; however, the budget reflects reduced OPTEMPO.

The budget assumes an overall reduced troop strength and a lower OPTEMPO level for Overseas Contingency Operations (OCO), resulting in lower demands and sales forecasts in FY 2016. The sufficiency and predictability of resources is critical for accurately forecasting and executing workload. OPTEMPO assumptions assist in the development of the budget request, but as changes to these assumptions materialize, the projections for the AWCF can change significantly. To offset this risk, both activity groups will be able to adapt to changing workload forecasts, constraining or expanding costs as necessary. The Supply Management budget request includes variability target to support spares replacement for any surge in customer demands above projected levels. The Industrial Operations activity group budget request includes a mix of permanent, temporary, and term-appointment employees, in addition to contract labor, to better respond to unanticipated increases or decreases in new orders.

¹ The purchase of new equipment to replace battle losses, worn-out or obsolete equipment, and critical equipment deployed and left in theater, but needed for homeland defense, homeland security, and other critical missions.

² A rebuild effort that extends the equipment's useful life by returning it to a near zero-mile/zero-hour condition with either the original performance specifications or with upgraded performance specifications.

³ A repair or overhaul effort that returns the equipment's condition to the Army standard. It includes the Special Technical Inspection and Repair (STIR) program for aircraft.



Personnel

The AWCF civilian personnel posture reflects an overall decrease through FY 2016. Changes to personnel levels are discussed within the narrative of each activity group. Civilian and military end strength and civilian full time equivalents are shown in Table 1, below.

Table 1 – Personnel

	FY 2014	FY 2015	FY 2016
Supply Management			
<i>Civilian End Strength</i>	1,834	1,840	1,962
<i>Full Time Equivalents</i>	1,834	1,840	1,962
<i>Military End Strength</i>	3	3	3
Industrial Operations			
<i>Civilian End Strength</i>	19,839	20,549	20,083
<i>Full Time Equivalents</i>	20,326	20,469	20,023
<i>Military End Strength</i>	26	23	25
Total			
<i>Civilian End Strength</i>	21,673	22,389	22,045
<i>Full Time Equivalents</i>	22,160	22,309	21,985
<i>Military End Strength</i>	29	26	28



Revenue and Expenses

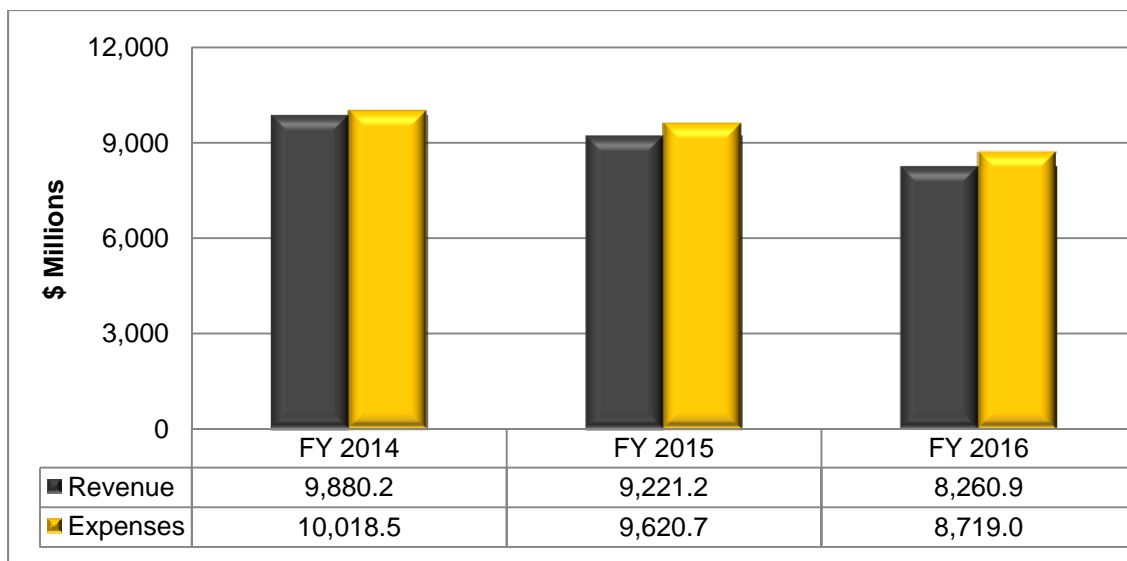
Revenue is an indicator of the combined volume of work completed by the AWCF activity groups. Expenses identify the cost of goods and services produced or sold. Both revenue and expenses are expected to decline in the budget year based on workload. Major expense drivers include cost of goods sold for Supply Management and the cost of labor and materiel consumed in Industrial Operations. Table 2 and Chart 1 below show revenue and expenses for Supply Management and Industrial Operations.

Table 2 - Revenue and Expenses

(\$ Millions)	FY 2014	FY 2015	FY 2016
Revenue			
<i>Supply Management</i>			
<i>Gross Sales</i>	6,389.9	5,537.0	5,116.0
<i>Less Credit</i>	1,213.1	1,384.6	1,327.8
<i>Net Supply Management</i>	5,176.9	4,152.4	3,788.2
<i>Industrial Operations</i>	4,703.3	5,068.8	4,472.8
<i>Total Revenue</i>	9,880.2	9,221.2	8,260.9
Expenses			
<i>Supply Management</i>	5,353.7	4,459.0	4,082.2
<i>Industrial Operations</i>	4,664.8	5,161.8	4,636.8
<i>Total Expenses</i>	10,018.5	9,620.7	8,719.0

Note: Total revenue above does not include appropriated funds for war reserve secondary items as shown on the Supply Management exhibit Fund 14, *Revenue and Costs*. Numbers may not add due to rounding.

Chart 1 - Revenue and Expenses



Net and Accumulated Operating Results

Financial performance is measured by comparing actual results to goals. The goal of the AWCF is to break even over time. Army considers several factors when determining the accumulated operating result (AOR) amount to return in the rates. Returning a large positive AOR balance in one year may cause the rates to drop significantly in that year and increase significantly in the following year. In addition, the Army reviews the cash balance and the projected balance for the budget year to determine if sufficient cash exists to return the gain to the customers. In FY 2016, Supply Management activity is using cash above the operational requirement to minimize rate increases to our customers. The Industrial Operations activity received approval to defer the return of \$453.3 million of AOR for future rate stabilization as workload decreases. Table 3 below shows the net and accumulated operating results for both Supply Management and Industrial Operations. Details can be found under the NOR and AOR section for each business area.

Table 3 - Operating Results

(\$ Millions)	FY 2014	FY 2015	FY 2016
Supply Management			
<i>Net Operating Result</i>	(176.9)	(306.6)	(294.0)
<i>Prior Year AOR</i>	(153.2)	157.8	294.0
<i>Non-Recoverable AOR</i>	487.8	442.8	0.0
<i>Accumulated Operating Result</i>	157.8	294.0	0.0
Industrial Operations			
<i>Net Operating Result</i>	100.4	133.3	(112.3)
<i>Deferred AOR</i>	0.0	0.0	(453.3)
<i>Accumulated Operating Result</i>	432.3	565.6	0.0

Notes: Numbers may not add due to rounding.

Customer Rates

Each activity group has a unique rate structure. The Supply Management activity group adds a cost recovery rate (CRR) to the price of inventory items sold to recoup operating costs. Typical cost categories within the CRR include civilian pay, distribution depot costs, transportation costs, other Defense bills associated with supply operations, and costs of replacing inventory losses. The Industrial Operations activity group sets customer rates on a direct labor hour basis. The hourly composite rate recovers all costs, both direct and overhead. Activity group rates are stabilized so that the customer's buying power is protected from price swings during the year of execution. Table 4 on the following page shows the Supply Management composite cost recovery rates and the Industrial Operations composite direct labor hour rates.



Table 4 - Customer Rates

	FY 2014	FY 2015	FY 2016
Supply Management	16.2%	16.4%	19.4%
Industrial Operations	\$141.46	\$145.87	\$157.42

Customer Rate Change

The Supply Management customer rate change is expressed as the change in overhead costs weighted by sales revenue. Table 5 shows the customer rate change for both business areas.

Table 5 - Price Change to Customer

	FY 2014	FY 2015	FY 2016
Supply Management	(2.8%)	1.3%	2.5%
Industrial Operations	4.0%	3.1%	7.9%

Fund Balance with Treasury

The Defense Working Capital Fund (DWCF) Fund Balance with Treasury, account symbol 97X4930, is subdivided at the Treasury into five sub-numbered Treasury accounts. The Army's account is 97X4930.001. The current balance of funds with Treasury is equal to 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. The AWCF is required to maintain a positive cash balance to prevent an Anti-deficiency Act violation under Title 31, United States Code, § 1517(a), *Prohibited obligations and expenditures*. Unlike appropriated funds, the AWCF cash 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 plus six months of capital investment program disbursements.

The operational requirement may include any positive accumulative operating result returned to customers, cash equal to undisbursed direct appropriations, and a commodity/market adjustment. In preparation for daily cash visibility at the Department of Treasury, the AWCF collected weekday cash transactions from the Logistics Modernization Program (LMP) starting in February 2013. This study identified a pattern of multiple disbursement cycles before a collection cycle. The operational cash requirement also includes a factor to ensure sufficient cash is available for these cycles. Starting 1 October 2013, Supply Management changed its pricing methodology for non-deployed units to standard price and credit. This change anticipates the full deployment of the Global



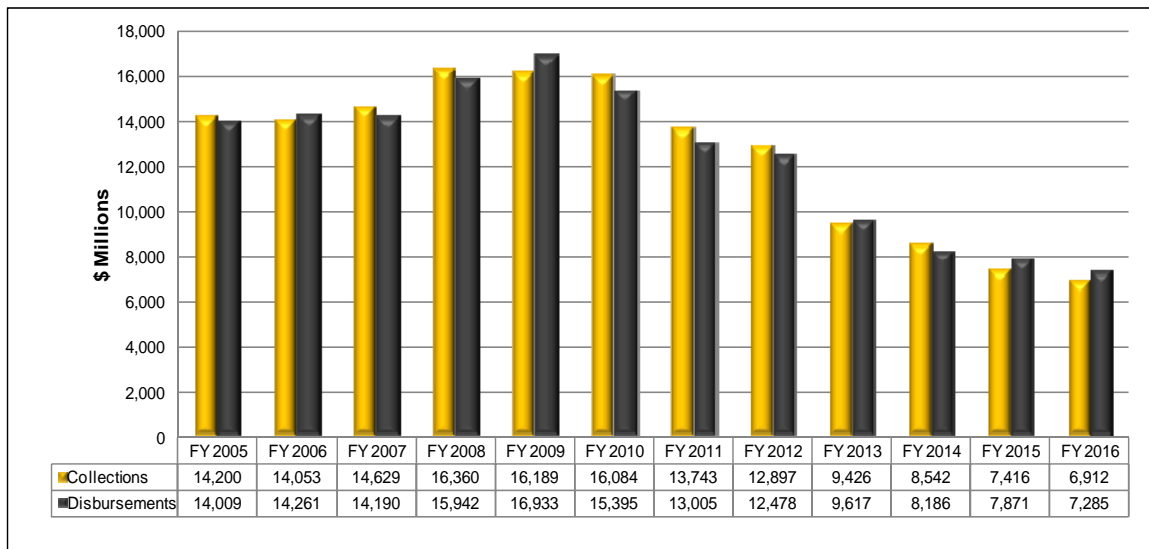
Combat Support System-Army (GCSS-Army) logistics system, which will continue through FY 2016. GCSS-Army program updates in FY 2015 will automate the Army's timely one-for-one policy, ensuring excess credit is not granted. Prior to the system updates, there remains a potential for Army units to receive excess credit. For FY 2015 and FY 2016, the operational cash requirement includes a factor to retain additional cash to mitigate this risk.

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.

Cash from Operations

The day-to-day operations of the fund consume and replenish cash. The FY 2016 cash plan includes all expected collections and disbursements from the operations of both the Supply Management and Industrial Operations activity groups, including appropriations and transfers. Chart 2 below displays collections and disbursements from operations and does not include appropriations and transfers. The projected change in collections from FY 2015 to FY 2016 is due to lower Supply Management sales.

Chart 2 - Cash from Operations



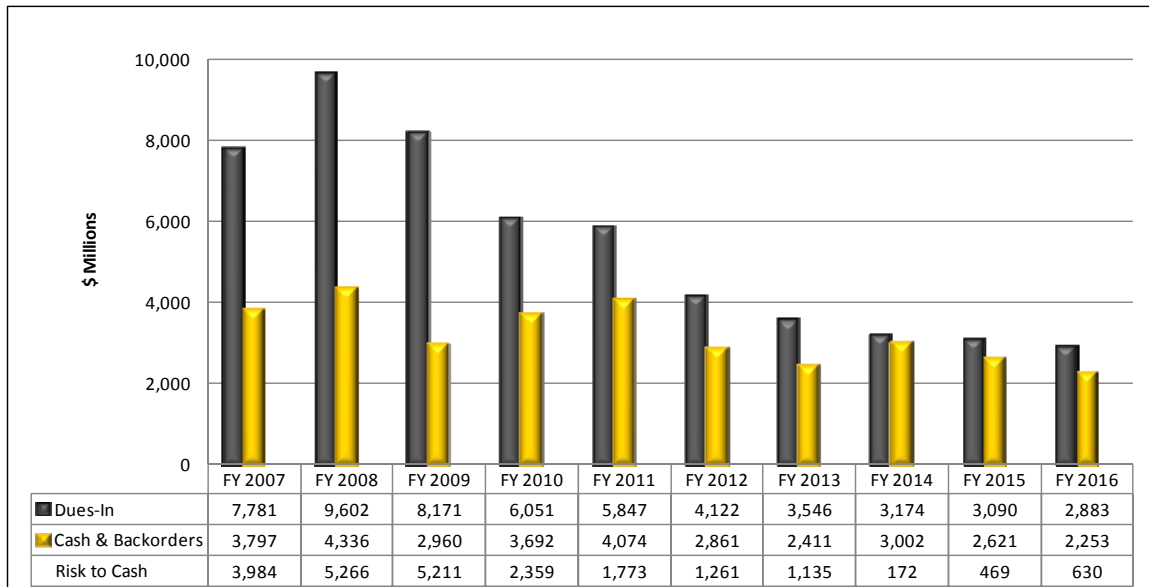
Cash Transfers

From FY 2004 through FY 2014, approximately \$7.0 billion transferred from the AWCF. The amounts transferred were used to assist other Army programs and were above the AWCF operational requirements at the time of transfer. Through FY 2016 and the near future, no transferred cash must be returned; however, as future budgets are developed, some of this transferred cash may require reimbursement to support payments to commercial vendors when undelivered orders are received. The Army has helped mitigate the effect of these cash transfers by not allowing credit for carcasses returned by operating units in Afghanistan and by holding the Supply Management unit cost below 1.0 for an extended period.

Base Realignment and Closure 2005 directed transfer of consumable item management to Defense Logistics Agency (DLA). DLA has reimbursed Army for consumable items on order and delivered after the transfer date. The AWCF received a final cash transfer of \$20.0 million from DLA in FY 2014.

Chart 3 displays the potential risk to the AWCF cash balance through FY 2016 should sales rapidly decrease and inventory deliveries continue.

Chart 3 - Risk to Cash



Note: FY 2015 and FY 2016 are projected.



Appropriations

The AWCF has received or requested direct appropriations to purchase secondary items for Army Prepositioned Stocks (APS). War reserve secondary items support combat weapon systems prepositioned in the five APS locations. The FY 2014 OCO funding of \$44.7 million completes the resetting of APS locations with secondary items. No Overseas Contingency Operations funds are requested for FY 2016. Table 6 below shows the appropriations received or requested by AWCF.

The IO activity received Direct Appropriations of \$150.0 million in FY 2014 and \$225.0 million in FY 2015 to maintain competitive rates at the Army's arsenals. The Supply Management activity will receive Direct Appropriations of \$32.0 million in FY 2016 for the Paladin Integrated Management (PIM) engines. The funds will procure engines to meet future sales; there is no negative impact to the AWCF rates.

Table 6 – Appropriations

(\$ Millions)	FY 2014	FY 2015	FY 2016
War Reserve Secondary Items			
Base Funding	25.2	13.7	18.4
Overseas Contingency Operations	44.7	0.0	0.0
Paladin Integrated Management Engines	0.0	0.0	32.0
Arsenal Sustainment Initiative	150.0	225.0	0.0
Total Appropriated Funds	219.9	238.7	50.4

Note: In FY 2014, the Direct Appropriation dollars for the Arsenal Sustainment Initiative were provided under the "Industrial Mobilization Capacity" account.

End of Year Cash Balance

Table 7 on the next page shows total collections, disbursements, appropriations, transfers, and ending cash balances. The FY 2016 budget includes a cash plan based on projected operational and capital disbursements, collections, direct appropriations, and transfers-in from DLA. Upper and lower operational cash requirements have been identified to measure the sufficiency of cash. The FY 2016 cash balance is projected to be within the upper and lower operational requirements. Although no advance billings are included in the budget submission, the Supply Management rate includes a negative cash surcharge that will return gains of \$150 million in FY 2016.



Table 7 - Cash Balance

(\$ Millions)	FY 2014	FY 2015	FY 2016
<i>Disbursements</i>	8,185.7	7,870.9	7,284.9
<i>Collections</i>	8,542.1	7,415.9	6,911.6
<i>Net Outlays from Operations</i>	(356.4)	455.0	373.3
<i>Direct Appropriations</i>	219.9	238.7	50.4
<i>Transfers In</i>	20.0	0.0	0.0
<i>Transfers Out</i>	161.0	0.0	0.0
<i>Total Net Outlays</i>	(435.3)	216.3	322.8
Ending Cash Balance	1,835.2	1,618.9	1,296.1
<i>Upper Operational Requirement</i>	1,516.3	1,879.1	1,464.2
<i>Lower Operational Requirement</i>	1,116.5	1,340.5	1,007.3

Capital Budget

The AWCF activities develop and maintain operational capabilities by acquiring or replacing production equipment, executing minor construction projects, and developing software. New equipment is acquired to replace obsolete and unserviceable equipment, modernize production and maintenance processes, and eliminate environmental hazards. The cost of capital projects is recouped through depreciation expenses included in customer rates. Unlike the operating budget which contains the annual operating costs of each activity, the capital budget justifies the purchase of assets that equal or exceed a unit cost of \$250,000 and have a useful life of two or more years.

A more in-depth discussion and detailed exhibits are provided in the Capital Budget section. Table 8 summarizes the AWCF capital investment program request.

Table 8 - Capital Budget

(\$ Millions)	FY 2014	FY 2015	FY 2016
Supply Management	81.5	49.6	33.9
Industrial Operations	236.5	123.9	98.8
<i>Total Capital Budget</i>	318.0	173.5	132.7
<i>Total Cash Outlays</i>	259.0	219.9	169.2



Supply Management

Introduction

The Supply Management activity group operates in a business-like environment by relying on sales revenue rather than appropriations to finance continuing operations. This enterprise uses contract authority to procure and repair spare parts. As suppliers deliver equipment components, the Army Working Capital Fund (AWCF) expends cash and places spare parts in inventory to await customer demands. Filled customer demands result in the collection of sales revenue, which replenishes cash. The bulk of demands originate from Operation and Maintenance, Army customers, primarily Army operating forces, who request spare parts to maintain combat equipment readiness. The Supply Management enterprise synchronizes rates and budget assumptions with Army appropriated funding requests in support of Soldier and weapon systems readiness.

Mission:
Provide the Army with inventory management of spare and repair parts in support of equipment sustainment, operational readiness, and combat capability.

The Army prices spare parts based on the most recent acquisition cost from a commercial vendor or the most recent repair cost from a contract or organic source of repair. The price of each item includes a surcharge, known as the cost recovery rate (CRR), to recover the cost of AWCF operations. The CRR is set to:

- Recover the activity's overhead costs such as payroll, supplies, contracts, storage, transportation, and depreciation
- Maintain a sufficient cash corpus to cover disbursements
- Break even over time

The core financial measures for Supply Management are the net operating result (NOR) and accumulated operating result (AOR). The NOR measures the activity's gain or loss within a single fiscal year and is used to monitor how closely the activity performs compared to its budget. The AOR measures the activity's accumulated gains and losses since the fund's inception. Rates are set during budget development to break even by bringing the AOR to zero over a budget cycle. This method returns accumulated gains through reduced rates and recovers accumulated losses through increased rates. The impact of cash balance analysis on rate setting is described in the cash management section. The unit cost is another core financial measure, and relates operating costs to



each dollar of sales. The unit cost can be set at, above, or below 1.0 depending on projected sales volume. This metric is discussed in the unit cost section.

Efficiencies and Business Process Improvements

Cost efficiency is an inherent attribute of the Army Working Capital Fund (AWCF). The revolving fund construct promotes total cost visibility, full cost recovery, and fosters a business-like, competitive atmosphere. Although commercial businesses focus on their bottom line profit, the Supply Management activity focuses on the net operating result and other indicators to gauge the efficiency of the operation. Supply Management customers have benefited from initiatives conducted in FY 2014 such as quarterly Senior Executive led reviews of inventory, and the continued emphasis on controlling overhead costs (logistics operations (LOGOPS)). FY 2016 LOGOPS includes the realignment of Operation and Maintenance, Army (OMA) and AWCF Reimbursable spaces to AWCF Direct spaces. The space realignment does not increase total cost to the AWCF, but shifts cost from the contract expense line to the civilian pay category.

Army Materiel Command (AMC) continues to take proactive measures to reduce inventory through the Sales and Operation Planning (S&OP) process initiated in FY 2013. The S&OP process allows management better oversight and improves the supply chain review process and financial planning. The supply chain review process has shifted from the legacy review of inventory by segmentations to total inventory holdings. The S&OP decisions and action plans in support of strategic goals are executed through the Army's supply action module, Material Requirements Planning (MRP) in the Logistics Modernization Program (LMP). AMC also facilitates quarterly reviews of unserviceable assets to better assess the need to repair rather than initiating new procurement.

Inventory Management

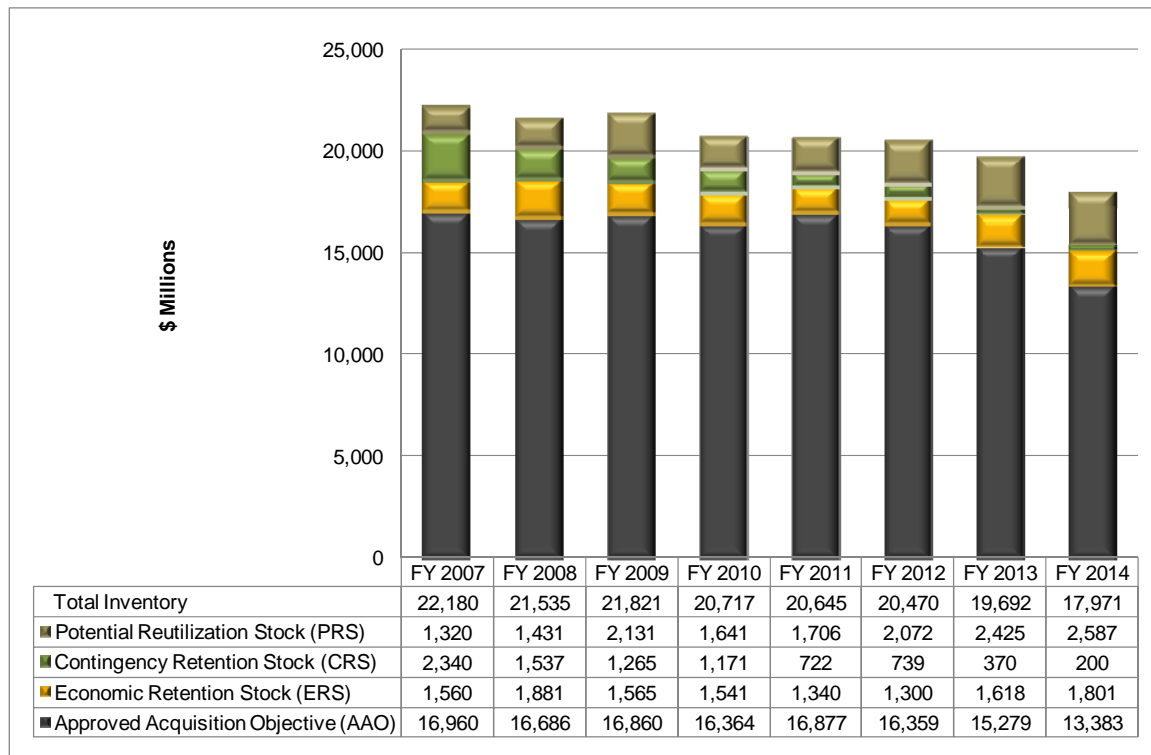
The Army calculates inventory requirements monthly based on projected demands and inventory levels. The quarterly stratification of inventory report (STRAT) is a point-in-time view of inventory requirements and assets. The STRAT aligns inventory to fourteen requirements levels that are consolidated into four inventory segments: approved acquisition objective (AAO); economic retention stock (ERS); contingency retention stock (CRS); and potential reutilization stock (PRS). The AAO segment includes all inventory, both serviceable and unserviceable, and war reserve stocks needed for up to three years of demand from all customers. Inventory for essential items not meeting demand stockage criteria and inventory for end-of-item-life procurements is also included in the AAO. The ERS includes inventory that is beyond the AAO level,



and is determined by a mathematical model to be more economical to retain vice dispose. The CRS includes inventory that Army item managers retain for weapon system programs, foreign military sales, and diminishing manufacturing sources. Item managers review and validate on-hand assets stratified to PRS for disposal.

The stratification of inventory report (STRAT) values Army managed items inventory at full standard price regardless of repair condition. It does not reflect non-Army managed materiel inventory included on the exhibit SM 4, *Inventory Status*. The SM 4 reflects the financial value of inventory using the accounting principle of moving average cost. Chart SM 1 – *Total Inventory* displays the segmentation of inventory from the September STRAT for each fiscal year.

Chart SM 1 – Total Inventory



Army continuously takes proactive measures ensuring that forecasted inventory will meet future demands. Army reviews and validates its requirement levels versus inventory levels maintaining its focus on buying and repairing items needed by its customers, and not retaining excess inventory.





Functional Description

The Supply Management activity group buys and manages an operating inventory of Army-managed and non-Army managed spare and repair parts for sale to its customers, primarily Army operating units. The activity group also maintains a protected inventory of spares in Army Prepositioned Stocks (APS), which is released to support deploying combat units. The AWCF operating inventory is stored and maintained primarily at more than 200 supply support activities (SSA). SSA management includes, but is not limited to, stocking the items needed for customer readiness, monitoring performance metrics, and conducting inventories. In general, inventories are managed below the national level or at the national level:

- National Level - consists of life cycle management commands, depots, and arsenals. Materiel may be Army managed or non-Army managed meaning the source of supply may be a Department of the Army facility, another Service, or another Department of Defense facility. Typically, SSAs request and receive materiel from the national level.
- Below National Level:
 - Tactical – under the control of Brigade Sustainment Commanders. These SSA provide spares supporting the immediate needs of combat and combat support battalions and companies. The quantity of inventory items is limited to an amount capable of transport by unit organic vehicles or aircraft.
 - Installation - under the control of the installation Director of Logistics. These activities provide a means to retrograde unneeded materiel from tactical SSA to meet other Army requirements. They also stock back-up inventory to meet tactical units' requirements that exceed storage capacity. When deployed to a contingency theater of operations, tactical activities receive back-up support from a theater distribution center established by



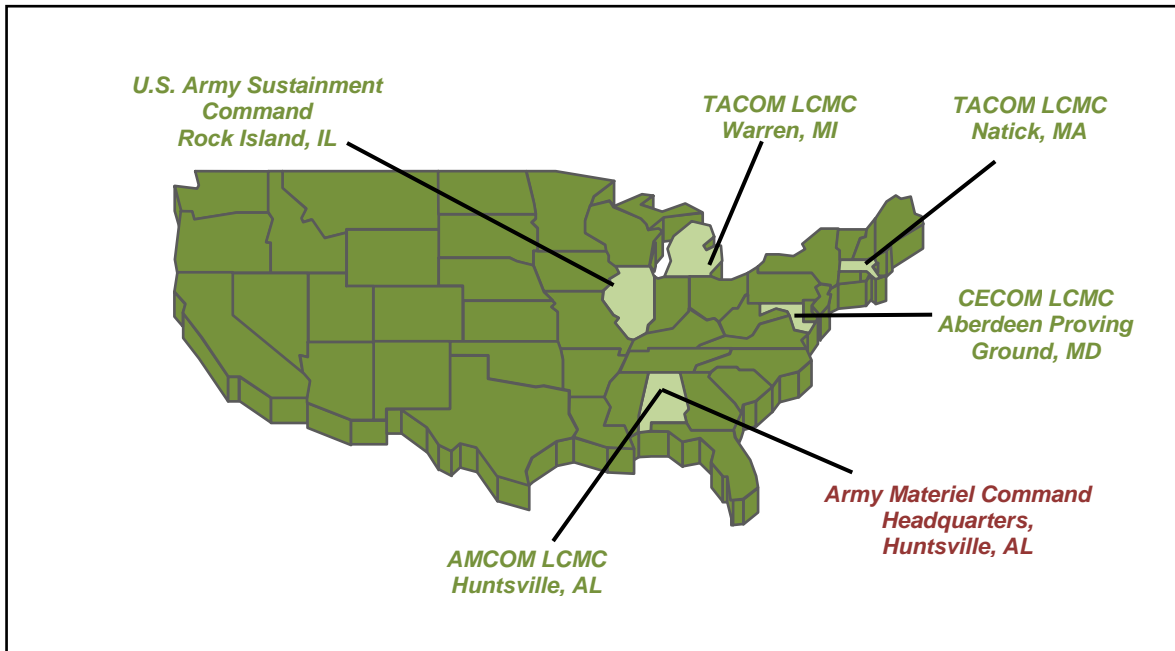
the deployed force command to centrally receive, redistribute, and retrograde spares as required

AWCF protected inventory is contained in the APS located in the United States, Europe, South Korea, Kuwait, and stored aboard ships afloat off Guam and Diego Garcia. Prepositioned war reserve materiel is retained in protected inventory and released to outfit combat and combat support units deploying to perform combat, peacekeeping, or other contingency operations.

Activity Group Composition

Figure SM 1 below displays the locations of Headquarters, Army Materiel Command (AMC), each Life Cycle Management Command (LCMC), and the Army Sustainment Command. The AMC mission is complex and ranges from developing sophisticated weapon systems, to advanced research, to maintaining and distributing spare parts. AMC's mission is best summarized by three core competencies: acquisition excellence, logistics power projection, and technology generation and application. To develop, buy, and maintain state-of-the-art materiel for Army, AMC works closely with industry, colleges and universities, the other Services, and other government agencies.

Figure SM 1 - Supply Management locations



The Life Cycle Management Commands (LCMC) assigned to the Army Materiel Command (AMC) manages the activity group. Each LCMC acquires and manages consumable supplies and spare parts for distinct categories of weapon systems. The Army Sustainment Command acquires and maintains the Army Prepositioned Stocks, which contain materiel from each LCMC.

The Tank-automotive and Armaments Command (TACOM) LCMC primary mission is to develop, acquire, equip,

and sustain ground and support systems for Soldiers and other joint operations through the integration of effective and timely acquisition, logistics, and technology. The TACOM LCMC item managers support a diverse set of product lines through their life cycles, ranging from tracked combat and wheeled tactical vehicles, armaments, and watercraft, to Soldier-specific gear and biological/chemical equipment. Major weapon systems supported include the M1 Abrams Tank, M2 Bradley Fighting Vehicle, Mine



A convoy of mine-resistant, ambush-protected vehicles.

Resistant Ambush Protected (MRAP) Vehicle, HMMWV, and Stryker Armored Vehicle. The TACOM LCMC is also responsible for providing clothing and heraldry products to Soldiers, units, and veterans. Included in TACOM LCMC is a small retail business of high demand non-Army managed materiel (NAMM). The TACOM LCMC Headquarter activities are located at Detroit Arsenal in Warren, Michigan and U.S. Army Soldier Systems Center in Natick, Massachusetts. In FY 2016, TACOM LCMC has an authorized level of 675 civilian personnel.

The Communications-Electronics Command (CECOM) LCMC mission is to develop, provide, integrate, and sustain command, control, communications, computers, intelligence, surveillance, and reconnaissance capabilities for the Army. CECOM LCMC Headquarter activity is located at Aberdeen Proving Ground, Maryland. In FY 2016, CECOM has an authorized level of 656 civilian personnel.



The Aviation and Missile Command (AMCOM) LCMC mission is to develop, acquire, field, and sustain aviation, missile, and unmanned vehicle systems, ensuring readiness with seamless transition to combat operations. Major weapon systems supported include the AH-64 Apache, UH-60 Black Hawk, CH-47 Chinook, OH-58 Kiowa, Multiple Launch Rocket System, and Patriot missile. AMCOM LCMC Headquarter activity is located at Redstone Arsenal in Huntsville, Alabama and has operational control of all aviation logistic management functions at Fort Rucker, Alabama, home of the Army Aviation Center. In FY 2016, AMCOM has an authorized level of 490 civilian personnel.



UH-60 Black Hawk helicopters transported Soldiers during a four-day exercise at Fort Campbell, KY.

The Army Sustainment Command (ASC) mission is to synchronize distribution and sustainment of materiel to and from the field. Army Prepositioned Stocks are acquired and maintained as a part of this mission. These stocks include combat equipment, supplies, and humanitarian mission stocks at worldwide land and sea-based positions. ASC is located at Rock Island Arsenal, Illinois.

Budget Highlights

Assumptions

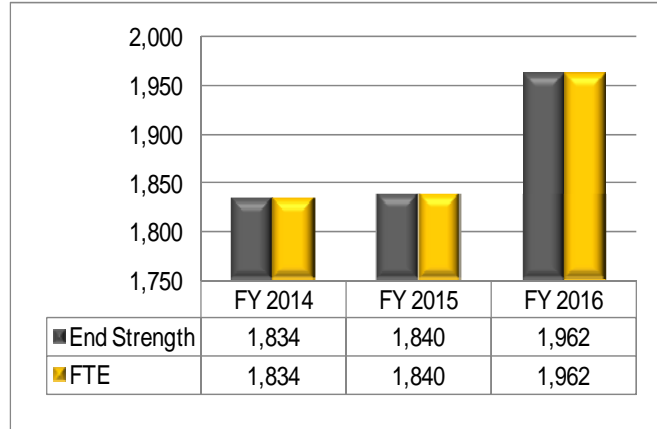
The FY 2016 budget represents a business plan that supports Soldier and weapon systems readiness for both peacetime training and wartime operating requirements. FY 2016 estimate assumes reduced troop strength and a lower OPTEMPO level for Overseas Contingency Operations (OCO), resulting in lower levels of supply demands and sales. If OPTEMPO levels during the year of execution exceed budget estimates, variability target is included in the budget to ensure supply contract authority is available to remain ready and responsive to changing operational requirements. Variability target is further discussed in the Operating Contract Authority section.



Personnel

The personnel end strength reflects actual execution in FY 2014 and authorized levels in FY 2015 and FY 2016. FY 2016 includes the realignment of 122 OMA/AWCF Reimbursable spaces to AWCF Direct spaces. This space realignment does not increase total cost to the AWCF; costs shift from contract expense to civilian pay. Personnel levels include secondary item managers, logistics management specialists, and general and administrative support positions. Military end strength in FY 2016 is three.

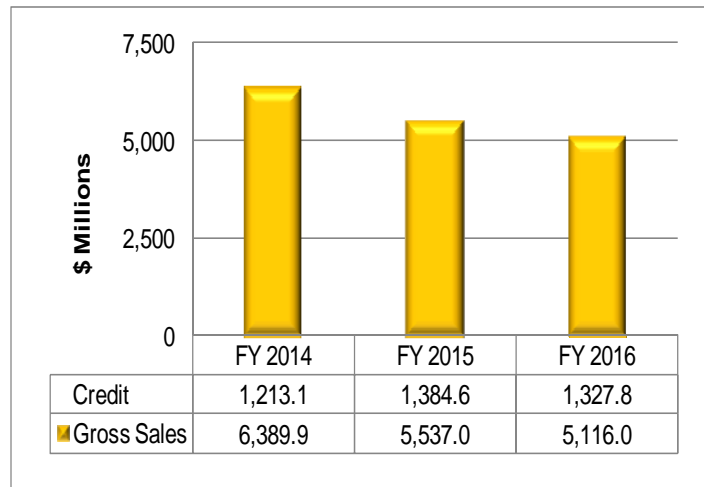
Chart SM 2 - Civilian Personnel



Sales

Sales and credit reflect reduced Overseas Contingency Operations (OCO) activity and reduced customer funding. Sales reflect income from operations and do not include direct appropriations for war reserve materiel and inventory augmentation. Chart SM 3 reflects actual execution in FY 2014 and projected levels in FY 2015 and FY 2016. In anticipation of the full deployment of the Global Support System-Army (GCSS-Army), the Army's logistics enterprise resource planning system, the Army has returned to a standard price and credit pricing methodology for non-deployed units. GCSS-Army supports the one-for-one return policy to ensure returns are processed in a timely manner. To minimize administrative impact on deployed forces, these units will remain on exchange price until redeployment. Sales are displayed on several exhibits: Fund 14, *Revenue and Costs*, Fund 11, *Source of New Orders and Revenue*, and SM 1, *Supply Management Summary* (sales net of credit).

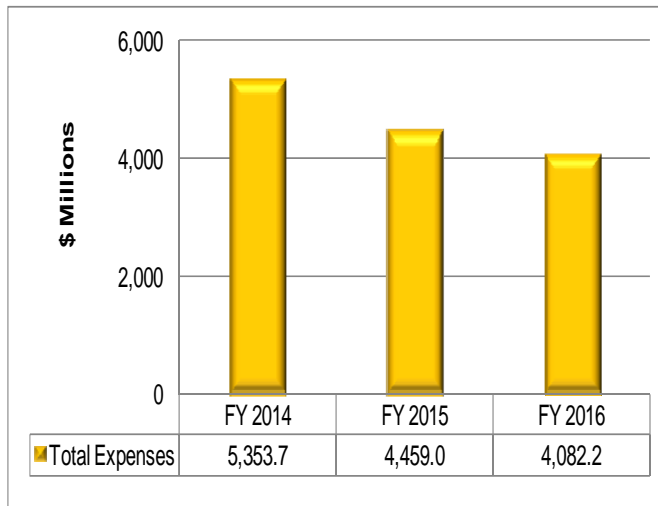
Chart SM 3 - Gross Sales



Expenses

Expenses consist of materiel and operational costs. Total expenses are projected to decrease in FY 2016 due to lower sales projections, which result in lower cost of goods sold. Operational costs (LOGOPS) can be variable or fixed. Variable operational costs for transportation and storage are expected to decrease in conjunction with lower sales projections and reduced inventory levels. Operational cost for salary, contracts, and materials and supplies remain relatively fixed. Expenses are displayed on exhibit Fund 14, *Revenue and Costs*.

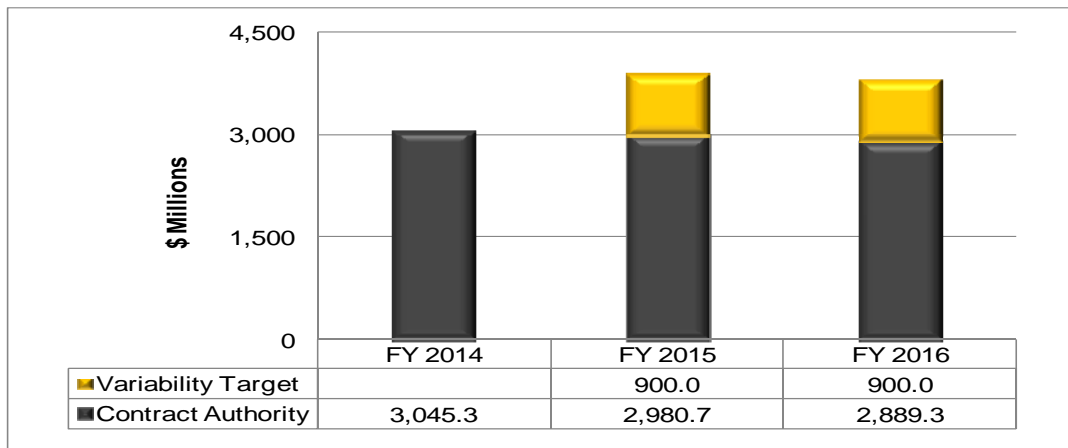
Chart SM 4 – Expenses



Operating Contract Authority (Hardware)

The budget requests operating contract authority for the acquisition, repair, and replenishment of spare parts. In FY 2016, contract authority requirements are projected to decrease in anticipation of reduced customer demands and sales due to lower OPTEMPO. Variability target is the projected amount of additional cost authority beyond identified requirements reflected on exhibit SM 1. This amount allows for rapid response to variances in costs or changes in customer demands during the execution year. Operating contract authority is displayed on exhibit SM 1, *Supply Management Summary* and SM 3b, *Operating Requirements by Weapon System*.

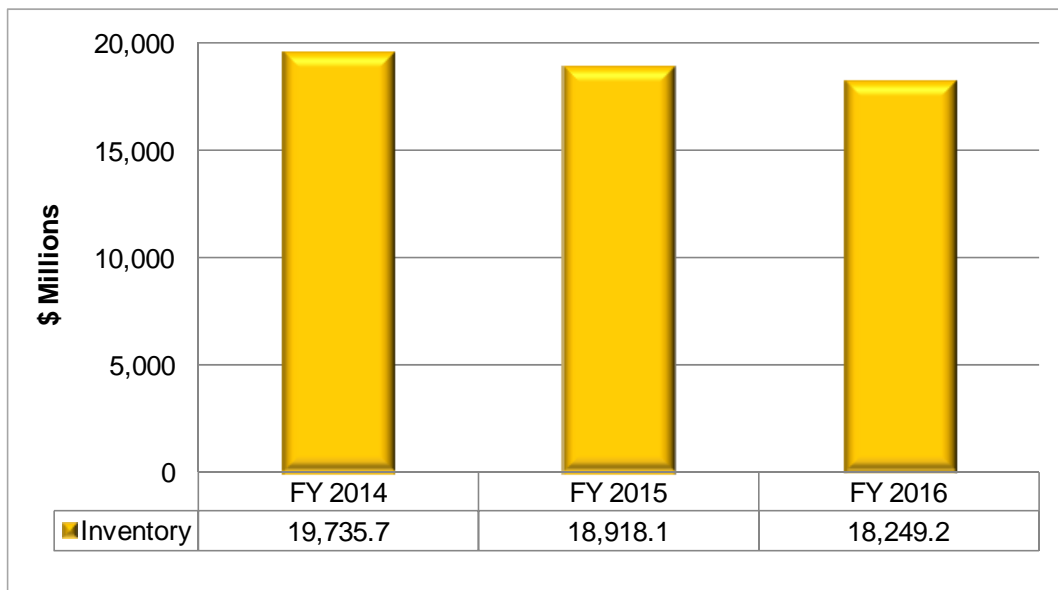
Chart SM 5 - Contract Authority



Inventory

Inventory values shown in chart SM 6 below, include operational inventory, carcasses awaiting repair, inventory required beyond the budget year, economic and contingency retention stock, and secondary items included in war reserve. Spares inventory levels are sufficient to ensure high stock availability for war efforts. Supply Management continues its effort to decrease inventory by reducing inactive inventory, disposing of dormant stock, and reducing replenishment below sales. With the deployment of non-Army managed materiel (NAMM) in LMP, both Army managed items and NAMM inventory are valued at a moving average cost. Supply Management will continue working to reduce on-order and on-hand excess inventory. Inventory is displayed on exhibit SM 4, *Inventory Status*.

Chart SM 6 – Inventory



Operating Results

The net operating result (NOR) represents the difference between revenue and expenses within a fiscal year. The accumulated operating result (AOR) represents the summation of all operating gains and losses since activity group inception along with any prior period adjustments. AWCF operates on a break-even basis during the budget cycle. To prevent significant rate increase to our customers, Supply Management uses projected cash above the operational level to minimize rate increases in FY 2016. In the next budget cycle, Supply Management will evaluate its AOR projections, cash position, and impact on future rates to determine the amount of AOR to recover. NOR and AOR are displayed on exhibit Fund 14, *Revenue and Costs*.



Table SM 1 - Operating Results

(\$ Millions)	FY 2014	FY 2015	FY 2016
Net Operating Result	(176.9)	(306.6)	(294.0)
Prior Year AOR	(153.2)	157.8	294.0
Non-Recoverable AOR	487.8	442.8	0.0
Accumulated Operating Result	157.8	294.0	0.0

Cost Recovery Rate

The Supply Management cost recovery rate (CRR) is set to recover full costs and adjust for AOR. Typical costs recovered include civilian pay, distribution depot costs, transportation costs, other Defense bills associated with supply operations, and costs of replacing inventory washouts. The FY 2016 CRR includes a negative cash surcharge of \$150 million due to projected cash above the operational level. The change in CRR is the basis of overhead allocation to materiel costs and does not increase cost to customer or affect customer buying power. The price change to customer is expressed as the change in overhead costs weighted by the change in sales volume.

Table SM 2 – Cost Recovery Rate and Price Change

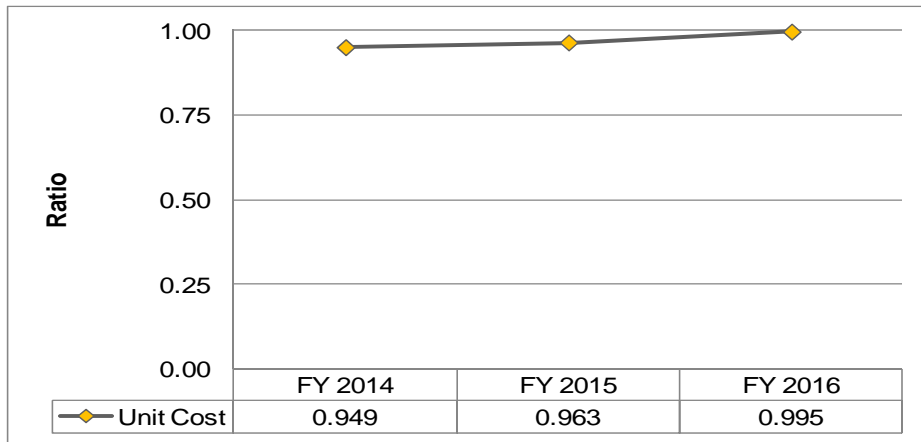
	FY 2014	FY 2015	FY 2016
Cost Recovery Rate (CRR)	16.2%	16.4%	19.4%
Price Change to Customer	(2.8%)	1.3%	2.5%

Unit Cost

The unit cost is a metric relating operating cost to each dollar of sales. Unit cost is calculated by dividing gross operating costs (the sum of total obligations and credit) plus depreciation by gross sales. As recommended in Government Accountability Office (GAO) report 10-480, Army continues to evaluate and adjust the unit cost as necessary to support contingency operations. A unit cost below 1.0 means that the enterprise is reducing inventory by selling and not replenishing thus reducing contract authority requirement. As the Army approaches a unit cost of 1.0, this indicates the AWCF inventory is approaching a level consistent with lower customer demands. Chart SM 7 shows unit cost for FY 2014 through FY 2016.



Chart SM 7 - Unit Cost

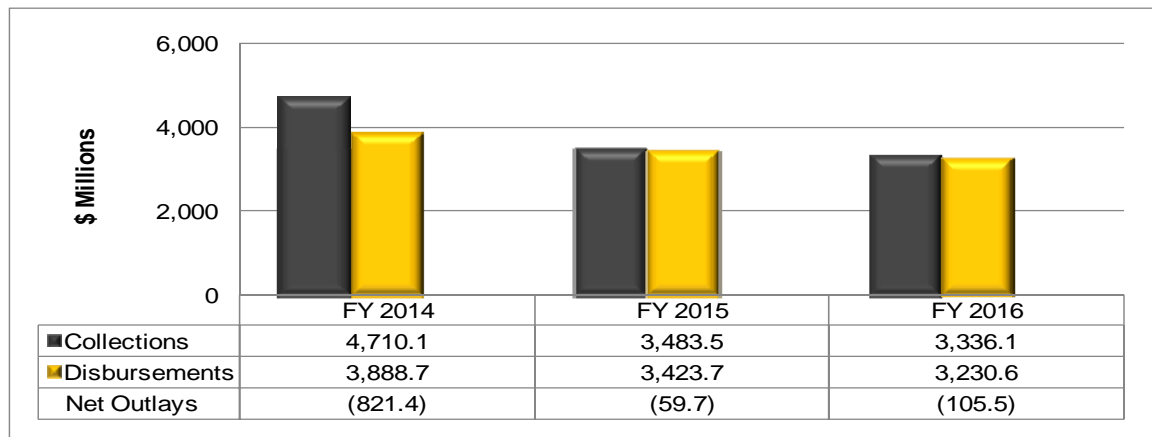


$$\text{Unit cost} = \frac{\text{Obligations} + \text{Credit} + \text{Depreciation expense}}{\text{}}$$

Collections, Disbursements, and Outlays

Collections are projected based on sales and changes in accounts receivable. Disbursements are projected based on monthly operating expenses, changes in accounts payable, and Capital Investment Program obligations. Under the internal work performed process in the Logistics Modernization Program (LMP), there are no collections or disbursements between the Supply Management and Industrial Operations activity groups as LMP treats both entities as one company. This business process results in a decreased net outlay for Supply Management activity, and is balanced by an increased net outlay for Industrial Operations activity.

Chart SM 8 – Cash Management

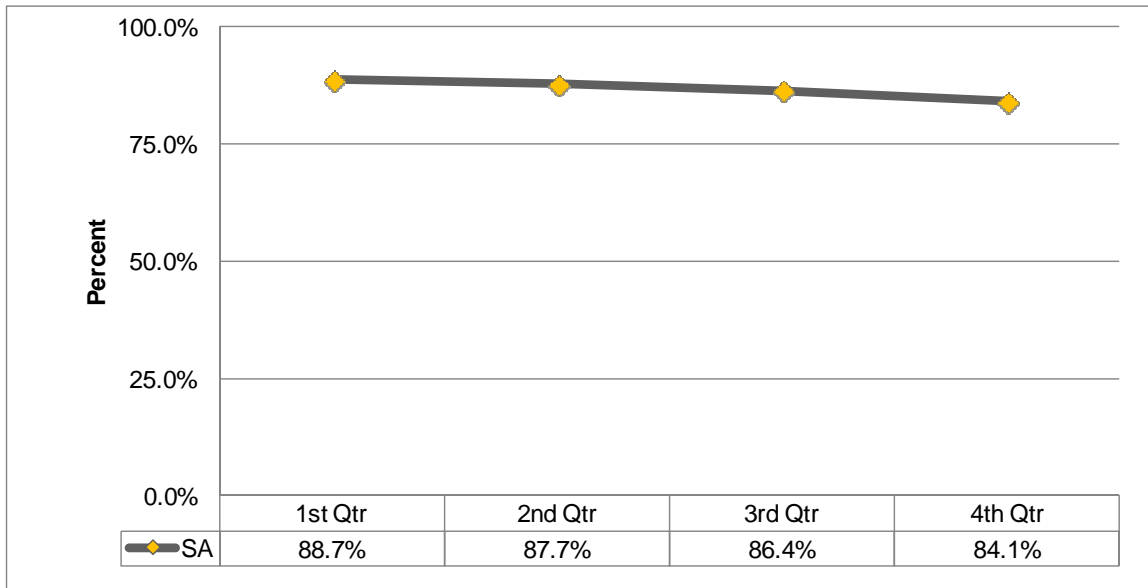


Performance Measurement

Stock Availability

Supplying and maintaining Army’s equipment remain key components of readiness. The stock availability goal, a primary performance measure relating to supply system ability to fill requisitions, is to fill 85 percent of customer demands immediately. Stock availability is administered through adequate funding of hardware, proper management of the supply chain, and reliable oversight of materiel stockage requirements. Chart SM 9 displays stock availability at the end of each quarter in FY 2014 above or slightly below the 85 percent goal.

Chart SM 9 – Stock Availability (SA)

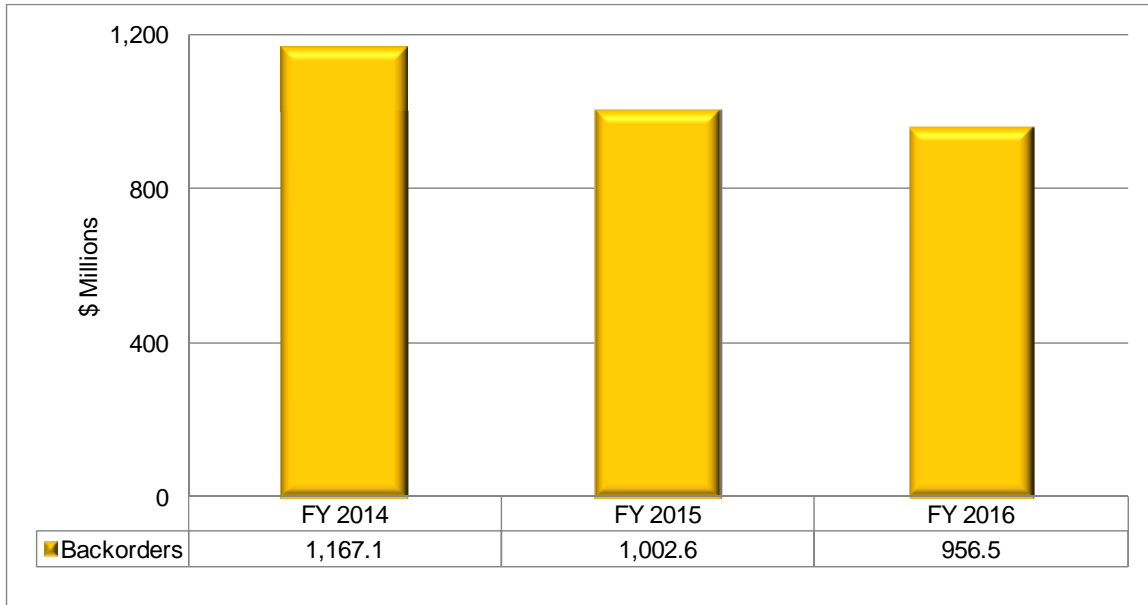


Customer Backorders

Backorders are expected to decrease through FY 2016 with reductions due to both materiel deliveries and reduced demands from Overseas Contingency Operations customers. Customer backorders for the end of each fiscal year are displayed on exhibit Fund 11, *Source of New Orders and Revenue*.



Chart SM 10 – Customer Backorders



Supply Management Workload

Table SM 3 below displays Supply Management workload drivers. The decreases in requisitions received and issues completed are based on deployed force activity assumptions. A standardized method to report workload drivers was developed after the deployment of Logistics Modernization Program to the Life Cycle Management Commands and is reflected in the budget.

Table SM 3 - Supply Management Workload

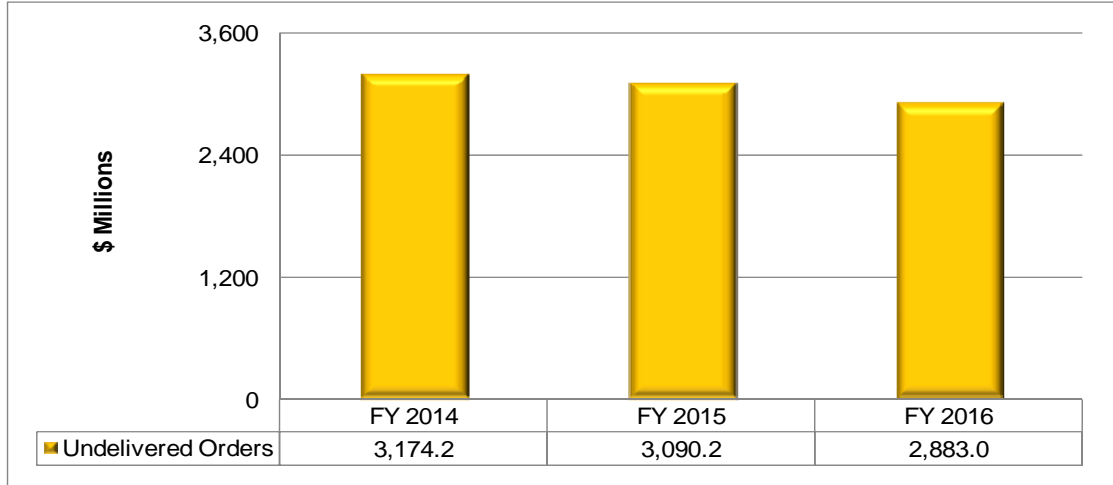
Supply Management Workload	FY 2014	FY 2015	FY 2016
Types of Items Managed	110,634	114,669	111,931
Requisitions Received	709,676	519,086	538,413
Issues Completed	513,865	416,938	433,520
Procurement Receipts	29,215	23,236	23,582
Contracts Awarded	14,814	10,934	11,575

Undelivered Orders

Undelivered orders represent goods and services ordered, but not yet received by AWCF. A sufficient cash balance is required to pay suppliers upon receipt of these orders. As shown in the chart below, undelivered orders are projected to decrease through FY 2016 due to continued materiel deliveries and decreased new materiel obligations based on lower deployed force assumptions.



Chart SM 11 - Undelivered Orders



Appropriations

War reserve equipment positioned without secondary items would significantly jeopardize Army's ability to complete its combat missions successfully. The secondary items purchased for war reserves support important combat weapon systems such as M2 Bradley Fighting Vehicle, artillery howitzers, rocket launchers, HMMWVs and Mine Resistant Ambush Protected Vehicles (MRAP). FY 2014 Overseas Contingency Operations (OCO) funding of \$44.7 million completes the resetting of Army Prepositioned Stock locations with secondary items. FY 2016 does not include a request for OCO funding.

In FY 2016, the Supply Management activity will receive a direct appropriation of \$32.0 million for the Paladin Integrated Management (PIM) engines. The funds will procure engines to meet future sales; there is no negative impact on the AWCF rates. Appropriations are displayed on exhibit Fund 14, *Revenue and Costs*. War reserve inventory is displayed on exhibits SM 4, *Inventory Status* and SM 6, *War Reserve Materiel*.

Table SM 4 - Appropriations

(\$ Millions)	FY 2014	FY 2015	FY 2016
War Reserve Secondary Items			
Base Funding	25.2	13.7	18.4
Overseas Contingency Operations	44.7	0.0	0.0
Paladin Integrated Management Engines	0.0	0.0	32.0
Total Appropriated Funds	69.9	13.7	50.4

War reserve secondary items improve Army's ability to meet global missions by sustaining the deployed combat force until CONUS-based re-supply commences.



**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Revenue and Costs
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
Revenue			
AMI Sales	5,461.2	4,785.0	4,454.0
NAMM Sales	925.6	750.0	660.0
AMC MOB Sales	3.1	2.0	2.0
Total Gross Sales	6,389.9	5,537.0	5,116.0
Credit and Allowances	1,213.1	1,384.6	1,327.8
Net Sales	5,176.9	4,152.4	3,788.2
Other Income	69.9	13.7	50.4
War Reserve-Secondary Items	69.9	13.7	18.4
Inventory Augmentation - PIM	0.0	0.0	32.0
Total Income	5,246.8	4,166.1	3,838.6
Costs			
Cost of Materiel Sold from Inventory			
AMI	3,506.8	2,763.0	2,578.9
NAMM	897.6	627.5	540.2
AMC MOB	3.1	2.0	2.0
Total Cost of Materiel Sold from Inventory	4,407.6	3,392.5	3,121.1
Inventory Losses/Obsolescence	71.3	98.7	88.8
Salaries and Wages Total	200.2	184.2	192.1
Military Personnel Compensation & Benefits	0.3	0.2	0.2
Civilian Personnel Compensation & Benefits	199.9	184.0	191.9
Travel & Transportation of Personnel	1.7	0.9	0.8
Materiel & Supplies (For Internal Operations)	1.0	0.3	0.3
Equipment	0.1	0.2	0.2
Other Purchases from Revolving Funds	247.4	257.3	236.8
Transportation of Things	52.0	113.7	104.8
Depreciation - Capital	37.6	74.0	45.3
Printing and Reproduction	3.4	3.6	3.6
Advisory and Assistance Services	29.6	10.2	17.9
Rent, Communication, Utilities & Misc. Charges	0.0	6.1	6.1
Other Purchased Services	301.9	317.3	264.5
Total Costs	5,353.7	4,459.0	4,082.2
Operating Result	(107.0)	(292.9)	(243.6)
Other Changes Affecting NOR:			
Less Direct Funding	(69.9)	(13.7)	(50.4)
Net Operating Result	(176.9)	(306.6)	(294.0)
Prior Year AOR	(153.2)	157.8	294.0
Non-Recoverable AOR	487.8	442.8	
Accumulated Operating Result	157.8	294.0	0.0

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Source of New Orders and Revenue
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
1. New Orders			
a. Orders from DOD Components:			
Department of Army			
Operation & Maintenance, Army	3,612.7	3,353.7	3,169.2
Operation & Maintenance, ARNG	454.6	521.2	519.1
Operation & Maintenance, AR	101.7	102.1	91.6
Subtotal, O&M:	4,169.1	3,977.0	3,780.0
Industrial Operations Business	470.1	447.2	439.9
Procurement Appropriations	267.1	163.3	170.0
RDT&E	6.7	2.1	2.0
All Other Army	37.9	3.2	9.4
Subtotal, Department of the Army:	781.7	615.7	621.3
Department of Navy	47.7	85.5	84.6
Department of Air Force	106.3	206.1	198.8
US Marine Corps	73.8	67.3	69.5
Other Department of Defense	28.5	22.7	22.0
Subtotal, Other DoD Services:	256.3	381.7	374.9
b. Total DOD	5,207.1	4,974.4	4,776.2
c. Other Orders:			
SSA Other Federal Agencies	0.0	0.0	0.0
FMS	261.2	177.0	172.7
Map (002) Limitation		0.0	0.0
Other Federal Agencies	7.4	5.7	3.6
All Other	0.0	15.4	17.5
Subtotal, Other Federal Agencies:	268.6	198.1	193.8
Total New Orders	5,475.7	5,172.5	4,970.0
2. Carry-In Orders (Back Orders From Prior Years)	1,010.9	1,167.1	1,002.6
3. Total Gross Orders	6,486.6	6,339.6	5,972.5
3a. Adjustment	1,070.4	200.0	100.0
4. Less Carry out	1,167.1	1,002.6	956.5
5. Gross Sales	6,389.9	5,537.0	5,116.0
6. Less Credit and Allowances	1,213.1	1,384.6	1,327.8
7. Net Sales	5,176.9	4,152.4	3,788.2

Narrative: Carryout includes an adjustment to reflect FY 2014 end of year accounting reports and estimates for FY 2015 and FY 2016.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Supply Management Summary
(\$ in Millions)**

	Net Customer Orders	Net Sales	Contract Authority	Direct Appn	Total Authority
Non-Army Managed Materiel (NAMM)					
<i>FY 2014</i>	1,014.9	925.4	866.3	0.0	866.3
<i>FY 2015</i>	761.5	749.5	700.0	0.0	700.0
<i>FY 2016</i>	671.5	659.5	608.0	0.0	608.0
Army Managed Items (AMI)					
<i>Aviation</i>					
<i>FY 2014</i>	1,247.0	1,930.2	1,119.2	0.0	1,119.2
<i>FY 2015</i>	1,526.3	1,682.2	1,289.5	0.7	1,290.2
<i>FY 2016</i>	1,453.6	1,500.8	1,302.6	1.9	1,304.5
<i>Communications-Electronics</i>					
<i>FY 2014</i>	500.1	598.7	179.8	4.0	183.8
<i>FY 2015</i>	401.9	415.0	157.5	0.7	158.1
<i>FY 2016</i>	401.9	411.2	153.0	1.9	154.9
<i>Missiles</i>					
<i>FY 2014</i>	146.9	242.0	126.6	0.0	126.6
<i>FY 2015</i>	224.3	219.2	164.0	0.7	164.7
<i>FY 2016</i>	173.1	172.6	183.4	1.9	185.3
<i>Tank-automotive & Armaments</i>					
<i>FY 2014</i>	1,352.2	1,477.5	752.4	56.0	808.4
<i>FY 2015</i>	871.9	1,084.5	667.7	5.1	672.8
<i>FY 2016</i>	940.1	1,042.1	640.3	35.0	675.4
Total AMI					
<i>FY 2014</i>	3,246.2	4,248.4	2,178.0	60.0	2,237.9
<i>FY 2015</i>	3,024.4	3,400.9	2,278.7	7.1	2,285.8
<i>FY 2016</i>	2,968.7	3,126.7	2,279.3	40.7	2,320.0
AMC Mobilization					
<i>FY 2014</i>	1.6	3.112	1.0	9.9	10.9
<i>FY 2015</i>	2.0	2.0	2.0	6.6	8.6
<i>FY 2016</i>	2.0	2.0	2.0	9.7	11.7
Total Hardware					
<i>FY 2014</i>	4,262.7	5,176.9	3,045.3	69.9	3,115.2
<i>FY 2015</i>	3,787.9	4,152.4	2,980.7	13.7	2,994.4
<i>FY 2016</i>	3,642.2	3,788.2	2,889.3	50.4	2,939.7

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Supply Management Summary
(\$ in Millions)**

	Net Customer Orders	Net Sales	Contract Authority	Direct Appn	Total Authority
<i>Cost of Operations (LOGOPS)</i>					
<i>FY 2014</i>			837.3	0.0	837.3
<i>FY 2015</i>			893.7	0.0	893.7
<i>FY 2016</i>			827.0	0.0	827.0
<i>Variability Target</i>					
<i>FY 2014</i>			0.0	0.0	0.0
<i>FY 2015</i>			900.0	0.0	900.0
<i>FY 2016</i>			900.0	0.0	900.0
<i>Enterprise Software Initiative</i>					
<i>FY 2014</i>			0.0	0.0	0.0
<i>FY 2015</i>			35.0	0.0	35.0
<i>FY 2016</i>			35.0	0.0	35.0
Total Authority					
<i>FY 2014</i>	4,262.7	5,176.9	3,882.5	69.9	3,952.4
<i>FY 2015</i>	3,787.9	4,152.4	4,809.4	13.7	4,823.2
<i>FY 2016</i>	3,642.2	3,788.2	4,651.3	50.4	4,701.7
<i>Capital Contract Authority</i>					
<i>FY 2014</i>			81.5	0.0	81.5
<i>FY 2015</i>			49.6	0.0	49.6
<i>FY 2016</i>			33.9	0.0	33.9
Total Authority					
<i>FY 2014</i>	4,262.7	5,176.9	3,964.0	69.9	4,033.9
<i>FY 2015</i>	3,787.9	4,152.4	4,859.0	13.7	4,872.7
<i>FY 2016</i>	3,642.2	3,788.2	4,685.2	50.4	4,735.6
Budget Authority					
<i>War Reserve (Base)</i>					
<i>FY 2014</i>			0.0	25.2	25.2
<i>FY 2015</i>			0.0	13.7	13.7
<i>FY 2016</i>			0.0	18.4	18.4
<i>Army Prepositioned Stocks (OCO)</i>					
<i>FY 2014</i>			0.0	44.7	44.7
<i>FY 2015</i>			0.0	0.0	0.0
<i>FY 2016</i>			0.0	0.0	0.0
<i>Paladin Integrated Management Engines</i>					
<i>FY 2014</i>			0.0	0.0	0.0
<i>FY 2015</i>			0.0	0.0	0.0
<i>FY 2016</i>			0.0	32.0	32.0
Total Budget Authority					
<i>FY 2014</i>			0.0	69.9	69.9
<i>FY 2015</i>			0.0	13.7	13.7
<i>FY 2016</i>			0.0	50.4	50.4

Note:

FY 2014 obligations on the SM-1 exhibit does not include obligations from reapportioned contract authority from deobligations or recoveries of prior year obligations.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Operating Requirements by Weapon System
(\$ in Millions)**

	FY 2014		FY 2015		FY 2016	
	Obligations	NMCRS ¹	Obligations	NMCRS ¹	Obligations	NMCRS ¹
<i>AH-64, Apache</i>	364.2	6.0%	355.1	≤ 25.0%	398.7	≤ 25.0%
<i>CH-47D, Chinook</i>	168.5	3.0%	207.8	≤ 25.0%	172.7	≤ 25.0%
<i>UH-60, Black Hawk</i>	441.6	4.0%	622.3	≤ 25.0%	623.8	≤ 25.0%
<i>OH-58D, Kiowa Warrior</i>	60.3	1.0%	69.8	≤ 25.0%	80.1	≤ 25.0%
<i>Other Aviation</i>	84.7	0.0%	34.5	≤ 25.0%	27.3	≤ 25.0%
<i>MLRS</i>	5.6	5.0%	24.3	≤ 10.0%	23.8	≤ 10.0%
<i>Patriot</i>	104.1	4.0%	122.5	≤ 10.0%	118.7	≤ 10.0%
<i>Other Missile</i>	70.0	0.0%	10.6	≤ 10.0%	10.6	≤ 10.0%
<i>Firefinder</i>	2.2	1.0%	3.5	≤ 10.0%	4.0	≤ 10.0%
<i>Night Vision Goggles</i>	36.3	4.0%	21.4	≤ 10.0%	23.6	≤ 10.0%
<i>SINGARS</i>	14.2	2.6%	17.1	≤ 10.0%	18.0	≤ 10.0%
<i>Other Communication-Electronics</i>	73.9	0.0%	122.0	≤ 10.0%	137.8	≤ 10.0%
<i>FMTV</i>	12.8	6.6%	8.7	≤ 10.0%	12.3	≤ 10.0%
<i>HEMTT</i>	2.8	6.0%	2.3	≤ 10.0%	1.7	≤ 10.0%
<i>HMMWV</i>	24.4	5.9%	23.9	≤ 10.0%	16.5	≤ 10.0%
<i>M109A6, Paladin</i>	26.4	11.2%	33.5	≤ 10.0%	22.8	≤ 10.0%
<i>M198, Towed Howitzer</i>	16.7	7.8%	0.2	≤ 10.0%	0.2	≤ 10.0%
<i>M1A1, Abrams Tank</i>	89.0	14.7%	114.0	≤ 10.0%	70.7	≤ 10.0%
<i>M1A2, Abrams Tank (SEP)</i>	10.1	10.0%	2.7	≤ 10.0%	2.1	≤ 10.0%
<i>M2/M3, Bradley Fighting Vehicle</i>	67.1	7.5%	105.7	≤ 10.0%	40.9	≤ 10.0%
<i>Stryker</i>	108.2	8.9%	166.5	≤ 10.0%	182.6	≤ 10.0%
<i>Other Tank-Automotive</i>	394.9	0.0%	210.2	≤ 10.0%	290.5	≤ 10.0%
Subtotal	2,178.0		2,278.7		2,279.3	
<i>NAMI</i>	866.3		700.0		608.0	
<i>AMC-MOB</i>	1.0		2.0		2.0	
TOTAL	3,045.3		2,980.7		2,889.3	

^{1/} NMCRS - Non Mission Capable Rate, Supply represents the percent of time a weapon system is not mission capable due to lack of critical spare parts. The AWCF goal for NMCRS is at or below 5%. FY 2014 is actual data. FY 2015 and FY 2016 are the Army's goal for total weapon system readiness. Total weapon system readiness goals are 90% for ground and 75% for aircraft.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Inventory Status
(\$ in Millions)**

FY 2014	TOTAL	MOBILIZATION	DEMAND BASED	NON-DEMAND BASED
1. INVENTORY BOP	20,514.1	2,161.5	11,630.0	6,722.6
2. BOP INVENTORY ADJUSTMENTS				
A. RECLASSIFICATION (MEMO)	0.0	(17.3)	(1.1)	18.5
B. PRICE CHANGE AMOUNT (MEMO)	318.2	0.0	318.2	0.0
C. ADJ. INVENTORY BOP (1+2A+2B)	20,832.3	2,144.1	11,947.1	6,741.1
3. PURCHASES	2,323.4	39.3	2,284.1	0.0
4. GROSS SALES	6,389.9	0.0	5,885.0	505.0
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATION (+ OR -)	(38.7)	0.0	(4.5)	(34.2)
B. RETURNS FROM CUSTOMERS (+)	2,002.3	0.6	1,616.3	385.4
C. RETURNS FROM CUSTOMERS WITHOUT CREDIT (+)	2,740.2	0.0	1,994.7	745.5
D. RETURNS TO SUPPLIERS (-)	(2.2)	0.0	(1.3)	(1.0)
E. TRANSFERS TO DRMS (-)	(2,439.9)	(149.6)	(998.9)	(1,291.4)
F. ISSUES/RECEIPT W/O ADJ (+ OR -)	(65.7)	(2.9)	(2.2)	(60.7)
G. OTHER	773.8	(287.4)	760.9	300.3
H. TOTAL ADJUSTMENTS (5A THRU 5G)	2,969.9	(439.2)	3,365.1	44.1
6. INVENTORY EOP (2c + 3 - 4 + 5h)	19,735.7	1,744.2	11,711.3	6,280.2
7. INVENTORY EOP	19,735.7	1,744.2	11,711.3	6,280.2
A. ECONOMIC RETENTION (MEMO)				2,739.0
B. CONTINGENCY RETENTION (MEMO)				508.7
C. POTENTIAL DOD REUTILIZATION (MEMO)				3,032.5
8. ON ORDER EOP @ COST	3,858.7	110.7	3,748.0	0.0

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Inventory Status
(\$ in Millions)**

FY 2015	TOTAL	MOBILIZATION	DEMAND BASED	NON-DEMAND BASED
1. INVENTORY BOP	19,735.7	1,744.2	11,711.3	6,280.2
2. BOP INVENTORY ADJUSTMENTS				
A. RECLASSIFICATION (MEMO)	(0.0)	(9.7)	0.3	9.3
B. PRICE CHANGE AMOUNT (MEMO)	0.0	0.0	0.0	0.0
C. ADJ. INVENTORY BOP (1+2A+2B)	19,735.7	1,734.6	11,711.7	6,289.5
3. PURCHASES	1,954.6	19.8	1,934.8	0.0
4. GROSS SALES	5,537.0	0.0	5,376.4	160.6
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATION (+ OR -)	6.7	0.0	7.3	(0.6)
B. RETURNS FROM CUSTOMERS (+)	1,735.7	0.0	1,240.7	494.9
C. RETURNS FROM CUSTOMERS WITHOUT CREDIT (+)	2,654.5	0.0	1,108.5	1,546.0
D. RETURNS TO SUPPLIERS (-)	(99.7)	0.0	0.0	(99.8)
E. TRANSFERS TO DRMO (-)	(2,976.7)	(16.0)	(812.9)	(2,147.8)
F. ISSUES/RECEIPT W/O ADJ (+ OR -)	(64.5)	0.0	0.0	(64.5)
G. OTHER	1,508.9	(1.0)	1,664.4	(154.5)
H. TOTAL ADJUSTMENTS (5A THRU 5G)	2,764.8	(17.0)	3,208.1	(426.3)
6. INVENTORY EOP (2c + 3 - 4 + 5h)	18,918.1	1,737.4	11,478.2	5,702.6
7. INVENTORY EOP	18,918.1	1,737.4	11,478.2	5,702.6
A. ECONOMIC RETENTION (MEMO)				2,394.6
B. CONTINGENCY RETENTION (MEMO)				507.5
C. POTENTIAL DOD REUTILIZATION (MEMO)				2,800.4
8. ON ORDER EOP @ COST	3,617.0	164.0	3,453.0	0.0

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Inventory Status
(\$ in Millions)**

FY 2016	TOTAL	MOBILIZATION	DEMAND BASED	NON-DEMAND BASED
1. INVENTORY BOP	18,918.1	1,737.4	11,478.2	5,702.6
2. BOP INVENTORY ADJUSTMENTS				
A. RECLASSIFICATION (MEMO)	0.0	(9.7)	0.4	9.3
B. PRICE CHANGE AMOUNT (MEMO)	0.0	0.0	0.0	0.0
C. ADJ. INVENTORY BOP (1+2A+2B)	18,918.1	1,727.7	11,478.6	5,711.9
3. PURCHASES	1,600.1	14.1	1,586.0	0.0
4. GROSS SALES	5,116.0	0.0	4,967.5	148.5
5. INVENTORY ADJUSTMENTS				
A. CAPITALIZATION (+ OR -)	8.7	0.0	9.4	(0.7)
B. RETURNS FROM CUSTOMERS (+)	1,645.4	0.0	1,090.3	555.1
C. RETURNS FROM CUSTOMERS WITHOUT CREDIT (+)	2,746.7		1,039.9	1,706.8
D. RETURNS TO SUPPLIERS (-)	(100.1)	(1.0)	0.0	(99.1)
E. TRANSFERS TO DRMO (-)	(2,832.0)	(15.2)	(812.9)	(2,003.9)
F. ISSUES/RECEIPT W/O ADJ (+ OR -)	(58.0)		0.0	(58.0)
G. OTHER	1,436.2	(61.8)	1,537.5	(39.5)
H. TOTAL ADJUSTMENTS (5A THRU 5G)	2,846.9	(78.0)	2,864.2	60.7
6. INVENTORY EOP (2c + 3 - 4 + 5h)	18,249.2	1,663.8	10,961.3	5,624.1
7. INVENTORY EOP	18,249.2	1,663.8	10,961.3	5,624.1
A. ECONOMIC RETENTION (MEMO)				2,314.0
B. CONTINGENCY RETENTION (MEMO)				438.6
C. POTENTIAL DOD REUTILIZATION (MEMO)				2,871.4
8. ON ORDER EOP @ COST	3,465.3	142.3	3,323.0	0.0

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**War Reserve Materiel
(\$ in Millions)**

FY 2014	Total	WRM Protected	WRM Other
1. Inventory Beginning of Period (BOP)	2,161.5	2,161.5	0.0
2. Price Change	0.0	0.0	0.0
3. Reclassification	(17.3)	(17.3)	0.0
4. Inventory Changes			
a. Receipts	39.9	39.9	0.0
(1) Purchases	39.3	39.3	0.0
(2) Returns from customers	0.6	0.6	0.0
b. Issues	(149.6)	(149.6)	0.0
(1) Sales	0.0	0.0	0.0
(2) Returns to Suppliers	0.0	0.0	0.0
(3) Disposals	(149.6)	(149.6)	0.0
c. Adjustments	(290.2)	(290.2)	0.0
(1) Capitalizations	0.0	0.0	0.0
(2) Gains and losses	(2.9)	(2.9)	0.0
(3) Other	(287.4)	(287.4)	0.0
5. Inventory End of Period (EOP)	1,744.2	1,744.2	0.0
6. Stockpile Costs			
a. Storage			
b. Manage			
c. Maintenance/Other			
Total Costs	0.0		
7. WRM Budget Request			
a. Additional WRM	69.9		
b. Replenishment/Repair WRM	1.0		
c. Stock Rotation/Obsolescence			
d. Assemble/Disassemble			
e. Other			
Total Request	70.9		

NARRATIVE: War Reserve inventory is aligned with the Logistics War Reserve reports for each LCMC. War Reserve inventory grew through FY 2014 due to the high level of base and OCO appropriations received in previous fiscal years

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**War Reserve Materiel
(\$ in Millions)**

FY 2015	Total	WRM Protected	WRM Other
1. Inventory Beginning of Period (BOP)	1,744.2	1,744.2	0.0000
2. Price Change	0.0	0.0	0.0000
3. Reclassification	(9.7)	(9.7)	0.0000
4. Inventory Changes			
a. Receipts	19.8	19.8	0.0000
(1) Purchases	19.8	19.8	0.0000
(2) Returns from customers	0.0	0.0	0.0000
b. Issues	(16.0)	(16.0)	0.0000
(1) Sales	0.0	0.0	0.0000
(2) Returns to Suppliers	0.0	0.0	0.0000
(3) Disposals	(16.0)	(16.0)	0.0000
c. Adjustments	(1.0)	(1.0)	0.0000
(1) Capitalizations	0.0	0.0	0.0000
(2) Gains and losses	0.0	0.0	0.0000
(3) Other	(1.0)	(1.0)	0.0000
5. Inventory End of Period (EOP)	1,737.4	1,737.4	0.0000
6. Stockpile Costs			
a. Storage			
b. Manage			
c. Maintenance/Other			
Total Costs	0.0		
7. WRM Budget Request			
a. Additional WRM	13.7		
b. Replenishment/Repair WRM	2.0		
c. Stock Rotation/Obsolescence			
d. Assemble/Disassemble			
e. Other			
Total Request	15.7		

NARRATIVE: War Reserve inventory is aligned with the Logistics War Reserve reports for each LCMC.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**War Reserve Materiel
(\$ in Millions)**

FY 2016	Total	WRM Protected	WRM Other
1. Inventory Beginning of Period (BOP)	1,737.4	1,737.4	0.0
2. Price Change	0.0	0.0	0.0
3. Reclassification	(9.7)	(9.7)	0.0
4. Inventory Changes			
a. Receipts	14.1	14.1	0.0
(1) Purchases	14.1	14.1	0.0
(2) Returns from customers	0.0	0.0	
b. Issues	(16.2)	(16.2)	0.0
(1) Sales	0.0	0.0	0.0
(2) Returns to Suppliers	(1.0)	(1.0)	0.0
(3) Disposals	(15.2)	(15.2)	0.0
c. Adjustments	(61.8)	(61.8)	0.0
(1) Capitalizations	0.0	0.0	0.0
(2) Gains and losses	0.0	0.0	0.0
(3) Other	(61.8)	(61.8)	0.0
5. Inventory End of Period (EOP)	1,663.8	1,663.8	0.0
6. Stockpile Costs			
a. Storage			
b. Manage			
c. Maintenance/Other			
Total Costs	0.0		
7. WRM Budget Request			
a. Additional WRM	18.4		
b. Replenishment/Repair WRM	2.0		
c. Stock Rotation/Obsolescence			
d. Assemble/Disassemble			
e. Other			
Total Request	20.4		

NARRATIVE: War Reserve inventory is aligned with the Logistics War Reserve reports for each LCMC.

Industrial Operations

Introduction

The Industrial Operations activity group is comprised of thirteen government-owned and operated installation activities, each with unique core competencies. Industrial Operations promotes business-like behavior by relying on revenue instead of direct appropriations to finance continuing operations. Customers purchase services from Industrial Operations activities. These services include, but are not limited to, repairing and upgrading equipment, producing weapons and munitions, and storing and demilitarizing materiel. The goal for the Industrial Operations activity is to generate enough revenue to recover the full cost of operations while breaking even over the long term.

The core financial measures for Industrial Operations are the net operating result (NOR) and accumulated operating result (AOR). The NOR measures the activity's gain or loss within a single fiscal year and is used to monitor how closely the activity performs compared to its budget. The AOR measures the activity's accumulated gains and losses since the fund's inception. Rates are set during budget development to break even by bringing the AOR to zero over a budget cycle. This method returns accumulated gains through reduced rates and recovers accumulated losses through increased rates. The rates are set to:

- Recover the activity's costs such as payroll, supplies, contracts, equipment, inventory, depreciation, and maintenance
- Maintain a sufficient cash corpus to cover operating disbursements and six months of capital disbursements
- Break even over time

The Industrial Operations activity relies heavily on customers funded by direct appropriations to support its operations. The activity synchronizes rates and budget assumptions with the appropriated funding levels of its customers. Reductions to customer appropriated funding requests impact the business by adversely affecting workloading decisions and projected staffing levels and may also affect equipment readiness of supported customers.

Mission:

- *Provide an organic industrial capability to conduct depot level repair and upgrade*
- *Produce munitions and large caliber weapons*
- *Store, maintain, and demilitarize materiel for the Department of Defense*



Efficiencies and Business Process Improvements

Cost efficiency is an inherent attribute of the AWCF. The revolving fund construct promotes total cost visibility, full cost recovery, and fosters a business-like, competitive atmosphere. In the same way that commercial businesses focus on their bottom line profit, Industrial Operations activities focus on their Net Operating Result and other indicators to gauge the efficiency of their operations. To increase efficiency and maintain their competitive edge, Industrial Operations activities have been fully engaged in cost-cutting and business process improvement initiatives for many years. Industrial Operations customers ultimately garner the benefit of these efficiencies through reduced turn-around times, lower prices, and increased throughput. Examples of these initiatives include:



Corpus Christi Army Depot test pilots check the systems on an AH-64 Apache prior to flight test.

- **Lean Six Sigma (LSS)**: LSS is a philosophy used in manufacturing to streamline and reduce variations in the production process. In FY 2014, Army Materiel Command (AMC) validated financial benefits from LSS initiatives totaling \$28.8 million and estimates an average of \$15 million in total benefits for FY 2015 and FY 2016. These benefits come in the form of hard savings from budgeted programs, cost avoidances, and increased capacity (e.g. throughput). The Industrial Operations activity either re-invests the financial benefits or passes them on to its customers in future budgets through lower rates. AMC currently has 19 Certified Master Black Belts which equates to over one-third of the Army's cadre and ensures the program is self sufficient.
- **International Organization for Standardization (ISO)**: ISO is a worldwide federation of national standards bodies that independently audit and certify companies and organizations for conformance with established standards. The Industrial Operations activities currently hold ISO certifications for Quality Management Systems, International Aerospace Quality Systems, Environmental Management Systems, and Occupational Safety and Health Administration Systems. All IO activities are ISO 9000 certified at a minimum and many are pursuing higher levels of certification.



- **Adaptable Workforce Structure**: Industrial Operations (IO) activities employ an adaptable workforce structure to maintain flexibility in response to shifting workload requirements. Activities adjust the size of their workforce through the judicious use of contractor, term, temporary personnel, and overtime to accommodate changes in workload.
- **Safety Improvements**: Improving safety is a high priority throughout Army Materiel Command (AMC); it improves morale and productivity and reduces costs. The AMC Commanding General sets, publishes, and tracks progress toward safety goals each year. Tobyhanna Army Depot, Corpus Christi Army Depot, McAlester Army Ammunition Plant (MCAAP), and Crane Army Ammunition Activity are recognized as Star⁴ sites in the Occupational Safety and Health Administration's Voluntary Protection Program (VPP). VPP participants must maintain an effective safety and health management system that meets rigorous performance-based criteria.
- **Energy and Water Savings Programs**: AMC has instituted a command wide policy to identify performance standards to reduce consumption of energy and water resources, achieve energy security, and comply with DOD goals and objectives. Savings are being realized through the use of advanced metering programs, energy management and control systems, and implementation of energy conservation measures. Longer term energy savings are expected from renewable energy sources. The following highlights the major projects completed recently and projects planned for the near future at IO activities.

⁴ The Star Program is designed for exemplary worksites with comprehensive, successful safety and health management systems. Companies in the Star Program have achieved injury and illness rates at or below the national average of their respective industries.



Table IO 1 – Energy Conservation and Renewable Energy projects

Activity	Amount (\$M)	Description of Project
Anniston Army Depot	2.3	Investment grade audit of the facilities and Energy Conservation Investment Program (ECIP) for lighting and building envelope upgrades.
Blue Grass Army Depot	0.6	Army Energy and Utility Program- Lighting, building envelope, and heating/cooling improvements. Estimated savings is \$0.1 million.
Crane Army Ammunition Activity	1.0	Projects include a compressed air leak survey/ repairs, steam trap and condensate upgrades and a new steam boiler. Estimated savings is \$0.4 million per year.
Sierra Army Depot	2.5	Installation of energy efficient interior and exterior lighting plus building envelope upgrades. Estimated savings is \$0.1 million per year.
Tobyhanna Army Depot	15.0	Pursuing building envelope upgrades, energy efficient lighting and heating ventilation and air conditioning improvements.
Tooele Army Depot	15.7	Projects include a 1.5 megawatt wind turbine, an energy monitoring and control system and a micro grid.

Functional Description

The AWCF Industrial Operations activity group includes five depots, three arsenals, two munitions production facilities, and three storage sites. This activity group performs the following mission functions:

- Provides depot level maintenance, repair, and modernization of weapon systems and component parts
- Manufactures, renovates, and demilitarizes materiel
- Produces munitions and large caliber weapons
- Performs a full range of ammunition maintenance services for DOD and U.S. allies
- Performs ammunition receipt, storage, and issue functions

In addition to the mission functions, ten of the thirteen activities provide installation base support for both internal operations and tenant activities. Corpus Christi Army Depot and Crane Army Ammunition Activity are tenants on Navy installations. The Rock Island Arsenal-Joint Manufacturing and Technology Center (JMTC) receives installation base support from the Army Installation Management Command.



Industrial Operations activities collaborate with the private sector through formal public-private partnership agreements to perform work or utilize facilities and equipment. Under authority granted by Title 10, United States Code, § 2474, these partnerships create opportunities for both the public and private sectors by capitalizing on each other's strengths and efficiencies. The benefits to the Army and its customers include: leveraging capacity; sustaining core maintenance capabilities; sharing of overhead costs; and enhancing technical expertise in the workforce. The benefits to private industry include access to specialized facilities, equipment and processes, and stimulating local economies. Current public-private partnership agreements are held with companies such as The Boeing Company, General Dynamics Land Systems, Sikorsky Aircraft Corporation, and Honeywell International.



Chemical Biological Protective Shelter (CBPS) provides environmentally controlled working area for medical combat services.

The five hard-iron maintenance depots (Anniston, Corpus Christi, Letterkenny, Red River, and Tobyhanna) and Pine Bluff Arsenal, Rock Island Arsenal-Joint Manufacturing and Technology Center, Sierra Army Depot, Tooele Army Depot, and Watervliet Arsenal are designated as Centers of Industrial and Technical Excellence (CITE) for the performance of core⁵ maintenance workload in support of DOD and foreign allies. The CITE designation provides authority under Title 10, United States Code, § 2474 to partner with and lease facilities to industry on programs relating to core maintenance and technical expertise.

The Shingo Prize, administered by the Jon M. Huntsman School of Business at Utah State University, is the premier award for operational excellence world-wide. Since FY 2006, the Army Materiel Command has received 29 Shingo Prizes for various programs at its depots and arsenals, including eight at Red River Army Depot, seven at Tobyhanna Army Depot, eight at Letterkenny Army Depot, three at the Rock Island Arsenal-Joint Manufacturing and Technology Center, two at Anniston Army Depot and one at Corpus Christi Army Depot. This award recognizes industry leaders who promote world-class business and manufacturing processes that enable on-time delivery and customer satisfaction.

⁵ Title 10, United States Code, § 2464. Core Logistics Capabilities - Government-owned and Government-operated equipment and facilities required to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements.



On-site examiners conduct Shingo Prize evaluations and score the following areas:

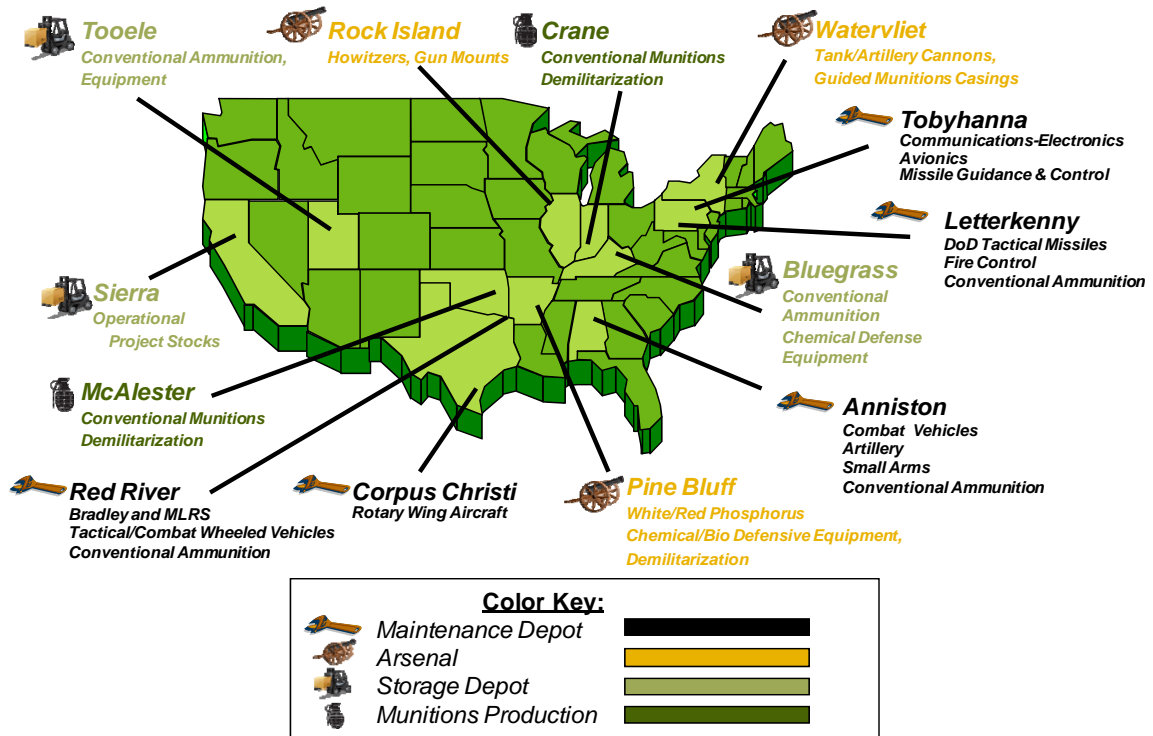
- Cost improvement
- Partnering practices with suppliers and customers
- Quality and results
- Innovation and development
- Environmental practices
- Vision and strategy
- Leadership & Empowerment
- Continuous improvement



LEAD's Certified Round Assembly Facility is the only site in the U.S. to recertify, repair, and troubleshoot Patriot missile systems.

Activity Group Composition

Figure IO 1 - Industrial Operations Activity Group Composition



Army Materiel Command is located in Huntsville, Alabama and serves as the management command for the Industrial Operations activity group. Installations or activities in this group fall under the direct command and control of the Life Cycle Management Commands each aligned in accordance with the nature of its mission. The following are descriptions of the Industrial Operations activities and their major core mission functions.

Anniston Army Depot (ANAD)

Location: Anniston, Alabama

2014 Workforce: 2,922



Description: A vital part of the community since opening in 1941, the depot's annual economic impact is estimated to be \$1.0 billion and indirectly supports over 25,000 jobs in the Anniston area. It is the only Army depot capable of performing maintenance on both heavy and light-tracked combat vehicles, and their components. The depot is the designated Center of Industrial and Technical Excellence for combat vehicles (tracked and wheeled, except Bradley), assault bridging, artillery (towed and self propelled) and small caliber weapons. Combat vehicles include the M1 Abrams Tank, M113 Family of Vehicles (FOV), Stryker FOV, M109 Paladin, Field Artillery Ammunition Support Vehicle (FAASV), M88 Recovery Vehicles, Joint Assault Bridge (JAB), Assault Breacher Vehicle (ABV), Armored Vehicle Launched Bridge (AVLB), and M9 Armored Combat Earthmover. The depot is actively engaged in the Reset of equipment returning from operations in Southwest Asia, to include performing maintenance on individual and crew-served weapons. ANAD also provides installation support to attached organizations and assigned operating facilities. ANAD is a leader in the development of Public to Private Partnerships with 48 active partnerships.

Blue Grass Army Depot (BGAD)

Location: Richmond, Kentucky

2014 Workforce: 787



Description: BGAD is an ammunition depot with the mission to receive, store, issue, renovate, modify, maintain, and demilitarize conventional munitions for all DOD services. BGAD stores and manages all Army Special Operations Forces ammunition. The depot is DOD's primary center for receipt, storage, issue, testing, and minor repair of Individual Protection Chemical Defense Equipment. Additionally, BGAD maintains an Industrial Services capability providing receipt, storage, cutting, and fabrication of raw materials and metal parts for high visibility programs such as the Mine Resistant Ambush Protected (MRAP) family of vehicles. Anniston Munitions Center, located at Anniston Army Depot, is under the command and control of BGAD and serves as a multifunctional production facility, primary missile storage and maintenance depot, and as a storage and demilitarization



depot for other conventional ammunition items. BGAD also provides installation support to attached organizations and assigned operating facilities.

Corpus Christi Army Depot (CCAD)

Location: Corpus Christi, Texas

2014 Workforce: 3,495

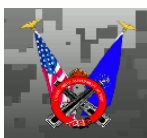


Description: The CCAD mission is to return Army rotary wing aircraft and components to full service with uncompromising quality, at the lowest possible cost, in the shortest amount of time. CCAD supports the Joint Warfighter supporting the Army, Marines, Navy, Air Force, Department of Homeland Security and partner nations through the Department of State. CCAD leads the Army aviation accident investigation processes with subject matter expertise and reliable laboratory analysis anywhere in the world by a team of highly skilled artisans who assess, evaluate and repair forward deployed aircraft and components to include depot forward capabilities. The depot supports Active, Reserve and National Guard Soldiers in their maintenance skills development with hands-on experience under the watchful eyes of depot artisans. Designated as the Center of Industrial and Technical Excellence for rotary wing aircraft, CCAD supports the Apache, Blackhawk, Chinook, Kiowa, and Pave Hawk helicopters as well as Unmanned Aerial Vehicles (UAV).

Crane Army Ammunition Activity (CAAA)

Location: Crane, Indiana

2014 Workforce: 829



Description: CAAA is a Strategic Mobility Platform offering logistical support in receiving, storing, shipping, and surveillance. As a Munitions Center of Excellence, CAAA is the producer of pyrotechnic candle loads for mortar and artillery illumination in both the visible and infrared spectrums. CAAA supports the Navy with the production and renovation of advanced countermeasures for aircraft, and large caliber gun ammunition. Ammunition production and renovation capabilities include loading (cast and press) bombs and other munitions, missile warhead pressing, and a large variety of munitions components and assemblies. CAAA also has extensive demilitarization capabilities including steam out, high pressure washout, open burn/open detonation, and white phosphorous conversion. The CAAA Machine Center fabricates tools, dies, fixtures, gages, production equipment and components. Letterkenny Munitions Center (LEMC), located on Letterkenny Army Depot in Chambersburg, Pennsylvania is under the command of CAAA. LEMC is also a Strategic Mobility Platform for both conventional ammunition and missile support. LEMC performs testing and minor repair for the Army Tactical Missile System and Guided Multiple Launch Rocket Missile systems, as well as several Air Force and Navy missile families. LEMC conducts



demilitarization research and development, resource recovery and reutilization for missiles, as well as container repair, and the renovation of conventional munitions.

Letterkenny Army Depot (LEAD)

Location: Chambersburg, Pennsylvania

2014 Workforce: 1,467



Description: LEAD performs maintenance, modification, storage, and demilitarization operations on tactical missiles and ammunition. It has unique tactical missile repair capabilities supporting a variety of DOD missile systems including the Patriot and its ground support and radar equipment. LEAD is the designated Center of Industrial and Technical Excellence for air defense and tactical missile ground support equipment. In addition, it supports repair and maintenance on a multitude of generators and accommodates surge levels of repair and recapitalization (RECAP) for the High Mobility Multipurpose Wheeled Vehicle (HMMWV) family. LEAD also provides installation support to attached organizations and assigned operating facilities.

McAlester Army Ammunition Plant (MCAAP)

Location: McAlester, Oklahoma

2014 Workforce: 1,271



Description: MCAAP is located on 45,000 acres in southeastern Oklahoma. It has six ammunition production, maintenance and renovation complexes and is a major ammunition storage site for all branches of the Armed Forces. In addition, the plant has nearly 2,300 storage magazines and six million square feet of covered explosive storage space. MCAAP produces and renovates conventional ammunition, bombs, warheads, rockets, missiles, and ammunition-related components; performs engineering and product assurance in support of production; and receives, stores, ships, demilitarizes, and disposes of conventional and missile ammunition and related items. MCAAP also provides installation support to attached organizations and assigned operating facilities.

Pine Bluff Arsenal (PBA)

Location: Pine Bluff, Arkansas

2014 Workforce: 703



Description: With a local economic impact exceeding \$140 million annually, PBA produces, renovates, and stores more than sixty different conventional ammunition products ranging in caliber from 40 mm to 175 mm. Specialties include production of munitions containing payloads for smoke, non-lethal, riot control, incendiary,



illumination, and infrared uses. Designated the Center of Industrial and Technical Excellence for Chemical and Biological Defense Equipment, PBA is a leader in the field of protective mask fabrication, repair, and re-certification, and represents the Army's sole facility for the repair and rebuild of a series of masks and breathing apparatus. It provides maintenance, upgrade, storage, and mission support for various mobile and powered Soldier support systems. PBA has strengthened its expertise by forming Public-Private Partnerships with mission related entities in the ammunition and chemical biological defense business sectors. The arsenal also provides installation support to attached organizations and assigned operating facilities.

Red River Army Depot (RRAD)

Location: Texarkana, Texas

2014 Workforce: 2,322



Description: RRAD's mission is to conduct ground combat and tactical systems sustainment maintenance operations, and related support services worldwide for the Army, other DOD components, and allied nations. Located in the Four States region of Texas, Arkansas, Oklahoma and Louisiana, RRAD is the Center of

Industrial and Technical Excellence for the Bradley Fighting Vehicle (BFV), Multiple Launch Rocket System (MLRS), Tactical Wheeled Vehicles, Small Emplacement Excavator (SEE), and rubber products. Other supported systems include Army boats and bridges, cranes, material handling equipment, egress trainers, and a multitude of secondary items such as engines and transmissions. Over the past year, RRAD has ramped up production capability to process over 1,000 Mine Resistant Ambush Protected (MRAP) All Terrain, Cougar and MaxxPro vehicles to support fielding schedules for the Army Tank and Automotive Command and the Marine Corps. RRAD specializes in forward deployment of maintenance operations in support of U.S. and allied military operations, and will project training and operations in support of Foreign Military Sales. The depot continuously engages in best business practices and process improvements designed to maximize quality throughput at optimal cost. RRAD supports operational transformation in alignment with its strategic plan, with an eye to flexible solutions that will attract future business.

Rock Island Arsenal-Joint Manufacturing and Technology Center (RIA-JMTC)

Location: Rock Island Arsenal, Illinois

2014 Workforce: 1,106



Description: RIA-JMTC is a heavy-metal manufacturer that specializes in artillery, weapon components, armor and mobile maintenance systems. RIA-JMTC is currently producing the M997A3 Ambulance, Line of Communication Bridge (prototype), Metalworking



and Machining Shop Set, as well as manufacturing of artillery parts, gun mounts, recoil mechanisms, small arms repair parts, aircraft weapon sub-systems, and weapons simulators. In addition, it produces a host of spare and repair parts for DOD and commercial/private industry customers. RIA-JMTC is the only multi-purpose and vertically integrated metal manufacturer in DOD and is a designated Center for Industrial and Technical Excellence for mobile maintenance systems, Add-on-Armor design, development, and prototype fabrication and foundry operations. The center possesses the unique technical expertise and equipment to manufacture high quality and sustainable products. RIA-JMTC strives to remain on the cutting edge of technological developments.

Sierra Army Depot (SIAD)

Location: Herlong, California

2014 Workforce: 1,165



Description: Sierra is a recognized multi-functional installation that provides rapid expeditionary logistics support and long-term sustainment solutions to the Army and the Joint Force. SIAD is designated by the Department of the Army as the Center for Industrial Technical Excellence (CITE) for all Petroleum and Water Distribution Systems (PAWS). In addition, SIAD is the redistribution point for containers of secondary items returning from Southwest Asia, and provides equipment receipt and asset visibility for these items. Sierra has also been designated as the Army's main consolidation and redistribution center for the Clothing Management Office (CMO) to perform Brigade-level Organizational Clothing and Individual Equipment Reset Operations. These unique operations clearly provide a readiness and operational value to the Army and the Nation through management and controlled redistribution of equipment to meet urgent demands and support to deploying Soldiers.

Tobyhanna Army Depot (TYAD)

Location: Tobyhanna, Pennsylvania

2014 Workforce: 2,835



Description: TYAD is a full-service repair, overhaul, and fabrication facility for communications-electronics systems, equipment, and select missile guidance systems, and it provides for the maintenance, issue, and disposal of assigned commodities for DOD and other customers. It is designated as the Center of Industrial and Technical Excellence for Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR), electronics, avionics, and missile guidance and control. TYAD is the Air Force Technology Repair Center for radio and satellite communication equipment, computers, air traffic control, surveillance, and range threat systems. The depot is also actively engaged in the Reset of equipment returning from operations in Iraq and



Afghanistan. It provides installation support to attached organizations and assigned operating facilities.

Tooele Army Depot (TEAD)

Location: Tooele, Utah

2014 Workforce: 435



Description: TEAD provides America's joint fighting forces with munitions and Ammunition Peculiar Equipment (APE) in support of military missions before, during, and after any contingency. The depot receives, stores, issues, renovates, modifies, maintains, and destroys conventional munitions for all of DOD. TEAD is designated as the Center of Industrial and Technical Excellence for APE and is the life cycle engineering depot for design, development, manufacturing and fielding of munitions systems and APE throughout the world. TEAD also provides installation support to attached organizations and assigned operating facilities.

Watervliet Arsenal (WVA)

Location: Watervliet, New York

2014 Workforce: 502



Description: WVA produces armaments, mortars, recoilless rifles, howitzers and is recognized as the premier cannon-maker for the Army. This includes all life cycle support elements from research and development through prototype, manufacturing, testing support, legacy system support, and technical expertise. The guns manufactured at WVA provide the firepower for the Army's main battlefield tank, the M1A1 Abrams. WVA is the designated Center of Industrial and Technical Excellence for manufacturing cannons and mortar systems. WVA also provides installation support to attached organizations and assigned operating facilities.

Budget Highlights

Assumptions

This submission represents a business plan that supports equipment readiness requirements and assumes a lower OPTEMPO for the Nation's continued efforts in Overseas Contingency Operations. The budget reflects workload assumptions developed in coordination with our customers that support both baseline and Reset requirements. However, as unit rotations and weapon system delivery schedules shift, annual projections can change significantly. To offset these risks, the Industrial Operations activity remains poised to increase or decrease output in order to

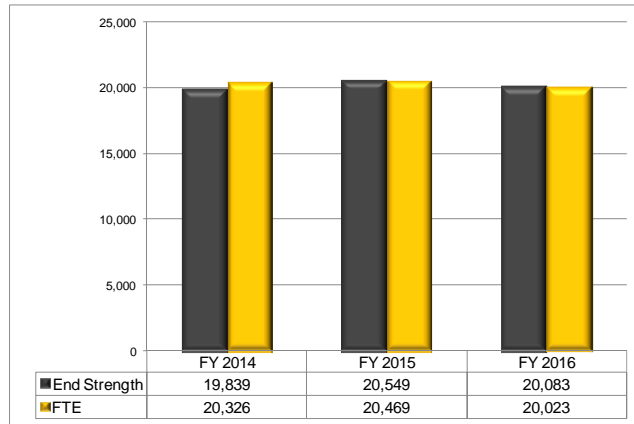


accommodate customers' changing demands and incorporates historical trend analysis when developing future workload requirements.

Personnel

Civilian end-strength represents the number of personnel employed at the end of each fiscal year. Full time equivalents represent the manpower level of effort necessary to accomplish the projected workload on an annual basis. The Industrial Operations labor pool includes a mix of permanent, temporary, and term-appointed employees, in addition to contract labor, which allow for workforce flexibility to accommodate changing requirements.

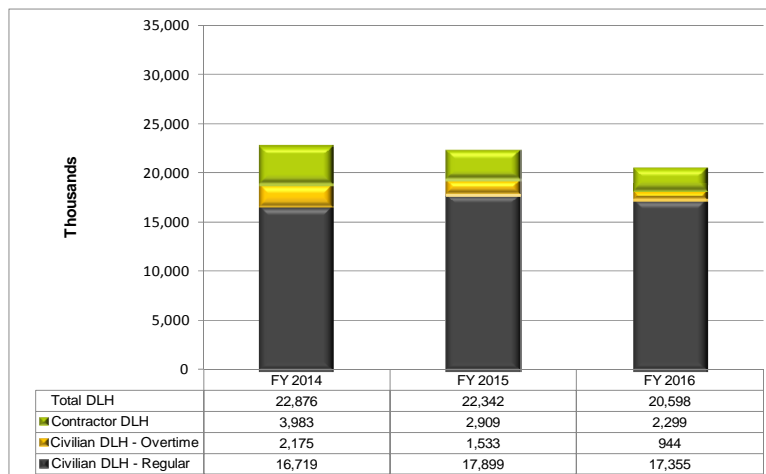
Chart IO 1 - Civilian Personnel (excludes contractors)



Maintaining a trained and ready workforce is critical to this labor intensive business area. Industrial Operations activities engage in various intern and apprentice programs to help meet this requirement. Due to the specialized nature of the work and skill level requirements, training may require two to three years before an employee is able to perform specific tasks without supervision. In addition to civilian personnel, 25 military personnel are assigned to IO activities in FY 2016.

Direct Labor Hour (DLH)

Chart IO 2 - Direct Labor Hours



Total direct labor hours represent the number of hours required to complete the Industrial Operations direct mission workload. FY 2016 DLHs decrease by 11 million compared to FY 2012 levels but production remains relatively high to complete work carried over from prior fiscal years. IO activities

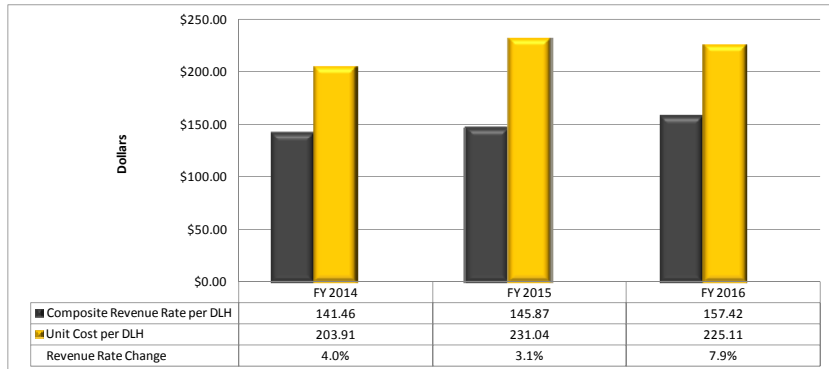
remain prepared to increase overtime and contractor DLHs in the event workload estimates increase.



Direct Labor Hour Rate

The composite revenue rate is an aggregate hourly rate established in the budget cycle and used to price rate-stabilized workload. It is comprised of direct labor and material costs, overhead costs (mission indirect and non-mission indirect

Chart IO 3 - Direct Labor Hour Rate

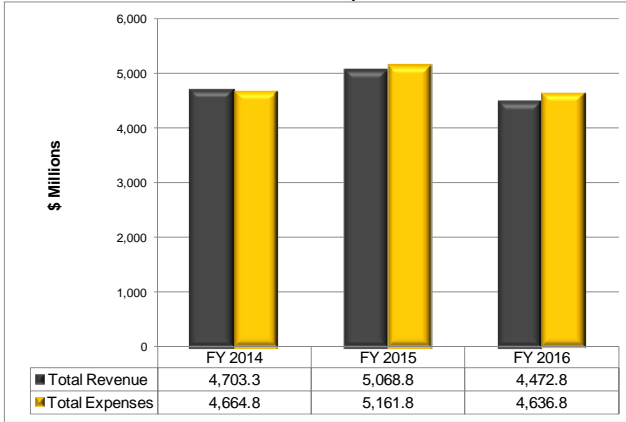


costs), and accumulated operating result adjustments that are designed to return gains or recover losses. In contrast to rate-stabilized workload, cost reimbursable workload represents workload that is prototype in nature or has very little repair history. It is not included in the stabilized rate calculation until sufficient repair information has been established. The composite revenue rate calculation is complex and influenced by several factors: 1) commodity mix of the workload planned (labor intensive, material intensive or both); 2) the amount of gains to be returned or losses to be recovered over the budget years; 3) the amount of stabilized direct labor hours available to return gains or recover losses; and 4) the number of total direct labor hours available to distribute overhead cost (stabilized and non-stabilized workload). A change to the composite revenue rate directly affects the total revenue and new order values for the budget year. The FY 2016 composite revenue rate is \$157.42 and is set to return \$112.3 million of prior year accumulated operating result (AOR). Unlike the composite revenue rate, which is adjusted for AOR and applied to new rate stabilized workload, the unit cost per direct labor hour represents total costs of work performed on both prior year and current year orders. The unit cost does not include adjustments for AOR. The return of operating gains to customers causes the revenue rate to be lower than unit cost.



Revenue and Expenses

Chart IO 4 - Revenue and Expenses



The Industrial Operations revenue amount represents earnings from work performed on customer equipment. Total expenses cover full costs, including material, labor, storage, and other direct or indirect costs associated with the products or services being provided. Revenue and expense projections in FY 2016 decrease as total workload declines. FY 2015 and FY 2016 revenue reflects the return of operational gains back to

customers. Revenue and expenses are displayed in more detail on Exhibit Fund 14, *Revenue and Costs*.

Operating Result

The Net Operating Result (NOR) represents the difference between revenue and expenses within a fiscal year. The recoverable NOR in FY 2014 and FY 2015 includes the \$150 million and \$225 million direct appropriations provided to maintain competitive rates at the arsenals. The AOR represents the summation of all operating gains or losses since activity group inception along with any prior period adjustments. AOR at the end of FY 2014 was \$432.3 million. The Industrial Operations business received approval from OUSD Comptroller to defer the return of \$453.3 million of AOR for future rate stabilization as workload decreases. The Recoverable NOR, Deferred AOR, and AOR are displayed in the table below and on Exhibit Fund 14, *Revenue and Costs*.

Table IO 2 - Operating Results

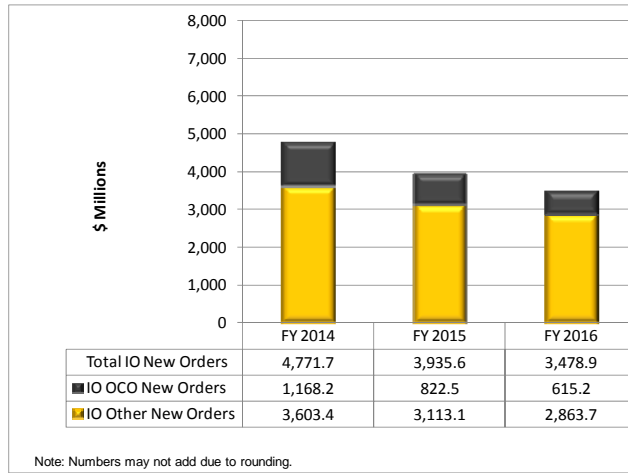
(\$ Millions)	FY 2014	FY 2015	FY 2016
Recoverable Net Operating Result	100.4	133.3	(112.3)
Deferred Accumulated Operating Result	0.0	0.0	(453.3)
Accumulated Operating Result	432.3	565.6	0.0



New Orders

Industrial Operations activities develop workload projections based on close coordination with customers and their delivery schedule requirements. This budget includes workload assumptions associated with base program requirements and anticipated Reset workload included in the Overseas Contingency Operations (OCO) request. The Reset program ensures Army equipment is restored to a level of combat capability commensurate with a unit's future mission. The projected workload decreases significantly in FY 2015 and FY 2016, in line with customer projections and budgeted depot maintenance requirements. Exhibit Fund 11, *Source of New Orders and Revenue*, displays total new order estimates by fund category.

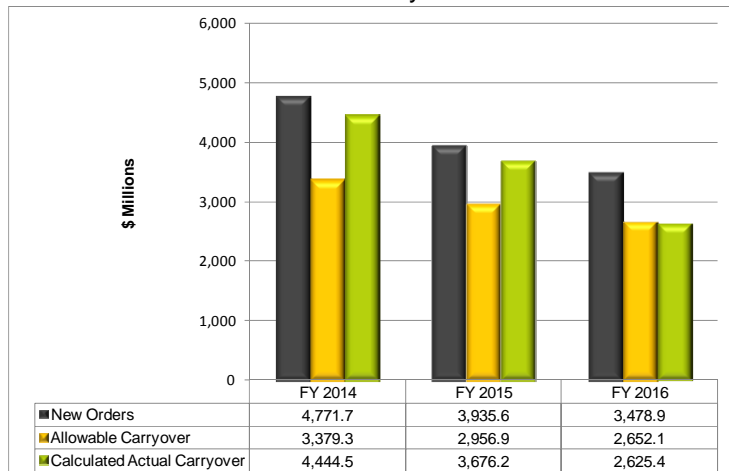
Chart IO 5 - New Orders



Carryover

Carryover, or unfilled orders, represents the dollar value of work that has been ordered and funded by customers but not completed by the industrial activities at the end of each fiscal year. Carryover leads to better planning, better decision making, and cost efficiencies. It provides lead time to assemble necessary workforce skill sets, to establish supply chains, and to coordinate workload routing. Carryover also prevents production line stoppages and ensures the activities have funded work to provide a smooth transition between fiscal years. The Army will reduce carryover by \$1,038.1 million in FY 2015 and \$1,105.1 million in FY 2016, and expects to be under the carryover ceiling in FY 2016. Carryover is displayed on Exhibit Fund 11, *Source of New Orders and Revenue*, and Exhibit Fund 11a, *Carryover Reconciliation*.

Chart IO 6 - New Orders and Carryover



Note: Carryover amounts displayed account for carryover exclusions.



Performance Measurements

Performance measurements and goals for the Industrial Operations activity group include Recoverable Net Operating Result (NOR) and Productive Yield. FY 2014 actual results and projections for FY 2015 and FY 2016 are shown in the table below.

Table IO 3 - Performance Measurements

Measurements/Goals	FY 2014	FY 2015	FY 2016
Recoverable Net Operating Result	100.4	133.3	(112.3)
Productive Yield	1,478	1,580	1,575

The customer rates in the budget return prior year gains, as reflected by the negative NOR, and also preserves \$453.3 million of Accumulated Operating Result (AOR) for future rate stabilization.

Productive Yield represents the average number of regular direct labor hours for each full time equivalent position involved in production and is an indicator of whether direct labor employees can support projected workload. The historical goal for productive yield has been 1,615 direct labor hours per work position and represents total available work hours after holidays, leave, and training are removed. However, the 1,615 hours should be multiplied by a 95 percent availability factor to account for facility and equipment non-availability due to reasons such as calibration, maintenance, utility failure, adverse weather, and equipment installation or rearrangement (per DOD 4151.18-H, *Depot Maintenance Capacity and Utilization Measurement Handbook*). Once this factor is applied, the goal is reduced to 1,534 productive labor hours per employee. The productive yield for FY 2014 was lower than planned due largely to lingering effects from the FY 2013 sequestration and personnel policies implemented during the furlough. Projections for FY 2015 and FY 2016 are within expected parameters.

Appropriations

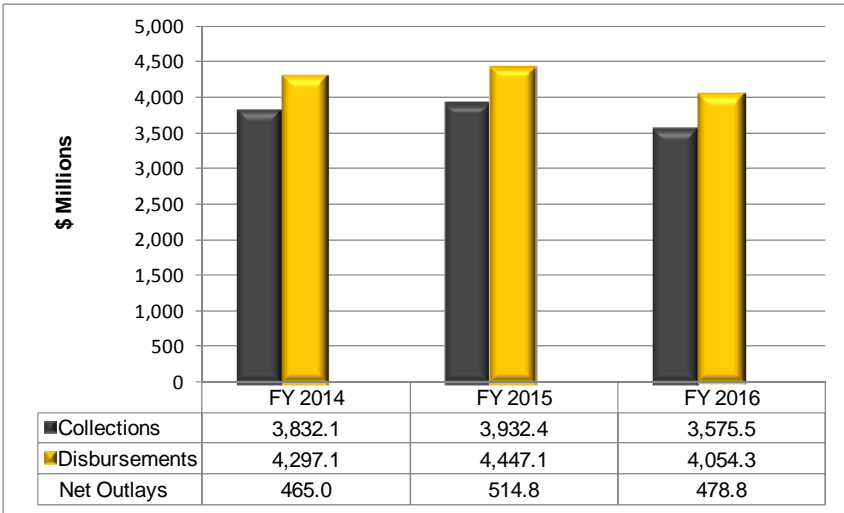
For FY 2014 and FY 2015, the IO activity received Direct Appropriations of \$150.0 million and \$225.0 million respectively, to maintain competitive rates at the Army's arsenals.



Collections, Disbursements, and Outlays

Collections are calculated based on projected revenue and changes in accounts receivable. Disbursements are projected based on monthly operating expenses, changes in accounts payable, and Capital Investment Program obligations. Net outlays reflect the return of

Chart IO 7 - Cash Management



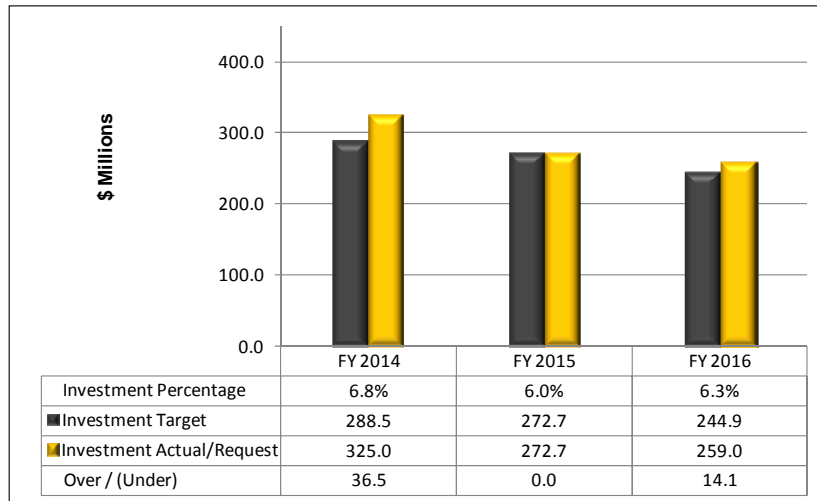
accumulated operating result to customers and the treatment of internal work performed under the Logistics Modernization Program (LMP). Under the internal work performed process there are no collections or disbursements between the Industrial Operations and Supply Management activity groups as LMP treats both entities as one company. This business process results in an increased net outlay for the Industrial Operations activity, which is balanced by a decreased net outlay for the Supply Management activity.



Minimum Capital Investment for Certain Depots and Arsenals

The National Defense Authorization Acts for FY 2007, FY 2009, and FY 2012 require the five Army maintenance depots (Anniston, Red River, Letterkenny, Tobyhanna, and Corpus Christi), the three arsenals (Rock Island, Pine Bluff, and Watervliet) and Tooele Army Depot to invest the equivalent of at least 6% of funded workload.

Chart IO-8 – Minimum Capital Investment



The chart displays the total investment target and total investment amount planned. Since the minimum capital investment became law, the Army has invested over \$2.7 billion, representing an average of 6.9% of revenue spent on capabilities and infrastructure. IO activities review future production and infrastructure requirements and project return on investment when developing capital budgets. With the expected decrease in workload, investments tied to high revenue producing years are creating a challenge to achieve the minimum. The Army is committed to investing 6% in each year. Exhibit Fund 6, *Depot Maintenance 6% Capital Investment* provides investment details by category for each activity.



**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Revenue and Costs
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
Revenue			
Gross Sales:	4,543.0	4,843.8	4,472.8
Operations	4,362.4	4,653.1	4,289.4
Surcharges			
Depreciation excluding Major Construction	180.6	190.6	183.4
Major Construction Depreciation			
Other Income (DWCF Direct Appropriation)	150.0	225.0	
Other Income (Misc Gains/losses)	10.4		
Total Income:	4,703.3	5,068.8	4,472.8
Costs			
Salaries and Wages:	1,662.8	1,749.2	1,699.5
Military Personnel Compensation & Benefits	2.6	3.1	3.2
Civilian Personnel Compensation & Benefits	1,660.2	1,746.2	1,696.3
Travel & Transportation of Personnel	26.6	24.0	21.9
Materials & Supplies (For Internal Operations)	1,819.6	1,850.5	1,637.9
Equipment	67.5	80.9	66.0
Other Purchases from Revolving Funds	126.4	164.1	168.4
Transportation of Things	14.0	9.1	8.7
Depreciation	180.6	190.6	183.4
Printing and Reproduction	1.7	2.2	2.2
Advisory and Assistance Services	103.4	118.2	126.1
Rent, Communication, Utilities, & Misc. Charges	100.8	108.0	107.2
Other Purchased Services	561.4	865.0	615.7
Total Costs:	4,664.8	5,161.8	4,636.8
Operating Result	38.5	(93.0)	(164.0)
Other Changes Affecting NOR:			
Non-Recoverable Expenses (Unfunded Depreciation)	61.8	226.3	51.8
Non-Recoverable Expenses (Misc Loss)	61.8	52.7	51.8
Non-Recoverable Expenses (Misc Loss)		18.6	
Non-Recoverable Expenses (FRM)		155.0	
Recoverable Net Operating Result	100.4	133.3	(112.3)
Other Changes Affecting AOR			
a. AOR Beginning of Year (Unadjusted)	331.9	432.3	565.6
b. +/- FECA Accrual Adjustment			
c. Equals AOR BOY (Adjusted)	331.9	432.3	565.6
d. +/- Net Operating Result	100.4	133.3	(112.3)
e. Deferred AOR			(453.3)
f. Equals Recoverable AOR EOP	432.3	565.6	

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Source of New Orders and Revenue
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
1. New Orders			
a. Orders from DoD Components:			
Department of Army			
Operations & Maintenance, Army	2,187.4	2,004.7	1,628.1
Operations & Maintenance, ARNG	49.7	39.2	28.0
Operations & Maintenance, AR	58.7	55.2	26.8
Subtotal, O&M:	2,295.8	2,099.1	1,682.9
Aircraft Procurement	85.5	56.3	73.8
Missile Procurement	25.1	17.9	16.5
Weapons & Tracked Combat Vehicles	127.4	166.6	122.6
Procurement of Ammunition	181.0	133.5	126.8
Other Procurement	214.6	245.5	252.0
Subtotal, Procurement:	633.6	619.8	591.6
RDTE	23.1	7.2	5.5
BRAC	0.1	0.2	0.2
Family Housing	5.3	1.7	1.7
Military Construction	0.0	0.1	0.0
Chem Agents & Munitions Dest, Army	5.7	3.2	2.2
Other	0.2	0.1	0.1
Subtotal, Other Army:	34.3	12.5	9.7
Subtotal, Department of Army:	2,963.7	2,731.5	2,284.2
Department of Air Force O&M	92.3	58.6	69.0
Department of Air Force Investment	46.2	29.5	37.1
Department of Navy O&M	20.4	19.4	19.3
Department of Navy Investment	27.2	16.0	13.6
US Marines O&M	259.5	94.0	76.8
US Marines Investment	47.7	16.4	2.7
Other Department of Defense	126.7	32.7	26.6
Subtotal, Other DoD Services:	620.1	266.7	245.1

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Source of New Orders and Revenue
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
b. DWCF:			
Industrial Operations, Army	48.3	10.9	11.0
Supply Management, Army	789.8	686.0	690.6
Supply Management, Air Force	27.5	33.6	15.3
Supply Management, Navy	70.0	56.7	51.0
Supply Management, Marine Corps	9.0	9.1	0.0
DECA	0.1	0.0	0.0
DFAS	0.3	0.3	0.3
DISA	8.1	7.7	7.8
DLA	25.7	16.4	15.6
TRANSCOM	0.2	0.0	0.0
Other			
Subtotal, DWCF:	978.8	820.6	791.7
c. Total DoD	4,562.7	3,818.7	3,320.9
d. Other Orders:			
Other Federal Agencies	6.2	0.6	4.2
Foreign Military Sales	113.2	55.9	118.0
Nonappropriated	1.7	20.7	3.9
Non-Federal Agencies	87.8	39.7	31.8
Subtotal, Other Orders:	208.9	116.9	157.9
Total New Orders:	4,771.7	3,935.6	3,478.9
2. Net Carry-in Orders	4,649.3	4,751.2	3,731.8
3. Total Gross Orders	9,420.9	8,686.8	7,210.7
4. Revenue (-)	4,543.0	4,843.8	4,472.8
5. End of Year Work-inProcess (-)	(3.1)	0.0	0.0
6. FMS, BRAC, Other Federal, and Non-Federal orders	220.1	160.8	112.5
Crash Damage	105.4	6.1	0.0
4th Qtr Other Service Wkld	111.1	0.0	0.0
7. Funded Carry-over	4,444.5	3,676.2	2,625.4
8. Allowable Carry-over	3,379.3	2,956.9	2,652.1
9. Over/(Under) Allowable Carry-over	1,065.2	719.2	(26.7)

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Carryover Reconciliation
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
1. Gross Carry-In	5,024.6	4,881.1	3,843.0
Adjustments to Prior Year Orders	(375.4)	(129.9)	(111.2)
Net Carry-In	4,649.3	4,751.2	3,731.8
2. Revenue (Gross Sales)	4,543.0	4,843.8	4,472.8
3. New Orders	4,771.7	3,935.6	3,478.9
4. Exclusions:			
FMS	113.167	55.9	118.0
BRAC	0.083	0.2	0.2
Other Federal Depts & Agencies	6.161	0.6	4.2
Non-Federal and Others	89.598	60.4	35.8
Crash Damage	56.1	0.0	0.0
4th Qtr Other Service Wkld	112.0	0.0	0.0
Other	0.0	0.0	0.0
5. Orders for Carryover Calculation	4,394.6	3,818.5	3,320.7
2nd Yr Orders for Carryover Calculation	923.9	754.8	681.8
6. Weighted Composite Outlay Rate	33.3%	33.5%	31.3%
2nd Yr Weighted Composite Outlay Rate	51.6%	44.7%	45.6%
7. Carryover Rate	66.7%	66.5%	68.7%
2nd Yr Carryover Rate	48.4%	55.3%	54.4%
8. Allowable Carryover (1st Year Outlay Rate)	2,932.2	2,539.8	2,281.2
Prior Year 2nd Yr Outlay Rate	447.0	417.1	370.9
Total Allowable Carryover	3,379.3	2,956.9	2,652.1
9. Balance of Customer Orders at Year End	4,881.1	3,843.0	2,737.9
10. Exclusions:			
FMS	153.8	122.7	91.4
BRAC	0.2	0.1	0.1
Other Federal Depts & Agencies	16.9	9.7	12.6
Non-Federal and Others	49.2	28.2	8.4
Crash Damage	105.4	6.1	0.0
4th Qtr Other Service Wkld	111.1	0.0	0.0
11. Calculated Actual Carryover	4,444.5	3,676.2	2,625.4

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Changes in the Cost of Operations
(\$ in Millions)**

		Costs
FY 2014 Actual		4,664.8
FY 2015 Estimate in President's Budget		4,810.0
Pricing Adjustments		(14.2)
FY 2014 Pay Raise	(4.6)	
-Civilian Personnel	(4.6)	
-Military Personnel	0.0	
Materials and Supplies	(2.5)	
Other	(7.0)	
Productivity Initiatives and Other Efficiencies		
Lean Program	6.1	
Value Engineering Program	1.8	
Reinvestment of Lean savings (-)	(7.9)	
Program Changes		366.0
Labor	35.1	
Travel	2.5	
Material	38.8	
Equipment	18.2	
Transportation	(0.0)	
Depreciation	18.0	
Advisory and Assistance Services	6.6	
Other Purchased Services	186.1	
Other	60.7	
FY 2015 Current Estimate		5,161.8
Pricing Adjustments		77.3
FY 2015 Pay Raise	21.1	
-Civilian Personnel	21.1	
-Military Personnel	0.0	
Materials and Supplies	32.5	
Other	23.7	
Productivity Initiatives and Other Efficiencies		
Lean Program	3.9	
Value Engineering Program	1.0	
Reinvestment of Lean savings (-)	(4.9)	
Program Changes		(602.2)
Labor	(70.8)	
Travel	(2.6)	
Material	(245.1)	
Equipment	(16.2)	
Transportation	(0.6)	
Depreciation	(7.2)	
Advisory and Assistance Services	6.0	
Other Purchased Services	(263.1)	
Other	(2.7)	
FY 2016 Budget Estimate		4,636.8

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Material Inventory Data
(\$ in Millions)**

FY 2014			
	<u>Total</u>	<u>Mobilization</u>	<u>Operating</u>
Material Inventory BOP	1,248.5		1,248.5
<u>Purchases</u>			
A. Purchases to Support Customer Orders (+)	1,293.8		1,293.8
B. Purchase of long lead items in advance of customer orders (+)	73.3		73.3
C. Other Purchases (list) (+)	4.6		4.6
D. Total Purchases	1,371.8		1,371.8
<u>Material Inventory Adjustments</u>			
A. Material Used in Maintenance (and billed/charged to customer orders) (-)	1,203.7		1,203.7
B. Disposals, theft, losses due to damages (-)	63.8		63.8
C. Other reductions (list) (-)	116.5		116.5
D. IO to SMA Transfer	13.4		13.4
E. Total inventory adjustments	1,397.4		1,397.4
Material Inventory EOP	1,222.9		1,222.9
FY 2015			
	<u>Total</u>	<u>Mobilization</u>	<u>Operating</u>
Material Inventory BOP	1,222.9		1,222.9
<u>Purchases</u>			
A. Purchases to Support Customer Orders (+)	1,462.7		1,462.7
B. Purchase of long lead items in advance of customer orders (+)	50.6		50.6
C. Other Purchases (list) (+)	3.6		3.6
D. Total Purchases	1,516.8		1,516.8
<u>Material Inventory Adjustments</u>			
A. Material Used in Maintenance (and billed/charged to customer orders) (-)	1,351.8		1,351.8
B. Disposals, theft, losses due to damages (-)	195.6		195.6
C. Other reductions (list) (-)	110.5		110.5
D. IO to SMA Transfer	18.2		18.2
E. Total inventory adjustments	1,676.1		1,676.1
Material Inventory EOP	1,063.6		1,063.6
FY 2016			
	<u>Total</u>	<u>Mobilization</u>	<u>Operating</u>
Material Inventory BOP	1,063.6		1,063.6
<u>Purchases</u>			
A. Purchases to Support Customer Orders (+)	1,310.7		1,310.7
B. Purchase of long lead items in advance of customer orders (+)	43.7		43.7
C. Other Purchases (list) (+)	3.6		3.6
D. Total Purchases	1,358.0		1,358.0
<u>Material Inventory Adjustments</u>			
A. Material Used in Maintenance (and billed/charged to customer orders) (-)	1,202.1		1,202.1
B. Disposals, theft, losses due to damages (-)	189.3		189.3
C. Other reductions (list) (-)	110.5		110.5
D. Total inventory adjustments	1,501.9		1,501.9
Material Inventory EOP	919.7		919.7

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Depot Maintenance 6% Capital Investment Plan
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<u>Anniston Army Depot</u>			
Average Revenue for Investment	643.4	652.6	594.2
WCF Capital Investment Program			
Facilities/Work Environment	0.0	0.0	0.0
Equipment Modernization	0.0	1.7	4.3
Processes	7.7	5.9	3.1
Capital Investment Program	7.7	7.6	7.4
Operating Funds Investments			
Facilities/Work Environment	14.2	25.4	1.3
Equipment Modernization	3.1	5.5	2.1
Processes	0.4	0.5	0.5
Total Operating Funds	17.7	31.3	3.9
Appropriated Funding			
MILCON	1.8	0.0	3.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	6.5	0.2	0.0
Total Appropriated Funding	8.3	0.2	3.0
Actual/ Budgeted Investment	33.7	39.2	14.2
Required Investment	38.6	39.2	35.7
Investment Over / (Under) Required Amount	(4.9)	0.0	(21.4)
<u>Corpus Christi Army Depot</u>			
Average Revenue for Investment	1,380.9	1,242.1	1,102.5
WCF Capital Investment Program			
Facilities/Work Environment	0.0	0.7	0.0
Equipment Modernization	2.0	6.1	11.8
Processes	22.5	17.3	9.1
Capital Investment Program	24.6	24.1	20.9
Operating Funds Investments			
Facilities/Work Environment	3.4	24.1	1.0
Equipment Modernization	12.7	26.4	23.9
Processes	0.0	0.0	0.0
Total Operating Funds	16.1	50.5	24.9
Appropriated Funding			
MILCON	0.0	0.0	82.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	0.0	0.0	0.0
Total Appropriated Funding	0.0	0.0	82.0
Actual/ Budgeted Investment	40.7	74.5	127.8
Required Investment	82.9	74.5	66.2
Investment Over / (Under) Required Amount	(42.2)	(0.0)	61.6

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Depot Maintenance 6% Capital Investment Plan
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<u>Letterkenny Army Depot</u>			
Average Revenue for Investment	612.5	599.1	569.7
WCF Capital Investment Program			
Facilities/Work Environment	1.3	1.2	0.0
Equipment Modernization	1.1	0.0	6.1
Processes	10.5	8.0	4.2
Capital Investment Program	12.9	9.2	10.3
Operating Funds Investments			
Facilities/Work Environment	16.3	10.7	4.8
Equipment Modernization	1.3	0.0	0.0
Processes	0.0	0.0	0.0
Total Operating Funds	17.6	10.7	4.8
Appropriated Funding			
MILCON	0.0	16.0	0.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	1.6	0.0	0.3
Total Appropriated Funding	1.6	16.0	0.3
Actual/ Budgeted Investment	32.1	35.9	15.4
Required Investment	36.8	35.9	34.2
Investment Over / (Under) Required Amount	(4.7)	0.0	(18.7)
<u>Red River Army Depot</u>			
Average Revenue for Investment	838.5	888.3	804.8
WCF Capital Investment Program			
Facilities/Work Environment	0.0	0.0	0.0
Equipment Modernization	9.6	18.2	7.0
Processes	9.5	7.3	3.8
Capital Investment Program	19.1	25.5	10.8
Operating Funds Investments			
Facilities/Work Environment	29.6	20.0	6.2
Equipment Modernization	8.8	6.4	6.0
Processes	0.0	0.0	0.0
Total Operating Funds	38.4	26.4	12.2
Appropriated Funding			
MILCON	0.0	0.0	0.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	0.0	1.4	4.9
Total Appropriated Funding	0.0	1.4	4.9
Actual/ Budgeted Investment	57.5	53.3	28.0
Required Investment	50.3	53.3	48.3
Investment Over / (Under) Required Amount	7.1	0.0	(20.3)

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Depot Maintenance 6% Capital Investment Plan
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<u>Tobyhanna Army Depot</u>			
Average Revenue for Investment	828.8	720.5	587.1
WCF Capital Investment Program			
Facilities/Work Environment	0.4	1.8	1.7
Equipment Modernization	0.7	0.4	0.9
Processes	13.1	10.1	5.3
Capital Investment Program	14.2	12.3	7.8
Operating Funds Investments			
Facilities/Work Environment	68.5	12.8	8.9
Equipment Modernization	5.9	7.9	5.3
Processes	0.2	0.3	0.3
Total Operating Funds	74.7	21.0	14.5
Appropriated Funding			
MILCON	0.0	0.0	1.2
Procurement	1.3	0.0	0.0
Operations & Maintenance	2.2	10.0	20.4
Total Appropriated Funding	3.5	10.0	21.6
Actual/ Budgeted Investment	92.4	43.2	43.9
Required Investment	49.7	43.2	35.2
Investment Over / (Under) Required Amount	42.7	0.0	8.7
<u>Pine Bluff Arsenal</u>			
Average Revenue for Investment	137.0	119.0	114.2
WCF Capital Investment Program			
Facilities/Work Environment	0.4	0.0	2.0
Equipment Modernization	0.5	0.0	2.1
Processes	1.4	1.1	0.6
Capital Investment Program	2.3	1.1	4.6
Operating Funds Investments			
Facilities/Work Environment	10.3	2.9	0.3
Equipment Modernization	1.6	3.1	1.7
Processes	0.0	0.0	0.0
Total Operating Funds	11.8	6.1	2.0
Appropriated Funding			
MILCON	0.0	0.0	0.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	0.0	0.0	1.6
Total Appropriated Funding	0.0	0.0	1.6
Actual/ Budgeted Investment	14.1	7.1	8.2
Required Investment	8.2	7.1	6.9
Investment Over / (Under) Required Amount	5.9	0.0	1.4

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Depot Maintenance 6% Capital Investment Plan
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<u>Rock Island Arsenal</u>			
Average Revenue for Investment	226.3	180.9	167.0
WCF Capital Investment Program			
Facilities/Work Environment	0.0	0.0	0.0
Equipment Modernization	0.0	0.0	0.0
Processes	2.7	2.7	1.1
Capital Investment Program	2.7	2.7	1.1
Operating Funds Investments			
Facilities/Work Environment	8.0	4.3	0.0
Equipment Modernization	0.1	3.8	3.3
Processes	0.0	0.0	0.0
Total Operating Funds	8.1	8.1	3.3
Appropriated Funding			
MILCON	0.0	0.0	0.0
Procurement	0.0	0.0	0.0
Operations & Maintenance	0.0	0.0	0.0
Total Appropriated Funding	0.0	0.0	0.0
Actual/ Budgeted Investment	10.8	10.9	4.4
Required Investment	13.6	10.9	10.0
Investment Over / (Under) Required Amount	(2.8)	(0.0)	(5.6)
<u>Watervliet Arsenal</u>			
Average Revenue for Investment	85.4	83.3	87.4
WCF Capital Investment Program			
Facilities/Work Environment	0.7	0.6	0.7
Equipment Modernization	3.1	3.3	4.4
Processes	1.0	0.8	0.4
Capital Investment Program	4.9	4.7	5.6
Operating Funds Investments			
Facilities/Work Environment	1.2	0.3	0.0
Equipment Modernization	0.0	0.0	0.0
Processes	0.0	0.0	0.0
Total Operating Funds	1.2	0.3	0.0
Appropriated Funding			
MILCON	0.0	0.0	0.0
Procurement	0.5	0.0	0.0
Operations & Maintenance	4.3	0.0	0.8
Total Appropriated Funding	4.8	0.0	0.8
Actual/ Budgeted Investment	10.9	5.0	6.4
Required Investment	5.1	5.0	5.2
Investment Over / (Under) Required Amount	5.7	(0.0)	1.2

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Depot Maintenance 6% Capital Investment Plan
(\$ in Millions)**

	FY 2014	FY 2015	FY 2016
<u>Tooele Army Depot</u>			
Average Revenue for Investment	56.3	58.9	55.6
WCF Capital Investment Program			
Facilities/Work Environment	0.7	0.7	0.4
Equipment Modernization	0.0	0.6	0.0
Processes	1.0	0.8	0.4
Capital Investment Program	1.8	2.1	0.9
Operating Funds Investments			
Facilities/Work Environment	13.9	1.4	0.3
Equipment Modernization	0.0	0.0	0.0
Processes	0.0	0.0	0.0
Total Operating Funds	13.9	1.4	0.3
Appropriated Funding			
MILCON	14.0	0.0	9.3
Procurement	0.0	0.0	0.0
Operations & Maintenance	3.2	0.0	0.2
Total Appropriated Funding	17.2	0.0	9.5
Actual/ Budgeted Investment	32.9	3.5	10.7
Required Investment	3.4	3.5	3.3
Investment Over / (Under) Required Amount	29.5	(0.0)	7.4
Total Army			
Average Revenue for Investment	4,809.0	4,544.7	4,082.5
WCF Capital Investment Program			
Facilities/Work Environment	3.6	5.0	4.8
Equipment Modernization	16.9	30.3	36.6
Processes	69.6	53.9	28.1
Capital Investment Program	90.1	89.2	69.5
Operating Funds Investments			
Facilities/Work Environment	165.4	102.0	22.7
Equipment Modernization	33.5	53.1	42.3
Processes	0.7	0.8	0.8
Total Operating Funds	199.5	155.9	65.8
Appropriated Funding			
MILCON	15.8	16.0	95.4
Procurement	1.8	0.0	0.0
Operations & Maintenance	17.8	11.6	28.3
Total Appropriated Funding	35.4	27.6	123.7
Actual/ Budgeted Investment	325.0	272.7	259.0
Required Investment	288.5	272.7	244.9
Investment Over / (Under) Required Amount	36.5	0.0	14.1
Investment Percentage	6.8%	6.0%	6.3%

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

Fuel Data

FY 2014			
	FUEL PROCUREMENT		
PRODUCT	BARRELS (millions)	COST PER BARREL (\$)	EXTENDED PRICE (\$ millions)
JP-5	0.000	\$152.88	0.0
DIESEL	0.021	\$136.50	2.9
MOGAS Unleaded	0.015	\$148.26	2.2
JP-8	0.017	\$152.04	2.6
Distillate Heating	0.002	\$151.62	0.4
Burner Fuel	0.011	\$96.18	1.0
Propane (MLP)	0.004	\$43.68	0.2
Diesel Heating Fuel	0.004	\$148.26	0.7
Natural Gas (CNG)	0.269	\$5.88	1.6
Other (list)	0.000	\$95.34	0.0
TOTAL			11.7

FY 2015			
	FUEL PROCUREMENT		
PRODUCT	BARRELS (millions)	COST PER BARREL (\$)	EXTENDED PRICE (\$ millions)
JP-5	0.000	\$156.66	0.000
DIESEL	0.029	\$149.94	4.4
MOGAS Unleaded	0.012	\$151.62	1.9
JP-8	0.015	\$155.40	2.3
Distillate Heating	0.002	\$154.98	0.4
Burner Fuel	0.010	\$133.56	1.3
Propane (MLP)	0.007	\$43.68	0.3
Diesel Heating Fuel	0.005	\$149.94	0.8
Natural Gas (CNG)	0.382	\$5.88	2.2
Other (list)	0.000	\$95.34	0.0
TOTAL			13.5

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

Fuel Data

FY 2016			
	FUEL PROCUREMENT		
PRODUCT	BARRELS (millions)	COST PER BARREL (\$)	EXTENDED PRICE (\$ millions)
JP-5	0.000	\$145.23	0.000
DIESEL	0.032	\$139.00	4.5
MOGAS Unleaded	0.011	\$140.56	1.5
JP-8	0.013	\$144.06	1.9
Distillate Heating	0.002	\$143.67	0.4
Burner Fuel	0.007	\$123.81	0.9
Propane (MLP)	0.007	\$43.68	0.3
Diesel Heating Fuel	0.002	\$139.00	0.3
Natural Gas (CNG)	0.368	\$5.88	2.2
Other (list)	0.000	\$95.34	0.0
TOTAL			11.9

Capital Budget

Introduction

The primary goal of the Capital Investment Program (CIP) within the AWCF is to establish a 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 AWCF 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.

Headquarters, Army Materiel Command conducts a thorough vetting process to ensure capital projects deliver a positive return on investment and comply with strategic plans for each industrial facility. Capital projects within the Industrial Operations enterprise focus primarily on replacing and upgrading equipment, while the Supply Management enterprise focuses solely on software development in support of the Logistics Modernization Program.

Capital budget obligation authority is displayed on the following exhibits: Fund 9a, *Capital Investment Summary*; Fund 9b, *Capital Purchase Justification*; and Fund 9c, *Capital Budget Execution*.

The table below shows the Supply Management capital budget and associated cash outlays.

Table CIP 1 – Supply Management Capital Budget

(\$ Millions)	FY 2014	FY 2015	FY 2016
Software	81.5	49.6	33.9
<i>Capital Cash Outlays</i>	<i>61.0</i>	<i>59.9</i>	<i>38.6</i>



The table below shows categories and respective values of the Industrial Operations capital budget and the projected capital cash outlays.

Table CIP 2 – Industrial Operations Capital Budget

(\$ Millions)	FY 2014	FY 2015	FY 2016
Equipment	30.5	42.7	48.6
ADPE & Telecommunications	0.0	0.6	0.5
Software	192.6	63.1	33.0
Minor Construction	13.3	17.6	16.8
Total	236.5	123.9	98.8
<i>Capital Cash Outlays</i>	<i>198.0</i>	<i>160.0</i>	<i>130.6</i>



**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Capital Investment Summary
(\$ in Millions)**

Line No.	Description	FY 2014		FY 2015		FY 2016	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
SOFTWARE DEVELOPMENT							
Externally Developed							
00-02	<i>Logistics Modernization Program (LMP) Increment 1</i>	1	40.435	1	14.773	1	14.699
	<i>Logistics Modernization Program (LMP) Increment 2</i>	1	41.052	1	33.813	1	19.175
	Logistics Modernization Program Total	2	81.487	2	48.586	2	33.874
15-01	<i>Enterprise Master Data Challenge System</i>		0.000	1	1.000		0.000
	SOFTWARE TOTAL	2	81.487	2	49.586	2	33.874
	ACTIVITY TOTAL	2	81.487	3	49.586	2	33.874
	<i>Total Capital Outlays</i>		61.003		59.947		38.588
	<i>Total Depreciation Expense</i>		37.635		74.039		45.311

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Capital Purchase Justification
(\$ in Millions)**

Software Development - Extern

Line No	Item Description	Activity Identification	Total Costs		
00-02	Logistics Modernization Program (LMP)	Supply Management			
Element of Cost			FY 2014	FY 2015	FY 2016
	Logistics Modernization Program Increment 1		40.435	14.773	14.699
	Logistics Modernization Program Increment 2		41.052	33.813	19.175
Total			81.487	48.586	33.874

Narrative Justification

INCREMENT 1:

LMP continues to require enhancements to maintain superior supply chain functionality, supporting National Level Logistics. LMP was fully fielded in October 2010 and is currently used by approximately 21,000 users at more than 50 Army locations worldwide, but is not yet integrated into overarching Army transformation efforts or extended into shop floor control activities

LMP is an enabler for the Army to achieve its commitment to having fully auditable AWCF financial statements. The LMP continues to enhance the Enterprise Resource Planning (ERP) solution to achieve and meet compliance requirements. Replacing See Beyond with Netweaver will enhance the interface capability within the LMP to provide interfacing with our partners seamlessly.

Failure to fund LMP would prohibit AMC functional requirements from improving operations and put continuing financial compliance at risk. LMP will not be in compliance with Secretary of Defense directive. LMP may not be able to meet the all Federal, DOD, and Army milestones being developed in the Army Standard Line of Accounting implementation plan.

In FY 2005, a Business Case Analysis was completed for the LMP and an updated Economic Analysis was completed and validated by the Office of the Deputy Assistant Secretary of the Army-Cost and Economics June 2008. It is available upon request.

Under the Office of the Secretary of Defense for Acquisition, Technology, and Logistics Acquisition Decision Memorandum effective 28 Dec 2011, LMP Increment 1 is in sustainment. Sustainment tasks include technical upgrades, minor enhancements, compliance, auditability, and transition of services to new service providers. AWCF rules are followed to identify the appropriate color of money for these tasks.

INCREMENT 2:

LMP supports national logistics mission areas such as item management, depot maintenance, reset, recap, ammunition management, and serves as the Army Working Capital Fund (AWCF) general ledger.

Under the Business Capabilities Lifecycle acquisition framework, LMP Increment 2 will be delivered in three waves, supported by an Initial Operational Test & Evaluation. Development activities in FY 2014 include Trader Partner Testing (TPT) a limited fielding release into production for the ERP integration with major Army and Defense Logistics Agency trading partners. In FY 2015, Increment 2 will support the delivery for identification (IUD)). It is essential that Increment 1 be expanded to address industrial base execution, ammunition management, Non-Army managed items (NAMI) modernization, Army Prepositioned Stock (APS) modernization National Maintenance Program (NMP), and ERP integration to fully enable end-to-end supply chain visibility and achieve integration of AMC mission operations. These releases will cover 17 locations and an additional 14,000 users along with all of the supporting Business Capability lifecycle documentation to support Milestone B, and Milestone C.

Failure to fund this would delay functionality for AMC and extend the need for over 30 legacy systems to be maintained. In addition, the contract with Computer Sciences Corporation will expire in FY 2016.

Economic Analysis is underway.

Full Deployment Capability Date: September 2016

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Capital Purchase Justification
(\$ in Millions)**

Software Development - External

Line No	Item Description	Activity Identification	Total Cost		
15-01	Enterprise Master Data Challenge System	Supply Management			
			FY 2014	FY 2015	FY 2016
Element of Cost					
	Enterprise Master Data Challenge System		0.00	1.00	0.00
	Total		0.00	1.00	0.00

Narrative Justification

The Army supply chain relies on unserviceable items turned into the national level to support depot level repair and the corresponding return of a serviceable item available for meeting future field requirements. Commands are funded net credit with the expectation that they will receive credit for turn-ins that meet one-for-one criteria. When errors occur and credit is not paid for turn-ins meeting the one-for-one criteria, commands are forced to rely on email communications with the national item manager to correct the error and to pay the credit due. This manual process is neither effective nor auditable.

Establishes the Army Enterprise Systems Integration Program (AESIP) as mechanism for Commands to notify national of these credit errors and to provide an auditable tracking system from the time the errors are identified until corrective action is completed. Allows credit for reparable items to provide incentive for organizations to turn-in serviceable and unserviceable component parts. This will help reduce error rates, manual data entry and tracking, and lead to improved transparency and return of unserviceable items needed for depot repair programs. Centralize documentation for the credit request, review, and arbitration process for audit process.

Increased manual data entry, off-line interaction, and errors between national and tactical organizations as the tactical logistics transformation continues. Increased man-hours and costs at supply management organizations. Decreased auditability and traceability of the credit for reparable items between the national and tactical organizations.

The Enterprise Master Data Challenge System capability for Exchange Pricing is expected to be deployed into the AESIP in Fiscal Year 2016. The AESIP requirements are included in the GCSS-Army Economic Analysis dated 05 November 2012. There is no funding requested for FY 2016.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Supply Management**

**Capital Budget Execution
(\$ in Millions)**

Major Category		Initial	Current	Approved	Explanation
		Request			
		Amount	Proj Cost	Change	
FY14	Software Development				
	<i>Logistics Modernization Program (LMP) Increment 1</i>	40.436	40.435	0.000	
	<i>Logistics Modernization Program (LMP) Increment 2</i>	41.052	41.052	0.000	
	Total FY14	81.488	81.487	(0.001)	
FY15	Software Development				
	<i>Logistics Modernization Program (LMP) Increment 1</i>	14.773	14.773	0.000	
	<i>Logistics Modernization Program (LMP) Increment 2</i>	33.813	33.813	0.000	
	<i>Enterprise Master data challenge System</i>	1.000	1.000	0.000	New Project
	Total FY15	49.586	49.586	0.000	
FY16	Software Development				
	<i>Logistics Modernization Program (LMP) Increment 1</i>	14.699	14.699	0.000	
	<i>Logistics Modernization Program (LMP) Increment 2</i>	19.175	19.175	0.000	
	Total FY16	33.874	33.874	0.000	

**Army Working Capital Fund
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Industrial Operations**

**Capital Investment Summary
(\$ in Millions)**

Line No.	Description	FY 2014		FY 2015		FY 2016	
		Quantity	Total Cost	Quantity	Total Cost	Quantity	Total Cost
05-13	NON-ADPE EQUIPMENT	13	30.505	17	42.683	24	48.580
	- Replacement	5	4.389	8	11.052	15	24.524
	- Productivity	8	26.116	9	31.631	9	24.056
	ADPE & Telecommunications Equipment	0	0.000	1	0.578	1	0.453
15-01	- Virtual Desktop Infrastructure	0	0.000	1	0.578	1	0.453
	SOFTWARE DEVELOPMENT - Externally Developed	2	192.643	3	63.094	2	32.964
	Logistics Modernization Program Total		192.643		62.460		32.964
00-02	- Logistics Modernization Program (LMP) Increment 1	1	128.408	1	6.331	1	6.300
	- Logistics Modernization Program (LMP) Increment 2	1	64.235	1	56.129	1	26.664
14-01	- Automated Storage & Retrieval	0	0.000	1	0.634		0.000
05-26	MINOR CONSTRUCTION CAPABILITIES	20	13.344	16	17.589	16	16.773
	- Replacement	18	12.175	16	17.589	16	16.773
	- New Construction	2	1.169	0	0.000	0	0.000
	TOTAL OBLIGATIONS *		236.492		123.944		98.770
	Total Capital Outlays		197.994		159.954		130.604
	Total Depreciation Expense		118.744		137.958		131.601

*FY 2014 total of \$236.492M includes the following: FY 2010 Non-ADP Equipment reprogramming (\$11.100M) less carryover request (\$1.650M); FY 2012 LMP Inc. 1 Software reprogramming (\$37.047M); FY 2013 LMP Inc. 1 Software reprogramming (\$74.031M); FY 2013 Minor Construction reprogramming from de-obligations (\$0.011M). Automated Storage & Retrieval moved from FY 2014 to FY 2015.

**Army Working Capital Fund
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**Capital Purchase Justification
(\$ in Millions)**

Non-Automated Data Processing Equipment (Non-ADPE)				
Line No	Item Description	Activity Identification	Total Cost	
<i>05-13</i>	<i>Various Capital Equipment</i>	<i>Industrial Operations</i>		
			FY 2014	FY 2015
				FY 2016
	<i>Replacement</i>		4.389	11.052
	<i>Productivity</i>		26.116	31.631
				24.524
				24.056
	Total		30.505	42.683
				48.580

Narrative Justification

This exhibit represents equipment purchases costing more than \$250K, which will improve the installations' efficiency through replacement, modification or addition of production and maintenance capability and compliance with new mission requirements. Equipment supports organic maintenance, overhaul, rebuild, reclamation, conversion, renovation, modification and repair programs.

Acquisition of this equipment improves productivity; increases capacity that cannot be met with current equipment; replaces unsafe, inoperable or unusable assets; and includes requirements for environmentally hazardous waste reduction or regulatory agency mandated requirements. This new equipment increases reliability and productivity, thus enabling the installation to be more efficient.

If not acquired, the impact would be reduced mission capability, failure to meet present and future workload requirements, increased man-hour expenditures, inability to meet production schedules, excessive downtime, increased maintenance costs, and decreased accuracy and dependability.

Economic Analyses have been performed on individual projects when required and are available upon request.

**Army Working Capital Fund
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Industrial Operations**

**Capital Purchase Justification
(\$ in Millions)**

Automated Data Processing Equipment (ADPE) and Telecommunications					
Line No	Item Description	Activity Identification	Total Cost		
<i>15-01</i>	<i>Virtual Desk Top Infrastructure</i>	<i>Industrial Operations</i>	FY 2014	FY 2015	FY 2016
	<i>Virtual Desktop Infrastructure</i>		0.000	0.578	0.453
Total			0.000	0.578	0.453

Narrative Justification

Tooele Army Depot (TEAD) is a Tier 1 active joint ammunition storage site. Tooele is responsible for shipping, storing, receiving, inspecting, demilitarization, and maintaining training and war reserve conventional ammunition. This mission requires an extensive communications infrastructure to provide this support to the Warfighter. The Directorate of Information Management (DOIM) at Tooele Army Depot supports ammunition related functions. These functions require access to data files and web related activities to perform ammo inventory and surveillance specific duties. Currently desktop personal computers (PCs) are being used to perform these functions. A PC requires an operating system (O/S) that must be maintained in accordance with DOD 25-2. Each PC requires security patches on a weekly basis; system updates as required; daily scanning, anti-virus, firewall, Host Base Security System (HBSS), etc. These PCs must be upgraded to newer versions of Microsoft Windows as mandated by the DOD. Normal life cycle replacement is required every five years. Each PC requires security patches on a weekly basis; system updates as required; daily scanning, anti-virus, firewall, Host Base Security System (HBSS). These PCs must be upgraded to newer versions of Microsoft Windows as mandated by the DOD. Normal life cycle replacement is required every five years.

The objective is to replace current workstation PCs with Virtual Desktop Infrastructure (VDI). Switching to VDI would alleviate network scanning of PCs and administration would simply require switching one zero client with another if necessary. All files, including individual profile information would be on a secure server for updates and maintenance as required. Nothing would reside on a zero client when the user logs out. This project will reduce the energy requirements for the desktop PCs used by 85% and reduce network overhead by reduced requirements in network scanning, system maintenance, and a reduced requirement for system administration which in turn would result in less personnel requirements over all.

If not funded, the impact would be continued use of desktop personal computers (PCs) that require an operating system (O/S) that requires security patches on a weekly basis; system updates as required; daily scanning, anti-virus, firewall and life cycle replacement. These costs will continue to impact the depot's rates. Latest technology benefits will not be realized.

Economic analyses have been performed on individual projects when required and are available upon request.

**Army Working Capital Fund
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Industrial Operations**

**Capital Purchase Justification
(\$ in Millions)**

Software Development - Externally Developed

Line No	Item Description	Activity Identification	Total Cost		
			FY 2014	FY 2015	FY 2016
00-02	Logistics Modernization Program (LMP)	Industrial Operations			
	Logistics Modernization Program Increment 1		128.408	6.331	6.300
	Logistics Modernization Program Increment 2		64.235	56.129	26.664
Total			192.643	62.460	32.964

Narrative Justification

INCREMENT 1:

LMP continues to require enhancements to maintain superior supply chain functionality, supporting National Level Logistics. LMP was fully fielded in October 2010 and is currently used by approximately 21,000 users at more than 50 Army locations worldwide, but is not yet integrated into overarching Army transformation efforts or extended into shop floor control activities.

LMP is an enabler for the Army to achieve its commitment to having fully auditable AWCF financial statements. The LMP continues to enhance the Enterprise Resource Planning (ERP) solution to achieve and meet compliance requirements. Replacing See Beyond with Netweaver will enhance the interface capability within the LMP to provide interfacing with our partners seamlessly.

Failure to fund LMP would prohibit AMC functional requirements from improving operations and put continuing financial compliance at risk. LMP will not be in compliance with Secretary of Defense directive. LMP may not be able to meet the all Federal, DOD, and Army milestones being developed in the Army Standard Line of Accounting implementation plan.

In FY 2005, a Business Case Analysis was completed for the LMP and an updated Economic Analysis was completed and validated by the Office of the Deputy Assistant Secretary of the Army-Cost and Economics June 2008. It is available upon request.

Under the Office of the Secretary of Defense for Acquisition, Technology, and Logistics Acquisition Decision Memorandum effective 28 Dec 2011, LMP Increment 1 is in sustainment. Sustainment tasks include technical upgrades, minor enhancements, compliance, auditability, and transition of services to new service providers. AWCF rules are followed to identify the appropriate color of money for these tasks.

INCREMENT 2:

LMP supports national logistics mission areas such as item management, depot maintenance, reset, recap, ammunition management, and serves as the Army Working Capital Fund (AWCF) general ledger. Under the Business Capabilities Lifecycle acquisition framework, LMP Increment 2 will be delivered in three waves, supported by an Initial Operational Test & Evaluation. Development activities in FY 2014 include Trader Partner testing (TPT) a limited fielding release into production for the ERP integration with major Army and defense Logistics Agency trading partners. In FY 2015, Increment 2 will support the delivery for the Army's critical requirements pertaining to shop floor automation, specific strategic business transformation goals of the Army (e.g., equipment master), and specific directives of DOD (e.g., item unique identification (IUD)). It is essential that Increment 1 be expanded to address industrial base execution, ammunition identification (IUD)). It is essential that Increment 1 be expanded to address industrial base execution, ammunition (APS) modernization National Maintenance Program (NMP), and ERP integration to fully enable end-to-end supply chain visibility and achieve integration of AMC mission operations. These releases will cover 17 locations and an additional 14,000 users along with all of the supporting Business Capability lifecycle documentation to support Milestone B, and Milestone C.

Failure to fund this would delay functionality for AMC and extend the need for over 30 legacy systems to be maintained. In addition, the contract with Computer Sciences Corporation will expire in FY 2016.

Economic Analysis is underway.

Full Deployment Capability Date: September 2016

**Army Working Capital Fund
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**Capital Purchase Justification
(\$ in Millions)**

Software Development - Externally Developed					
Line No	Item Description	Activity Identification	Total Cost		
14-01	<i>Automated Storage and Retrieval</i>	<i>Industrial Operations</i>	FY 2014	FY 2015	FY 2016
	<i>Automated Storage and Retrieval</i>		0.000	0.634	0.000
Total			0.000	0.634	0.000

Narrative Justification:

Current system provides automated storage and retrieval capabilities for raw materials, product components, machine fixtures, and machinery replacement parts. It is comprised of five high rise automated storage and retrieval machines and 15,468 storage bins.

The total system, physical structure and software, was acquired in 1984 at a cost of \$5,325,000. The physical infrastructure of the storage system has been well maintained and is physically and mechanically sound. Its value as part of and in relation to the acquisition cost has not diminished. The software that support this system, however, has never been modernized and is at risk of becoming technically obsolete and unsupported by any software house. Upgrading the software system with a modernized software solution will ensure maximum up-time, assurance that the software can be supported by a commercial or government resources and installed on government computers and networks, and provide maximum compliance with emerging technical standards for security and information security risk management. In addition, a modernized software solution will result in improved user interaction and enhanced reporting capabilities.

Failure to obtain lifecycle replacement of the software for this near obsolete system will cause Rock Island Arsenal to experience an increasing degradation in production and services in the manufacturing materials storage area, ultimately resulting in a complete loss of capabilities. Rock Island Arsenal would be forced to revert to manual storage and retrieval methods for project stock and materials located in the Manufacturing Complex. Security of inventory will be degraded with potential losses. Location and inventory records will revert to a more manually work intensive method, causing inventory and location discrepancies. Additional manpower to support manual and/or less automated operations will also be required. Additional material handling equipment would also be required.

An economic analysis has been performed and is available upon request. There is no funding requested for FY 2016.

**Army Working Capital Fund
Fiscal Year (FY) 2016 Budget Estimates
Industrial Operations**

**Capital Purchase Justification
(\$ in Millions)**

Minor Construction					
Line No	Item Description	Activity Identification	Total Cost		
<i>05-26</i>	<i>Various Minor Construction <\$750K</i>	<i>Industrial Operations</i>	FY 2014	FY 2015	FY 2016
	<i>Replacement</i>		12.175	17.589	16.773
	<i>New Construction</i>		1.169	0.000	0.000
	Total		13.344	17.589	16.773

Narrative Justification

Various minor construction projects costing <\$750K, will improve the efficiency of the Industrial Operations through new, modernized additions to renovate existing facilities. The construction projects are additions or modifications to meet mission needs and improve the quality of life (safety/environmental concerns).

The projects will increase productivity and allow for quality of life improvements. Specifically, the efficiency of the mission work will improve with better plant layout, better electrical distribution, and improved lighting, heating, ventilation and air conditioning. The projects specific to quality of life improvements will improve worker morale and eliminate potential health and safety concerns.

If not approved, facility conditions will continue to decline, worker morale will decline, the work environment will erode, and worker safety and health will continue to be a major concern.

Economic Analyses have been performed on individual projects when required and are available upon request.

**Army Working Capital Fund
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**Capital Budget Execution
(\$ in Millions)**

Major Category	Initial Request Amount	Current Proj Cost	Approved Change	Explanation
FY 2014 Non-ADPE	64.821	30.505	(34.316)	Review of planned capital investments against capabilities required to support future customer orders resulted in the cancellation of various projects; Accounts for FY 2010 Non-ADP Equipment reprogramming (\$11.100M) less carryover request (\$1.650M).
ADPE and Telcom	0.000	0.000	0.000	
Software Development	82.199	192.643	110.444	FY 2012 LMP Inc. 1 from Software reprogramming (\$37.047M); FY 2013 LMP Inc. 1 software reprogramming (\$74.031M).
Minor Construction	24.156	13.344	(10.812)	Projected FY 2014 cost plus FY 2013 Minor Construction reprogramming from de-obligations (\$0.011M); some projects cancelled or pushed to FY 2015.
Total FY 2014	171.176	236.492	65.316	
FY 2015 Non-ADPE	45.264	42.683	(2.581)	Review of planned capital investments against capabilities required to support future customer orders resulted in the cancellation of various projects.
ADPE and Telcom	0.578	0.578	0.000	
Software Development	62.460	63.094	0.634	Project moved from FY 2014 to FY 2015.
Minor Construction	21.022	17.589	(3.433)	Review of planned capital investments against capabilities required to support future customer orders resulted in the cancellation of various projects.
Total FY 2015	129.324	123.944	(5.380)	
FY 2016 Non-ADPE	48.580	48.580	0.000	
ADPE and Telcom	0.453	0.453	0.000	
Software Development	32.964	32.964	0.000	
Minor Construction	16.773	16.773	0.000	
Total FY 2016	98.770	98.770	0.000	

The Army Values



Loyalty

Duty

Respect

Selfless Service

Honor

Integrity

Personal Courage

