

# **Report to Congress**

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



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**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 571,900 facilities worldwide with a total replacement value greater than \$650 billion in current dollars at the end of fiscal year 2005<sup>1</sup>. 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 second of five annual reports prescribed by the Conference Report, coinciding with DoD's budget request for FY 2008. For the FY 2008 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

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<sup>1</sup> Department of Defense Base Structure Report, Fiscal Year 2005 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 Requirements Model (BRM) process is used to develop the services portion of the Army's base operations support requirements. The BRM process uses a consistent methodology to develop predictive cost equations by service. These estimates are based on what a service "should" cost and Army-wide performance standards. The Army's Installation Status Report (ISR) (Services) and Service Based Costing are the analytical underpinnings of this process. Using the "should cost" methodology to develop requirements ensures consistent, standard programming across installations and ensures that soldiers and families receive quality, predefined levels of support.

The BRM process uses a parametric approach based on pacing measures (cost drivers) and performance standards to predict full service cost known as the Standard Service Cost (SSC). 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 laws and policy, and "fact of life changes" such as increases in anti-terrorism/force protection after the terrorist attack on the Pentagon. The BRM baseline data and operation of the model are reviewed and validated annually by the Deputy Assistant Secretary of the Army (Cost and Economics).

Navy: The Base Operating Support (BOS) model is designed to generate required funding for four Common Output Level Standards (COLS) 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, COLS 1-4. COLS 1 is the highest level of service and typically costs the most. COLS 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. COLS 1 for janitorial service requires cleaning the restrooms, trash removal, damp mopping, dusting, etc. more frequently than COLS 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 COLS 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 determine which COLS 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. COLS 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 FY06 through FY11. 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 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. 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 FAC<sup>2</sup> 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:

$$\text{Sustainment rate (\%)} = \text{sustainment funding} / \text{FSM requirement}$$

In the FY 2008 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 2008 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:

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<sup>2</sup> 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 FAC<sup>3</sup> 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 1/67<sup>th</sup> 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.

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

## 2. Description of Items Contained in Each Model

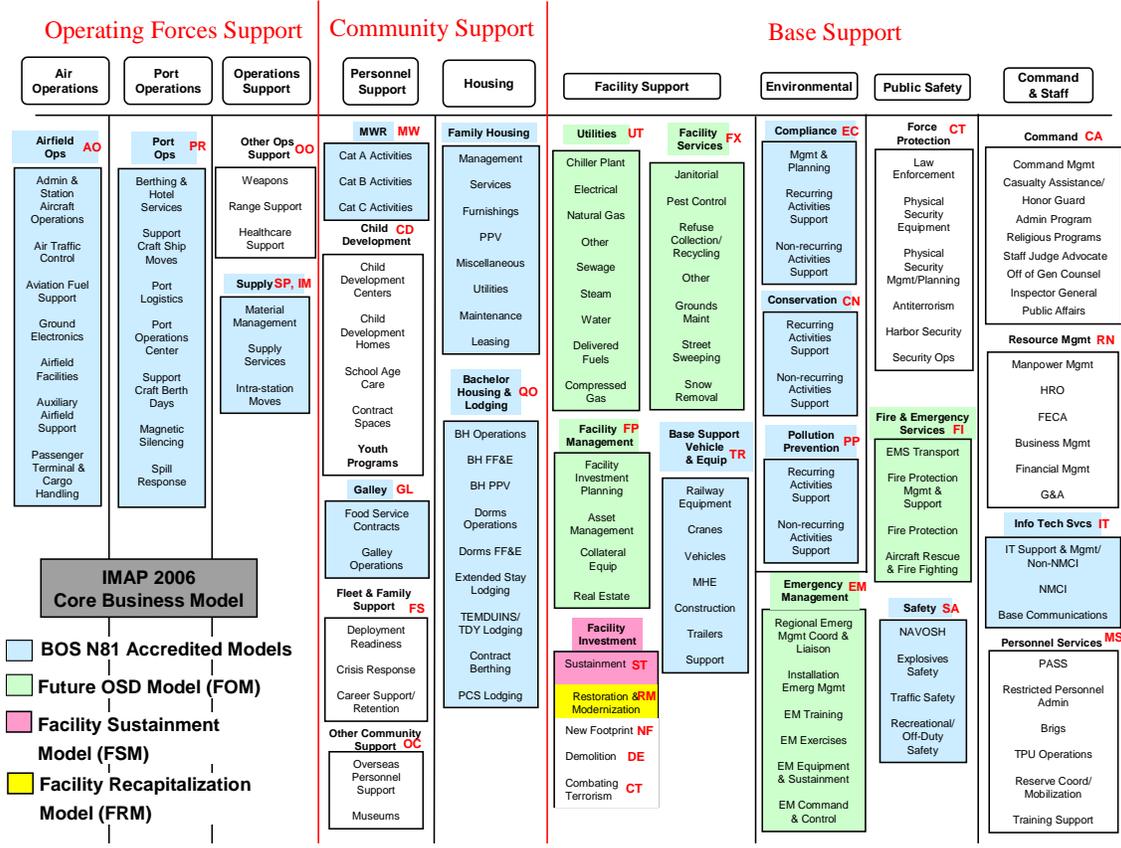
### A. Base Operations Support

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.

Environmental quality requirements are developed via bottom-up-build of project-level requirements by the installations, submitted through their chain of command to HQDA for final review and validation using environmental program databases. Beginning with the FY 2010 budget, development of EQ requirement costs will transition to the Environmental Cost Standardization methodology, an analytical approach which generates the cost of requirements based on historic execution data and key cost drivers from authoritative Army data sources.

Navy: The items contained in the BOS model are outlined in the Core Business Model (CBM) shown below. Previous to implementation of the CBM, 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 CBM 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.



**Marine Corps:** This sub-activity group funds base support for the Expeditionary Forces Activity in five major services categories. Administrative services fund such functions as installation financial and military/civilian manpower management, base safety and legal services. Specific services fund organic supply operations in support of the installations, including vehicle operation and maintenance. Community services provide for support of living facilities, food services, recreation areas, special services programs and common use facilities. Real Property services consist of utilities operations and other engineering support. Base communication includes the operation and maintenance of telephone systems, data communications, radio, and facsimile equipment. Base communication also includes the administrative costs associated with message reproduction, distribution and payments for long distance toll charges. The environmental category includes compliance, conservation, pollution prevention, soil pollution abatement, and environmental restoration.

Also included under Base Support are injury compensation payments and procurement of collateral equipment required to initially outfit new military construction projects at Marine Corps bases, posts and stations.

**Air Force:** As stated above, the Air Force does not use a model or formula for BOS cost development except for two subsets: “facilities operation” and “base operating support.” Facilities operation (FO) 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). 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 2008 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

<b>BOS at PB08 (\$ millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Total all components	\$8,133	\$8,717	\$8,386	\$8,531	\$9,347
% of requirement funded	84%	84%	78%	79%	80%

The Army's BOS funding goal is to fully fund its critical requirements, representing essential needs—a subset of its total validated BOS requirements. In FY08, the Army meets this goal by funding BOS at 84% of total validated requirements, equating to 100% of the critical requirements.

###### Navy

<b>Total BOS (\$ Millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$3,922	\$4,102	\$4,139	\$4,252	\$4,302

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

Based on civilian and military personnel reductions, the following output level is predicted for each SI item:

###### COLS-3:

Child Development	Force Protection	Emergency Management
Bachelor Housing	Safety	Fleet & Family Support
Environmental	Facility Services	Utilities
Supply	Galley	Fire & Emergency Svcs
Base Support Vehicles & Equipment		

###### COLS-3/4:

Air Operations	MWR
Port Operations	Facility Management

###### COLS-4:

Resource Management	Personnel Services
Command	

## USMC

<b>Total BOS (\$millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$ 1,978	\$1,864	\$ 1,849	\$ 1,920	\$ 1,883

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. Near year requirements (FY08 - FY11) reflect one-time O&M requirements to support environmental studies and activities supporting the force structure increase to 202,000 active duty. Decreases across the FYDP reflect decreasing needs for these one time / temporary requirements. If reductions are made to BOS, other essential functions may be seriously reduced or un-funded entirely.

## Air Force

<b>Total BOS Budget (\$millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$6,463	\$6,616	\$7,009	\$6,914	\$6,791

The Air Force does not calculate an overall funded percentage of BOS requirements, but breaks 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

<b>Sustainment at PB08 (\$millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Total all components	\$2,534	\$2,756	\$2,863	\$2,917	\$3,037
% of FSM requirement funded	89%	96%	97%	98%	100%

In FY08, the Army funds sustainment at 89% of the Facilities Sustainment Model requirement. The Army’s goal is to fund sustainment to at least 90% of the FSM benchmark across the FYDP. The reduction from full sustainment is a result of competing funding requirements within the Army.

## Navy

	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Sustainment (\$million)</b>	\$1,147	\$1,106	\$1,173	\$1,229	\$1,309
<b>% of requirement funded</b>	83%	73%	81%	82%	86%

The Navy plans to assume risk by funding sustainment a lower level for FY08-FY12 in order to support high-priority fleet recapitalization initiatives. The Navy's average sustainment rate across the FYDP is 81%, the level at which the Navy estimates it can still support critical mission capabilities.

## USMC

	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Sustainment (\$million)</b>	\$510	\$525	\$542	\$571	\$585
<b>% of requirement funded</b>	89%	90%	90%	92%	93%

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. Requested funding is below the goal due to competing funding requirements within the Marine Corps, resulting in some degradation of facilities.

## Air Force

	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
<b>Sustainment (\$million)</b>	\$2,151	\$2,297	\$2,370	\$2,456	\$2,265
<b>% of requirement funded</b>	92%	97%	98%	100%	90%

The requested funding level results in the sustainment rate (percent of the FSM benchmark that is funded) shown. Overall Sustainment funding for FY08 increased, however, the corresponding model generated requirement increased and the sustainment rate did not change. The reduction from full sustainment funding is in response to competing funding requirements within the Air Force. The Air Force is accepting risk in infrastructure in order to invest in critical aircraft modernization programs. The Air Force goal is to fully fund sustainment at 100% of the FSM requirement.

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

Army

<b>Facilities Recapitalization (\$millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
Total recapitalization funding	\$3,650	\$3,784	\$3,729	\$5,114	\$5,296
Recap Rate (yrs)	54	53	55	40	39

The Army’s goal is to ensure full funding to recapitalize facilities over a 67-year life cycle by FY08, while improving the quality of facilities. Massive investment in BRAC and rebasing significantly improves the recapitalization rate below the 67-year goal.

Navy

<b>Recapitalization funding (\$millions)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$1,884	\$1,624	\$1,417	\$986	\$1,179
<b>Recap Rate (yrs)</b>	63	73	85	123	105

Navy has made a conscious decision to focus modernization investments on supporting new platforms and weapons systems. The Navy will be developing Global Shore Infrastructure Plans to analyze the Navy’s 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.

USMC

<b>Recapitalization Funding (\$million)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$265	\$337	\$307	\$374	\$397
<b>Recap Rate (yrs)</b>	107	86	96	80	78

The recapitalization goal is to invest at a rate of 67 years. The requested funding level results in a higher rate, limiting Marine Corps efforts to modernize existing facilities.

Air Force

<b>Recapitalization Funding (\$million)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$1,553	\$1,602	\$1,771	\$1,688	\$1,494
<b>Recap Rate (yrs)</b>	97	96	88	94	108

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

<b>Recapitalization Funding (\$million)</b>	<b>FY 2008</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011</b>	<b>FY 2012</b>
	\$287	\$222	\$324	\$274	\$244
<b>Recap Rate (yrs)</b>	62	81	56	67	76

DLA meets the DoD goal of a 67-year facility recapitalization rate for the period FY08 – FY12 with the exception of FY09 and FY12.

## 5. Justification for Funding Levels and Goals

### A. Army

Base Operations Support: For PB08, the Army developed BOS requirements that matched the essential needs versus developing requirements that matched validated needs. Validated Requirements represent funding at the “Green” level and provide the Quality of Life support to recruit and retain the All Volunteer Force. Essential Needs are a subset of Validated Requirements, representing the minimum essential installation services required to support the All Volunteer Force and maintain installations as flagships of readiness.

Sustainment: FY08 sustainment funding increased by \$100 million, but this was not enough to fully compensate for a \$300 million increase in the sustainment requirement due primarily to cost increases. As a result, the rate slipped by 3 points. Additional funding to close the gap was not available.

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). These large investments contribute to the lower (improved) facility recapitalization rates throughout the FYDP.

### B. Navy

Base Operations Support: The Navy has recognized the FY 2007 funding level was insufficient to provide for a COL 3 standard across the Navy. Therefore, the FY 2008 request represents significant growth from the FY 2007 budget request but very modest growth from the actual FY 2006 expenditures. Additionally, \$10.4 million of that growth is connected with a functional transfer of emergency medical services (ambulatory services) from Defense Health Program. Navy is constantly seeking ways to reduce costs and become more efficient and economical. Some of the reductions being reflected are based on BRAC closures and realignments which will happen throughout the year, so full year cost avoidance will not occur until future years.

Sustainment: The Navy's average sustainment rate across the FYDP is 81%, the level at which the Navy estimates it can still support critical mission capabilities. The Navy considers this an acceptable risk in light of the high-priority fleet recapitalization initiatives and aggressive demolition investment. However, continued lower levels of sustainment generate higher costs for restoration in later years.

Recapitalization: The Navy is focusing on modernization investments to support new platforms and weapons systems. The average Navy recap rate for FY08 - FY13 is 93 years; worse than the goal of 67 years. According to Defense Readiness Reporting System – Navy (DRRS-N), there is a facilities recapitalization backlog of \$8.3 billion. The Navy will be developing Global Shore Infrastructure Plans to analyze the Navy's 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:** The changes from the FY 2006 report reflect cost-of-war increases to BOS in FY06 and FY07. For FY 2008-13, the Marine Corps has re-evaluated the requirement as described in Section 1, and the costs to support an end strength increase to the Marine Corps has been added.

**Sustainment:** FY08 sustainment funding remained virtually unchanged from last year's report, but cost increases reflected in the Facilities Sustainment Model resulted in a slight decrease in the rate (2 points). The out-year differences in FY09 and FY10 resulted from realigning funding to more pressing Marine Corps requirements.

**Recapitalization:** While the 67-year goal remained consistent with last year, the rate in FY08 slipped from 74 years to 107 years due to migration of funding from recapitalization into construction of new barracks for Marines that are not adequately housed. Increases in the recapitalization rate throughout the FYDP reflect a continuation of this program, as well as increased new footprint construction (vice recapitalization) in support of the Marine Corps end-strength increase.

### D. Air Force

**Base Operations Support :** The FY08-11 out year BOS funding profile was understated in the FY07 President's Budget request due to reductions initiated for Air Force Transformation. At the time of the FY07 President's Budget submission, the Air Force did not have complete fidelity needed to distribute the FY08-11 targeted O&M contract reductions. The result was an overstated reduction to the base support program that was restored in the FY08 budget submission.

**Sustainment:** The FY08-11 out year sustainment funding profile increased in the FY08 President's Budget request to move closer to the goal of fully funding facilities sustainment. Sustainment continues to be the foundation of the Air Force's long-term facilities strategy. This level of funding is necessary to adequately perform life cycle repairs and provide sufficient supplies and equipment necessary for a productive work force to ensure facilities and infrastructure are adequately maintained to meet the mission.

**Recapitalization:** The FY08-11 out year recapitalization funding profile decreased in the FY08 President's Budget submission as risk was balanced to invest in modernizing the oldest air and space inventories in the history of the United States Air Force. Transformational priorities reduced facilities recapitalization funding in Military Construction appropriations to ensure the Air Force remains capable of fulfilling roles and missions in peace, crisis, and war. Additionally, the plant replacement of the Air Force

facility inventory increased at an above normal rate due to cost increases in steel, concrete, and asphalt.

E. Defense Logistics Agency. Changes in recapitalization funding and rates from last year's report are a result of project reprioritization and refinements in the method used to calculate recapitalization investments.