

Report to Congress

Budget Models Used for Base Operations Support, Sustainment, and Facilities Recapitalization



June 2008

**Deputy Under Secretary of Defense
(Installations and Environment)**

**Office of the Under Secretary of Defense
(Acquisition, Technology, and Logistics)**

This report responds to Public Law 109-163, the National Defense Authorization Act for Fiscal Year 2006, which requires the Department of Defense to report on the budget models used for base operations support, sustainment, and facilities recapitalization.

Report to Congress

Budget Models Used for Base Operations Support, Sustainment, and Facilities Recapitalization

INTRODUCTION

The Department of Defense is one of the world's largest organizations in terms of physical plant, managing and operating more than 577,500 facilities worldwide with a total replacement value estimated at \$712 billion in current dollars at the end of fiscal year 2006¹. This large inventory of long-lived capital assets requires a significant annual commitment of resources to provide expected performance on an ongoing basis. To help predict these substantial resource requirements, DoD has classified them into several categories and has developed—or is now developing—tools and metrics to establish funding targets and measure performance.

This report addresses DoD's tools and funding for what generally represent the three largest of these requirement categories: Base operations support, facilities sustainment, and facilities recapitalization. These terms are defined below in section 3. This is the third of five annual reports prescribed by the Conference Report, coinciding with DoD's budget request for FY 2009. For the FY 2009 budget request, as with the prior year, the level of maturity and standardization of these tools differs between categories as explained in section 1.

REPORTING REQUIREMENT

Public Law 109-163, the National Defense Authorization Act for Fiscal Year 2006, states:

SEC. 352. REPORTS ON BUDGET MODELS USED FOR BASE OPERATIONS SUPPORT, SUSTAINMENT, AND FACILITIES RECAPITALIZATION.

- (a) **REPORTS REQUIRED.** – Not later than March 30 of each of the calendar years 2006 through 2010, the Secretary of Defense shall submit to the congressional defense committees a report describing the models used to prepare the budget requests for base operations support, sustainment, and facilities recapitalization submitted to Congress by the President under section 1105(a) of title 31, United States Code, for the next fiscal year.
- (b) **CONTENT OF REPORTS.** -- The report for a fiscal year under subsection (a) shall include the following:
 - (1) An explanation of the methodology used to develop each model and, if there have been any changes to the methodology since the previous report, an explanation of the changes and the reasons therefore.
 - (2) A description of the items contained in each model
 - (3) An explanation of whether the models are being applied to each military department and Defense Agencies under common definitions of base operations support, sustainment, and facilities recapitalization and, if common definitions are not being used, an explanation of the differences and the reasons therefore.
 - (4) A description of the requested funding levels for base operations support, sustainment, and facilities recapitalization for the fiscal year covered by the defense budget materials and the funding goals

¹ Department of Defense Base Structure Report, Fiscal Year 2007 Baseline

established for base operations support, sustainment, and facilities recapitalization for at least the four succeeding fiscal years.

- (5) If the requested funding levels for base operations support, sustainment, and facilities recapitalization for the fiscal year covered by the defense budget materials deviate from the goals for that fiscal year contained in the preceding report, or the funding goals established for succeeding fiscal years deviate from the goals for those fiscal years contained in the preceding report, a justification for the funding levels and goals and an explanation of the reasons for the changes from the preceding report.

CONTENT OF REPORT

The following sections provide the information specified in the reporting requirement.

1. Methodology Used to Develop Each Model

A. Base Operations Support

The Department does not yet employ a standardized model to generate base operations support requirements, although a prototype model for facilities operation requirements (a subset of base operations support) is now complete, with full implementation planned for the FY 2010 budget. This section describes the model or methodology used by each military Service and the Defense Logistics Agency.

Army: The Base Operations Support (BOS) Requirements Model (BRM) process is used to develop the installation services portion of the Army's base operations support requirements for each Army component. The "should cost" methodology known as Standard Service Costing (SSC), a rigorous mathematical process, is used to develop predictive cost equations at the component/service level. The estimates from these equations are based on what a service should cost at Army-wide performance standards. The Army's Installation Status Report (ISR) (Services) and Service Based Costing are the analytical underpinnings of cost equation development. Using the SSC methodology to develop requirements ensures consistent, standard programming across installations and ensures that soldiers and families receive quality, predefined levels of support.

The BRM uses a parametric approach based on installation-specific cost drivers and the SSC equations to predict the service cost at a standard, which produces the SSC baseline requirement. Headquarters, Department of the Army (HQDA) approved adjustments may be added to the BRM SSC baseline. Examples of adjustments include Department of Defense (DoD) mandated decreases as a result of changes in law and policy, and new and emerging requirements such as "Grow the Army," "Army Modularity" and Global Defense Posture Realignment (GDPR). The BRM cost equations are developed and baseline estimates and operation of the model are verified and validated annually by the Deputy Assistant Secretary of the Army (Cost & Economics).

Navy: The Base Operating Support (BOS) model is designed to generate required funding for four Capability Performance Level Standards (CPLS) for each BOS function. Currently, 18 BOS functions (representing 67% of all BOS costs) are modeled. Nine functions are anticipated to remain Level of Effort (LOE) and are not modeled.

The model produces output based on a tiered output system, Capability Performance Level Standards (CPLS) 1-4. CPLS 1 is the highest level of service and typically costs the most. CPLS have been developed for each BOS function outlined in the Core Business Model. The models generate output by multiplying the number of units by unit cost. The example of janitorial service is provided to explain the methodology. The number of building square feet is multiplied by the unit cost for the frequency of service. CPL 1 for janitorial service requires cleaning the restrooms, trash removal,

damp mopping, dusting, etc. more frequently than CPL 4. The unit cost is established in several ways including navy historical costs, commercial estimating manuals, data sources such as the Building Operators Management Association (BOMA), federal, state, and local government cost data, etc. A location factor is applied to account for varying cost of services around the world. Standard government inflation factors are used to escalate costs for the out-years.

During programming and budgeting, the desired CPL is selected by senior Navy leadership. Following execution of the budget, a performance data call is completed to measure output. A series of questions are asked to measure output against programmed level of service to determine which CPL was actually achieved for the given resources. Output is recorded in an annual Stockholders Report. Following publication of the Stockholders report, teams of technical experts for each function assess accuracy of the model and adjust unit and cost drivers as required.

The model was developed by teams of functional and technical experts from budget submitting offices across the Navy. CPL and pricing and performance measurements were assessed by an Accreditation Team comprised of analysts on the Chief of Naval Operations staff through a process called Validation, Verification, and Accreditation (VV&A).

Since the BOS model was developed in 2003, there have been no substantial changes and only refinements to a few of the functional areas. For example, in the Base Support Vehicles and Equipment (BSV&E) function, the unit cost for vehicles changed from owned to leased as the Navy has largely transitioned in lockstep with other federal agencies to vehicles leased through the General Services Administration (GSA) rather than owned vehicles.

Marine Corps: The Marine Corps currently does not use a comprehensive model for BOS cost development except in certain areas such as utilities. Estimates are made by direct review of historical program execution, and future needs done during the program review process and are sufficient to meet top priority “must pay” (labor and contractual) BOS requirements in FY08 through FY12. This has been a long-standing Marine Corps methodology. However, the Marine Corps is participating in DoD’s development of models for BOS, and will use them when ready as input in the programming process, replacing the current method.

Air Force: The Air Force currently does not use a model/formula for BOS cost development except for two subsets: “facilities operation” and “base operating support.” Facilities operation provides engineering operations and services to accomplish municipal- type activities such as utility plant operations, purchased utilities, annual services contracts, and emergency services (fire protection/crash rescue and explosive ordnance disposal). In prior years, facilities operation requirements were based on the average of the previous 4-year non-civilian pay obligations. This year, the Air Force used the DoD Facilities Operation Model (FOM) prototype to establish requirements. To the maximum extent possible, FOM uses commercial

benchmarks for the frequency and standards of service in arriving at the cost associated with ten primary service activities. Even though the model is not at full operational capability, the Air Force considers this version a more realistic future financial forecast than prior methods. Base operating support provides in-house and contractual support for day-to-day operations at installations including the following: transportation, security forces, comptroller, staff judge advocate, personnel organizations, dining facility operations, lodging operations, contracting services, chaplain, supply/logistics operations, and administration.

Base operating support requirements for active duty are based on the BOS Cost Projection Formula. This formula forecasts requirements based on multiple linear regression analysis (MLRA) using the following factors: BOS personnel (officers, enlisted, civilians), plant replacement value (PRV), and contractor management equivalents (CME). It does not include civilian pay. The BOS Cost Projection Formula was used for the first time in development of the FY06 budget request. Prior to development of the BOS Formula, requirements were based on 95% of previous 4-year non-civilian pay obligations, similar to the facilities operation methodology. This methodology is still utilized for the Air National Guard and Air Force Reserve Command. The Air Force is participating in development of the DoD facilities operation model and also in the future Installation Services Model that will encompass the balance of BOS.

Defense Logistics Agency: The DLA currently does not use a comprehensive model for BOS cost development. Estimates are made by level of effort review of historical program execution, and future needs done during the programming and budgeting review process. The DLA is participating in the Department's development of models in this area.

B. Facilities Sustainment

DoD uses a standardized department-wide model for predicting facilities sustainment resource requirements: the DoD facilities sustainment model (FSM). FSM was first used in conjunction with the FY 2003 budget request. Since then, it has been updated annually with new inputs although the fundamental methodology has remained unchanged.

FSM calculates the average annual sustainment cost for each facility in the department's inventory for each year in the budget request and Future Years Defense Program (FYDP), and assigns this cost to the appropriate organization and fund source (appropriation type) using various business rules. The basic formula for the cost calculation is:

Annual sustainment requirement = facility quantity x sustainment cost factor x location factor x inflation

Where:

Quantity = the facility size expressed in the FAC² unit of measure (such as square feet)

Sustainment cost factor = the average annual unit cost (in current year dollars) for sustaining the average size facility in the given FAC

Location factor = a location adjustment based upon the local costs for labor, equipment, materials, and currency exchange rates (overseas) compared with an overall base-city average

Inflation = factor to adjust current year prices to the target future year

In addition to calculated costs, FSM includes a small number of “non-modeled” costs for specific sustainment requirements not directly associated with facilities in the real property inventories. These costs are calculated outside of the model and entered into the model as lump sum line items. Channel dredging is the most significant of these costs.

The FSM-calculated requirement provides the basis of the sustainment metric—the comparison of sustainment funding to the requirement for a given year, expressed as a rate:

Sustainment rate (%) = sustainment funding / FSM requirement

In the FY 2009 budget request, only those facilities primarily supported with O&M appropriations are included in the reported sustainment rate. For the rate to be complete and accurate, other sources of funding that contribute to sustaining this inventory are also included—specifically, Military Personnel, Host Nation Support, and the Defense Working Capital Fund.

C. Facilities Recapitalization

The Department does not employ a standardized department-wide model per se for predicting facilities recapitalization resource requirements for the FY 2009 budget request. However, each DoD component employs a standardized Department-wide formula for calculating plant replacement value (PRV) that forms the basis for generating recapitalization requirements:

² Facility Analysis Category, a DoD standardized facility classification. DoD has established approximately 400 FACs.

Plant Replacement Value = facility quantity x construction cost factor x location factor x P&D factor x historical factor x contingency factor x SIOH x inflation

Where:

Quantity = the facility size expressed in the FAC³ unit of measure (such as square feet)

Construction cost factor = the average annual unit cost (in current year dollars) for constructing the average size facility to current standards in the given FAC

Location factor = a location adjustment based upon the local costs for labor, equipment, materials, and currency exchange rates (overseas) compared with an overall base-city average

P&D factor = an adjustment to account for typical project planning and design costs

Historical factor = an adjustment for historical architecture and materials (when applicable)

Contingency factor = an adjustment for typical contingency costs during construction

SIOH = an adjustment for supervision, inspection, and overhead costs associated with construction management

Inflation = factor to adjust current year prices to the target future year

PRV is calculated for all facilities that fulfill a long-term need and would need to be used and modernized indefinitely, representing the “recapitalizable” facilities inventory for each Component. This “recapitalizable” PRV provides the basis of the recapitalization metric—the comparison of recapitalization funding to the “recapitalizable” PRV expressed as a rate:

Recapitalization rate (years) = “recapitalizable” PRV / annual recapitalization funding

The current DoD goal is to invest in facilities recapitalization sufficient to replace the inventory at a rate equal to its expected average service life, calculated as 67 years on average for the entire Department. Stated another way, the recapitalization investment goal is 1/67th or 1.5% of the “recapitalizable” PRV for each Component for each year of the FYDP.

The “annual recapitalization funding” component of the recapitalization metric consists of projects to renovate as well as to replace existing facilities. It also encompasses multiple appropriation types, including Military Construction, BRAC construction, O&M, RDT&E, Defense Working Capital Funds, and even small contributions from Military Personnel. For the FY08 budget submission, the Department refined the methodology used to calculate the recapitalization contribution from construction projects. Previously, DoD classified projects as either wholly “recapitalization” or “new footprint” construction based upon the preponderance of the type of work involved. Beginning with the FY08 budget, classification of projects reflects the proportion of the total project funding that falls into each category. The project classification is further refined by including the contribution of disposed facilities that offset construction.

³ Facility Analysis Category, a DoD standardized facility classification. DoD has established approximately 400 FACs.

2. Description of Items Contained in Each Model

A. Base Operations Support

This section describes the items contained in models for base operations support outlined in section 1.

Army: The BRM process generates requirements in seven major service areas: Personnel and Community, Information Technology, Operations, Logistics, Engineering, Resource Management, and Command and Staff. The seven major service areas are further refined into 64 distinct service areas. BRM does not generate requirements for environmental quality (EQ) or facilities sustainment.

Army Environmental quality cyclical requirements are generated using the Environmental Cost Standardization (ECS) model. ECS is an activity-based cost model that provides risk-based requirements for the compliance, conservation and pollution prevention programs and associated manpower. The ECS methodology and computation is reviewed annually by the Deputy Assistant Secretary of the Army for Cost and Economics; suggested improvements are being incorporated and as a result, this model is still evolving. Non-recurring requirements are generated by project-specific estimates and are not projected by ECS.

Navy:

The items contained in the BOS model are outlined in the Installation Core Business Model (ICBM) depicted in the graphic below. Previous to implementation of the ICBM, the BOS requirement was presented in single lump sum based on historical data. Articulation of a single requirement to support such a wide range of functions, combined with limited ability to describe what COLS was obtained, made it difficult to allocate the proper amount of BOS funding considering other competing priorities. In addition, an inability to track execution by function, measure outcomes, or establish a link to readiness contributed to credibility issues in requirements justification. The ICBM is separated into functional areas known as Special Interest (SI) items. Within each special interest items, there are several subdivisions known as sub-functions. Cost account codes (not shown on the chart) further divide the sub-functions to accurately capture costs of within each special interest item and sub-function during execution.

purchased utilities, annual services contracts, and emergency services (fire protection/crash rescue and explosive ordnance disposal). The DoD prototype FO model uses inputs from:

- The DoD Facilities Assessment Database (FAD), a physical data model comprised of the Military Department real property inventories, submitted and certified at the end of each fiscal year, which are then normalized into standard DoD-level facility analysis categories (FACs) with associated cost factors
- Forecasts for construction, disposals, and transfers through the FYDP submitted by each Military Service (incorporating Defense Agency and Activity input) to adjust the current real property inventory for planned future changes
- Facilities Operation cost factors by facility type (FAC)
- Cost factors to adjust for location (Location Indices)
- Inflation (escalation) rates published by the USD(Comptroller)
- Business rules submitted by each Component to assign the calculated costs to subordinate organizations and fund sources (appropriation types)

Base operating support provides in-house and contractual support for day-to-day operations at installations including the following: transportation, security forces, comptroller, staff judge advocate, personnel organizations, dining facility operations, lodging operations, contracting services, chaplain, supply/logistics operations, and administration. In addition to the two subsets of BOS just described, remaining areas of Air Force base support include base communications, child development centers, environmental conservation/compliance, pollution prevention, and family support centers.

Defense Logistics Agency: As mentioned above, the DLA currently does not use a comprehensive model for BOS cost development. Estimates are made by level of effort review of historical program execution.

B. Facilities Sustainment. FSM calculates the facilities sustainment costs for DoD using the following inputs:

- The DoD Facilities Assessment Database (FAD), a physical data model comprised of the Military Department real property inventories, submitted and certified at the end of each fiscal year, which are then normalized into standard DoD-level facility analysis categories (FACs)
- Forecasts for construction, disposals, and transfers through the FYDP submitted by each Military Service (incorporating Defense Agency and Activity input) to adjust the current real property inventory for planned future changes
- Sustainment cost factors (benchmark unit costs for sustainment) by facility type (FAC)
- Cost factors to adjust for location (Sustainment Area Cost Factors), using the Area Cost Factor software program developed by the DoD Tri-Service Cost Engineering Working Group, applied at the county/province/city level

- Inflation (escalation) rates for military construction published by the USD(Comptroller)
- Business rules submitted by each Component to assign the calculated costs to subordinate organizations and fund sources (appropriation types)

C. Facilities Recapitalization. Military Services and designated Defense Agencies calculate their respective plant replacement values (PRV) to be recapitalized using the following inputs:

- The Military Department real property inventories, submitted and certified at the end of each fiscal year, which are mapped into standard DoD-level facility analysis categories (FACs)
- Forecasts for construction, disposals, and transfers through the FYDP to adjust the current real property inventory for planned future changes
- Replacement cost factors (benchmark unit costs for construction, excluding site work) by facility type (FAC)
- Cost factors to adjust for location (Area Cost Factors), using the Area Cost Factor software program developed by the DoD Tri-Service Cost Engineering Working Group, applied at the county level
- Planning and design factor = 1.13 for medical facilities; 1.09 for all others
- Historical facility factor (where applicable) = 1.05
- Construction contingency factor = 1.05
- Supervision, inspection, and overhead (SIOH) factor = 1.06 for continental U.S.; 1.065 for outside of the continental U.S.
- Inflation (escalation) rates for military construction published by the USD(Comptroller)
- Business rules to parse the calculated PRV into subordinate organizations and fund sources (appropriation types)

3. Degree of Standardization of Definitions and Models Across the Department

A. Base Operations Support (BOS) is a term that applies to a broad variety of installation activities and comprises the majority share of installation-related funding. In the FY 2009 budget request, base operations support is not commonly defined or modeled across the department. In 2004, the Department initiated a program restructuring effort to subdivide base operations support into smaller and standardized component parts. This resulted in the creation of a standardized DoD program element (PE) for facilities operation (functions that are directly related to use of facilities, such as janitorial services, grounds keeping, and utilities), and a follow-on project (still ongoing) to further define and standardize the remaining installation service functions not directly related to facilities. The department undertook development of a facilities operation model, now in prototype, planned for full fielding in support of the FY 2010 budget request.

B. Facilities sustainment is supported by a common definition and common model across the Department of Defense. Facilities sustainment is defined as:

Maintenance and repair activities necessary to keep a typical inventory of facilities in good working order over a 50-year service life. It includes:

- Regularly-scheduled adjustments and inspections, including maintenance inspections (fire sprinkler heads, HVAC systems) and regulatory inspections (elevators, bridges)
- preventive maintenance tasks
- emergency response and service calls for minor repairs
- major repair or replacement of facility components (usually accomplished by contract) that are expected to occur periodically throughout the facility service life

Sustainment includes regular roof replacement, refinishing wall surfaces, repairing and replacing electrical, heating, and cooling systems, replacing tile and carpeting, and similar types of work. It does not include repairing or replacing non-attached equipment or furniture, or bldg components that typically last more than 50 years (such as foundations and structural members). Sustainment does not include restoration, modernization, environmental compliance, specialized historical preservation, general facility condition inspections and assessments, planning and design (other than shop drawings), or costs related to acts of God, which are funded elsewhere. Other tasks associated with facilities operations (such as custodial services, grass cutting, landscaping, waste disposal, and the provision of central utilities) are also not included.

C. Facilities recapitalization is also supported by a common DoD definition, comprised of restoration and modernization:

Restoration and modernization (R&M) improves facilities. Restoration includes repair and replacement work to restore facilities damaged by inadequate sustainment, excessive age, disaster, accident, or other causes. Modernization includes alteration of facilities solely to implement new or higher standards (including regulatory changes), to accommodate new functions, or to renew bldg components that typically last more than 50 years (such as foundations and structural members). Restoration and modernization do not include recurring sustainment tasks or certain environmental measures which are funded elsewhere. Other tasks associated with facilities operation (such as custodial services, grounds services, waste disposal, and the provision of central utilities) are also not included.

4. Requested Funding Levels and Goals

A. Base Operations Support

Army

BOS at PB09 (\$ millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total all components	\$8,614	\$8,114	\$8,048	\$8,179	\$8,174
% critical requirements funded	97%	91%	91%	89%	88%

The Army's BOS funding goal is to fully fund its critical requirements. In FY09, the Army meets this goal by funding BOS at 97% of the critical requirement.

Navy

Total BOS (\$ Millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$4,158	\$4,093	\$4,163	\$4,238	\$4,325

The requested BOS SI dollar amounts above are to achieve the output goal of CPL-2 in the programs of Air Operations, Port/Other Operations and Fleet & Family Support. The Morale, Welfare, and Recreation program would achieve the output level of CPL-2/3 while all other BOS SI items would achieve an output level of CPL-3.

USMC

Total BOS (\$millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$2,184	\$2,332	\$2,390	\$2,480	\$2,459

The Marine Corps goal is to fund at this level through the FYDP. Sufficient funds are available to meet top priority "must pay" labor and contractual requirements. Substantial increases in near-term funding reflect support to the force structure increase to 202,000 active duty personnel. Later year (FY10 - FY12) increases include funding to relocate forces from Okinawa to Guam. Reductions made to BOS force local commanders to determine which essential functions should be reduced or unfunded.

Air Force

Total BOS Budget (\$millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$6,902	\$6,811	\$7,348	\$6,905	\$7,048

While the Air Force does not calculate an overall funded percentage of Base Operations Support requirements, it does break it into subsets described in section 1. For FY08, facilities operation is funded at 92% and base operating support at 68% of requirements; the

amount shown includes funding for both. The facilities operation funding goal is 95% of the requirement generated by DoD's prototype Facilities Operation Model. The base operating support funding goal is 90% of the requirement from the BOS Cost Projection Formula.

B. Facilities Sustainment. Funding levels include contributions from the following appropriations: Operations and Maintenance, Military Personnel, and Host Nation.

Army

Sustainment at PB09 (\$millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total all components	\$2,835	\$2,970	\$3,037	\$3,076	\$3,135
% of FSM requirement funded	90%	91%	90%	90%	90%

In FY 2009, the Army funds sustainment at 90% of the Facilities Sustainment Model requirement, which meets the Army's goal of funding sustainment to at least 90% of the FSM benchmark across the FYDP.

Navy

	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Sustainment (\$million)	\$1,396	\$1,351	\$1,392	\$1,410	\$1,423
% of requirement funded	90%	90%	90%	90%	90%

The Navy funds sustainment at 90% of the Facilities Sustainment Model requirement across the FYDP. The Navy's sustainment funding goal is 100% of the DoD Facilities Sustainment Model requirement.

USMC

Sustainment (\$million)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$536	\$568	\$631	\$681	\$727
% of requirement funded	90%	90%	90%	90%	90%

The Marine Corps funding goal is 100% of the DoD Facilities Sustainment Model requirement. The requested funding level is below the full requirement and results in the rate shown.

Air Force

Sustainment (\$million)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$2,232	\$2,264	\$2,315	\$2,358	\$2,390
% of requirement funded	90%	90%	90%	90%	90%

The Air Force goal is to fully fund sustainment at 100% of the FSM requirement. The requested funding level results in a 90% sustainment rate (percent of the FSM benchmark that is funded).

C. Facilities Recapitalization. Funding levels include the following appropriations: Military Construction, Military Personnel, Operations and Maintenance, RDT&E, and Defense Working Capital Fund.

Army

Facilities Recapitalization (\$millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Total recapitalization funding	\$4,355	\$3,937	\$5,250	\$5,001	\$4,929
Recap Rate (yrs)	47	52	39	41	43

The Army's goal is to ensure full funding to recapitalize facilities over a 67-year life cycle, while improving the quality of facilities. Large investments in BRAC and rebasing significantly improve the recapitalization rate beyond the 67-year goal.

Navy

Recapitalization funding (\$millions)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$2,344	\$1,551	\$1,040	\$1,174	\$1,083
Recap Rate (yrs)	46	71	108	97	108

The Navy's recapitalization goal remains a 67-year recapitalization rate.

USMC

Recapitalization Funding (\$million)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$885	\$337	\$330	\$377	\$222
Recap Rate (yrs)	33	90	96	91	163

The recapitalization goal is to invest at a rate of 67 years.

Air Force

Recapitalization Funding (\$million)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$1,531	\$1,676	\$1,466	\$1,449	\$1,497
Recap Rate (yrs)	109	103	121	125	125

The Air Force recapitalization rate goal is 67 years. The Air Force is accepting risk in infrastructure modernization in order to invest in critical aircraft modernization programs. The Air Force is operating the oldest air and space weapons platform inventory in its history. It is imperative the Air Force modernize and replace these older aircraft and spacecraft to ensure dominance across those war-fighting domains into the future.

Defense Logistics Agency

Recapitalization Funding (\$million)	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
	\$338	\$230	\$285	\$248	\$208
Recap Rate (yrs)	55	82	66	78	98

DLA's goal is a 67-year facility recapitalization rate.

5. Justification for Funding Levels and Goals

A. Army

Base Operations Support: FY 2009 BOS funding increased by \$681M over FY 2008. The Army continues to increase BOS funding to support soldier, family, and installation readiness.

Sustainment: The FY 2009 sustainment funding increased by \$223M to a total of \$2.8B, or 90% of the Facilities Sustainment Model (FSM) requirement. This meets the Army's goal.

Recapitalization: The Army's large recapitalization investment is associated with its requirement to restation and reconfigure as a result of Base Realignment and Closure (BRAC), Global Defense Posture Realignment (GDPR), and Army Modular Force (AMF) adjustments for existing Army units. These large investments contribute to the improved facility recapitalization rates throughout the FYDP.

B. Navy

Base Operations Support: The Navy has adjusted the BOS baseline to incorporate Quality of Service standards and Joint Basing standards approved by the Chief of Naval Operations, pending final approval by DoD. The Navy has established a baseline of Common Output Level Standard 2 to meet the anticipated Joint Basing service levels. Funding levels are based upon a determination of the resources required to fund COL 2 service levels sufficient to support standardization and interoperability of inter-Service Installation infrastructure and to enable Joint operational capabilities.

Sustainment: The Navy plans to reduce infrastructure risk by funding sustainment a higher level for FY 2009-13 in order to support the CNO's direction to arrest and reverse the decline of the Navy's infrastructure. The Navy's average sustainment rate across the FYDP is 90%, a level at which the Navy estimates it can begin arresting the decay of its facilities to achieve their design service life. The infrastructure investments will be aligned with warfighting requirements and improving Sailor and family readiness. While this sustainment profile is not at full funding levels, the Navy considers this an acceptable infrastructure investment risk when combined with fleet recapitalization initiatives and aggressive demolition.

Recapitalization: The Navy has made a conscious decision to focus modernization investments on supporting new platforms and weapons systems. The Navy will continue developing Global Shore Infrastructure Plans to analyze bottom-line facility requirements by identifying capability gaps by warfare enterprise. The plans are anticipated to generate significantly less required facilities inventory than the current requirement, allowing Navy to meet modernization requirements for facilities supporting new platforms and weapons systems within projected funding levels.

C. USMC

Base Operations Support: FY 2009 increases are based on increased demand for support services associated with end strength changes in the Marine Corps, enhancing family readiness, and improving force protection. For FY 2010-13, the Marine Corps shifts forces from Okinawa Japan to Guam.

Sustainment: FY 2008 sustainment funding increased significantly from last year's report as a result of dedicating Global War on Terror funding used to repair backlogged sustainment projects in facilities that support the war. The out-year differences reflect funding sustainment at 90% of the sustainment model realigning funding to more pressing Marine Corps requirements. At the same time, the funding was adjusted to support new facilities that will be required to increasing USMC end strength.

Recapitalization: While the 67-year goal remained consistent with last year, the rate in FY 2009 improved from an estimated 62 years to 33 years due to increased recapitalization funding to prepare installations for the influx of additional personnel. Increases in the recapitalization rate throughout the FYDP reflect increased new footprint construction (vice recapitalization) in support of unit specific construction to support the Marine Corps end-strength increase.

D. Air Force

Base Operations Support: The FY 2009-13 out year BOS funding profile had moderate program growth in the FY 2009 President's Budget request. The majority of program growth was in utility cost. Despite conservation efforts, the cost of purchasing utilities (including utility fuels) continues to increase above the 2.0 percent general inflation rate in budget assumptions. Additionally, the Air Force placed increased emphasis in this budget on Utility Privatization, which reduces infrastructure costs but increases BOS. Base communications also increased due to an effort to consolidate and centralize base communications operations and reduce the number of military support personnel. The budget request includes the additional servers, networking devices, remote management software and supporting maintenance contracts needed to sustain 24x7 operations at regional network centers. Other increases occurred in the Pentagon Reservation Maintenance Fund and in environmental programs.

Sustainment: The FY 2009-13 out-year sustainment funding profile increased in the FY 2009 President's Budget request, but is still short of the goal of fully funding facilities sustainment. The Air Force is accepting this risk in infrastructure to invest in critical aircraft modernization programs.

Recapitalization: The FY 2009-13 out year recapitalization funding profile increased slightly in the FY 2009 President's Budget submission. The restoration/modernization (R/M) growth is due to an effort to reduce the \$9.3B backlog in R/M projects and roll back the Air Force current recapitalization rate (110 years) closer to the DoD goal of 67 years.

E. Defense Logistics Agency. The average DLA recapitalization rate for FY 2009 through FY 2012 is 70 years, slightly above the 67-year target. In FY 2013, DLA is accepting risk

in infrastructure recapitalization to program a significant number of new footprint projects to provide new fuel facilities to meet critical operational requirements. This raises the FY 2013 recap rate significantly above the 67 year target.