

2012

Congressional Report on Defense Business Operations



Department of Defense

Preparation of this report/supplemental materials cost the Department of Defense a total of approximately \$211,000 in Fiscal Years 2011 - 2012.

Generated on 2012Mar15 1422
RefID: 6-B0DECE3

Cost shown on front cover estimated and generated
using the guidance, methods and tools at
<https://www.cape.osd.mil/CostGuidance>
(2012Mar151422 RefID: 6-B0DECE3)



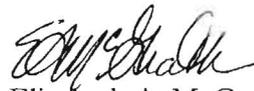
DEPUTY CHIEF MANAGEMENT OFFICER
9010 DEFENSE PENTAGON
WASHINGTON, DC 20301-9010

MAR 30 2012

The Department of Defense is pleased to present the 2012 Congressional Report on Defense Business Operations. This report highlights the Department's stewardship of the nearly \$7 billion annual business system development, modernization and sustainment budget dedicated to maintaining and transforming business operations supporting the Department's strategic priorities.

Today, the austere fiscal environment and accelerating pace of information technology (IT) evolution combine to make the careful alignment of business solutions and strategic goals more vital than ever. The alignment of defense business solutions is guided and constrained by the Business Enterprise Architecture. The Enterprise Transition Plan is the roadmap for actualization. Implementation of the Business Capabilities Lifecycle, and embracing end-to-end business flows and common language ontologies are examples of the Department's efforts to stay abreast of IT innovation and ensure sound fiscal stewardship.

Even as the Department strives to improve its internal processes, better rationalize its information technology investments, and manage its risks, defense business systems are providing real and tangible benefits to its operations in an increasingly technological 21st century environment. Numerous examples of business systems that positively impacted the Department's operations in Fiscal Year 2011 are included in this report.


Elizabeth A. McGrath

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Table of Contents

Introduction	1
Chapter One: Managing Defense Business System Investments	2
ETP Improvements	2
Legacy and Duplicate System Elimination.....	3
Chapter Two: FY 2011 Improvement Focus Area Results	4
Improved Interoperability through E2E Processes–BPMN.....	5
Improved Interoperability through E2E Processes – Standardized Data.....	5
Improved Interoperability through E2E Processes – Going Forward.....	6
Business Capability Lifecycle (BCL).....	8
Business Process Reengineering (BPR)	9
Rationalizing Infrastructure	9
Improving Contingency Business Operations.....	9
Chapter Three: Core Business Mission Results	11
Business Mission Area Summary.....	11
Human Resources Management (HRM)	13
Positive Example 1: TRICARE Online Blue Button	14
Positive Example 2: Digital Delivery Mail Program (DDMP).....	15
Financial Management (FM).....	17
Positive Example 3: Integrated Budget Documentation & Execution System II (IDECS II).....	18
Positive Example 4: Navy Cash®.....	20
Real Property and Installations Lifecycle Management (RPILM).....	22
Positive Example 5: Army Mapper.....	24
Weapons System Lifecycle Management (WSLM)	26
Positive Example 6: Defense Acquisition Management Information Retrieval (DAMIR).....	28
Positive Example 7: Earned Value Management Central Repository (EVM-CR).....	29
Positive Example 8: Defense Property Accountability System (DPAS)	31
Materiel Supply and Service Management (MSSM).....	33
Positive Example 9: Global Combat Support System – Army (GCSS-Army).....	35
Positive Example 10: Movement of ICBM from Improved Maintenance Management Program (s) into the Integrated Maintenance Data System (IMDS)	37
Positive Example 11: Port Management Automation Initiative Links Air, Land, and Sea	39
Positive Example 12: Positive Example: Integrated Computerized Deployment System (ICODES)	41
Positive Example 13: Joint Engineering Data Management Information and Control System (JEDMICS).....	43
FY 2011 Milestone Results	45
FY 2011 Measures Results.....	45
FY 2011 Certification Results.....	46
In Summary	48

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Introduction

From people to logistics, business operations provide essential support to the Department of Defense's mission. Maintaining and modernizing business operations and the underlying Information Technology systems are essential to optimizing our capabilities. The 2012 Congressional Report on Defense Business Operations documents the Department's progress in improving its business operations through defense business systems (DBS) modernization in Fiscal Year (FY) 2011.

Section 332 of the National Defense Authorization Act for Fiscal Year 2005 (2005 NDAA) established the Defense Business Systems Management Committee (DBSMC) and Investment Review Boards (IRBs) to provide IT investment management oversight and control. This section also required development of the business enterprise architecture (BEA) to guide and constrain business investments, enhancing business intelligence capabilities for improved decision making, and an Enterprise Transition Plan (ETP) to guide its implementation. The legislation also required this annual report to Congress to be published between 2005 and 2013.¹

Chapter One of this report discusses the family of plans that guides DoD's business system investments. The Department's efforts to improve its internal processes to ensure effective future investments are also highlighted. Chapter Two examines efforts to address improvement areas identified in the 2011 ETP. Additionally, significant improvements to business operations that occurred in FY 2011 are discussed. Chapter Three highlights FY 2011 achievements of each of the five Core Business Missions (CBMs) and their associated IRBs. Examples of the positive impacts achieved through DBS modernization initiatives also appear in this chapter, as do the milestone, measure, and certification data required by statute. Summary tables of FY 2011 dashboard systems, certification data, milestones, and measures results are also presented. Additional certification, milestone and measures data is available in the 2012 Congressional Report on Defense Business Operations Supplement.²

¹ The 2012 NDAA extended this requirement to 2016.

² at <http://dcmo.defense.gov/publications/march-congressional-report.html>

Chapter One: Managing Defense Business System Investments

The austerity of the current fiscal environment redoubles the need to closely align DoD's investments with its strategic priorities. The National Security Strategy, National Defense Strategy, and the Quadrennial Defense Review set these priorities. The Strategic Management Plan (SMP) is the key driver for the BEA, defining business goals, key initiatives, measures and milestones. The BEA guides and constrains investments and implementation of interoperable defense business system solutions, and defines business capabilities required to support business focus areas. The ETP is the conceptual roadmap for BEA implementation in a given fiscal year. The ETP reflects the strategy for DoD enterprise transformations associated with business investments that provide enterprise capabilities. The ETP also lists milestones and measures, and describes the transition to the "to-be" state outlined in the BEA, with particular focus on *dashboard systems*—systems scheduled for modernizations with obligations exceeding \$1 million through FY 2011. The Department's initiatives to follow the roadmap delineated in the 2011 ETP are the focus of this report.³

This *family of plans*, depicted in Figure 1, evolves continuously, growing to reflect the Department's shifting priorities and evolutions in technology. The BEA is updated annually to help defense business system owners and program managers make informed decisions in support of Department priorities. The SMP is updated bi-annually, most recently in September 2011.⁴ In addition to its annual update, the FY 2011 ETP also underwent significant structural improvements, enhancing both data quality and user experience.



Figure 1. Family of Plans

ETP Improvements

Since 2010, the ETP has utilized online *dashboards* to display a snapshot of system modernizations requiring more than \$1 million in obligations. In 2011, dashboards were redesigned to improve data quality and transparency. The 2011 ETP was enhanced by the inclusion of:

- Updated budget snapshots to include budgeted and obligated funds
- Search capabilities and use of services and cloud computing to generate graphs

³ The Chief Management Officer of each military department issues a report on implementation of business transformation initiatives by such Department, as required by section 908 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009. The most recent reports are available via the following site: <http://dcmo.defense.gov/publications/march-congressional-report.html>.

⁴ This report, which focuses on FY 2011 achievements, discusses both the 2011 SMP, and the FY 2012-2013 SMP, which was issued in FY 2011.

- Improved presentation of performance information showing planned measures, problem statements, and planned benefit outcomes
- Architecture mapping of BEA version for systems
- The ability for users to identify legacy systems being replaced by current dashboard systems to enable system tracking through their retirement dates
- The ability to add new systems throughout the fiscal year
- Monthly data updates to provide more timely insight on ETP implementation

Legacy and Duplicate System Elimination

Legacy systems are those defense business systems identified *not* to be part of the target defense business enterprise. Table 1 illustrates the number of legacy business systems eliminated based on the DoD IT Portfolio Repository (DITPR) data.

	Beginning of FY 2011	End of FY 2011
Primary Business Mission Area (BMA) Legacy Systems	793	120 of original total of 793 eliminated 16 changed to core systems 3 changed to interim systems 1 no longer characterized as a business system

Table 1.

The Department has initiated efforts to improve legacy system data quality, such as using the DoD Chief Information Office (CIO) annual compliance process to provide more complete and accurate DITPR data required to produce ETP migration/termination schedules.

Chapter Two: FY 2011 Improvement Focus Area Results

Per the FY 2011 ETP, the Department is focusing its efforts to improve overall management of its business system investments in four areas:

- Improved interoperability through End-to-End (E2E) processes
- Streamlined acquisition processes
- Reengineered business processes
- More cost effective infrastructures

The Deputy Chief Management Officer (DCMO) took an additional step strengthening focus on the E2E processes through issuing a memorandum titled, “Use of End-to-End (E2E) Business Models and Ontology in DoD Business Architectures,” herein referred to as “the memo.”

The memo furthers the concept of the E2E framework. The E2E framework comprises fifteen value chains that describe a business lifecycle model used as a viewpoint to frame and understand the Business Mission Area (BMA) environment. The memo also outlines a new approach to leverage the E2Es defined within the BEA and provides the illumination necessary to achieve the management and interoperability required by statute.



The ability to precisely state requirements, data and services is an essential first step to integration and interoperability. To that end, open standards for process modeling and BEA description to further strengthen the use of E2E processes are also identified within the memo. It cites the World Wide Web Consortium’s (W3C) Business Process Modeling Notation version 2.0 (BPMN 2.0) Analytical Conformance Class (Primitives) and Resource Description Framework (RDF)/ Ontology Web Language (OWL) as the open standards of choice for process modeling and architecture descriptions, respectively.⁵

The memo mandates: (1) the E2E framework will be used to drive and organize BEA content within the federated BEA ontology and, (2) future releases of the BEA will be synchronized with the BMA’s highest priority system acquisition and modernization efforts within the Hire-to-Retire (H2R) and Procure-to-Pay (P2P) lifecycle models.

⁵ BPMN is a standard for business process modeling.

RDF is a language for representing information about resources in the World Wide Web.

OWL is designed for use by web-based applications that need to process that information.

Primitives ascribe elementary language to architecture building blocks.

Ontology is a formal representation of a set of concepts and the relationships between those concepts.

Improved Interoperability through E2E Processes–BPMN

Business Process Model Notation 2.0 (BPMN 2.0) is the industry standard used to guide process modeling. Primitives-compliant process models were created for each of the fifteen E2E business flows that make up the BMA's E2E framework. Of the fifteen, H2R and P2P were deemed the focus for BEA 9.0.

The Under Secretary of Defense for Acquisition, Technology and Logistics' (USD(AT&L)) office for Defense Procurement and Acquisition Policy (DPAP), in partnership with the Under Secretary of Defense, Comptroller/Chief Financial Officer, (USD(C)/CFO), lead enhancements to the P2P process and definitions that encompass necessary business functions related to procurement of goods and services. The specific business functions include executing procurement requirements, strategy, procurement award and management, receipt and acceptance, entitlement, disbursement and closeout. Final mapping of the P2P process will reflect the appropriate level of requisite data, rules and standards used to constrain business systems solutions and affect interoperability.

Likewise, the Under Secretary of Defense for Personnel and Readiness (USD(P&R)) led the work focused on the H2R process. USD(P&R) standardized the H2R process models using the BPMN 2.0 Primitives symbol set and patterns while maintaining appropriate linkages to enable traceability to the appropriate laws, regulations and policies (LRP).

Additionally, USD(P&R) representatives, along with the DoD Chief Information Officer (CIO) developed the DoD Identity Assurance (IdA) Implementation Guide and Roadmap. This guidance and roadmap provide a framework to synchronize ongoing identity initiatives and protect against asymmetric and cyber threats that use fraudulent identities against U.S. national interests. Another output of this effort is the definition of an identity credentials management process and rules. The DoD CIO is implementing automation prototypes to expedite the process of granting authorized users access to DoD systems. This reengineered business process is based on the existence of DoD recognized ID credentials for such individuals. BEA 9.0 now contains the ID credentials management process model used to guide future interaction with the DoD CIO architecture for system access credentials.

All E2E-related process modeling work, including the work done for the E2Es that have “touch-points” to H2R and P2P (e.g., Budget-to-Report and Acquire-to-Retire), is used to support implementation of the E2E framework. This enables the framework to be used as a guide for managing the DoD business operations from an E2E process perspective. It also enables improved interoperability while providing a foundation for identification and standardization of requisite data.

Improved Interoperability through E2E Processes – Standardized Data

BEA 9.0 includes multiple enhancements that help to standardize business-related data. This work also enabled identification of authoritative data sources to support analysis to eliminate redundancy and provide enhanced business intelligence capabilities for improved decision-making. The focus for this effort was on the procurement and hiring processes.

USD (AT&L), in collaboration with other lines of business, provided BEA content to improve the enterprise data required within the P2P process. These enhancements focused on incorporating the following regulatory standards and controls:

- Procurement Data Standards (PDS)
- Purchase Request Data Standards (PRDS)
- Invoice and Acceptance Standards (Electronic Data Interchange (EDI) 810, 856, 861 or xml)

PDS are system-agnostic data standards that drive the standardization of contract output to help enforce Federal Acquisition Regulation-based contracting laws and regulations, and to support interoperability among different procurement, logistics and financial systems. They define the minimum requirements for procurement system output regardless of the systems or tools leveraged by the contracting community. PDS comprises purchase request (PRDS) and invoice and acceptance (EDI) transactions. Complete implementation of the PDS enables unparalleled levels of enterprise visibility into contract content and creates a more open government with increased transparency into the acquisition process.

Within the H2R, USD(P&R) continued its efforts to define the Common Human Resources Information Standards (CHRIS). The CHRIS were updated to account for additional compensation related details and four standards that support DoD Military Health functions. These efforts are intended to standardize the Department's HRM information needs. By doing so, the information is more understandable and results in quicker access to the source system data represented by these standards as well as improved consistency for integration and data sharing across the HRM portfolio.

The Financial Management line of business continues to focus on the information/data requirements for budgeting, financial accounting, cost/performance management, and external reporting across the DoD enterprise. Additionally, Standard Financial Information Structure (SFIS) data elements and the Defense Financial Management Improvement Guidance (DFMIG), which were incorporated into previous versions of the BEA, were updated to reflect recent decisions of the SFIS Governance Board and the DFMIG Board respectively.

Improved Interoperability through E2E Processes – Going Forward

The BEA serves as the articulation of requirements driven by the strategic business objectives that guide investment decisions. It then guides pre-Milestone A acquisition decisions that select and plan for systems and services. Systems under development target compliance with the version of the BEA in effect at their inception. By that means, compliance is a moving target and is asserted through a manual mapping process to a static set of architecture models that describe the target version of the BEA.

The BEA is made dynamic through the use of semantic technologies and standards – OWL, RDF, Simple Protocol and RDF Query Language (SPARQL) and BPMN. In general, architecture moves from reference to implementable when there are clear and unambiguous processes for developers to create compliant executable components. They become executable when the architectural models become sufficiently specific and semantically rich that they can either be executed directly by runtime facilities, or automatically processed to generate runtime executable code. System owners will be able to assert compliance by linking their models and their data to the BEA ontology represented in architectural models. In turn, such system owners and services will be able to leverage the executable architectural components of the BEA, thereby demonstrating their compliance in operation. Compliance is driven through implementation and becomes dynamic because it applies throughout the lifecycle of systems and services.

Today *compliance* means that Programs of Record⁶ and the DBSs they encompass demonstrate by assertion that they are aligned with specific Laws, Regulations and Policies (LRP), business rules, data synonyms and attributes for applicable portions of the BEA . BEA compliance allows for a level of verification that a particular DBS is in compliance with appropriate policies. Systems and initiatives delivering capabilities and functionality are reviewed and approved by the IRBs based on their stand-alone solution architecture.

Future compliance with the BEA will be based on ‘linkage’ between business process models and semantic vocabularies of the DBS solution architecture and those of the BEA. This provides multiple benefits to the programs that leverage the BEA:

- Verification that compliance with the BEA provides compliance with the policies that the BEA articulates.
- Verification that compliance with the BEA provides a level of “guarantee” that one particular program will be able to interoperate with another program that is also compliant.

The compliance that will allow for this alignment will be enabled through a combination of model-driven architectures and semantic technologies to develop and represent architecture content. Examples of this compliance vision can be seen throughout the HRM Line of Business through systems efforts with the Military Services.

As with any shift in business and technical direction, the competency of the supporting workforce must be raised to a level necessary to support achieving the vision. The Office of the DCMO has developed a set of curricula made available to the Department and intended to increase the semantic knowledge-base within the Department. To date, over 200 members of the Army, Navy, Air Force, and other DoD organizations have completed multiple tracks of training. Tailored training is available for executives and semantic web practitioners. The BEA continues to make significant contributions to the “Improved interoperability through E2E processes” and “Reengineered processes” focus areas of the Department and will continue to improve its value to optimize DoD’s business operations.

⁶ A Program of Record (POR) is a program as recorded in the current Future Years Defense Program (FYDP) or as updated from the last FYDP by approved program documentation (e.g., Acquisition Program Baseline (APB), acquisition strategy, or Selected Acquisition Report (SAR)).

Business Capability Lifecycle (BCL)

As the Defense Science Board expressed in a 2009 report, “The conventional DoD acquisition process is too long and cumbersome to fit the needs of the many systems that require constant changes and upgrades.”⁷ Section 804 of the 2010 NDAA required the development of a new acquisition process for IT systems, including DBS. The DoD also recognizes that the pace of IT evolution demands a unique acquisition process and in response, developed the Business Capability Lifecycle (BCL).

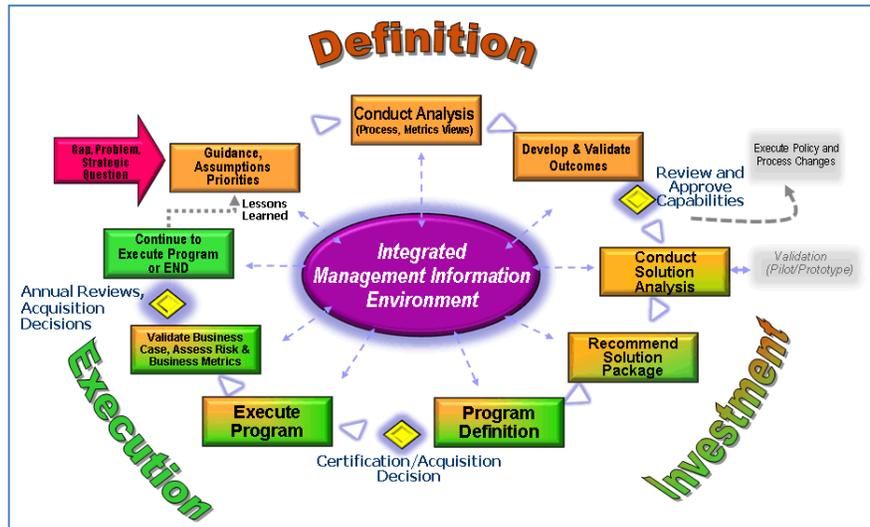


Figure 2. Business Capabilities Lifecycle

Undertaking the development of this new process, the Department issued a report, *A New Approach for Delivering Information Technology Capabilities in the Department of Defense*,⁸ in November 2010. Additionally, in FY 2011 the IT Acquisition Task Force was established to further define and implement incremental processes outlined in the report. Finally, the USD (AT&L) issued a directive type memorandum, *Acquisition Policy for Defense Business Systems*, in June 2011 to instantiate BCL in policy.⁹

BCL is an end-to-end process facilitating a holistic approach to solving business problems and delivering business capabilities in a compressed timeframe. BCL institutionalizes the enterprise management of business capabilities by consolidating requirements, acquisition, and investments with BEA oversight into a single governance process.¹⁰ Initiatives/programs that are using BCL include, but are not limited to:

- Defense Enterprise Accounting and Management Systems (DEAMS)
- Logistics Modernization Program (LMP), Increment II
- Integrated Electronic Health Record (iEHR)
- Defense Agencies Initiative (DAI)
- Integrated Personnel and Pay System-Army (IPPS-A)

⁷ Report of the Defense Science Board Task Force on DoD Policies and Procedures for the Acquisition of Information Technology, March 2009 < <http://www.acq.osd.mil/dsb/reports/ADA498375.pdf>>

⁸ < <http://dcmo.defense.gov/documents/OSD%2013744-10%20-%200804%20Report%20to%20Congress%20.pdf>>

⁹ <http://www.dtic.mil/whs/directives/corres/pdf/DTM-11-009.pdf>

¹⁰ < http://www.bta.mil/products/BEA_8_0/index.htm>

Business Process Reengineering (BPR)

Section 1072 of the 2010 NDAA mandated that business systems requiring the obligation of over \$1 million in development and modernization funds demonstrate that appropriate BPR efforts were undertaken prior to certification. The *Guidance for the Implementation of Section 1072 - Business Process Reengineering*, issued in April 2011, defines BPR as a “logical methodology for assessing process weaknesses, identifying gaps, and implementing opportunities to streamline and improve these processes to create a solid foundation for success in changes to the full spectrum of operations.” The guidance provides both an operational definition for the empirical demonstration of BPR efforts, and a detailed methodology for documenting BPR. A BPR assessment template was published concurrently to enable stakeholders to demonstrate BPR compliance with minimal man-hours and cost.

Also in FY 2011, the Department established BPR training in an effort to improve BPR submission consistency and reduce cycle time. This proactive approach to BPR implementation produced tangible positive results: a 42% reduction in BPR documentation development time and a 60% reduction in the time required for IRBs to review the documentation. These improvements positively and directly impact the Department’s efforts to streamline IT acquisitions and effectively manage the enterprise DBS environment.

Rationalizing Infrastructure

In August 2010, the Secretary of Defense directed the consolidation of IT infrastructure to achieve savings in acquisition, sustainment, and manpower costs, and to improve the DoD's ability to execute its missions while defending its networks against growing cyber threats. In response, the Department identified opportunities to consolidate DoD IT infrastructure through several initiatives, one of which is data center and server consolidation, as described in the Department’s Information Technology Enterprise Strategy and Roadmap (ITESR).

The purpose of consolidation is to optimize computing centers and establish core data centers to support critical enterprise services. These efforts are consistent with the Federal Data Center Consolidation Initiative (FDCCI) that seeks to reverse the historic growth of federal data centers. DoD will establish a federation of standardized core data centers—involving key data centers from the Defense Information Systems Agency (DISA), Army, Air Force, and Navy—that will support critical enterprise services. The footprint and connectivity of the data centers will have a global reach, making their services accessible from anywhere necessary to support mission execution.

The current DoD goal is to reduce data centers to 428 by FY 2015. To meet this objective, DoD identified 52 data centers for closure in FY 2011, and in fact exceeded its target by 57. As in FY 2011, DoD continues to identify additional data centers for closure and is aggressively pursuing consolidation. In FY 2012, the DoD identified an additional 97 data centers for closure.

Improving Contingency Business Operations

To operate effectively, the deployed warfighter requires business processes and systems tailored to the demands of an austere, restrictive, and rapidly evolving environment. In 2009, U.S. Central Command - Joint Theater Support Contracting Command (C-JTSCC) first requested support to meet these requirements in the form of streamlined contracting and financial business processes. These challenges and the Department’s planned response were outlined in the FY 2011 ETP, which mapped steps to bridge the gap between defense business modernization initiatives and these

warfighter business needs. To address these challenges, the Department worked to improve several critical areas: contract visibility, data quality, and automated data exchange.

Improve Visibility of Contracts Awarded In-Theater

During FY 2011, the Department improved visibility of contracts awarded in theater, achieving consistent visibility of approximately 96 percent. This was accomplished through weekly monitoring of data availability and focused actions to resolve data availability issues. This percentage was marginally below the original target due to the consolidation of system sites and data, along with the drawdown of forces in Iraq.

Over the course of FY 2011, a dedicated electronic funds transfer (EFT) assistance center was set up to provide customer service and timely response to vendor pay issues. Additionally, system administrators were deployed to contract sites to identify site-specific roadblocks and implement solutions. These process improvements increased visibility and enhanced analysis of the EFT cycle time. Consequently, the determination was made to



refine the EFT cycle time measurement to evaluate whether or not payments were made within 48 hours of the expected date defined in the contract. Increased usage of vendor pay clauses in contracts improved timeliness, resulting in a 95 percent on-time payment rate.

Improve Contracting Data Quality

Wide Area Work Flow (WAWF) is DoD's primary automated system for vendor invoicing and recording of government receipt and acceptance. During FY 2011, \$800 million in-theater payments were processed through WAWF, enabling transparency and visibility into the contracting and vendor pay process. Efforts continue to enroll new vendors into WAWF resulting in improved accountability and real-time visibility on funding execution.

Improve Automated Data Exchange between Theater-based Contracting Systems and CONUS-based Entitlement Systems

At the beginning of FY 2011, no interface existed between the automated contract writing systems in-theater, Standard Procurement System (SPS), and the Global Exchange System, which feeds the Continental United States (CONUS)-based entitlement systems. Lack of an interface required manual entry of contract details and increased the risk of errors. During FY 2011, the interface for theater contracts was successfully completed, and the percentage of contracts flowing through the Computerized Accounts Payable System-Windows (CAPS-W), the CONUS entitlement system, continues to improve. However, older contracts continue to require manual entry until they are completed and closed out. The Department is resolving these issues through continued refinement of system interfaces and increased communication between users.

Chapter Three: Core Business Mission Results

Recognizing that modern, capable business systems are essential to its success, the Department constantly strives to modernize and maintain the Defense Business Systems that support the five core business areas. To reduce waste and optimize results, business system modernization is managed through a tiered investment review process, and DBSs are required to actively manage established milestones, measures, and conditions. Business operations continued to provide tangible positive results to the Department in FY 2011.

Business Mission Area Summary

The FY 2011 ETP focused on business systems currently being modernized, or planning to be modernized in FY 2011, that required more than \$1 million in funds, based on certifications or based on budget. It also included programs that completed (closed out) their modernization efforts in the previous year (FY 2010). These systems were highlighted in the ETP using dashboards designed to provide the key information for acquisition strategies required by the 2005 NDAA: time-phased milestones, performance metrics, and a statement of the financial resource needs.



Many FY 2011 ETP systems are *core* systems, those expected to become the Department's solution for a given capability. The ETP also includes *interim* and *legacy* systems being modernized to provide a bridge to the "to be" target system environment. *Interim systems* are existing systems being modernized to support the Department for a given capability during a limited period of time. *Legacy systems* are those systems that will not be part of the objective defense business enterprise architecture and are expected to be reduced in use in phases and retired pursuant to Title 10 U.S. Code, section 2222 requirements.

Table 2. on the following page aggregates *dashboard* systems data for FY 2011.

Table 2.

Attributes for Dashboard Systems	Totals for FY 2011	Notes
Total	258	220 originally included, and 38 added during the year.
Systems with certification actions through FY 2011	128	Per DITPR data as of March 14, 2012 ¹¹
Totals of budget amounts (\$M) for FY 2011 ¹²	\$2,398 M modernization	\$4,723.7M total modernization and current services, based on FY 2011 IT budget data in the Select & Native Programming Data Input System for IT (SNaP-IT). FY 2012 IT budget for FY 2011 was \$2,469M modernization and \$5,001M total. The FY 2013 Budget reported \$2,081M obligations for modernization and \$4,622M total IT budget for FY 2011.
Systems with certification actions through FY 2010	83	Per DITPR data as of March 14, 2012
Delivered capability in FY 2011	85	Based on key milestone plan (KMP) milestone(s) for delivery in FY 2011
Systems with measureable results in FY 2011, based on performance measure results	88	Only <i>Core</i> systems past milestone B were required to have measures in the FY 2011 ETP and only those systems that delivered capability in FY 2011 could have reported results.
Milestone results	- 131 (58.74 %) milestones met - 17 (7.62%) deleted - 75 (33.63%) reported as slipped	223 milestones for 162 systems.
Subsequently archived – modernization discontinued	18	As of March 14, 2012 per DITPR
Transition Plan State change	20	2 changed from Core to Interim systems 5 changed from Core to Legacy systems 8 changed from Interim to Core systems 2 changed from Interim to Legacy systems 1 changed from Legacy to Core system 2 changed from Legacy to Interim systems

¹¹ Using the “DBSMC System Certification Status Report” available to account holders

¹² Budget data determine through compilation of DITPR and SNaP-IT data (IT-1) reports. Efforts to improve DITPR and SNaP-IT data quality are ongoing.

Human Resources Management (HRM)

Human Resources Management (HRM) encompasses all functional processes required to acquire, train, manage, pay, and provide benefits to the military and civilian personnel in the DoD, as well as to support family members, veterans, retirees, volunteers and contractors. A primary objective of the HRM portfolio is to provide accurate human resources information to decision makers, including Combatant Commanders, that include numbers, competencies, reception accounting (the ability to account for all personnel while in a transit status), individual readiness, patient accountability and status reporting, individuals' unit and location, and assigned duty within organizations. USD(P&R) is responsible for the HRM business area and is the certification authority, pursuant to section 2222,¹³ for all defense business systems within this functional area.

In an effort to increase efficiency, effectiveness, and interoperability in HRM and DoD business processes, USD(P&R) continues to document the HRM processes and standards into the architecture and aligning to the Hire to Retire business optimization effort. In addition, USD(P&R) has aggressively coordinated with the Components to improve the accuracy of DITPR information and completed foundational work on relating DITPR entries to H2R to begin the path to improvement in business operations.

In 2011, the ETP identified the Human Resources Enterprise Information Web (HR EIW), VIPS and Virtual Lifetime Electronic Record (VLER) as key HRM initiatives. In FY 2011, the scope of the EIW was expanded beyond HR, focusing on Procure to Pay (P2P) which crosses multiple core business functional areas. EIW modeled 95% of the common human resource information standard (CHRIS) available to support interoperability. It demonstrated alignment and gap analysis capability on the available authoritative data source (ADS), and delivered on-time, quarterly Proof of Delivery (POD) projects. VLER capability has been successfully employed across five Military Treatment Facilities (MTF) throughout the country demonstrating that electronic health data can be successfully sent to and retrieved from the VA and private partner electronic health and record systems.

In 2011, USD(P&R) determined its FY 2011 ETP core business mission milestones needed to focus on alignment to the DoD SMP and the continued evolution and development of the H2R E2E framework. USD(P&R) focused on completing the mapping of H2R processes and existing standards, developing performance reporting processes, and aligning HRM systems/initiatives to the appropriate processes.

¹³ 10 U.S. Code Section 2222, Subsection (C)

Positive Example 1: TRICARE Online Blue Button

Secure, Anytime, Anywhere Access to Your Own Health History



As the global patient portal for DoD, TRICARE Online offers beneficiaries secure, anytime, anywhere access to scheduled appointments and personal health histories. In FY 2011, TRICARE Online released a more intuitive web interface, upgrading the Blue Button and expanding its online appointment capabilities, resulting in the increased utilization depicted in Figure 3. By clicking the Blue Button, beneficiaries can quickly book and cancel appointments for themselves and their family members; schedule e-mail and text message appointment reminders; order prescription refills; and see lab results, outpatient medications, allergies, problem lists, and clinical encounter notes.

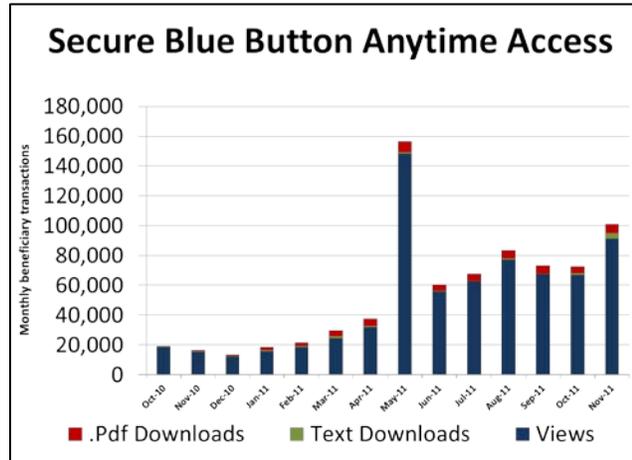


Figure 3. Blue Button Anytime Access

The DoD Military Health Systems built the award winning Blue Button in collaboration with the Department of Veterans Affairs (VA), the Department of Health and Human Services, the Centers for Medicare and Medicaid, and the Markle Foundation. In 2011, TRICARE Online was part of the federal Blue Button team selected as finalists in the Citizen Service Category for the 2011 Samuel J. Hayman Service to America Medals. TRICARE Online won a 2011 Agency Award from Government Computer News for its significant impact in providing secure, online Blue Button access to individuals' health data. Since the enhancements to TRICARE Online were released in April 2011, Blue Button use continues to rise, spiking to over 145,000 views in May 2011. Thanks to a national Blue Button outreach campaign by the TRICARE Management Activity, the use of the Blue Button to view and download personal health information steadily increased from under 20,000 to over 60,000 views and downloads per month during FY 2011: a 300% increase. By the end of FY 2011, TRICARE Online users performed over 800,000 transactions and views using the Blue Button.

Future Impact

With the Blue Button, TRICARE Online users can view and download the details they need in real-time to better manage their own health. This will lead to better medical results and help reduce healthcare costs for beneficiaries and the federal agencies that treat them. In a March 2011 presentation to the House Armed Services Committee, Asst. Secretary of Defense for Health Affairs, Dr. Jonathan Woodson described the impact of TRICARE Online, "We are introducing tools that are improving access to

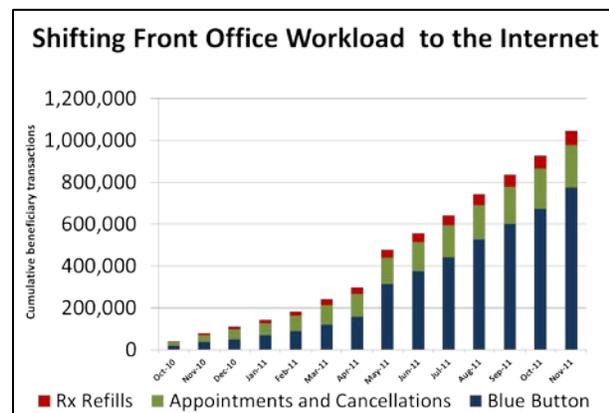


Figure 4. Internet workload by month

care and greatly enhance our ability to communicate with our patients, redirecting them away from inappropriate use of emergency rooms, and improving their overall health.” TRICARE Online will continue its trend to shifting workload to the internet by expanding the capability to allow secure patient-provider communications during FY 2012.

“I re-enrolled onto TRICARE Online today and it was much easier. Then I hit the ‘Blue Button’ and, sure enough, my entire lab tests for the last many years were there and also my appointments, my prescriptions, and my refill information.”

TRICARE Online User

DoD launched the Blue Button using existing near-real-time Bi-Directional Health Information Exchange with the VA to maintain the stringent data security requirements of the Health Insurance Portability Accountability Act. This synchronized effort to safely display and download personal health data is helping DoD and VA build the joint virtual lifetime electronic health record. This national model of streamlined, secure transmission of personal health data is helping health care providers have the information they need to deliver high quality care while reducing medical errors. Together, these agencies are helping to shape the future of federal health care information technology collaboration, interoperability, and transparency, which will result in improved decision making and medical outcomes for their most valuable partners, the patients and families they serve.

SMP Alignment

The TRICARE Online Blue Button capability is an innovative federal first in information technology meaningful use, and was built in cooperation with the VA, federal agencies, and industry, in support of the President’s Health Care Initiative. The Blue Button aligns FY 2012-2013 SMP Business Goal #1, “Strengthen the DoD total Workforce mix (military, civilian, and contracted support) to accomplish the DoD mission and sustain superior performance in a time of constrained resources” and #6, “Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service.”

Positive Example 2: Digital Delivery Mail Program (DDMP)

Speed, Security and Productivity

The Digital Delivery Mail Program (DDMP) will provide on-line postal-mail delivery and management services for the Secretary and Deputy Secretary of Defense, and all Pentagon residents. The system’s web interface will increase speed, security, and productivity. Continuity of Operations (COOP) and disaster-recovery capabilities are also enhanced. Customer service will be improved by reducing processing time, and providing digital and hard copy delivery options. Linkage to existing Pentagon Force Protection Agency (PFPA) tracking systems and the Pentagon Dockmaster will increase security and allow a complete audit trail for delivered mail. The system will provide real-time location and accountability of mail. The cost of mail

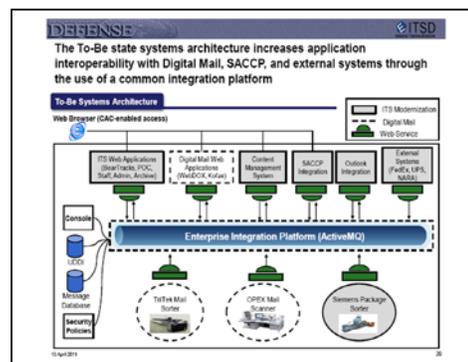


Figure 5. Digital Mail Modernization To-Be State

delivery will be reduced over time.

Currently the Defense Post Office (DPO) manually processes and delivers up to 13,000 pieces of mail each day. DDMP sets the foundation to transition to a digital mail sorting and delivery capability. The FY 2010-2011 DDMP/Digital Mail Modernization (DMM) completed a one year pilot program which provided positive results and proof of concept. The time required for manual mail processing and delivery was reduced by 3 hours, and real-time tracking and accountability were improved through the use of integrated material tracking software where manual processes were non-existent. Human capital effectiveness was maximized. The automated mail processing and digital delivery of hard copy mail provided increased metric/measure capture capability and decreased delivery time. Automated tracking records and digital imaging of the incoming mail enhanced security protocols and has provided a clear picture of the volume and type of mail received daily at the Pentagon.

Benefits

The DDMP/DMM system provides an integrated hardware and software solution to create, edit, approve, schedule, and publish information from a centralized office to various systems located throughout the Pentagon Reservation.

- The DDMP/DMM production implementation plan is designed to incrementally phase in Pentagon Agency/Divisions, with phase one completing in April, 2012.

Future Impact

In support of the Washington Headquarter Service (WHS) mission, DMMP will improve customer service and human capital efficiencies by reducing manual processes, increasing security, and ensuring accountability through accurate reporting.

SMP Alignment

This investment supports FY 2012-2013 SMP Business Goal #6, “Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service.”

Financial Management (FM)

USD(C) developed a Financial Management (FM) strategy that aligns with the goals in the DoD and USD(C) strategic plans. These plans are designed to respond to warfighter needs, sustain public confidence through auditable financial statements, and specify business goals aimed at strengthening processes and increasing efficiencies. The Comptroller has three primary goals: First, to acquire the resources necessary to meet National Defense Objectives, including promotion of efficiencies and savings, improving reliability and integration of financial systems in support of E2E processes. Second, to ensure the legal, effective, and efficient use of DoD resources in achieving full audit readiness of budgetary and financial information most valuable in managing the Department. The primary focus has been on execution of the Financial Improvement and Audit Readiness (FIAR) initiative across the Services and Fourth Estate.¹⁴ The continued rollout of Enterprise Resource Planning (ERP) systems across the Service components and Defense agencies has become a key enabler to achieving and sustaining audit readiness. The third goal is to champion a strong and capable FM workforce.

DoD made significant strides toward the accomplishment of DoD and Comptroller financial management goals, particularly on financial audit readiness through FIAR Plan execution. In October 2011, the Secretary of Defense accelerated the timeframe for achieving the first goal, requiring Military Departments and Defense organizations to achieve auditable Statements of Budgetary Resources for General Fund activities in 2014. In support of the Secretary's direction and USD(C)/Chief Financial Officer (CFO) priorities, the Department linked resource allocation to planned and actual business outcomes, and USD(C) began tying together policies, business practices, systems, and workforce initiatives. Component Financial Improvement Plans (FIPs) conform to a standard FIAR strategy and methodology, resulting in a phased approach to achieve USD(C)/CFO priorities and auditable annual financial statements. Both the DoD FIAR Plan and Component FIPs are integrated with the Enterprise Transition Plan.

FY 2011 FIAR Accomplishments

The FIAR initiatives completed during FY 2011:

- Unqualified (clean) opinion on financial statements for General, Working Capital, Trust, Special, and Deposit Fund agencies: Defense Contract Audit Agency; Defense Commissary Agency; Defense Finance and Accounting Service (DFAS); Military Retirement Fund; Office of the Inspector General; TRICARE Management Activity; U.S. Army Corps of Engineers; and Working Capital Fund for Defense Information Systems Agency, with approximately \$112 Billion in total budgetary resources.
- Validation of audit readiness of appropriations received by the Military Departments
- Audit readiness examination of Army General Fund Enterprise Business System (GFEBs) sites
- Audit readiness assertion of a Navy major defense acquisition program
- Audit readiness examination of Air Force Fund Balance with Treasury reconciliation

¹⁴ The Office of the Secretary of Defense, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Defense Agencies, the DoD Field Activities, and all other organizational entities in the DoD that are not in the Military Departments or the Combatant Commands are referred to collectively as the "DoD Fourth Estate."

- Audit readiness assertions by the Army, Navy and Air Force of a significant portion of mission critical assets
- Over 1,000 Component personnel completed FIAR training to broaden audit readiness competency across DoD

ERP Systems Deployment

Modernization of the Department's business and financial systems is a key component to achieving USD(C)/CFO priorities and auditability. The Department is replacing most of its legacy business and financial systems that are stove-piped, stand-alone systems preventing E2E transactional processing with ERP systems. Full deployment, however, will take several years. Navy ERP has been deployed to approximately 66,000 users and is scheduled to reach Full Operational Capability (FOC) by FY 2013. Army has two of its financial systems of record, Logistics Modernization Program (LMP) that completed implementation, and GFEBS, which will reach FOC by July 2012. Air Force's planned ERP for financial management, Defense Enterprise Accounting and Management System (DEAMS), is currently being piloted with 1,100 users at Scott Air Force Base and DFAS Limestone, Maine, and is scheduled to meet Milestone B in FY 2012. The Defense Agencies Initiative (DAI) was deployed at four new agencies in October 2011, for a total of eight agencies to date.

Data Standardization

The Standard Financial Information System (SFIS) is the DoD common data standard complying with federal requirements to report using uniform accounting standards. In prior FYs, system owners self-asserted compliance with enterprise standards. The FM IRB also conducted SFIS validations for 16 financial systems, including five ERPs.

Positive Example 3: Integrated Budget Documentation & Execution System II (IDECS II)

Integrated Budget Documentation and Execution System (IDECS) II automates business processes used to support the Air Force's budget development cycles of Planning, Programming, Budgeting and Execution (PPBE). It enables authoring, multiple levels of review, consolidation, and publication of Air Force investment appropriation budget justification documentation for the annual Office of the Secretary of Defense (OSD) Program Budget Review (PBR) and the President's Budget (PB) submissions to Congress.

**PROVEN ABILITY TO IMPROVE
BUDGET PROCESS**

IDECS II improved efficiency and enabled streamlined documentation of budget justification materials.

The IDECS II web-based application supports the generation of budget justification documentation for investment accounts and the associated approval process. The application supports the Extensible Markup Language (XML) output capability required by OSD in conjunction with the Defense Technical Information Center (DTIC), which enables budget justification documentation to be submitted in a standardized format to OSD and Congress.

Congress and OSD require clear justification of budget

submissions for investment appropriation accounts in a specified format. The documentation must be consistent with overall budget top-lines, support and show a coordinated Air Force position, be consistent with prior year submissions, and forecast the future year spending plan. Documentation must be delivered on a very tight schedule prescribed by Congress. Failure to properly describe the Air Force's position can lead to loss of funding and/or detailed Congressional direction, which could result in additional work and extensive schedule delays.

Previously, this capability was provided by the Budget Data Support System (BDSS) and IDECS legacy client-server applications. Legacy applications caused significant duplication and inefficiency. They were deployed in different physical environments, utilized different programming methodologies, required separate support contracts, management, training and end-user support, and required separate certification, security testing, and vulnerability management. Additionally, BDSS and IDECS were in need of upgrading to meet required statutory, DoD and Air Force information technology and business reengineering standards.

**SUPPORTING THE DOD STRATEGIC
MANAGEMENT PLAN**

IDECS II improved business rules and validations aligning to DoD's mission to enhance the Acquisition and Financial Management business objectives

Benefits

IDECS II was successfully deployed in FY 2011. It was first used to support the Air Force's FY 2012 PBR submission to OSD and the FY 2012 PB submission to Congress, and produced accurate budget materials for each cycle and subsequent reviews.

Specific IT investment benefits include:

- Eliminated two legacy client-server based systems (BDSS, IDECS Legacy)
- Consolidated application hosting and service level agreements; consolidated and created efficiencies for training, helpdesk support, and account administration
- Decreased duplicative management of certification and accreditation, security protocols, and vulnerability patch management
- Provided web-accessible secure application vs. client-server
- Enabled Public Key Infrastructure (PKI), creating greater security efficiency for user authentication
- Supported Air Force initiative to improve application security through targeted scanning and monitoring
- Improved usability by implementing enhanced tool tips and guides

Specific process improvements for the budget justification process include:

- Enabled 95% of the budget justification documents to be transmittable via XML format
- Consolidated and streamlined "like" forms, business rules, and validations from the legacy systems
- Standardized validation checks across investment appropriations
- Standardized training and helpdesk support and moved to predominantly web-based training

Future Impact

IDECS II demonstrates a dynamic interrelationship of elements for effective support of DoD's objectives and future efficiency goals. It was developed to be flexible for future enhancements and is capable of managing web services, which will allow enhanced capabilities to securely interact with other approved applications for data sharing and/or data mining.

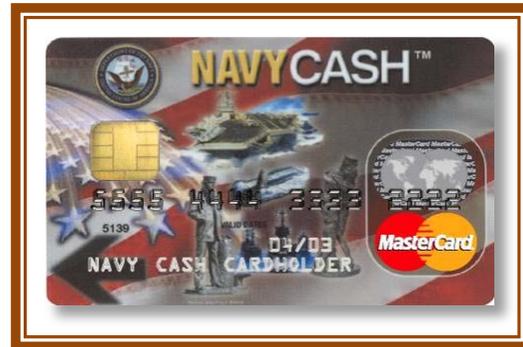
SMP Alignment

IDECS II helps enable the FY 2012-2013 SMP Business Goal #1, "Strengthen the DoD Total Workforce (military, civilian, and contracted support) to accomplish the DoD mission and sustain superior performance in a time of constrained resources." Further, IDECS II aligns to Business Goals #2, "Strengthen DoD Financial Management to respond to warfighter needs and sustain public confidence through auditable financial statements" and #6 "Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service."

Positive Example 4: Navy Cash®

Navy Cash Replaces Bills and Coins for Sailors, Marines at Sea

Navy Cash replaced the legacy ATMs-at-Sea system. With Navy Cash, each Sailor and Marine on board ship receives a Navy Cash card. A chip-based electronic purse on the card replaces bills and coins for purchases on the ship. A magnetic-strip-based, branded, pre-paid debit feature provides access off the ship to funds in Navy Cash accounts at more than 23 million MasterCard acceptance locations and 1 million ATMs worldwide. Navy Cash kiosks on the ship provide Sailors and Marines 24/7 access to bank and credit union accounts and the ability to move money to and from Navy Cash accounts and accounts ashore. Navy Cash cards virtually eliminated the use of cash onboard ship and significantly reduced the use of personal checks.



Benefits

By the end of FY 2011, Navy Cash was operational on 151 ships, improving the efficiency and accuracy of fiscal accountability and reducing the workload and the costs associated with shipboard cash management. At any time in FY 2011, Navy ships were carrying \$70 million less cash than before Navy Cash went online.

Navy Cash began a technical refresh in FY 2011 as part of a systematic replacement cycle. As a part of tech refresh, the Navy Cash application itself will be upgraded to improve human systems interface. In addition, the replacement devices will use Windows-based operating systems, enabling remote software update capabilities. Tech refresh installations were completed on 15 ships in FY 2011 and will continue at a rate of 24 to 26 installations a year through FY 2016. These new abilities will significantly improve the system's information assurance posture and reduce the number of on-

site maintenance visits. These upgrades have simplified and improved maintenance response times and reduced the overall cost of maintenance. To minimize demands on ship communications, Navy Cash works on an offline, store-and-forward basis. Funds transferred to Navy Cash cards are available immediately, providing convenience, but also raising the risk of transfers completed with insufficient funds in the cardholder’s account.

At the beginning of FY 2011, the Navy Cash program management team undertook a process improvement to reduce the amount of negative balances on the ships. As a result of this effort, the amount of negative balances across all Navy Cash ships was reduced from \$236,000 early in FY 2011 to \$130,000 by the end of FY 2011—a reduction of 45 percent; and the monthly amount of negative balances aged greater than 60 days was reduced from \$110,000 early in FY 2011 to \$21,000 by the end of FY 2011—a reduction of 80 percent.

Future Impact

Navy Cash continues to look for ways to improve efficiency to operate within the reduced manning structures planned for Navy ships in general and for future ship types in particular. Navy Cash must also provide more automation for operations on the ship, move more of the system management functions to the Navy Cash backend ashore, and reduce the workload associated with preventive and corrective maintenance on the ship.

SMP Alignment

Navy Cash enables FY 2012-2013 SMP Business Goal #1, “Strengthen the DoD Total Workforce to accomplish the DoD mission and sustain superior performance in a time of constrained resources.” It is also aligned with Business Goal #2: “Strengthen DoD Financial Management by improving the operation and audit readiness of DoD financial activities.”

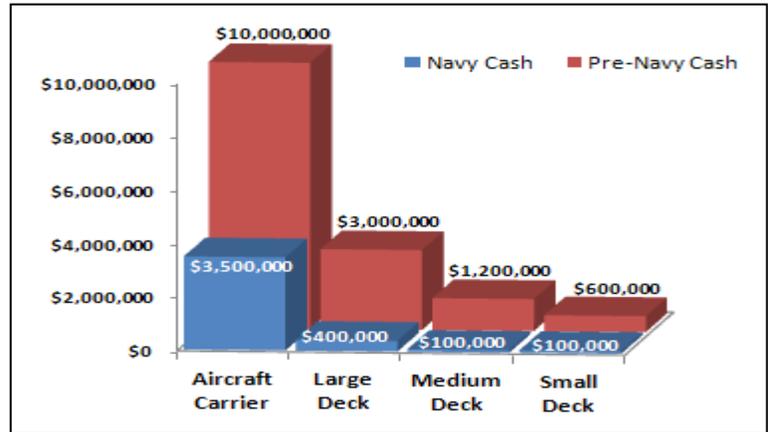


Figure 6. Cash Levels by Ship Type

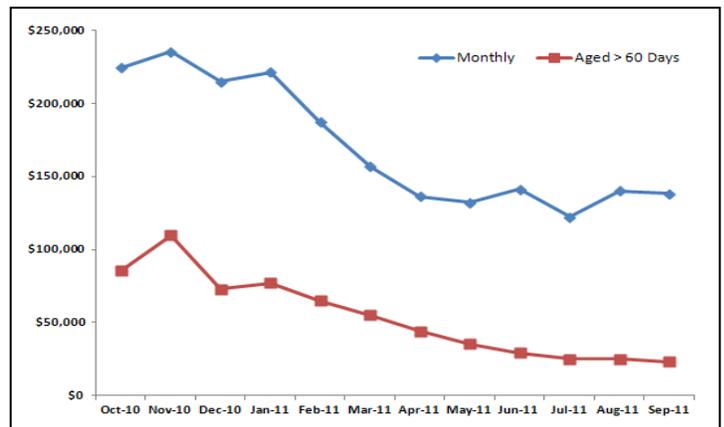


Figure 7. Monthly Negative Balances

Real Property and Installations Lifecycle Management (RPILM)

America's military installations sustain the home station presence of U.S. forces, and provide support for training and forward deployments during periods of crisis, contingency, and combat. They are relied upon as safe, efficient workplaces that offer quality-of-life services and amenities for military members and their families, as well as the civilian and contractor workforce.

The Military Departments are responsible for installation management with oversight by the Office of the Deputy Under Secretary of Defense for Installations and Environment (ODUSD(I&E)). This oversight includes efforts to improve the RPILM business area through development of common data standards and business processes. The Real Property team has conducted several BPR initiatives and is now identifying and removing obstacles to efficient and successful implementation of these initiatives. ODUSD(I&E) plays a critical role in maintaining configuration control of RPILM data standards, while encouraging U.S. Military Departments and Defense Agencies to implement these standards.



Real Property Inventory Requirements (RPIR) have provided a foundation for achieving real property accountability by standardizing key data and business processes. Significant progress has been made within the Components' real property and related systems to support these initiatives; during the prior year, for example, RPILM expanded the use of standardized data and enterprise systems in order to enable both DoD and Federal reporting capabilities. Additionally, Department wide real property reconciliation have expanded to encompass quarterly Service reporting in support of the focus of existence and completeness in financial improvement and audit readiness. RPILM is working towards the migration of two current enterprise systems that support real property requirements (Real Property Unique Identifier Registry (RPUIR) and Real Property Asset Database (RPAD)) into a single BEA-compliant, net-centric, service-oriented platform. Once realized, the capability envisioned will provide broader access to authoritative real property data for reuse by multiple business areas, as well as improved reporting, geospatial, and analytical tools. This merger is expected to significantly drive down the contracting, licensing, and hosting costs of maintaining these systems independently.

In addition to reducing costs, ODUSD(I&E) expects that this merger will also decrease data redundancy, improve data currency, and increase the accuracy of enterprise data by forcing error correction at the source system prior to movement into the enterprise environment. Since the enterprise approach will rely on service-oriented architecture, the resources (i.e., funding, time, and personnel) required to interface with the new platform should be significantly lower. It is anticipated that functionality will be implemented in stages, with an initial operating capability as early as January 2013, and full deployment prior to the end of FY 2014.

Real Property Acceptance Requirements (RPAR) and Real Property Construction in Progress Requirements (RPCIPR) establishes accounting and financial standards related to accurately bringing new facilities into DoD real property inventories. Implementing these requirements will provide real-time accountability for DoD's investments in construction projects, enabling accurate and consistent reporting to Congress, project and financial managers, and contributes to achieving DoD audit readiness goals.

Chemical Management Enterprise Information Integration improves the accuracy and availability of authoritative data required for the management of chemicals and hazardous products, with the ultimate aim of reducing chemical-related risks throughout the DoD supply chain. ODUSD(I&E) continues to work with Military Departments and Defense Agencies to provide a centralized, interoperable source for chemical and hazardous product data.

Defense Installation Spatial Data Infrastructure (DISDI) leverages geospatial information and technology across I&E's business mission areas to better manage global installations and bases. Using the Global Information Grid (GIG), DISDI develops standards and policies that enable the sharing and interoperability of high-quality geospatial data at all levels of installation management. This initiative provides comprehensive support to every other RPILM initiative and situational awareness to a growing number of OSD activities. For example, DISDI is providing a centrally managed, web-based mapping and analysis capability, which in 2011 was used to support several Homeland Defense initiatives, the Family Support Program, various Renewable Energy Initiatives, Energy Project Siting reviews, and the Sustainable Ranges Report to Congress. In 2011, the DISDI initiative successfully accomplished a complete realignment of the Spatial Data Standards for Facilities, Infrastructure and Environment (SDSFIE), a community data standard used by all DoD

Components for installation geospatial information. The new SDFSIE is fully aligned with the BEA and supports interoperability with a wide range of I&E business systems. Further, the new SDFSIE is now a mandated standard in the DoD IT Standards Registry, and the DoD components are expected to achieve full compliance with it by the end of 2013. The transition to this new enterprise standard is provoking a significant effort by the Components to consolidate and update geospatial information systems by making them easier to use, more interoperable with other business systems and more efficient to operate and maintain.

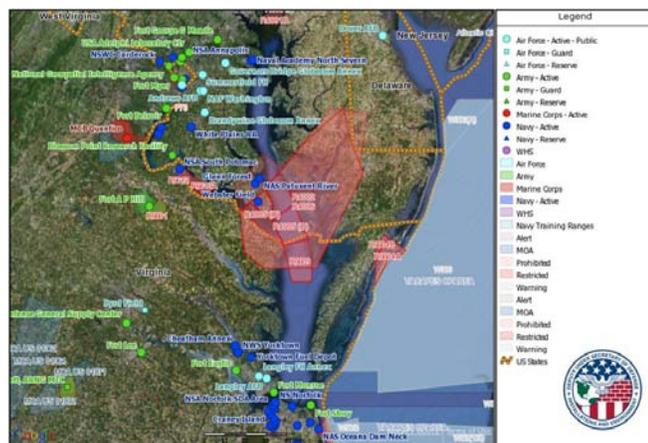


Figure 8. DISDI in screen shot

Enterprise Energy Information Management (EEIM) is the most recent RPILM initiative focused on providing efficient access to reliable information about energy consumption, conservation, and renewable energy production in DoD facilities at various levels of aggregation, include the individual building, the installation, the geographic region, and the Military Department. The RPILM business area has conducted a BPR initiative to define the key pieces of standard information and business processes that DoD will need to achieve its energy management goals, reduce costs and reliance on foreign sources of energy, and manage numerous external reporting requirements.

Currently, the RPILM team is leveraging the standard information structure developed in the EEIM BPR as a foundation for a comprehensive installation management approach, one that integrates real property and resource management activities with utility and resource monitoring and control activities. By the end of FY 2012, DoD will have an implementation strategy and plan in place for managing standardized energy information across the entire DoD enterprise.

Summary

RPILM business transformation has focused on improving the accuracy and availability of information used throughout DoD to support installation management by establishing accounting and financial standards related to bringing new facilities into DoD real property inventories.

Positive Example 5: Army Mapper

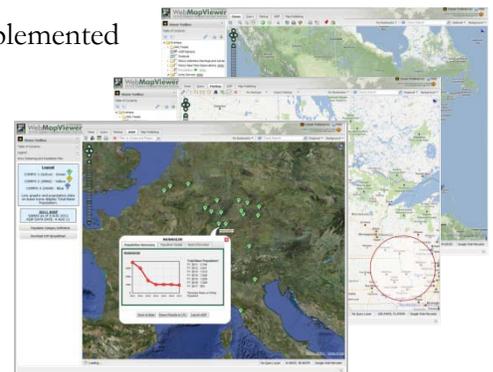
Advancing the Army's Geospatial Capability



The Army's Installation Geospatial Information & Services (IGI&S) program is focused on improving the Army's geospatial business practices through a centralized approach that will decrease operational costs and cycle times and reduce rework. Primary goals of the IGI&S program are to:

- Provide baseline geospatial capability across the Army Installation, Energy & Environment (IE&E) domain
- Develop and make available, standardized IE&E geospatial data and tools through an enterprise architecture
- Reduce redundant Army IE&E geospatial capabilities

Army Mapper is the enterprise geospatial solution initiated and implemented by the IGI&S program that supports the Army IE&E domain by facilitating access to geospatial data that is stored, managed, and maintained centrally. The Army Mapper includes a geospatial data repository, WebMap viewer, and desktop tools in support of business requirements. The data repository is structured for full life cycle geospatial data capture, maintenance, analysis, and archiving. The WebMap Viewer is available to all Army Knowledge Online (AKO) and Common Access Card (CAC) users at <https://mapper.army.mil>. Desktop Tools is an internet accessible suite of Geographic Information System (GIS), Computer Aided Design and Drafting (CADD) and image analysis software available from any computer.



Benefits

Army Mapper expands the availability of geospatial capabilities across all Army locations, levels and functions. Army Mapper also increases installation situational awareness and geo-enables decision-making with readily access maps, drawings, and analysis tools. Examples of how Army Mapper can be used to benefit installations include:

- Preparing basic information maps to support garrison mission functions
- Finding a building by building number and determining a travel route
- Preparing maps visualizing force protection zones for use in emergency planning exercises
- Analyzing a terrain model for military exercise planning
- Preparing a map visualizing wetlands and other environmental constraints in relation to new construction proposals
- Creating and publishing a custom web service to support a concert event

Army Mapper provides the infrastructure for secure sharing of geospatial capabilities and data in accordance with Army and DoD enterprise architectural standards.

Proof of Benefits

Figure 9 depicts the progressive measurement of success through the reduction of Army-wide costs for installation geographic information systems via the elimination of legacy geospatial information system capabilities.

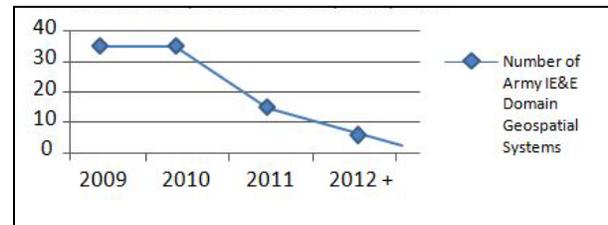


Figure 9. Geospatial Systems

Future Impact

The goal of Army Mapper is to expand the availability of geospatial capabilities across all locations, levels, and functions. The system, when fully deployed, will reduce costs for the Army by centrally procuring and managing the Army's geospatial infrastructure. Version 2.5.1 of Army Mapper was released in October 2011. Army Mapper has met Full Operational Capability (FOC) requirements as a result of an 80% reduction of geospatial IT investments; the establishment of a sustainable business process for geospatial data to ensure quality assurance/quality control; the support for sharing, access and utilization of geospatial data within the IE&E domain; and support for both GIS and CADD users among other objectives.

SMP Alignment

Army Mapper aligns with FY 2012-2013 SMP Business Goal # 3, "Build agile and secure information capabilities to enhance combat power and decision-making while optimizing value" and #5, "Increase operational and installation energy efficiency to lower risks to our warfighters, reduce costs, and improve energy security."

Weapons System Lifecycle Management (WSLM)

The Under Secretary of Defense for Acquisition, Technology & Logistics (USD (AT&L)) is responsible for overseeing all business activities and processes associated with Weapon Systems Lifecycle Management. WSLM addresses the full life cycle of weapon and associated information systems from concept to disposal.

The WSLM seeks to improve acquisition-related oversight, processes, data, decision support, information access and resource management. Specifically, it strives continuously to improve its provision of the following:

- A management structure to address the full lifecycle of acquisition processes oversight, to include: requirements definition, technology development, production and deployment, operations and support, and disposal.
- Accessibility, continuity, and accountability of acquisition information required by managers and decision makers.
- A balanced and coherent Defense acquisition, technology and logistics process that supports the National Security Strategy and makes the most effective use of resources provided.

WSLM Initiatives

The following are WSLM initiatives to reform acquisition execution:

Earned Value Data Enhancements intended to improve access, accuracy and timeliness of Earned Value Management (EVM) data. The EVM Central Repository (EVM-CR) pilot program provided an automated central repository for key acquisition data and a test framework to evaluate and improve contracting approaches for EVM and Cost and Software Data Reporting. Standardization of reporting procedures which has led to improved data quality and timeliness of data submissions. The EVM-CR now includes assessment and monitoring of data quality in addition to completeness and timeliness of data submissions. Additionally, it is now DoD's authoritative source for contractor-provided EVM data which has centralized the focus of data quality activities.

The EVM-CR contains information for all acquisition programs (76 Major Defense Acquisition Programs (MDAP) and 13 Major Automated Information System (MAIS) programs) required to provide EVM data reports. It is accessed by more than 2,400 users and stores approximately 400 submissions a month from over 200 contracts.

Transparency/Selected Acquisition Report (SAR), President's Budget and Future Year Defense Program (FYDP). USD (AT&L) has established, in coordination with the USD(C)/CFO and Director of OSD Cost Assessment & Program Evaluation, a process for ensuring current and consistent financial information is reported in the SARs, including, but not limited to, current life-cycle cost estimate, annual funding by appropriation, planned annual procurement quantities, Program Acquisition Unit Cost and Average Procurement Unit Cost, and actual realized funding and procurement. The information reported in this process will be consistent with cost estimates, funding, and procurement quantity information provided for the preparation of the President's Budget and the FYDP. The new processes and data procedures will be used to create financial information for SARs for all MDAPs and starting in 2012, for financial information on MAIS Annual Reports (MARs) for all MAIS programs.

Acquisition Visibility (AV) of Defense Acquisition Executive Summary (DAES), Selected Acquisition Reports (SARs) and MAIS Annual Reports (MARs) using Defense Acquisition Management Information Retrieval (DAMIR). USD(AT&L), in association with Performance Assessment and Root Cause Analysis (PARCA), has consolidated efforts for compiling, accessing, analyzing and reporting authoritative acquisition program information. Currently the focus is to monitor program and organizational performance regarding acquisition of the Department's largest programs. This initiative aligns and exposes timely, authoritative information from accountable sources in order to enhance and improve the Department's analysis and decision-making processes. Initially using primarily DAMIR, WSLM AV activities will expand to host the authoritative information, supporting artifacts and business intelligence tools on an acquisition portal, accessible to all authorized users in the Department's acquisition community.

Pre-Milestone B Information Management for pre-MDAP programs establishes enterprise structure, data and information requirements for pre-Milestone B acquisition efforts to meet the 2009 Weapon Systems Acquisition Reform Act direction and Department efforts to improve acquisition performance. These requirements are being implemented through the AT&L Acquisition Visibility effort.

Strategic Management Plan (SMP) Alignment

WSLM supports achievement of the SMP Business Goal 4: Increase the buying power of the DoD acquisition system and processes spanning requirements determination, development, procurement, and support to ensure that the force structure is modernized, re-capitalized, and sustained within available resources. WSLM also supports other SMP goals and initiatives associated with building agile and secure information capabilities to enhance combat power and decision-making and strengthening DoD acquisition processes to ensure the Department's force structure is modernized, recapitalized, and sustained within available resources. To achieve these goals and initiatives and support full life-cycle management of the Department's weapon systems and automated information systems, WSLM activities:

- Establish broad, accurate and timely information visibility
- Bring transparency to acquisition information
- Achieve improved flexibility, agility and better business response to warfighter needs
- Enable cost reductions/efficiencies in the business mission area.

Positive Example 6: Defense Acquisition Management Information Retrieval (DAMIR)

Increasing Transparency of the Acquisition Portfolio

The Defense Acquisition Management Information Retrieval (DAMIR) is a secure, web-based, reporting and analysis tool that supports DoD's Acquisition Visibility (AV) capability – an information and data service which serves as the foundation for overseeing, reporting and analyzing DoD's major acquisition portfolio. DAMIR provides enterprise visibility into acquisition program information while performing critical data checks, validation and standardization. This combination streamlines DoD's management of MDAPs and MAIS and improves leadership decision-making on these critical portfolios. Through governance, service oriented architecture, and web services, DAMIR feeds critical acquisition information into the AV service – the authoritative source for Acquisition Program Baselines, Selected Acquisition Reports (SAR) and SAR baselines, MAIS Annual Reports (MAR) and MAR original estimates, and the Defense Acquisition Executive Summary (DAES) reports.



Acquisition leadership expanded and enhanced DAMIR's capabilities in FY 2011 to improve acquisition process, end user experiences, and data collection and verification processes. Below is a summary of key improvement for FY11.

MAR Enhancements: DAMIR now supports and automates the MAR for all MAIS programs, to include data entry and validation capabilities, program data views, and reporting.

DAES Enhancements: DAMIR now displays data checks (validation of the data against business rules that verifies the information is consistent and complete, highlights concerns related to program health, and provides alerts regarding changes to information that might be of interest to reviewers) on DAES submissions, which run automatically when DAMIR receives acquisition data. DAMIR prioritizes data check results based on importance/severity and presents them to leadership on demand. While DAMIR currently limits this information to the Program Offices, access will be provided to the Program Executive Officers (PEOs), Components, and OSD in the near future.

DAMIR introduced International Program Aspects (IPA) into the DAES process to improve visibility into programs shared with foreign entities. IPA was made officially available on January 1, 2012, making international program information part of the DAES process.

APB Enhancements: A Weapons Systems Acquisition Reform Act (WSARA) confidence statement is new to the APB data entry. DAMIR now captures both a confidence percentage and a statement regarding that confidence within the APB. DAMIR will display the WSARA confidence information – once captured for a program – as part of each successive SAR Cost Memo for that program.

Benefits

The addition of new critical acquisition information, combined with more effective displays of acquisition data supports AV as the service for USD(AT&L)'s acquisition oversight, accountability and strategic decision making on the Department's \$1.7 trillion major acquisition portfolio. As

DoD leadership streamlines acquisition processes, DAMIR will continue to service AV to facilitate critical reviews and comparisons of acquisition programs; improve management and increase accountability across the Components; and demonstrate world-class technical delivery that continuously meets leadership's information requirements in an agile and timely manner.

In FY 2011, DAMIR further increased the amount of acquisition information available, through standardized reports and queries. Most importantly, DAMIR now includes the MAR—the most significant and visible acquisition information available for MAIS programs—which brings an entirely new subset of acquisition information under the purview of acquisition leadership.

Future Impact

DAMIR will continue to increase the visibility of acquisition information. In addition to MAR, DAMIR will display more granular views. DAMIR will also enhance data validation in order to: (1) allow external systems to validate data before sending; (2) provide data quality and program health indications to systems providing data; and (3) provide data quality and program health indications to all DAES users. DAMIR will also continue to improve the end user experience by making enhancements to MAR and SAR reporting.

SMP Alignment

DAMIR and the AV service it supports address FY 2012-2013 Business Priority Goal #3. “Build agile and secure information capabilities to enhance combat power and decision-making while optimizing value,” and Goal #4, “Strengthen DoD acquisition processes spanning requirements determination, development, procurement, support and disposal to ensure that the Department’s force structure is modernized, recapitalized, and sustained within available resources.”

Positive Example 7: Earned Value Management Central Repository (EVM-CR)

Supporting Acquisition Visibility

The DoD Earned Value Management Central Repository (EVM-CR) is a centralized database that houses and presents authoritative EVM data for program managers and senior acquisition leaders. The EVM-CR centralizes the collection, reporting, and distribution of EVM data from applicable MDAPs and MAIS providing a singular source for complete, accurate, timely, and secure storage and transfer of electronic EVM data. The Department has implemented unified business rules such that all Acquisition Category (ACAT) 1A, 1C, and 1D program contracts with EVM reporting requirements must be included in the Central Repository. Today, the EVM-CR provides visibility into EVM data for more than 89 acquisition programs across the various Components and is the authoritative source of information for AT&L and the PARCA organization.

In 2011 PARCA was designated by the USD (AT&L) as the office responsible for EVM performance, oversight, and governance across the Department. The PARCA EVM division’s authorities are codified in an August 10, 2011 AT&L Memo. Specifically, PARCA will manage the DoD EVM-CR; review and approve EVM data requirements for MDAP programs to facilitate effective cost and schedule reporting; and will report EVM data compliance, integrity, and quality to the USD (AT&L).

Benefits

The EVM-CR provides contractors with a central submission point for EVM data so that Program Offices, and analysts have a singular source to review authoritative data simultaneously and efficiently. This capability also supports timely reporting of summary EVM data into the DAMIR system which further enhances acquisition visibility. In addition, the EVM-CR provides stakeholders with access to low level EVM information to support detailed program analysis including root cause analyses. The EVM-CR provides the framework to help Program Offices and OSD to make better informed acquisition decisions.

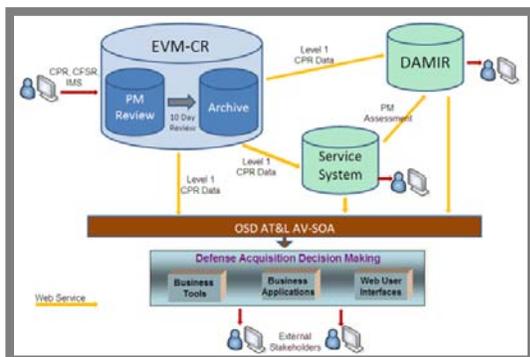


Figure 10. EVM-CR 1

Since the EVM-CR transitioned from pilot-phase to full implementation in 2007, the number of users accessing EVM data has increased to over 2,400 with an average of over 400 contractor data submissions each month across over 200 contracts on 89 programs. Contractor compliance with the EVM-CR reporting requirements, such as on-time data submissions and data compliance, have increased from approximately 30 percent to more than 80 percent today. PARCA EVM is focused on improving EVM data quality reported to the EVM-CR to ensure its utility for OSD, Service Acquisition Executive (SAE), PEO, and Program Office decision makers.

The ability to present information via interactive dashboards connected to the repository demonstrates a proven capability to provide up to date, accurate information to the right people when needed. These dashboards will be used by PARCA EVM to provide insight of key EVM data quality metrics for OSD senior leadership, service acquisition executives, and Program Offices. PARCA also believes that it will be able to leverage the dashboards to improve data fidelity and provide input to the DAES process. All this is done to ensure the EVM-CR provides the Department with greater transparency on the status of its MDAP and MAIS programs.

Future Impact

The availability of a single, authoritative source of EVM data for MDAP and MAIS programs enable timely analysis and evaluation of program and contract health and contract performance. The EVM-CR provides the Department insight on the status of the reported programs and this helps promote the informed acquisition decisions and outcomes. The EVM-CR will remain the authoritative source for accurate, on-demand EVM data for the acquisition community and will become even more useful as the Department develops and implements more robust business rules and updates EVM policy.



Figure 11. Reporting Compliance Dashboard

SMP Alignment

EVM-CR supports FY 2012-2013 SMP Business Goal # 4, "Strengthen DoD acquisition processes spanning requirements determination, development, procurement, support and disposal to ensure

that the Department's force structure is modernized, recapitalized , and sustained within available resources.”

Positive Example 8: Defense Property Accountability System (DPAS)

Supporting Asset Acquisitions through Accountability and Visibility

The Defense Property Accountability System (DPAS) has been supporting the DoD Property Accountability community for over 17 years, and has transformed itself to a state of the art capability. This program provides DoD the ability to effectively manage the complete lifecycle of an asset, from acquisition through maintenance and utilization to disposal. The system serves the logistical needs of the Army, Navy, Marine Corps and over 23 Defense Agencies and Field Activities. Information supporting accountability, financial reporting, usage and maintenance for over 2 million assets, valued in excess of 672 billion dollars, is being provided by the DPAS program.

In 2011, DPAS implemented a vital interface with the Defense Agencies Initiative (DAI) which provides the Defense Agencies' ERP a fully compliant property system. The DPAS produces the required transactions for the receipt, update, depreciation and disposal of Capital Assets and feeds the Agencies' financial systems. The Defense Threat Reduction Agency (DTRA) was the first agency to implement the interface, with the Missile Defense Agency, Defense Security Service and the Defense Media Agency scheduled to implement the interface in FY 2013

Benefits

As property accountability has become an area of focus for the Department, the Wide Area Workflow (WAWF) system and DPAS have partnered to provide a solution for tracking assets being transferred between the Department and its supporting Contractors. The WAWF system is used by the contracting community to receive payment for goods delivered. The interface between DPAS and WAWF takes advantage of this existing data process to provide the accountable property officers with notice of new assets being received by their respective Service or Agency, the ability to electronically transfer DoD assets provided to the contractor for contract execution, and the return transfer of the assets no longer required for the contract.

The DPAS system built and implemented a maintenance and utilization module to assist the Department in managing the lifecycle of the assets. The module is fully integrated into the current DPAS baseline and uses all of the data the accountable property officers manage. This module permits the tracking of scheduled preventative maintenance actions and out of cycle incidents for any type of assets, such as weapons, information technology, and vehicles. The module is integrated with the accountability module, reducing the data entry required by personnel and increasing data reutilization. The Utilization functionality permits the tracking of the number of miles, hours, shots fired, copies made, etc. for the assets. This information is essential to the acquisition management of assets to ensure the oldest, most used assets are replaced first, all assets are being utilized before additional assets are purchased and to make all attempts possible to distribute the use of the assets equally among the assets purchased. DPAS also provides logistics personnel an automated way of querying the Item Unique Identification (IUID) Registry and reproducing or replicating an IUID

label. The cross-functional communication between maintenance, logistics, and accountability personnel allow for greater efficiencies to be achieved through electronic and systemic actions.

The upcoming year holds even more essential functionality to support the logistics community of the Department. Capability improvements planned for FY 2012 include the tracking of asset details, descriptive management data of the assets, integrated dispatch/issue module and interfaces with additional ERP systems.

Future Impact

The multifaceted functionality provided by DPAS is the enterprise level management required by the Department for acquisition management, logistics planning, financial reporting, and property accountability. The future implementation of functionality for managing software, warehousing and issuing assets in an efficient manner will bolster this robust system by providing Department wide tools in areas currently lacking in enterprise visibility.

SMP Alignment

DPAS supports FY 2012-2013 SMP Business Goal #2, “Strengthen DoD Financial Management to respond to warfighter needs and sustain public confidence through auditable financial statements” and Goal # 4 ”Strengthen DoD acquisition processes spanning requirements determination, development, procurement, support and disposal to ensure that the Department’s force structure is modernized, recapitalized, and sustained within available resources.”

Matériel Supply and Service Management (MSSM)

MSSM is responsible for the provision of matériel supply and services to deploy, redeploy and sustain the warfighter; increase matériel availability; and maintain readiness of deployed and non-deployed forces. It also focused on supply chain management and all aspects associated with acquiring, storing and transporting all classes of supplies.

Based on the Department's decision to embrace the End-to-End business lifecycle as a viewpoint to frame and understand our business environment, MSSM is creating a strategic alignment to better support the Business Mission Area's move from a function-centered approach to one that looks at the enterprise. The outcome includes optimizing the value chain and increasing the DoD Strategic Goals for alignment, accountability, and efficiency. Further, the E2E Framework will guide the transition from the current segregated, inefficient business, processes, and data within and among Component and functional areas to an environment that supports optimized decision-making.



During FY 2011, the DoD Enterprise focused on the Procure to Pay (P2P) lifecycle to enable the fulfillment of goods and services in support of warfighter needs in a cost effective, efficient manner.

MSSM is focused on achieving four strategic objectives:

- Accurately forecast customer matériel needs
- Work with suppliers to ensure timely acquisition of matériel
- Effectively and efficiently manage matériel and control cost
- Sustain weapon system matériel readiness

In this time of conflict and intense budget pressures, warfighters require efficient and effective business operations with greater transparency. In support of contingency operations, MSSM is striving to improve the planning, sourcing, procurement, contract management and oversight, operational contract support (OCS), maintenance and repairing, performing logistics and field services, sustainment operations, delivery of property and forces, and the return or retrograde of all classes of supply (matériel), and forces (deployments). Having access to more complete and clearer information will enable the combatant commander to be more efficient and would help avoid costly delays.

The 2010 NDAA called for systematic measurement of performance, including the ability to produce timely, relevant, and reliable cost information as well as an enterprise architecture that defines policies, procedures, data standards, performance measures, and system interface requirements that are to apply uniformly throughout the DoD. USD (AT&L) is responsible for the development and direction of the Defense-wide supply chain integration policies and procedures. In the to-be framework, business intelligence is used to communicate important business information to defense supply chain managers. The highest level objective is to track performance by comparing actual performance against targeted performance. It is through comparison to a performance goal that we identify shortfalls and negative trends.



MSSM is establishing enterprise metrics to measure the optimization of the supply chain enterprise, including:

- demand forecast accuracy
- procurement lead time
- customer wait time
- perfect order fulfillment
- logistics response time
- asset visibility
- total supply chain management cost

P2P enterprise measures include:

- electronically accepted purchase requests
- electronic posting of contract information as data (Procurement Data Standard)
- electronic acceptance of accountable property
- E2E invoice processing costs

These measures will be documented in the BEA in order to monitor execution of DoD strategic objectives and evaluate the appropriate processes, initiatives and outcomes, linked to the vision, mission, and goals of the DoD SMP.

Finally, MSSM is working to develop and maintain a common set of processes, data, and solutions/tools that can be used to understand DoD's supplier base and efficiently and effectively manage our partnership with them. Key initiatives include the Defense Logistics Management System (DLMS), Procurement Data Standard (PDS), Purchase Request Data Standard (PRDS), Item Unique Identification (IUID), and the use of Automatic Identification Technology (AIT) for automating the tracking of assets throughout their lifecycle.

As of October 05, 2011, more than 15 million items have been entered into the Item Unique Identification (IUID) Registry. The MSSM Community is working to implement IUID guidance as quickly as possible in order to help DoD realize:

- Improved item management and accountability
- Improved asset visibility and life cycle management
- Clean audit opinions of items (property, plant and equipment; inventory; operating materials and supplies) and DoD financial statements

Positive Example 9: Global Combat Support System – Army (GCSS-Army)

Successful Initial Operational Test and Evaluation (IOT&E)

Following the successful Milestone C Decision, the Global Combat Support System-Army (GCSS-Army) deployed to 2nd Brigade, 1st Armored Division (2/1 AD) at Fort Bliss, TX. GCSS-Army Release 1.1 replaced the current logistics Standard Army Management Information Systems (STAMIS). The system went live in late August 2011 after training the unit and data cleansing operations.

Army Test and Evaluation Command (ATEC) conducted an IOT&E in October 2011. ATEC concluded that the GCSS-Army system is effective, suitable, and survivable.

Several steps were required prior to the deployment of GCSS-Army to 2/1 AD. A series of site surveys began six months in advance of the go-live date. Detailed data reconciliation from the STAMIS, extensive training in the concepts, processes, and procedures of GCSS-Army, and reconciliation and cleansing of data were also completed.

Teams of GCSS-Army Project Management personnel converted over 240,000 data records, enhanced interfaces, transferred more than \$1.83 million of open logistics transactions with zero errors, and trained more than 300 Soldiers and civilians via web-based and instructor facilitated training.

Following visits to several of the facilities where GCSS-Army operated, BG Robert Abrams, Commanding General of the National Training Center and Fort Irwin, commented, "I was impressed by the strategic direction we've taken that improves asset visibility, reporting accuracy, parts handling, reducing ship and process time, improve accuracy of how long jobs really take, and a whole host of other initiatives they showed me."

The GCSS-Army Help Desk fielded trouble calls from the Brigade's Soldiers, solving issues that arose and identifying future improvements. The system performed as designed and is on target to meet the performance requirements provided by the U.S. Army Combined Arms Support Command (CASCOM). The CASCOM team, many of whom work with the PM team under a matrix arrangement, also provided on-site help during the site surveys and during the period immediately following the "Go Live."

Benefits

The successful IOT&E of GCSS-Army Release 1.1 marks the initial retirement of a complete suite of tactical legacy systems which including the Standard Army Retail Supply Systems (SARSS), and associated financial systems that perform tactical logistics financial transactions within the 11th Armored Cavalry Regiment (ACR) and 2/1 AD. The days of using the many "stove piped" systems to manage tactical supply and maintenance missions in the Brigade are over. Soldiers at the 11th ACR and 2/1 AD have already experienced a number of benefits associated with the retirement of the older logistics management information systems.



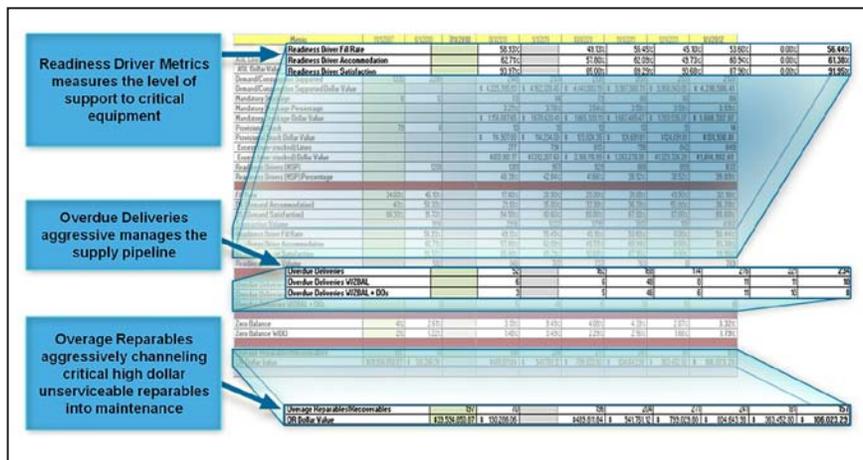


Figure 12. Direct Support Unit (DSU) Supply Support Activity (SSA) Authorized Stockage Level Metrics

reengineering of wait time logic and resolution of overdue deliveries, the customer now benefits from a streamlined supply pipeline which significantly improves parts availability. The delays and inaccurate, untimely data provided by older systems have been replaced by an on-demand dashboard view. Commanders at all levels have instant visibility of the readiness posture of their respective units by accessing the Commander's Dashboard feature of GCSS-Army Release 1.1.

As mandated by Congress, the Army will produce audit-ready financial statements by 2017. GCSS-Army is a key component of the Army enterprise strategy to be financially auditable. With Release 1.1, the Army has moved closer to realizing total asset visibility and audit readiness.

Future Impact

When GCSS-Army is fully deployed, it will link Army assets and logistics to the Army’s ability to meet its statutory requirements for auditability. It will also be a key-component within the Army’s realization of a fully integrated logistics business environment that provides quantitative and qualitative benefits in the areas of Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, and Facilities.

SMP Alignment

When fully deployed, GCSS-Army will enable the FY 2012-2013 SMP Business Goal #2, “Strengthen DoD Financial Management to respond to warfighter needs and sustain public confidence through auditable financial statements” and #7, “Create agile business operations that plan for, support, and sustain contingency missions.”

Soldiers no longer have to conduct labor-intensive periodic reconciliations between the different systems and between customer units and their supporting activities. With GCSS-Army Release 1.1, all updates occur automatically, within one system, in near-real-time. The customer’s wait-time for repair parts is greatly reduced and the

customer no longer has to bear the cost of reordering parts. Coupled with the

Positive Example 10: Movement of ICBM from Improved Maintenance Management Program(s) into the Integrated Maintenance Data System (IMDS)

Implementation of Air Force Nuclear Security Priorities

The Air Force Comprehensive Assessment of Nuclear Sustainment (AFCANS) team identified business process improvement opportunities within the Intercontinental Ballistic Missile (ICBM) community for maintenance data. Key improvement areas were noted in configuration management and control, Time Compliance Technical Order (TCTO) tracking, component accountability, system integration, and non-standardized business processes.

The AF Positive Inventory Control team evaluated enterprise maintenance requirements needed to provide nuclear asset control and tracking capabilities. This analysis determined the introduction of improved configuration management capabilities and engineering processes were needed.

As a result, the AFCANS team recommended that the Improved Maintenance Management Program (IMMP) be transitioned to the Integrated Maintenance Data System Central Database (IMDS CDB) for the ICBM community.

The IMDS CDB Project Management Office outlined a two-phased strategy to migrate IMMP to IMDS CDB. The Air Force Space Command (AFSPC) initiated the first of two phases of this transition to IMDS at four ICBM sites. Phase 1 provided the four ICBM sites existing capabilities of IMDS CDB standard system, with a 70% immediate solution. Phase 2 delivered IMDS CDB program modifications and updates to existing Air Force standard interfaces to facilitate migration of Nuclear Weapons Center (NWC) IMMP into the AF IMDS CDB.

Benefits

Phase 1 brought standardization of processes, provided data accuracy, implemented Technical Order compatibility edits, and provided positive asset control.

During Phase 2, the teams delivered a total of 122 enhancements using an incremental approach: Increment 1 (45), Increment 2 (39), Increment 3 (12), Increment 4 (8) and Maintenance Releases (18). This 2-year effort culminated with the declaration of Full Operational Capability on October 24, 2011.

Examples of enhancements included: the ability to track approved configuration for equipment ID; the ability to identify who entered data; the ability to check availability of equipment, vehicles, parts, security forces, skill sets/teams, and qualifications; and the ability to view enterprise missile inventory and status.

The effort moved the ICBM community from an environment of individual, base level servers to an enterprise central database environment.

“This milestone (FOC) culminates the movement of ICBMs into IMDS which began in 2008, and represents another significant step in improving our ICBM systems configuration control and component accountability processes.” –**AFGSC Dep Chief, Missile Maintenance & Logistics**

The effort improved situational awareness, commanders' decision making, and:

- Enhanced nuclear surety and positive asset management/positive inventory control of Nuclear Weapons Related Material (NWRM)
- Granted an enterprise view of ICBM maintenance and status
- Satisfied the B-52 pylon/launcher requirement to provide ID on ID tracking of end item missiles to end item pylons/launchers
- Provided a central data location for all ICBMs and associated parts and equipment, resulting in positive asset tracking
- Provided real-time visibility of ICBM /aircraft lifecycle status and availability
- Standardized and consolidated AF aircraft and ICBM weapon system data
- Allowed cost avoidance for annual IMMP system sustainment
- Improved safety for missile operations, crewmembers, and maintainers

Enhancements performed for IMMP migration were reflected in the Information Support Plan and applicable architectural documents in compliance with BEA 7.0.

Future Impact

IMDS is postured for future AF aircraft and equipment-level development and tracking.

SMP Alignment

IMDS CDB enables the FY 2012-2013 SMP Business Goal #4, "Strengthen DoD acquisition process spanning requirements determination, development, procurement, support and disposal to ensure that the Department's force structure is modernized, recapitalized, and sustained within available resources."

"With the delivery of Phase 2, Increment 3, the IMDS PMO exceeded our IMMP capability expectations and we are highly pleased with what has been delivered..."

--AF Global Strike Command

"A terrific job by Gunter."—AF/A4LW

"Excellent support." — AFSC/A4N



IMMP to IMDS Migration Team

August 2009 – July 2011

"The Team That Said They Could Do It – Then Went Out and Made It Happen"

Positive Example 11: Port Management Automation Initiative Links Air, Land, and Sea

In keeping with the DoD initiative to create a more interoperable military operating structure, two port processing systems were converged to create a single consolidated aerial and surface port processing and manifesting system for the DoD. On August 19, 2011, U.S. Transportation Command's (USTRANSCOM) Port Management Automation (PMA) initiative successfully completed the convergence of the Air Force's Air Mobility Command's (AMC) Global Air Transportation Execution System (GATES) and the Army's Military Surface Deployment and Distribution Command's (SDDC) Worldwide Port System (WPS).

Overall, 41 operational sites and over 3,000 surface port operators were transitioned from WPS to GATES without disruption to daily operations. Closeout of this project achieves an estimated \$5-6 million annual cost savings. Furthermore, migration to a single system aligns with the Department's strategy to eliminate duplication, increase enterprise effectiveness, and deliver enterprise services. The resulting capability enables fixed and deployed surface terminals, aerial ports, and Defense Courier operations to process and manifest cargo and passengers, while providing critical information for effective command and control for more than 12,000 users at 111 sites.

"This is what we mean when we talk about USTRANSCOM, when we talk about Distribution Process Owner (DPO), when we talk about bringing something together to take it to the next level," said former USTRANSCOM Commander Gen Duncan J. McNabb. "It shows the value of what happens when we come together as a team. This is a true success story."



Benefits

The convergence of WPS and GATES will reduce duplication, enhance capabilities, and provide cost savings. A phased approach was utilized for development and implementation:

- Phase 0 involves the completion of system definition and analysis
- Phase I consists of converting WPS regional databases into GATES for command-level functionality and initial capability
- Phase II, the conversion of WPS terminal level applications into GATES for user functionality and replacement of SDDC's business process server, will bring the project to final capability

To support the phased approach, a series of joint application development sessions were conducted to capture WPS operator requirements, gain input from WPS and GATES subject matter experts, and identify required improvements where applicable.

Initial capability was declared on November 21, 2008, when the WPS regional databases located at Fort Eustis, VA, Wheeler Army Air Field, HI, and Rotterdam, Netherlands, were successfully migrated into the GATES central site at Scott Air Force Base, IL. This marked the completion of Phase I activities, allowing all SDDC terminal transactions to be communicated to the GATES central site. Phase I convergence activities did not interrupt a single interface partner's data flow or diminish system performance for the estimated 13,000 GATES users who execute global surface, aerial port, and Defense Courier operations. With initial capability declared, a full-court press towards completion of Phase II was underway. Phase II is scheduled to replace the WPS terminals at the SDDC surface ports with remote and deployed GATES servers and replace SDDC's business process servers at four unique sites with the GATES architecture to achieve final operating capability. The fully migrated version of GATES will support surface terminal, aerial port, and Defense Courier Division cargo and passenger processing and manifesting operations, while increasing warfighter capability across the Joint Deployment and Distribution Enterprise.

Future Impact

This is a big win for the DoD. Evolution to a single port operations system minimizes duplication of effort and allows consolidated training requirements, system development, program management, and helpdesk support, while supporting expeditionary port opening and web-based tools for the warfighter.

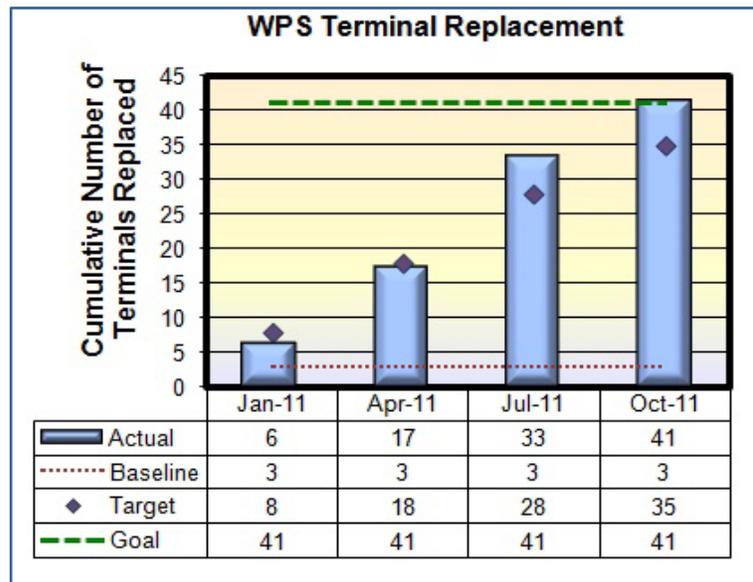


Figure 13. Terminal Replacement

The successful convergence of GATES and WPS demonstrates the potential for other programs to follow suit. The opportunity to retire legacy programs by merging capabilities into similar, more modern programs will continue to make the enterprise more efficient and effective for the warfighter.

SMP Alignment

This modernization aligns with FY 2012-2013 SMP Business Goal #6, “Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service.”

Positive Example 12: Positive Example: Integrated Computerized Deployment System (ICODES)

Single Load-planning Capability Has Arrived

The Single Load-planning Capability (SLPC) vision allows all services to plan, coordinate, and communicate load planning for multiple transportation modes across the Joint Deployment Distribution Enterprise (JDDE). The United States Joint Forces Command introduced the SLPC to the Distribution Steering Group in March 2007. A Capabilities Based Analysis Team (CBAT) was formed to include partner members from USTRANSCOM, U.S. Army Installation Management Command (IMCOM), U.S. Army Training and Doctrine Command (TRADOC), Defense Logistics Agency (DLA) and other organizations. ICODES was selected as the SLPC platform. The CBAT specified objectives including web-based accessibility and the ability to load multiple conveyances simultaneously.

Fielding began in June 2011; SLPC is no longer a vision, it is a reality.

Representatives from Army, Air Force, Navy, the Marine Corps, TRANSCOM and Surface

Deployment Distribution Command captured requirements from across the JDDE to develop a multi-service design concept for ICODES. The ICODES Program Office spear-headed this diverse team to migrate, combine, and develop functionality into an all-encompassing system that accommodates:

- Over 220 cargo attributes
- 43 cargo reference libraries
- 8 hazardous material reference libraries
- All rail flatcars in the Continental US
- 25 aircraft
- 297 water vessels
- 3 unit-level planning systems from 4 Service branches
- 146 use-case requirements

Benefits

ICODES is an enterprise venture that exemplifies multi-service partnership and collaboration to fulfill a complex set of requirements. To critically analyze the 146 requirements, the CBAT organized a team of functionals, architects, system developers, and financial business case experts. The outcome is a load-planning system showcasing the following capabilities:

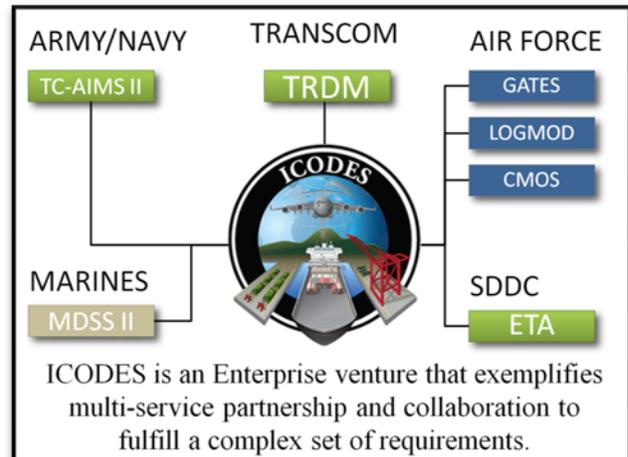


Figure 14. ICODES

- Single load planning system for stowage and loading of modes for all services
- DoD-wide access and single sign-on via the web-based Electronic Transportation Acquisition (ETA)

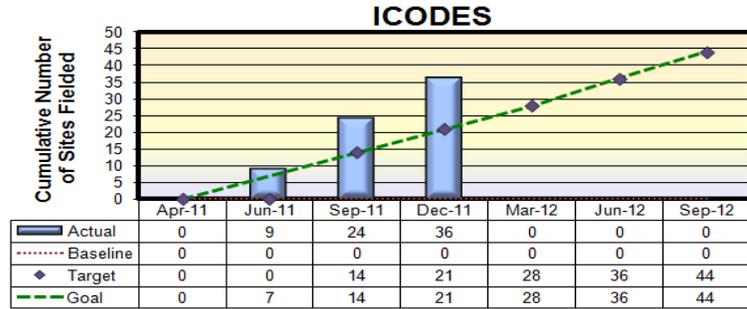


Figure 15. Sites Fielded

- Operation as stand-alone workstation via desktop configuration
- Load plan multiple conveyances and modes within the same application
- Estimate number of pallets, containers, and conveyances required for a cargo list
- Modular training tailored to user criteria
- Web-based/enterprise capabilities that allow multiple user collaboration within the same load plan

As of January 2012, ICODES Program Management Office has:

- Trained 481 personnel at 36 sites world-wide
- Established fixed training locations at the Transportation Schools in Fort Lee and Fort Eustis
- Established a Satellite Server at Military Ocean Terminal Sunny Point (MOTSU), NC

Single Load Planning System for Stowage and Loading of Modes for all Services

Fielding Effort as of January 2012:

- 481 Users Trained
- 45 Training Events
- 36 Sites Fielded
- 2 Transportation Schools
- 1 Satellite Server

Future Impact

ICODES will streamline the load-planning process within the JDDE, with potential avenues of expansion into terminal and depot management.

SMP Alignment

ICODES aligns with FY 2012-2013 SMP Business Goal #3, “Build agile and secure information capabilities to enhance combat power and decision-making while optimizing value” and #6, “Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve services.”

Positive Example 13: Joint Engineering Data Management Information and Control System (JEDMICS)

Drawing Repository IT Footprint Reductions

JEDMICS is the Navy's and Air Force's core system for managing and distributing engineering drawings in digital format. Drawings are a critical component for the material management, maintenance, engineering, and acquisition communities. The FY 2011 JEDMICS modernization completed necessary web-enabled system capabilities, including remote user web-assurance and system bulk-data-transfer functions to improve customer throughput for large data sets, while maintaining system availability to general users. Replacement of vendor end-of-life COTS software was also included, resulting in an enhancement of the system's information assurance posture. System improvements accomplished under this modernization support the drawing repository IT footprint reduction efforts within the Navy and Air Force, with improved data management and data-transfer capabilities.

Benefits

The most recent BPR performed by the Navy in 2006 resulted in a standardized engineering drawing meta-data process across the Naval Sea Systems Command (NAVSEA) enterprise, which enabled consolidation of seven engineering drawing repository system databases into one Databases from Naval Inventory Control Point Mechanicsburg, Portsmouth Naval Shipyard, Bath Iron Works Supervisor of Shipbuilding, Northrop Grumman Supervisor of Shipbuilding, Naval Surface Warfare Center-Port Hueneme, and Naval Surface Warfare Center-Keyport have been combined with the Norfolk Naval Shipyard database to form the Naval Ships Engineering Drawing Repository (NSEDR). This has eliminated the need for technical refreshment where systems have been shut down; reduced the operations and support costs (e.g., system administration labor, hardware replacement and maintenance, and software licensing) at sites where systems have been taken off-line; reduced the number of site information assurance accreditations; and created a single authoritative source for NAVSEA engineering drawing data. During FY 2010-2011, the Air Force consolidated the three Air Logistics Centers (ALCs) JEDMICS databases into one system to achieve improved operational efficiencies.

The resulting NAVSEA and Air Force enterprise JEDMICS systems are being used by the data management communities currently established and are supporting the business needs for drawing data across both enterprises. In synch with these database consolidations, JEDMICS improvements were identified to support the distributed data management environment and the bulk drawing import/export requirements from the data consumers. This modernization supports the Services' repository database consolidation efforts by providing Web data integrity tools supporting the distributed data management environment and an enhanced capability to handle large data files over the web. These added web tool capabilities will enable replacement of legacy thick-client software applications, while enhancing the information assurance posture of the system. This modernization minimizes the web system session time-outs associated with moving large data files, and better supports the data managers using the enhanced web functions.

***“Ensure Availability of Needed
Tools to Coincide with DoD
Services Alignments”***

*Ref: Lean Six-Sigma Value
Stream Analysis,
September 2006*

Emphasis of the FY 2011 development/modernization effort centered upon the reliability, availability, and operational improvements associated with the JEDMICS system, to improve data management and data transfer across the enterprise. Large amounts of data being processed across the web resulted in intermittent session “time-outs” which prohibited average users from processing and retrieving data in the normal course of system operation. With FY 2011 modernization, these time-outs have been eliminated.

Future Impact

With these system improvements, the JEDMICS community of users utilizes a smaller footprint and will be positioned to better support the vast number of engineering drawing data customer business processes with improved performance and efficiency.

SMP Alignment

JEDMICS aligns with FY 2012-2013 SMP Business Goal #6, “Re-engineer/use end-to-end business processes to reduce transaction times, drive down costs, and improve service.”

Large Data Transfers Now Supported:

- **Generation of Large Index Data Reports**
- **Bulk Image Imports, Bulk Image Exports**
- **Eliminated Session Timeouts**
- **Improved Overall System Access**
- **Improved Data Exchange & Upload Processes**

FY 2011 Milestone Results

Pre-delivery Milestones are approved by the Milestone Decision Authority (MDA) as part of the acquisition program baseline. **Delivery Milestones** for Major Automated Information System (MAIS) programs include Initial Operational Capability (IOC), Full Deployment Decision (FDD), Full Deployment (FD), and/or Full Operational Capability (FOC). Non-MAIS programs may include similar milestones.

Of the 301 milestones identified as due in FY 2011, 36 were **Interim Milestones** for internal Department use only, and 17 were deleted. These 53, therefore, were excluded from this analysis. Of the remaining 206 milestones, 131 (63.6%) were met, and 75 (36.4%) were reported as *slipped*. BEA compliance is typically ensured through DBSMC certification requirements, but specific programs may apply **Compliance Milestones** to provide additional visibility and ensure IRB/DBSMC focus on BEA compliance goals and dates. Eight BEA-compliance milestones related to either the Federal Financial Management Improvement Act (FFMIA) or the Standard Financial Information Structure (SFIS) compliance were identified as due in FY 2011. Of these, four milestones were met, three slipped, and one was deleted, representing a 57% compliance success rate.

FY 2011 Measures Results

The Department is committed to capturing business system modernization program performance against cost, capability, and benefits to better inform Congress and increase transparency. Last year's report addressed improvement for the cost portion. In their report GAO-10-663, the GAO also recommended the scope and content of future DoD annual reports to Congress be expanded. GAO recommended providing capability and benefit performance measures for each business system modernization investment and actual performance against these measures.

As an initial step to improving the process to address business system modernization performance, the online ETP was developed to display business system modernization problem statements and performance measures. The FY 2011 ETP guidance required measures for *core* transition plan state dashboard systems that were beyond Milestone B. Results were required for these systems that delivered capability in FY 2011, and results were also sought for systems that had an IRB close-out annual review for modernization completion in FY 2011.

For the FY 2011 ETP, progress was made in that over 136 systems identified measures, 95 reported measurable results, 80 systems reported meeting target(s), and 60 reported meeting longer term goals. There were four systems reporting that target(s) were not met. Over 100 systems did not meet the criteria to require measures, because they were interim or legacy systems. The measures process will be improved with the FY 2012 ETP in that all dashboard systems past Milestone A or Authorization to Proceed (ATP) for each increment, are being asked to provide measures. Consistent with the BCL methodology, the focus of the FY 2012 ETP and beyond is also on reporting overall business outcome – i.e., the “what success looks like” measure, instead of output focused system measures.

FY 2011 Certification Results

Conscious of its obligation as a steward of public funds, the Department utilizes a certification process to ensure that funds obligated for business system modernization are exploited to their fullest potential. Section 332 of the 2005 NDAA established the requirement for interim review and DBSMC approval of any DBS modernizations with an obligation in excess of \$1 million.

Certification is required prior to the obligation of funds, and specifies the authorized funding amount. Components are permitted to redistribute funds from year to year if a multi-year certification is granted, but must submit to **Recertification** if funding or time is significantly different from the originally authorized amount or FY period. **Decertification** is required if the funding level for a certified modernization will be reduced by greater than 10 percent or the certification period is reduced by a full FY. Decertification can be requested by the Component, IRB, or DBSMC. Annual reviews are required until modernization efforts are complete and closed out.

In FY 2011, the DBSMC approved 198 actions to certify, decertify, or recertify DBS modernization efforts. Table 3 identifies the total certification activity for FY 2011 modernization efforts by action type (certification, recertification, or decertification). Table 4 identifies the total certification activity dollars.

Section 2222(g) requires periodic review, but not less than annually, of every DBS investment. To meet the requirements for all systems, IRB process guidance requires both IRB-level and Component-level reviews. Components are required to submit a memo or report to the IRB on a semi-annual basis.

Table 2. FY 2011 DBS Modernization Certification Activity

FY 2011 Certification Activity by Action Type for All IRBs					
IRB	Certifications	Recertifications	Decertifications	Total All Actions	Total Actions Where Conditions Imposed
FM	3	10	5	18	14
HRM	32	37	12	81	24
MSSM	15	45	10	70	51
RPILM	3	4	3	10	2
WSLM	5	6	8	19	10
Totals	58	102	38	198	101

Table 3. Total Dollar Value of FY 2011 Certification Activity (in millions)

FY 2011 Certification Activity Dollars by Action Type for All IRBs					
IRB	Certifications	Recertifications	Decertifications	Total All Actions	Total Dollars Where Conditions Imposed
FM	\$5.005	\$215.226	\$4.764	\$224.995	\$220.402
HRM	251.147	336.737	86.069	673.953	154.502
MSSM	57.631	907.301	173.363	1,138.295	666.602
RPILM	3.251	26.123	6.955	36.329	18.375
WSLM	12.580	24.277	42.170	79.027	40.570
Totals	\$329.614	\$1,509.664	\$313.321	\$2,152.599	\$1,100.451

Additional certification, milestone and measure data can be found in the 2012 March Congressional Report Supplement, available at: <http://dcmo.defense.gov/publications/march-congressional-report.html>.

In Summary

DoD is engaged in unprecedented business transformation efforts. The Department remains mindful of the need to balance its responsibility as a steward of public funds and the requirement to modernize business operations to optimize warfighter support. We are improving internal processes, updating the BEA and ETP, addressing GAO recommendations, and responding to legislative guidance. In the past fiscal year, innovative, agile IT Acquisition processes were adopted, and E2E processes were further defined. Also in FY 2011, the Department moved closer to financial audit readiness, and eliminated numerous legacy systems.

As this report elucidated, DBS provide real and tangible benefits to the DoD enterprise, even as modernization efforts are underway. In FY 2011, TRICARE Blue Button Online improved service and data access to TRICARE beneficiaries and their families, GCSS-Army advanced the Army towards full audit readiness, and the Integrated Maintenance Data System (IMDS) enhanced the sustainment of our nuclear arsenal.

DoD initiated significant change and accomplished much over the past year. With the continuing support of the Congress and the American people, enterprise-wide business modernization will continue in FY 2012, guided by our strategic business plan.

