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DEFENSE BUSINESS
TRANSFORMATION

A Comprehensive Plan, Integrated Efforts, and Sustained Leadership Are Needed to Assure Success

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Comptroller General of the United States
DEFENSE BUSINESS TRANSFORMATION

A Comprehensive Plan, Integrated Efforts, and Sustained Leadership Are Needed to Assure Success

What GAO Found

In the past year, DOD has made progress in transforming its business operations, but continues to lack a comprehensive, enterprisewide approach to its overall business transformation effort. Within DOD, business transformation is broad, encompassing people, planning, management, structures, technology, and processes in many key business areas. While DOD’s planning and management continues to evolve, it has yet to develop a comprehensive, integrated, and enterprisewide plan that covers all key business functions, and contains results-oriented goals, measures and expectations that link organizational, unit, and individual performance goals, while also being clearly linked to DOD’s overall investment plans. Because of the complexity and long-term nature of business transformation, DOD also continues to need a chief management official (CMO) with significant authority, experience, and tenure to provide sustained leadership and integrate DOD’s overall business transformation effort. Without formally designating responsibility and accountability for results, reconciling competing priorities in investments will be difficult and could impede DOD’s progress in its transformation efforts.

DOD is taking steps to comply with legislative requirements aimed at improving its business systems modernization and financial management; however, much remains to be accomplished. In particular, DOD recently issued updates to both the business enterprise architecture and the transition plan, which are still not sufficiently complete to effectively and efficiently guide and constrain business system investments across the department. Most notably, the architecture is not adequately linked to DOD component architectures, and the plan does not include business system information for all major DOD components. To address these shortfalls, DOD issued a strategy for “federating” or extending its architecture to the defense components. But much remains to be accomplished before a well-defined federated architecture is in place, given that GAO recently reported that select components’ architecture programs are not mature. However, DOD components continue to invest billions of dollars in thousands of new and existing business system programs. The risks associated with investing in systems ahead of having a well-defined architecture and transition plan are profound and must be managed carefully, as must the wide assortment of other risks that GAO’s work has shown to exist on specific DOD business system investments. While not a guarantee, GAO’s work and research has shown that establishing effective system modernization management controls, such as an architecture-centric approach to investment decision making, can increase the chances of delivering cost-effective business capabilities on time and within budget. Further, with regard to legislation pertaining to financial management improvement, DOD issued and updated its Financial Improvement and Audit Readiness Plan in fiscal year 2006 to provide components with a construct for resolving problems affecting the accuracy and timeliness of financial information and an improved audit strategy for obtaining financial statement audit opinions.
Mr. Chairman and Members of the Subcommittee:

It is a pleasure to be back before this Subcommittee to discuss the progress and challenges associated with the Department of Defense’s (DOD) efforts to transform its business operations. Since the first financial statement audit of a major DOD component was attempted almost 20 years ago, we have reported that weaknesses in business operations not only adversely affect the reliability of reported financial data, but also the economy, efficiency, and effectiveness of DOD’s operations. In fact, DOD currently bears responsibility, in whole or in part, for 14 of our 26 high-risk areas. Eight of these are specific to DOD and include DOD’s overall approach to business transformation, business systems modernization, financial management, the personnel security clearance process, supply chain management, support infrastructure management, weapon systems acquisition, and contract management. In addition, DOD shares responsibility for six governmentwide high-risk areas.¹ Collectively, these high-risk areas relate to most of DOD’s major business operations which directly support the warfighter, including how they get paid, the benefits provided to their families, and the availability and condition of the equipment they use both on and off the battlefield.

DOD’s business area weaknesses result in reduced efficiencies, ineffective performance, and inadequate accountability to Congress and the American people, wasting billions of dollars each year at a time when DOD is competing for resources in an increasingly fiscally constrained environment. As a result, it is important that DOD get the most from every dollar it invests. Our nation is not only threatened by external security threats, but also from within by growing fiscal imbalances due primarily to our aging population and rising health care costs. These trends are compounded by the near-term deficits arising from new discretionary and mandatory spending as well as lower revenues as a share of the economy. If left unchecked, these fiscal imbalances will ultimately impede economic growth, have an adverse effect on our future standard of living, and in due course affect our ability to address key national and homeland security needs. These factors create the need to make choices that will only become more difficult and potentially disruptive the longer they are postponed. Among these difficult choices will be decisions about the

¹GAO, GAO’s High-Risk Program, GAO-06-497T (Washington, D.C.: Mar. 15, 2006). DOD shares responsibility for the following six governmentwide high-risk areas: (1) disability programs, (2) interagency contracting, (3) information systems and critical infrastructure, (4) information-sharing for homeland security, (5) human capital, and (6) real property.
affordability and sustainability of the continued growth in defense spending. Furthermore, irrespective of the size of the defense budget, the taxpayers and warfighters deserve more effective management of DOD’s overall resources.

I continue to believe that DOD’s senior leadership is committed to transforming the department and DOD has taken a number of positive steps to begin this effort. In fact, because of the impact of the department’s business operations on its warfighters, DOD recognizes now, more than ever, the need to transform its business operations and provide transparency in this process. Indeed, Secretary Rumsfeld was very clear in his speech on September 10, 2001, when he identified business transformation as a top priority. However, DOD’s ability to focus on this priority was overshadowed by the events of September 11, 2001, and the ensuing Global War on Terrorism, including military operations in Iraq and Afghanistan. Clearly, these events have required considerable emphasis and have become the department’s primary focus. As a result, progress on the full range of DOD’s business transformation challenges has been inconsistent, focusing thus far on enterprisewide transformation, with many challenges remaining concerning the transformation of the various military services and defense agencies.

Congress, in part through the leadership of this Subcommittee, passed legislation that codified many of our prior recommendations related to DOD business systems modernization. Since then, DOD has devoted substantial resources and made important progress toward establishing key management structures and processes to guide business systems investment activities, particularly at the enterprise, or departmentwide, level. DOD’s current approach is clearly superior to its prior approach; however, a number of formidable challenges remain.

Last year when we testified before this Subcommittee, we highlighted several of these formidable challenges. Today, I would like to provide my perspectives on actions DOD has taken to address these challenges and achieve business transformation through all levels of the department over

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the past year. Specifically, I will discuss DOD’s efforts to (1) develop a comprehensive, integrated, enterprisewide business transformation plan and its related leadership approach and (2) comply with legislation that addresses business systems modernization and improving financial management accountability. I will also discuss two sections of the recently enacted John Warner National Defense Authorization Act for Fiscal Year 2007\(^4\) that address financial improvement and acquisition of all major automated information systems, and selected additional DOD high-risk areas that highlight the need for continued attention.

My statement is based in large part on our previous reports and some of our current, ongoing efforts. Our work was performed in accordance with generally accepted government auditing standards.

**Summary**

I have stated on many occasions that transforming DOD’s business operations is an absolute necessity given our nation’s current deficits and long-term fiscal outlook. In the past year, DOD has made progress in transforming its business operations, but continues to lack a comprehensive, enterprisewide approach to planning and decision making needed to ensure successful transformation and address systemic business challenges. Within DOD, business transformation is broad, encompassing people, planning, management, structures, technology, and processes in several key business areas. While DOD’s planning and management continues to evolve, it has yet to develop a comprehensive, integrated, enterprisewide plan that covers all key business functions, and contains results-oriented goals, measures and expectations that link organizational and individual performance goals, while also being clearly linked to DOD’s overall investment plans. Because of the complexity and long-term nature of business transformation, DOD also continues to need a chief management official (CMO) with significant authority, experience, and tenure to provide sustained leadership and integrate DOD’s overall business transformation efforts. Without formally designating responsibility and accountability for results, reconciling competing priorities and prioritizing investments will be difficult and could impede DOD’s progress in its transformation efforts.

DOD continues to take steps to comply with legislative requirements aimed at improving its business systems modernization and financial management; however, much remains to be accomplished before the full intent of this legislation is achieved. In particular, DOD recently issued updates to both the business enterprise architecture and the transition plan, which while addressing several issues previously reported by us, are still not sufficiently complete to effectively and efficiently guide and constrain business system investments across all levels of the department. Most notably, the architecture does not include DOD component architectures, and the plan does not include most component business system investments. To address these shortfalls, DOD recently issued a strategy for “federating” or extending its architecture to the military services and defense agencies. In our view, much remains to be accomplished before a well-defined federated architecture is in place, particularly given that we recently reported that the respective military service architecture programs are not mature. Nevertheless, DOD components are continuing to invest billions of dollars in thousands of new and existing business system programs. As we previously stated, the risks associated with investing in systems ahead of having a well-defined architecture and accompanying transition plan are profound and must be managed carefully, as must the wide assortment of other risks that our work has shown to exist on specific DOD business system investments. While not a guarantee, our work and research has shown that establishing effective system modernization management controls, such as an architecture-centric approach to investment decision making, can increase the chances of delivering cost-effective business capabilities on time and within budget. Further, with regard to legislation pertaining to its financial management improvement, DOD issued its Financial Improvement and Audit Readiness Plan and two updates in fiscal year 2006 to provide components with a construct for resolving problems affecting the accuracy and timeliness of financial information and an improved audit strategy for obtaining financial statement audit opinions.

In addition, you asked for my comments on two sections of the recently enacted John Warner National Defense Authorization Act for Fiscal Year 2007. The first provision, section 321, seeks to ensure that the department pursues financial management improvement activities only in accordance with a comprehensive financial management improvement plan that

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coordinates these activities with improvements in its systems and controls. I fully support the intent of this legislation, which is aimed at directing DOD’s corrective actions toward achieving sustained improvements in its ability to provide timely, reliable, complete, and useful information. This is important not only for financial reporting purposes, but also, more importantly, for informed decision making and oversight. Section 321 is consistent with existing legislation, as well as recent actions taken by the department. The second provision, section 816, establishes certain reporting and oversight requirements for the acquisition of all major automated information systems (MAIS), which if properly implemented could strengthen oversight of and accountability for business system acquisitions that fail to meet cost, schedule, or performance criteria. Therefore, I also support the purpose of this legislation.

Ensuring effective transformation of other areas within DOD that we have identified as high risk will require continued attention and sustained leadership over a number of years to be successful. These other high-risk areas include DOD’s weapon systems acquisition, contract management, supply chain management, personnel security clearance program, and support infrastructure management. In the area of weapon systems acquisition, recurring problems with cost overruns and schedule delays have resulted in a reduction of buying power of the defense dollar at a time when the nation is struggling with a large and growing structural deficit. While DOD has made some progress in addressing its supply chain management problems, the department faces challenges in successfully implementing its changes and measuring progress. While positive steps have been taken to address the financial costs, delays, and other risks associated with DOD’s personnel security clearance program, problems with this program continue. Finally, much work remains for DOD to transform its support infrastructure to adequately fund and improve operations and achieve efficiencies while ensuring that infrastructure costs no longer consume a larger than necessary portion of DOD’s budget.

**Background**

DOD is one of the largest and most complex organizations in the world. Overhauling its business operations will take many years to accomplish and represents a huge management challenge. Execution of DOD’s operations spans a wide range of defense organizations, including the

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6The Committee originally asked GAO to comment on sec. 804 of the Senate bill, S. 2766, which, with some changes, has now been enacted as sec. 816.
military services and their respective major commands and functional activities, numerous large defense agencies and field activities, and various combatant and joint operational commands that are responsible for military operations for specific geographic regions or theaters of operation. To support DOD’s operations, the department performs an assortment of interrelated and interdependent business functions—using more than 3,700 business systems—related to major business areas such as weapon systems management, supply chain management, procurement, health care management, and financial management. The ability of these systems to operate as intended affects the lives of our warfighters both on and off the battlefield. For fiscal year 2006, Congress appropriated approximately $15.5 billion to DOD, and for fiscal year 2007, DOD has requested another $16 billion in appropriated funds to operate, maintain, and modernize these business systems and associated infrastructure.

Until DOD can successfully transform its operations, it will continue to confront the pervasive, decades-old management problems that cut across all of DOD’s major business areas. Since our report on the financial statement audit of a major DOD component over 16 years ago, we have repeatedly reported that weaknesses in business management systems, processes, and internal controls not only adversely affect the reliability of reported financial data, but also the management of DOD operations. In March 2006, I testified that DOD’s financial management deficiencies, taken together, continue to represent the single largest obstacle to achieving an unqualified opinion on the U.S. government’s consolidated financial statements. These issues were also discussed in the latest consolidated financial audit report. To date, none of the military services or major DOD components has passed the test of an independent financial audit.
audit because of pervasive weaknesses in internal control and processes and fundamentally flawed business systems.\(^\text{10}\)

DOD's financial management problems are pervasive, complex, long-standing, deeply rooted in virtually all of its business operations, and challenging to resolve. The nature and severity of DOD's financial management business operations and system deficiencies not only affect financial reporting, but also impede the ability of DOD managers to receive the full range of information needed to effectively manage day-to-day operations. Such weaknesses have adversely affected the ability of DOD to control costs, ensure basic accountability, anticipate future costs and claims on the budget, measure performance, maintain funds control, prevent fraud, and address pressing management issues, including supporting warfighters and their families.

Transformation of DOD's business systems and operations is key to improving the department’s ability to provide DOD management and Congress with accurate, timely, reliable, and useful information for analysis, oversight, and decision making. This effort is an essential part of the Secretary of Defense’s broad initiative to “transform the way the department works and what it works on.” The savings resulting from an effective business transformation effort could be significant.

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**DOD Lacks a Fully Developed, Comprehensive, Integrated, and Enterprisewide Approach to Decision Making and Sustained Leadership**

I would like to take a few minutes to briefly discuss two critical elements that are still needed at DOD to ensure successful and sustainable business transformation before turning to DOD’s business modernization and financial management accountability improvement efforts. First, DOD needs a comprehensive, integrated, and enterprisewide plan to guide its overall business transformation efforts. Second, a chief management official with the right skills and at the right level of the department is essential for providing the leadership continuity needed to sustain the momentum for business transformation efforts across administrations and ensure successful implementation.

\(^{10}\)Although not major DOD components, the Military Retirement Fund received an unqualified audit opinion on its fiscal year 2005 financial statements, and the DOD Medicare Eligible Retiree Health Care Fund received a qualified audit opinion on its fiscal year 2005 financial statements.
DOD has not fully developed a comprehensive, integrated, and enterprisewide strategy or action plan for managing its overall business transformation effort. The lack of a comprehensive, integrated, and enterprisewide action plan linked with performance goals, objectives, and rewards has been a continuing weakness in DOD’s overall business transformation efforts that I have been testifying on for years.\textsuperscript{11} I recognize that DOD’s efforts to plan and organize itself to achieve business transformation are continuing to evolve. However, I cannot emphasize enough how critical to the success of these efforts are top management attention and structures that focus on transformation from a broad perspective and a clear, comprehensive, integrated, and enterprisewide plan that, at a summary level, addresses all of the department’s major business operations. This plan should cover all of DOD’s key business functions; contain results-oriented goals, measures, and expectations that link institutional, unit, and individual performance goals and expectations to promote accountability; identify people with needed skills, knowledge, experience, responsibility, and authority to implement the plan; and establish an effective process and related tools for implementation and oversight. Such an integrated business transformation plan would be instrumental in establishing investment priorities and guiding the department’s key resource decisions.

While DOD has developed plans that address aspects of business transformation at different organizational levels, these plans have not been clearly aligned into a comprehensive, integrated, and enterprisewide approach to business transformation. As I will shortly discuss in more detail, DOD recently issued an enterprise transition plan (ETP) that is to serve as a road map and management tool for sequencing business system investments in the areas of personnel, logistics, real property, acquisition, purchasing, and financial management. As Business Transformation Agency (BTA) officials acknowledge, the ETP does not contain all of the components of a comprehensive and integrated enterprisewide transformation plan as we envision. BTA officials stated that, while the ETP is integrated with the Financial Improvement and Audit Readiness

the ETP is not as integrated with other enterprisewide, high-risk area improvement plans, such as the Supply Chain Plan. However, BTA officials consider the ETP to be an evolving plan and are currently analyzing other enterprisewide plans aimed at improving and transforming DOD’s business operations in order to improve the degree of alignment between those plans and the ETP. Finally, BTA officials indicate that the department is moving toward a family of linked plans that could be used to guide and monitor business transformation, rather than one comprehensive plan that addresses all aspects of DOD’s business operations.

To develop a family of linked plans, the enterprise transition plan would also need to be aligned with the high-level Quadrennial Defense Review (QDR) strategic plan and its initiatives, which so far is not the case. For example, the QDR highlights the need for transforming the way the department works and what it works on, but it does not contain supporting details such as key metrics, milestones, and mechanisms to guide and direct the business transformation effort. Moreover, the QDR’s business transformation initiative, the Institutional Reform and Governance project, is not clearly aligned with the ETP. This initiative is intended to (1) establish a common and authoritative analytical framework to link strategic decisions to execution, (2) integrate core decision processes, (3) and align and focus the department’s governance and management functions under an integrated enterprise model. Finally, the QDR and other DOD planning documents do not address the ongoing gap between wants, needs, affordability, and sustainability in what is likely to be a resource-constrained environment.

While DOD has established leadership and oversight mechanisms to address transformation, DOD lacks the sustained leadership at the right level needed to achieve successful and lasting transformation. Due to the complexity and long-term nature of DOD’s business transformation efforts, we continue to believe DOD needs a chief management officer (CMO) to provide sustained leadership and maintain momentum. Without

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formally designating responsibility and accountability for results, choosing among competing demands for scarce resources and resolving differences in priorities among various DOD organizations will be difficult and could impede DOD’s ability to transform in an efficient, effective, and reasonably timely manner. In addition, it may be particularly difficult for DOD to sustain transformation progress when key personnel changes occur. This position would elevate, integrate, and institutionalize the attention essential for addressing key stewardship responsibilities, such as strategic planning, enterprise architecture development and implementation, information technology management, and financial management, while facilitating the overall business management transformation effort within DOD.

I would also like to articulate what this position would not do. The CMO would not be another layer in DOD’s day-to-day management structure. Specifically, the CMO would not assume the responsibilities of the undersecretaries of defense, the service secretaries, or other DOD officials for the day-to-day management of the department, nor would the CMO supervise those officials in connection with their ongoing responsibilities. Instead, the CMO would be responsible and accountable for planning, integrating, and executing the overall business transformation effort. The CMO also would develop and implement a strategic plan for the overall business transformation effort. As required by Congress, DOD is studying the feasibility and advisability of establishing a CMO to oversee the department’s business transformation process. As part of this effort, the Defense Business Board, an advisory panel, examined various options and, in May 2006, endorsed this concept. The Institute for Defense Analysis is scheduled to issue a report on this issue before the end of this year. In addition, McKinsey and Company recently endorsed the CMO concept.

The Secretary of Defense, Deputy Secretary of Defense, and other senior leaders have clearly shown a commitment to business transformation and addressing deficiencies in the department’s business operations. During the past year, DOD has taken additional steps to address certain provisions and requirements of the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005, including establishing the Defense Business Systems Management Committee (DBSMC), which is intended to be DOD’s primary transformation leadership and oversight mechanism, and creating the BTA to support the DBSMC, a decision-making body. However, these organizations do not provide the sustained leadership needed to successfully achieve the needed overall business transformation. The DBSMC’s representatives consist of political appointees whose terms expire when administrations change.
Furthermore, it is important to remember that committees do not lead, people do. Thus, DOD still needs to designate a person to provide sustained leadership and have overall responsibility and accountability for this effort.

In addition, we testified in November 2005\(^\text{14}\) that DOD's BTA offers potential benefits relative to the department’s business systems modernization efforts if the agency can be properly organized, given resources, and empowered to effectively execute its roles and responsibilities and is held accountable for doing so. However, the department has faced challenges in making the BTA operational. For example, we previously testified that there are numerous key acquisition functions that would need to be established and made operational for the BTA to effectively assume responsibility for 21 DOD-wide projects, programs, systems, and initiatives, and our experience across the government shows that these functions can take considerable time to establish.\(^\text{15}\)

To assist the department, the Fiscal Year 2004 National Defense Authorization Act gives DOD the authority to hire up to 2,500 highly qualified experts from outside the civil service and uniformed services without going through the normal civil service hiring system.\(^\text{16}\) Earlier this year, the BTA had yet to take advantage of this authority because of certain departmental obstacles concerning, for example, the roles that these experts could perform. However, it is our understanding that this is no longer the case, and to date the BTA has hired 9 of these individuals. Moreover, we were told that the BTA has also obtained direct hiring authority from the Office of Personnel Management. The BTA's total projected end strength is 235 personnel. As of November 2006, the BTA had hired 128 personnel; agency officials anticipate hiring the remaining 107 personnel, including 16 additional highly qualified subject experts by September 30, 2007.


\(^{15}\)According to DOD, 21 systems and initiatives have been transferred under the BTA as of Oct. 31, 2006.

While achieving the BTA's initial staffing goals would represent a major accomplishment and is extremely important to its ability to perform its business transformation and business systems modernization roles and responsibilities, BTA human capital management is not a one-time event but rather an essential BTA function that needs to be managed strategically. Our research shows that to be successful, organizations need to treat human capital as strategic assets—continuously working to understand gaps between future needs and on-board capabilities and establish plans for filling gaps through a combination of, for example, training, retention incentives, hiring, and performance-related rewards. By employing such an approach, the BTA can be better positioned to make sure that it has the right people, with the right skills, when it needs them not only today but in the future. The Deputy Undersecretary of Defense for Financial Management stated that the BTA is currently developing a human capital strategy that is expected to be completed by January 2007. It will to (1) provide for rotating staff between BTA and the DOD components to infuse talent into the BTA and to develop a change-oriented culture, (2) align individual and team performance to already established organizational mission outcomes, and (3) employ OPM's Human Capital Assessment and Accountability Framework and the DOD Human Capital Strategy.
The department has made important progress in complying with legislation pertaining to its financial management improvement and business systems modernization efforts. However, formidable challenges remain relative to extending the architecture and implementing its tiered accountability investment approach across the military services and defense agencies, and ensuring that the department’s thousands of business system investments are implemented on time and within budget and provide promised capabilities and benefits. The Fiscal Year 2005 National Defense Authorization Act contained provisions aimed at establishing some of the tools needed to accomplish this. As our evaluations of federal information technology (IT) management and our research of successful organizations show, other tools necessary for successfully modernizing systems will also be needed.

As we reported earlier this year, DOD also made important progress in complying with the Fiscal Year 2005 National Defense Authorization Act pertaining to its business systems modernization. For example, on March 15, 2006, DOD released updates to its business enterprise architecture (Version 3.1) and its ETP. These updates added previously missing content to the architecture and transition plan, such as identifying an enterprisewide data standard to support financial management and reporting requirements. Other business system modernization management improvements were also apparent, such as increased budgetary reporting of business system investments and additional investment review controls.

More recently, DOD issued Version 4.0 of its business enterprise architecture and ETP. These latest versions provide additional content and clarity. For example, the transition plan now includes the results of ongoing analyses of gaps between existing business capabilities and needed capabilities. However, enormous challenges, such as extending the architecture across the military services and defense agencies, remain. To this end, the department defined a conceptual strategy in September 2006, for federating the architecture and adopting a shared services approach.


18 A federated architecture is an architecture that is composed of a set of coherent, but distinct, entity architectures. The entities or members of the federation collaborate to develop an integrated enterprise architecture that conforms to the enterprise view and to the overarching rules of the federation.
While we believe that the concepts have merit and are applicable to DOD, much remains to be decided and accomplished before they can be implemented in a way to produce architectures and transition plans for each DOD component that are aligned with the department’s corporate view and that can guide and constrain component-specific investments.

At the same time, DOD components continue to invest billions of dollars in new and existing business systems each year. This means that the risks of investing in these programs ahead of the federated architecture need to be part of investment approval decisions. As we have previously reported, investment decision making based on architecture alignment is but one of many keys to success of any business system modernization. Other keys to the success in delivering promised system capabilities and benefits on time and within budget include having the right human capital team in place and following a range of essential program management and system and software acquisition disciplines. As I will discuss later, our experience in reviewing several DOD business system programs shows that these keys to success are not consistently practiced. While not a guarantee, our research of leading program management and system acquisition practices and evaluations of federal agencies shows that institutionalization of a family of well-defined management controls can go a long way in minimizing business system modernization risks.

A service-oriented architecture is an approach for sharing functions and applications across an organization by designing them as discrete, reusable, business-oriented services. These services need to be, among other things, (1) self-contained, meaning that they do not depend on any other functions or applications to execute a discrete unit of work; (2) published and exposed as self-describing business capabilities that can be accessed and used; and (3) subscribed to via well-defined and standardized interfaces instead of unique, tightly coupled connections. Such a service orientation is thus not only intended to promote the reduced redundancy and increased integration that any architectural approach is designed to achieve, but to also provide the kind of flexibility needed to support a quicker response to changing and evolving business requirements and emerging conditions.

In May 2006, we reported on DOD’s efforts to address a number of provisions in the Fiscal Year 2005 National Defense Authorization Act. Among other things, we stated that the department had adopted an incremental strategy for developing and implementing its architecture, which was consistent with our prior recommendation and a best practice. We further stated that DOD had addressed a number of the limitations in prior versions of its architecture. For example, we reported that Version 3.1 of the architecture had much of the information needed, if properly implemented, to achieve compliance with the Department of the Treasury’s United States Standard General Ledger, such as the data elements or attributes that are needed to facilitate information sharing and reconciliation with the Treasury. In addition, we stated that the architecture continued to specify DOD’s Standard Financial Information Structure (SFIS) as an enterprisewide data standard for categorizing financial information to support financial management and reporting functions.

Despite this progress, we also reported that this version of the architecture did not comply with all of the legislative requirements and related best practices. For example, while program officials stated that analyses of the current architectural environment for several of the enterprise-level systems had occurred, the architecture did not contain a description of, or a reference to, the results of these analyses. The architecture also did not include a systems standards profile to support implementation of data sharing among departmentwide business systems and interoperability with departmentwide IT infrastructure. Program officials acknowledged that the architecture did not include this profile and stated that they were working with the Assistant Secretary of Defense (Networks and Information Integration) and Chief Information Officer to address this in future versions. We also reported that the architecture was

21GAO-06-658.


23The United States Standard General Ledger provides a uniform chart of accounts and technical guidance used in standardizing federal agency accounting.

24SFIS is the department’s common financial business language.

25GAO-06-658.

2610 U.S.C. §2222(d).
not, for example, adequately linked to the military service and defense agency component architectures and transition plans, which we said was particularly important given the department’s stated intention to adopt a federated approach to developing and implementing the architecture.

In September 2006, DOD released Version 4.0 of its architecture, which according to the department, resolves several of the architecture gaps that were identified with the prior version. One example of a gap that DOD reports Version 4.0 is beginning to fill is the definition of a key business process area missing from prior versions—the planning, programming, and budgeting process area. In this regard, according to DOD, the architecture now includes departmental and other federal planning, programming, and budgeting guidance (e.g., OMB Circular A-11) and some high-level activities associated with this process area. In addition, DOD reports that Version 4.0 has restructured the business process models to reduce data redundancy and ensure adherence to process modeling standards (e.g., eliminated numerous process modeling standards violations and stand-alone process steps with no linkages). Despite these improvements, this version is still missing, for example, a depiction of the current environment (i.e., baseline of its current assets and current capabilities) that was analyzed against its target environment to identify capability gaps that the ETP is to address. Further, it does not include DOD component architectures (e.g., services and various DOD agencies) as distinct yet coherent members of a federated DOD business enterprise architecture.

DOD Plans to Federate Its Business Enterprise Architecture to the Components

Recognizing the need to address component architectures, DOD released its business mission area federation strategy and road map in September 2006, which is intended to define how DOD will extend its business enterprise architecture across the military services and defense agencies. According to DOD, the strategy will provide for standardization across the federation of architectures by, for example, introducing a consistent set of standards for determining the status and quality of the member (component and program) architectures, a standard methodology for linking member architectures to the overarching corporate architecture, the capability to search member architectures, and a common method to reuse capabilities described by these architectures.

In the end, the strategy is intended to link related business mission area services or capabilities in the various architectures by establishing a set of configuration standards for architecture repositories. Further, the strategy is also intended to support the development of the interoperable execution
of enterprise and component systems by defining and disclosing common services that can be shared and reused by these systems. (See fig. 1 for a simplified and illustrative conceptual depiction of DOD’s federated business enterprise architecture.)

The importance of extending the DOD business enterprise architecture to the military services is underscored by our recent findings about the military services’ management of their respective enterprise architecture programs. Specifically, in August 2006, we released an assessment of federal agency enterprise architecture programs’ satisfaction of the elements in our Enterprise Architecture Management Maturity Framework (EAMMF). Our EAMMF is a five-stage architecture framework for managing the development, maintenance, and implementation of an architecture and understanding the extent to which effective architecture management practices are being performed and where an organization is in its progression toward having a well-managed architecture program. In short, the framework consists of 31 core elements that relate to

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28GAO-06-831.
architecture governance, content, use, and measurement. These elements reflect research by us and others showing that architecture programs should be founded upon institutional architecture commitment and capabilities, and measured and verified products and results.

With respect to the maturity of the military services’ respective enterprise architecture programs, we found that the departments of the Air Force, the Army, and the Navy had not satisfied about 29, 55, and 29 percent of the core elements in our framework, respectively. In addition, the Army had only fully satisfied 1 of the 31 core elements (3 percent). (See table 1 for the number and percentage of elements fully, partially, and not satisfied by each of the military services).

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<tr>
<th>Military services</th>
<th>Fully satisfied</th>
<th>Partially satisfied</th>
<th>Not satisfied</th>
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<tbody>
<tr>
<td>Air Force</td>
<td>14 (45%)</td>
<td>8 (26%)</td>
<td>9 (29%)</td>
</tr>
<tr>
<td>Army</td>
<td>1 (03%)</td>
<td>13 (42%)</td>
<td>17 (55%)</td>
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<tr>
<td>Navy</td>
<td>10 (32%)</td>
<td>12 (39%)</td>
<td>9 (29%)</td>
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Source: GAO.

By comparison, the other major federal departments and agencies that we reviewed had as a whole fully satisfied about 67 percent of the framework’s core elements. Among the key elements that all three services had not fully satisfied were developing architecture products that describe their respective target architectural environments and developing transition plans for migrating to a target environment, in addition to the following.

- The Air Force, for example, had not yet placed its architecture products under configuration management to ensure the integrity and consistency of these products and was not measuring and reporting on the quality of these products.
- The Army, for example, had yet to develop effective architecture development plans and had not developed architecture products that fully described its current architectural environment.

• The Navy, for example, had yet to describe its current architectural environment in terms of performance and had not explicitly addressed security in its architecture descriptions.

Further, while the services had partially satisfied between 8 and 13 core elements in our framework, it is important to note that even though certain core elements are partially satisfied, fully satisfying some of them will not be accomplished quickly and easily. It is also important to note the importance of fully, rather than partially, satisfying certain elements, such as those that address architecture content, which can have important implications for the quality of an architecture and thus its usability and results.

To assist the military services in addressing enterprise architecture challenges and managing their architecture programs, we recommended that the services develop and implement plans for fully satisfying each of the conditions in our framework. The department generally agreed with our findings and recommendations and stated that it plans to use our framework as one of the benchmark best practices as DOD components continuously work to improve enterprise architecture management maturity.

Clearly, much remains to be accomplished to implement the federated strategy and create DOD’s federated business enterprise architecture. One key to making this happen, which we have previously recommended, is having a business enterprise architecture development management plan that defines what will be done, when, by whom, and how it will done to fully develop the architecture. Having and using such a plan is provided for in our EAMMF. Without one, the department is less likely to effectively accomplish its intended architecture evolution, extension, and improvement efforts. According to BTA officials, they are in the process of addressing this recommendation. We currently have ongoing work for this committee and others looking at, among other things, how the department plans to implement the federated strategy and the challenges that it faces in doing so.

30GAO-06-658.
DOD has taken a number of steps to improve its ETP and address some of the missing elements that we previously identified relative to the Fiscal Year 2005 National Defense Authorization Act’s requirements and related transition planning guidance. For example, in May 2006, we reported that the transition plan included an initiative aimed at identifying capability gaps between the current and target architectural environments, and provided information on progress on major investments—including key accomplishments and milestones attained, and more information about the termination of legacy systems. However, we reported that it still did not identify, among other things, all legacy systems that will not be part of the target architecture, and it did not include system investment information for all the military services, defense agencies, and combatant commands.

In September 2006, DOD released an updated revision to its ETP, which continues to include major investments—such as key accomplishments and milestones attained, as well as new information on near-term activities (i.e., within the next 6 months) at both the enterprise and component levels. For example, in an effort to improve visibility into personnel activities, DOD reported that, for the Defense Civilian Personnel Data System, it met the September 2006 milestone to implement enterprisewide tools for use in advanced reporting and data warehousing, and that it has set a September 2008 milestone for developing an implementation strategy for integrating modules supporting functionality that is currently provided by stand-alone applications. In addition, the updated plan provides information on business priorities supported by systems and initiatives and aligns these priorities with a set of business value measures (e.g., on-time customer request, payroll accuracy). Specifically, for each business enterprise priority, the plan now identifies the business capability improvements (e.g., manage personnel and pay) necessary to achieve the business enterprise priority (e.g., personnel visibility) objectives and the metrics for measuring progress towards achieving these objectives. In addition, the plan now identifies the relationship between target systems, business capabilities, operational activities, and the system functions they provide and specific organizations that will or plan to use the system.

Further, the transition plan now includes the initial results of ongoing analyses of gaps between its current and target environments for most of the business enterprise priorities, in which capability and performance shortfalls and their root causes are described and the architecture solution

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31GAO-06-219.
component (such as business rules and transformation initiatives and systems) that are to address these shortfalls are identified.

However, the current transition plan is still missing important elements. Specifically, the plan does not yet include system investment information for all the defense agencies and combatant commands. In addition, the planned investments in the transition plan are not sequenced based on a range of activities that are critical to developing an effective transition plan. As we have previously reported,[32] a transition or sequencing plan should provide a temporal investment road map for moving between the current and target environments, based on such considerations as technology opportunities, marketplace trends, institutional system development and acquisition capabilities, legacy and new system dependencies and life expectancies, and the projected value of competing investments. According to a BTA official responsible for the ETP, the transition plan investments have not been sequenced based on these considerations. Rather, the ETP is based on fiscal year budgetary constraints.

Program officials stated that the next version of the plan will enhance performance metric tracking, improve the quality of system functional scope and organizational span information, better integrate component plans with enterprise plans, enhance federating plans for each business capability, and possibly add other components to the enterprise transition plan. As the transition plan evolves and all system investments are validated against the architecture via capability gap analyses, the department should be better positioned to sequentially define and manage the migration and disposition of existing business processes and systems—and the introduction of new ones.

To help improve the department's control and accountability over its business systems investments, provisions in the Fiscal Year 2005 National Defense Authorization Act directed DOD to put in place a specifically defined structure that is responsible and accountable for controlling business systems investments to ensure compliance and consistency with the business enterprise architecture. More specifically, the act directs the Secretary of Defense to delegate responsibility for review, approval, and oversight of the planning, design, acquisition, deployment, operation,

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maintenance, and modernization of defense business systems to designated approval authorities or “owners” of certain business missions. DOD has satisfied this requirement under the act. On March 19, 2005, the Deputy Secretary of Defense issued a memorandum that delegated the authority in accordance with the criteria specified in the act, as described above. Our research and evaluation of agencies’ investment management practices have shown that clear assignment of senior executive investment management responsibility and accountability is crucial to having an effective institutional approach to IT investment management.

The Fiscal Year 2005 National Defense National Authorization Act also required DOD to establish investment review structures and processes, including a hierarchy of investment review boards (IRB), each with representation from across the department, and a standard set of investment review and decision-making criteria for these boards to use to ensure compliance and consistency with DOD’s business enterprise architecture. In this regard, the act required the establishment of the DBSMC—which serves as the highest ranking governance body for business system modernization activities within the department. As of April 2006, DOD identified 3,717 business systems and assigned responsibility for these systems to IRBs. Table 2 shows the systems and the responsible IRB and component.

33Approval authorities, including the Under Secretary of Defense for Acquisition, Technology and Logistics; the Under Secretary of Defense (Comptroller); the Under Secretary of Defense for Personnel and Readiness; the Assistant Secretary of Defense for Networks and Information Integration and Chief Information Officer of the Department of Defense; and the Deputy Secretary of Defense or an Under Secretary of Defense, as designated by the Secretary of Defense, are responsible for the review, approval, and oversight of business systems and must establish investment review processes for systems under their cognizance.

A key element of the department’s approach to reviewing and approving business systems investments is the use of what it refers to as tiered accountability. DOD’s tiered accountability approach involves an investment control process that begins at the component level and works its way through a hierarchy of review and approval authorities, depending on the size and significance of the investment. Military service officials emphasized that the success of the process depends on them performing a thorough analysis of each business system before it is submitted for higher-level review and approval. Through this process, the department reported in March 2006 that 226 business systems, representing about $3.6 billion in modernization investment funding, had been approved by the DBSMC—the department’s highest-ranking approval body for business systems. According to the department’s March 2006 report, this process also identified more than 290 systems for phase out or elimination and approximately 40 business systems for which the requested funding was reduced and the funding availability periods were shortened to fewer than the number of years requested. For example, one business system investment that has been eliminated is the Forward Compatible Payroll (FCP) system. In reviewing the program status, the IRB determined that FCP would duplicate the functionality contained in the Defense Integrated Military Human Resources System, and it was unnecessary to continue investing in both systems.\textsuperscript{35} A major reason the department has thousands

\textsuperscript{35}According to the department’s fiscal year 2007 IT budget request, approximately $33 million was sought for fiscal year 2007 and about $31 million was estimated for fiscal year 2008 for FCP.
of business systems is that it has historically failed to consistently employ the range of effective institutional investment management controls, such as an architecture-centric approach to investment decision making, that our work and research show are keys to successful system modernization programs. Such controls help to identify and eliminate duplicative systems and this helps to optimize mission performance, accountability, and transformation. They also help to ensure that promised system capabilities and benefits are delivered on time and within budget.

Furthermore, the BTA reports that the tiered accountability approach has reduced the level of funding and the number of years that funding will be available for 14 Army business systems, 8 Air Force business systems, and 8 Navy business systems. For example, the Army’s Future Combat Systems Advanced Collaborative Environment program requested funding of $100 million for fiscal years 2006 through 2011, but the amount approved was reduced to approximately $51 million for fiscal years 2006 through 2008. Similarly, Navy’s Military Sealift Command Human Resources Management System requested funding of about $19 million for fiscal years 2006 through 2011, but the amount approved was approximately $2 million for the first 6 months of fiscal year 2006. According to Navy officials, this system initiative will be reviewed to ascertain whether it has some of the same functionality as the Defense Civilian Personnel Data System. Funding system initiatives for shorter time periods can help reduce the financial risk by providing additional opportunities for monitoring a project’s progress against established milestones and help ensure that the investment is properly aligned with the architecture and the department’s overall goals and objectives.

Besides limiting funding, the investment review and approval process has resulted in conditions being placed on system investments. These conditions identify specific actions to be taken and when the actions must be completed. For example, in the case of the Army’s Logistics Modernization Program (LMP) initiative, one of the noted conditions was that the Army had to address the issues discussed in our previous reports. In our May 2004 report, we recommended that the department establish a mechanism that provides for tracking all business systems.

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modernization conditional approvals to provide reasonable assurance that all specific actions are completed on time. In response, the department has begun to track conditional approvals.

Despite the department’s efforts to control its investments to acquire new business systems or to enhance existing business systems, formidable challenges remain. In particular, the reviews of those business systems that have modernization funding of less than $1 million, which represent the majority of the department’s reported 3,717 business systems, are only now being started on an annual basis, and thus the extent to which the review structures and processes will be applied to the department’s 3,717 business systems is not clear. Given the large number of systems involved, it is important that an efficient system review and approval process be effectively implemented for all systems. As indicated in table 2, there are numerous systems across the department in the same functional area. Such large numbers of systems indicate a real possibility for eliminating unnecessary duplication and avoiding unnecessary spending on the department’s multiple business systems. In support of this Subcommittee, we have work planned to address the extent to which these management controls are actually being implemented for both the enterprise-level investments and the thousands of other system investments that are being managed at the component level.

Key DOD Systems Still Face Challenges

As we have previously testified and reported, DOD has not effectively managed a number of business system programs. Among other things, our reviews of individual system investments have identified weaknesses in such things as architectural alignment and informed investment decision making, which are focus areas of the Fiscal Year 2005 National Defense Authorization Act provisions. Our reviews have also identified weaknesses in other system acquisition and investment management areas—such as requirements management, testing, and performance management—where good management is crucial for the successful implementation of any given DOD business system. I will describe examples of the weaknesses that we have recently reported on for five system investments. The system investments are the Defense Integrated Military Human Resources System (DIMHRS), Defense Travel System (DTS), the Army Logistics Modernization Program (LMP), the Navy Tactical Command Support

37GAO-04-615.

38See, for example, GAO-06-234T.
System (NTCSS), and the Transportation Coordinators’ Automated Information for Movements System II (TC-AIMS II). The weaknesses that we have found raise questions as to the extent to which the structures, processes, and controls that DOD has established in response to the Fiscal Year 2005 National Defense Authorization Act are actually being implemented, and illustrate the range of system acquisition and investment management controls (beyond those provided for in the act) that need to be effectively implemented in order for a given investment to be successfully acquired and deployed.

**DIMHRS**

In 2005 we reported that DIMHRS—a planned DOD-wide military pay and personnel system—was not being managed as a DOD-wide investment, to include alignment with a DOD-wide architecture and governance by a DOD-wide body. In addition, we reported that DIMHRS requirements had not been adequately defined, and not all acquisition best practices associated with commercial component-based systems were being followed. Accordingly, we made a number of recommendations. In response, DOD has elevated the system to an enterprise investment under the BTA, and established a DIMHRS steering committee that is chartered to include representation from the services. The BTA has also hired a DIMHRS program manager, and the Army and the Air Force, while continuing to evaluate their respective requirements, have determined that the commercial software product selected for DIMHRS can be used under certain conditions. The Army expects to deploy DIMHRS in April 2008 and the Air Force plans to begin deployment in May 2008. The Navy, on the other hand, assessed both DIMHRS and the Marine Corps Total Force System (MCTFS) and determined that MCTFS would better meet its requirements. According to a Navy official, the DBSMC has directed the Navy to research MCTFS and to fully evaluate the cost implications of the MCTFS option, but has not granted the Navy permission to deploy MCTFS. We plan to evaluate DOD’s implementation of our prior recommendations and the Navy’s analysis of the merits of pursuing the MCTFS option.

**DTS**

In September 2006, we reported on limitations in the economic justification underlying DOD’s decision to invest in DTS, which is intended

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40 MCTFS is the Marine Corps’ integrated personnel and pay system.

to be the standard departmentwide travel system. Specifically, we found that two key assumptions used to estimate cost savings in the September 2003 DTS economic analysis were not based on reliable information. Additionally, we reported that DOD did not have quantitative metrics to measure the extent to which DTS is actually being used. Moreover, we found that DOD had not adequately defined and tested the system’s requirements, an area of concern that was also discussed in our January 2006 report. These system acquisition management weaknesses introduce considerable risk to DOD’s ability to deliver promised DTS capabilities and benefits on time and within budget. Although the September 2003 economic analysis was not based on supportable data, the department’s criteria do not require that a new economic analysis be prepared. DTS has already completed all of the major milestones related to a major automated system which require that an economic analysis be prepared or at least updated to reflect the current assumptions and the related costs and benefits. However, the Fiscal Year 2005 National Defense Authorization Act requires the periodic review, but not less than annually, of every defense business system investment. Further, the department’s April 2006 guidance notes that the annual review process “provides follow-up assurance that information technology investments, which have been previously approved and certified, are managed properly, and that promised capabilities are delivered on time and within budget.” If effectively implemented, this annual review process provides an excellent opportunity for DOD management to assess whether DTS is meeting its planned cost, schedule, and functionality goals. Going forward, such a review could serve as a useful management tool in making funding and other management decisions related to DTS. We made recommendations to DOD aimed at improving the management oversight of DTS, including periodic reports on DTS utilization and resolution of inconsistencies in DTS’s requirements. DOD generally agreed with the recommendations and described its efforts to address them.


In 2004 and 2005, we reported that the Army faced considerable challenges in developing and implementing LMP which is intended to transform the Army Materiel Command’s logistics operations. In particular, we reported that LMP will not provide intended capabilities and benefits because of inadequate requirements management and system testing. These problems prevented the Tobyhanna Army Depot from accurately reporting on its financial operations, which, in turn, adversely impacts the depot’s ability to accurately set prices. We found that the Army has not put into place an effective management process to help ensure that the problems with the system are resolved. While the Army developed a process that identified the specific steps that should be followed in addressing the problems identified, the process was not followed. We recommended improvements in the implementation of LMP as well as delaying implementation at the remaining four depots until problems encountered have been resolved. DOD concurred with all the recommendations. The Subcommittee has requested that we undertake a series of audits directed at DOD’s efforts to resolve long-standing financial management problems over the visibility of its assets. Our first such audit is evaluating the Army’s efforts in the area and will include follow-up work on LMP.

In December 2005, we reported that DOD needed to reassess its planned investment in the NTCSS—a system intended to help Navy personnel effectively manage ships, submarines, and aircraft support activities. Among other things, we reported that the Navy had not economically justified its ongoing and planned investment in the NTCSS and had not invested in the NTCSS within the context of a well-defined DOD or Navy enterprise architecture. In addition, we reported that the Navy had not effectively performed key measurement, reporting, budgeting, and oversight activities, and had not adequately conducted requirements management and testing activities. We conclude that without this information, the Navy could not determine whether the NTCSS as defined, and as being developed, is the right solution to meet its strategic business
and technological needs. Accordingly, we recommended that DOD develop the analytical basis to determine if continued investment in the NTCSS represents prudent use of limited resources and we also made recommendations to strengthen management of the program, conditional upon a decision to proceed with further investment in the program. In response, DOD generally concurred with the recommendations.

TC-AIMS II

In December 2005, we reported that TC-AIMS II—a joint services system with the goal of helping to manage the movement of forces and equipment within the United States and abroad—had not been defined and developed in the context of a DOD enterprise architecture. Similar to DIMHRS and DTS, TC-AIMS II was intended to be an enterprise-level system. However, the Army—DOD’s acquisition agent for TC-AIMS II—had pursued the system on the basis of an Army logistics-focused architecture. This means that TC-AIMS II, which was intended to produce a departmentwide military deployment management system, was based on a service-specific architecture, thus increasing the risk that this program, as defined, will not properly fit within the context of future DOD enterprisewide business operations and IT environments. In addition, the Army had not economically justified the program on the basis of reliable estimates of life-cycle costs and benefits, and as a result, the Army does not know if investment in TC-AIMS II, as planned, is warranted or represents a prudent use of limited DOD resources. Accordingly, we recommended that DOD, among other things, develop the analytical basis needed to determine if continued investment in TC-AIMS II, as planned, represents prudent use of limited defense resources. In response, DOD generally concurred with our recommendations and described efforts initiated or planned to bring the program into compliance with applicable guidance.

DOD Issues Its Financial Improvement and Audit Readiness Plan

A major component of DOD’s business transformation effort is the defense Financial Improvement and Audit Readiness Plan (FIAR), initially issued in December 2005 and updated in June 2006 and September 2006, pursuant to section 376 of the National Defense Authorization Act for Fiscal Year 2006. Section 376 limited DOD’s ability to obligate or expend funds for fiscal year 2006 on financial improvement activities until the department

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submitted a comprehensive and integrated financial management improvement plan to the congressional defense committees. Section 376 required the plan to (1) describe specific actions to be taken to correct deficiencies that impair the department’s ability to prepare timely, reliable, and complete financial management information and (2) systematically tie these actions to process and control improvements and business systems modernization efforts described in the business enterprise architecture and transition plan. Further, section 376 required a written determination that each financial management improvement activity undertaken is consistent with the financial management improvement plan and likely to improve internal controls or otherwise result in sustained improvement in DOD’s ability to produce timely, reliable, and complete financial management information. DOD had to submit each written determination to the congressional defense committees. Section 321 of the National Defense Authorization Act for Fiscal Year 2007 extended the written determination provision beyond fiscal year 2006.49

DOD intends the FIAR Plan to provide DOD components with a framework for resolving problems affecting the accuracy, reliability, and timeliness of financial information, and obtaining clean financial statement audit opinions. The FIAR Plan states that it prioritizes DOD’s improvement efforts based on the following criteria: (1) impact on DOD financial statements, (2) ability to resolve long-standing problems, (3) need for focused DOD leadership attention to resolve the problem, (4) dependency on business transformation initiatives and system solutions, and (5) availability of resources. The FIAR Plan outlines the business rules and oversight structure DOD has established to guide financial improvement activities and audit preparation efforts. According to DOD, its June and September 2006 FIAR Plan updates were intended to (1) begin identifying milestones that must be met for assertions about the reliability of reported financial statement information to occur on time, (2) develop greater consistency among components regarding their corrective actions and milestones, and (3) further describe how the FIAR Plan will be integrated with the enterprise transition plan. In addition, the September 2006 update outlines three key elements for achieving financial management transformation: accountability, integration, and prioritization. Although the FIAR Plan states that it is integrated with DOD component-level financial improvement plans and the ETP, DOD officials have

acknowledged that the level of integration between the two efforts is not complete and is still evolving.

The FIAR Plan is a high-level summary of DOD’s plans and reported actions to comply with financial management legislation and achieve clean financial statement audit opinions. We have reviewed the FIAR Plan and its updates and discussed the FIAR Plan with DOD and OMB. We cannot comment on specific focus areas or milestones because we have not seen any of the underlying component or other subordinate plans on which the FIAR Plan is based. However, we believe the incremental line item approach, integration plans, and oversight structure outlined in the FIAR Plan for examining DOD’s operations, diagnosing problems, planning corrective actions, and preparing for audit represents a vast improvement over prior financial improvement initiatives.

We continue to stress that the effectiveness of DOD’s FIAR Plan will ultimately be measured by the department’s ability to provide timely, reliable, and useful information for day-to-day management and decision making. Nonetheless, I would like to see DOD place greater emphasis on achieving auditability by 2012. If DOD is able to achieve this date, and other impediments to an opinion on the consolidated financial statements of the U.S. government are also addressed, an opinion for the federal government may also be possible by 2012. We look forward to working with DOD and the new DOD inspector general, when appointed, in further developing DOD’s audit strategy.
Lastly, you asked for my comments on two sections of the recently enacted John Warner National Defense Authorization Act for Fiscal Year 2007. The first provision, section 321, seeks to ensure that the department pursues financial management improvement activities only in accordance with a comprehensive financial management improvement plan that coordinates these activities with improvements in its systems and controls. The second provision, section 816, establishes certain reporting and oversight requirements for the acquisition of all major automated information systems (MAIS).

Section 321 of the John Warner National Defense Authorization Act for Fiscal Year 2007 extends beyond fiscal year 2006 certain limitations and requirements placed on DOD’s financial management improvement and audit initiatives in section 376 of the National Defense Authorization Act for Fiscal Year 2006. Specifically, section 321 of the act limits DOD’s ability to obligate or expend any funds for the purpose of any financial management improvement activity relating to the preparation, processing, or auditing of financial statements until it has submitted to the congressional defense committees a written determination that each activity proposed to be funded is (1) consistent with the DOD financial management improvement plan required by section 376 of the National Defense Authorization Act for Fiscal Year 2006 and (2) is likely to improve internal controls or otherwise result in sustained improvements in the ability of the department to produce timely, reliable, and complete financial management information.

I fully support the intent of legislation, such as section 321, which is aimed at directing DOD’s corrective actions towards the implementation of sustained improvements in its ability to provide timely, reliable, complete, and useful information. This is imperative not only for financial reporting purposes, but more importantly for daily decision making and oversight.


51The Committee originally asked GAO to comment on sec. 804 of the Senate bill, S. 2766, which, with some changes, has now been enacted as sec. 816.
Section 321 is consistent with and builds on existing legislation, in addition to section 376 of the National Defense Authorization Act for Fiscal Year 2006. For example, section 1008 of the National Defense Authorization Act for Fiscal Year 2002 currently requires DOD to limit resources used to prepare and audit unreliable financial information, thereby saving the taxpayers millions of dollars annually. In addition, the fiscal year 2002 act requires DOD to report to congressional committees and others annually on the reliability of DOD’s financial information and to provide a summary of improvement activities, including priorities, milestones, measures of success, and estimates of when each financial statement will convey reliable information. In my opinion, Congress has clearly articulated its expectation that DOD exercise prudence in its use of taxpayer money and focus only on those activities that will result in sustained improvements in its ability to produce timely and reliable financial management information.

It is evident that DOD intends to use its FIAR Plan, which it plans to update semiannually, as a tool for complying with legislative requirements regarding its financial improvement efforts. However, as is true with most large initiatives, a comprehensive and integrated plan, sustained leadership, results-oriented performance measures, and effective implementation will be key to successful reform.

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<th>Legislative Language Establishing Reporting Requirements for Major Automated Information Systems Increases Oversight and Accountability</th>
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<td>The provisions in section 816 of the John Warner National Defense Authorization Act for Fiscal Year 2007 provide for greater disclosure and accountability of business system investment performance, and thus facilitate greater oversight. More specifically, the legislation establishes certain reporting and oversight requirements for the acquisition of MAIS that fail to meet cost, schedule, or performance criteria. In general, a MAIS is a major DOD IT program that is not embedded in a weapon system (e.g., a business system investment). As such, we believe that the provisions can increase oversight and accountability. Therefore, I also support this legislation.</td>
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Specific High-risk Program Areas Highlight the Need for Continued Attention to Ensure Effective Transformation

DOD Weapon Systems Acquisitions and Contract Management

I would like to discuss the five remaining high-risk areas within DOD. These include weapon systems acquisitions and contract management; supply chain management; personnel security clearance program; and support infrastructure management.

Two interrelated areas are the management of DOD’s major weapon systems acquisitions and its contracts. While DOD eventually fields the best weapon systems in the world, we have consistently reported that typically the programs take significantly longer, cost significantly more money, and deliver fewer capabilities than originally promised. DOD’s new weapon system programs are expected to be the most expensive and complex ever and will consume an increasingly large share of DOD’s budget. These costly current and planned acquisitions are running head-on into the nation’s unsustainable fiscal path. In the past 5 years, DOD has doubled its commitment to weapon systems from $700 billion to $1.4 trillion, but this huge increase has not been accompanied by more stability, better outcomes, or increased buying power for the acquisition dollar. Rather than showing appreciable improvement, programs are experiencing recurring problems with cost overruns, missed deadlines, and performance shortfalls. A large number of the programs included in our annual assessment of weapon systems are costing more and taking longer to develop than estimated. It is not unusual to see development cost increases between 30 percent and 40 percent and attendant schedule delays. These cost increases mean DOD cannot produce as many weapons as intended nor can it be relied on to deliver to the warfighter when promised. This causes DOD to either cut back on planned quantities or capabilities, or to even scrap multibillion dollar programs, after years of effort. If these systems are managed with the traditional margins of error, the financial consequences can be dire, especially in light of a constrained discretionary budget.

It is within this context that we must engage in a comprehensive and fundamental reexamination of new and ongoing investments in our nation’s weapon systems. Success for acquisitions means making sound decisions to ensure that program investments are based on needs versus wants and getting promised results. In the commercial world, successful companies have no choice but to adopt processes and cultures that emphasize basing decisions on knowledge, reducing risks prior to undertaking new efforts, producing realistic cost and schedule estimates, and building in quality to deliver products to customers at the right price, time, and cost. However, this is not happening within DOD. The department has tried to embrace best practices in its policies and instill more discipline in setting requirements, among numerous other actions, but it still has trouble distinguishing wants from true needs. While DOD’s acquisition policy supports a knowledge-based, evolutionary approach to acquiring new weapons, its practice of making decisions on individual programs often sacrifices knowledge and executability in favor of revolutionary solutions. In an important sense, success has come to mean starting and continuing programs even when cost, schedule, and quantities must be sacrificed.

Our reviews have identified a number of causes behind the acquisition problems just described, but I would like to focus on three. The first I refer to as “big A,” or acquisition with a capital “A.” What I mean by this is that DOD’s funding, requirements, and acquisition processes are not working synergistically. DOD does not clearly define and stabilize requirements before programs are started. Our work has shown that DOD’s requirements process generates more demand for new programs than fiscal resources can support. DOD compounds the problem by approving many highly complex and interdependent programs. Moreover, once a program is approved, requirements can be added along the way—significantly stretching technology, creating design challenges, exacerbating budget overruns, and enhancing accountability challenges. For example, in the F-22A program, after the program was started, the Air Force added a requirement for air-to-ground attack capability. In its Global Hawk program, after the start of the program, the Air Force added both signals intelligence and imagery intelligence requirements. Both programs have experienced serious schedule delays and significant unit cost increases. Customers often demand additional requirements fearing there may not be another chance to get new capabilities because programs can take a decade or longer to complete. Yet, perversely, these strategies delay delivery to the warfighter, often by years.
The second cause I would refer to as “little a” or the acquisition process itself. DOD commits to individual programs before it obtains assurance that the capabilities it is pursuing can be achieved within available resources and time constraints. In particular, DOD routinely accepts high levels of technology risk at the start of major acquisition programs. Funding processes encourage this approach, since acquisition programs attract more dollars than efforts concentrating solely on proving out technologies. However, without mature technologies at the outset, a program will almost certainly incur cost and schedule problems. Only 10 percent of the programs in our latest annual assessment of weapon systems had demonstrated critical technologies to best practice standards at the start of development; and only 23 percent demonstrated them to DOD's standards. The cost effect of proceeding without completing technology development before starting an acquisition can be dramatic. For example, research, development, test and evaluation costs for the programs included in our review that met best practice standards at program start increased by a modest average of 4.8 percent more than the first full estimate, whereas the costs for the programs that did not meet these standards increased by a much higher average of 34.9 percent more than the first full estimate. The bottom line is that these consequences are predictable and, thus, preventable.

The third cause has to do with the lack of accountability. DOD officials are not always held accountable when programs go astray. Likewise, contractors are not always held accountable when they fail to achieve desired acquisition outcomes. In December 2005, we reported that DOD gives its contractors the opportunity to collectively earn billions of dollars through monetary incentives. Unfortunately, we found DOD programs routinely engaged in practices that failed to hold contractors accountable for achieving desired outcomes and undermined efforts to motivate contractor performance, such as

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54DOD’s policy states technologies should be demonstrated in at least a relevant environment before a program enters system development; whereas, GAO utilizes the best practice standard that calls for technologies to be demonstrated one step higher—demonstration in an operational environment.

• evaluating contractor performance on award-fee criteria that are not directly related to key acquisition outcomes (e.g., meeting cost and schedule goals and delivering desired capabilities to the warfighter);

• paying contractors a significant portion of the available fee for what award-fee plans describe as “acceptable, average, expected, good, or satisfactory” performance, which sometimes did not require meeting the basic requirements of the contract; and

• giving contractors at least a second opportunity to earn initially unearned or deferred fees.

As a result, DOD has paid out an estimated $8 billion in award fees on contracts in our study population, regardless of whether acquisition outcomes fell short of, met, or exceeded DOD’s expectations. For example, we found that DOD paid its contractor for a satellite program—the Space-Based Infrared System High—74 percent of the award fee available, $160 million, even though research and development costs increased by more than 99 percent, and the program was delayed for many years and was rebaselined three times. In another instance, DOD paid its contractor for the F-22A aircraft more than $848 million, 91 percent of the available award fee, even though research and development costs increased by more than 47 percent, and the program had been delayed by more than 2 years and rebaselined 14 times. Despite paying billions of dollars in award and incentive fees, DOD has not compiled data or developed performance measures to validate its belief that award and incentive fees improve contractor performance and acquisition outcomes.

Similarly, DOD officials are rarely held accountable when programs go astray. There are several reasons for this, but the primary ones include the fact that DOD has never clearly specified who is accountable for what, invested responsibility for execution in any single individual, or even required program leaders to stay until the job is done. Moreover, program managers are not empowered to make go or no-go decisions, they have little control over funding, they cannot veto new requirements, and they have little authority over staffing. Because there is frequent turnover in their positions, program managers also sometimes find themselves in the position of having to take on efforts that are already significantly flawed.

There are many other factors that play a role in causing weapons programs to go astray. They include workforce challenges, poor contractor oversight, frequent turnover in key leadership, and a lack of systems engineering, among others. Moreover, many of the business processes that
support weapons development—strategic planning and budgeting, human capital management, infrastructure, financial management, information technology, and contracting—are beset with pervasive, decades-old management problems, including outdated organizational structures, systems, and processes. In fact, all of these areas—along with weapon systems acquisition—are on our high-risk list of major government programs and operations.

Our work shows that acquisition problems will likely persist until DOD provides a better foundation for buying the right things, the right way. This involves making tough trade-off decisions as to which programs should be pursued and, more importantly, not pursued, making sure programs are executable, locking in requirements before programs are started, and making it clear who is responsible for what and holding people accountable when these responsibilities are not fulfilled. These changes will not be easy to make. They require DOD to reexamine the entirety of its acquisition process and to make deep-seated changes to the setting, funding, and execution of program requirements. In other words, DOD would need to revisit who sets requirements and strategy, and who monitors performance, and what factors to consider in selecting and rewarding contractors. It also involves changing how DOD views success, and what is necessary to achieve success. I am encouraged by DOD’s recent efforts to improve the collaboration and consultation between the requirements and acquisition communities. The test of these efforts will be whether they produce better decisions. If they do, it is important that they are sustained by more than the force of personality.

Buying major systems is not the only area where DOD needs to improve its acquisition practices. For example, DOD’s management of its contracts has been on our high-risk list since 1992. Our work has found that DOD is unable to ensure that it is using sound business practices to acquire the goods and services needed to meet the warfighter’s needs, creating unnecessary risks and paying higher prices than justified. In this regard, in a March 2005 report, we concluded that deficiencies in DOD’s oversight of service contractors could place DOD at risk of paying the contractors more than the value of the services they performed.\(^5\) In June 2006, we reported that personnel at the Defense Logistics Agency were not consistently reviewing prices for commodities acquired under its Prime

Vendor Program.\textsuperscript{57} We noted that until DOD provides sufficient management oversight, the program will remain vulnerable to the systemic pricing problems that have plagued it in the past. Earlier this year, we reported that the Army acquired security guard services under an authorized sole-source basis, despite recognizing that it was paying about 25 percent more than it had under contracts that had been previously awarded competitively.\textsuperscript{58} We recommended that the Army reassess its acquisition strategy to help make the best use of taxpayer dollars and achieve its desired outcomes. In other reports, we identified numerous issues in DOD’s use of interagency contracting vehicles that contributed to poor acquisition outcomes.

Until the department devotes sufficient management attention to address these long-standing issues, DOD remains at risk of wasting billions of dollars and failing to get the goods and services it needs to accomplish its missions.

DOD Supply Chain Management

Since the January 2005 update of the high-risk series, DOD has made some progress toward addressing supply chain management problems. With the encouragement of OMB, DOD has developed a plan to show progress toward the long-term goal of resolving problems and removing supply chain management from our list of high-risk areas within the department. DOD issued the first iteration of the plan in July 2005 and, since then, has regularly updated it. Based on our initial review of the plan, we believe it is a solid first step toward improving supply chain management in support of the warfighter. For example, DOD’s plan identifies three key areas—requirements forecasting, asset visibility, and materiel distribution—that we believe are critical to DOD’s efforts to improve supply chain management. The plan highlights selected DOD supply chain initiatives, including key milestones in their development. Within the last year, for example, DOD has made some progress in streamlining the storage and distribution of defense inventory items on a regional basis as part of its Joint Regional Inventory Materiel Management initiative. DOD has completed a pilot for this initiative in the San Diego region and, in January 2006, began a similar transition for inventory items in Oahu, Hawaii.


Notwithstanding this positive first step, the department faces challenges and risks in successfully implementing its proposed changes across the department and measuring progress in resolving supply chain management problems. It will be important for DOD to sustain top leadership commitment and long-term institutional support for the plan; obtain necessary resource commitments from the military services, the Defense Logistics Agency, and other organizations; implement its proposed initiatives across the department; identify performance metrics and valid data to use in monitoring the initiatives; and demonstrate progress toward meeting performance targets. We have been holding monthly meetings with DOD and OMB officials to receive updates on the plan and gain a greater understanding of the ongoing initiatives. In addition, we are continuing to review the performance measures DOD is using to track the plan’s progress in resolving supply chain problems and DOD’s efforts to develop a comprehensive, integrated, and enterprisewide strategy to guide logistics programs and initiatives. DOD is working on a logistics road map, referred to as the “To Be” road map, which provides a vision for future logistics programs and initiatives, including supply chain management; identifies capability gaps; and links programs with investments. However, the schedule for completing the initial road map has recently slipped. Until the road map is completed, we will not be able to assess how it addresses the challenges and risks DOD faces in its supply chain management efforts.

DOD Personnel Security Clearance Program

DOD’s personnel security clearance program is another area that we continue to assess because of the risks it poses. For over two decades, we have reported on problems with DOD’s personnel security clearance program as well as the financial costs and risks to national security resulting from these problems. For example, at the turn of the century, we documented problems such as incomplete investigations, inconsistency in determining eligibility for clearances, and a backlog of overdue clearance reinvestigations that exceeded 500,000 cases. More recently in 2004, we identified continuing and new impediments hampering DOD’s clearance program and made recommendations for increasing the effectiveness and efficiency of the program. These long-standing delays in completing hundreds of thousands of clearance requests for servicemembers, federal employees, and industry personnel as well as numerous impediments that hinder DOD’s ability to accurately estimate and eliminate its clearance backlog led us to declare DOD’s personnel security clearance program a
high-risk area in January 2005. Since then, we have issued a report and participated in four hearings that addressed issues related to DOD’s program. Among other things, our September 2006 report showed that the 2,259 industry personnel granted eligibility for a top secret clearance in January and February 2006 had waited an average of 471 days. Also, our reviews of 50 of the cases for completeness revealed that required information was not included in almost all of the cases. While positive steps—such as (1) the development of an initial version of a plan to improve security clearance processes governmentwide and (2) high-level involvement from OMB—have been taken toward addressing the problems, other recent events such as DOD halting the processing of all new clearance requests for industry personnel on April 28, 2006, reveal continuing problems with DOD’s personnel security clearance program.

Since 1997, GAO has identified DOD’s management of its support infrastructure as a high-risk area because infrastructure costs continue to consume a larger than necessary portion of its budget. DOD officials have been concerned for several years that much of the department’s infrastructure is outdated, inadequately maintained, and that DOD has more infrastructure than needed, which impacts its ability to devote more funding to weapon systems modernization and other critical needs. Inefficient management practices and outdated business processes have also contributed to the problem.

While DOD has made progress and expects to continue making improvements in its support infrastructure management, DOD officials recognize they must achieve greater efficiencies. To its credit, the department has given high-level emphasis to reforming its support operations and infrastructure since we last reported on this high-risk area, including efforts to reduce excess infrastructure, promote transformation, and foster jointness through the 2005 base realignment and closure process.  

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(BRAC) process. Also, DOD is updating its Defense Installations Strategic Plan to better address infrastructure issues, and has revised its installations readiness reporting to better measure facility conditions, established core real property inventory data requirements to better support the needs of real property asset management, and continued to modify its suite of analytical tools to better forecast funding requirements for installation management services. It has also achieved efficiencies through privatizing military family housing and demolishing unneeded buildings at military installations.

Our engagements examining DOD’s management of its facilities infrastructure indicates that much work remains for DOD to fully rationalize and transform its support infrastructure to improve operations, achieve efficiencies, and allow it to concentrate its resources on the most critical needs, as the following illustrates.

- In July 2005, we reported on clear limitations associated with achieving DOD’s projected $50 billion in savings from this BRAC round. While DOD offered many proposed actions in the 2005 round, these actions were more related to business process reengineering and realignment of various functions and activities than base closures and actual facility reductions. Moreover, sizable savings were projected from efficiency measures and other actions, but many underlying assumptions had not been validated and could be difficult to track over time. We have ongoing work monitoring actions emanating from the 2005 BRAC process and assessing costs and savings from those actions, and will be able to comment further on the status of these initiatives over the next several years as implementation actions progress.

- In June 2005, we reported that hundreds of millions of operation and maintenance dollars designated for facilities’ sustainment, restoration, and modernization and other purposes were moved by the services to pay for base operations support (BOS) due in part to a lack of a common terminology across the services in defining BOS functions, as well as the lack of a mature analytic process for developing credible and consistent requirements.60 While these funding movements are permissible, we found that they were disruptive to the orderly provision of BOS services and contributed to the overall degradation of facilities, which adversely affects the quality of life and morale of military personnel. In another report

issued in June 2005, we reported that many of DOD’s training ranges were in deteriorated condition and lacked modernization, which adversely affected training activities and jeopardized the safety of military personnel.\(^{61}\)

- In an April 2006 report, we identified several opportunities for DOD and the services to improve their oversight and monitoring of the execution and performance of awarded privatized housing projects.\(^{62}\) We further reported that 36 percent of awarded privatization projects had occupancy rates below expectations even though the services had begun renting housing units to parties other than military families, including units rented to single or unaccompanied servicemembers, retired military personnel, civilians and contractors who work for DOD, and civilians from the general public. Factors contributing to occupancy challenges include increased housing allowances, which have made it possible for more military families to live off base thus reducing the need for privatized housing, and the questionable reliability of DOD’s housing requirements determination process, which could result in overstating the need for privatized housing.

- During recent visits to installations in the United States and overseas, service officials continue to report inadequate funding to provide both base operations support and maintain their facilities. They express concern that unless this is addressed, future upkeep and repair of many new facilities to be constructed as a result of BRAC, overseas rebasing, and the Army’s move to the modular brigade structure will suffer and the condition of their facilities will continue to deteriorate.

- We have also found that DOD’s outline of its strategic plan for addressing this high-risk area had a number of weaknesses and warranted further clarification and specification. We have met with OMB and DOD officials periodically to discuss the department’s efforts to address this high-risk area.

Through our monitoring of DOD activities between now and the next several years for base closures and overseas basing, we will be able to determine what other work needs to be done on issues associated with

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DOD’s management of its support infrastructure, as well as provide a more complete assessment of costs, savings, and overall benefits realized from the department’s efforts to address these issues. Organizations throughout DOD will need to continue reengineering their business processes and striving for greater operational effectiveness and efficiency. DOD will also need to develop a comprehensive, long-range plan for its infrastructure that addresses facility requirements, recapitalization, and maintenance and repair, as well as to provide adequate resources to meet these requirements and halt the degradation of facilities and services.

Mr. Chairman and Members of the Subcommittee, this concludes my prepared statement. I would be happy to answer any questions you may have at this time.
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