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DOD ACCOUNTING SYSTEMS

Efforts to Improve System for Navy Need Overall Structure

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The Honorable John J. Hamre
The Under Secretary of Defense (Comptroller)

The Honorable Deborah P. Christie
The Navy Assistant Secretary for
Financial Management and Comptroller

Mr. Richard F. Keevey
Director, Defense Finance and Accounting Service

This report presents our analysis of the Defense Finance and Accounting Service's (DFAS) efforts to reduce the number of Navy accounting systems and to enhance and implement a Navy-wide system to account for general fund operations. We performed this work as part of our review of the reliability of the Navy's fiscal year 1994 consolidated financial reports, which we reported on in March 1996.[1] In that report, we disclosed serious financial management and reporting problems that undermine Navy's efforts to ensure proper accountability and drain resources needed for military readiness.

Results in Brief

DFAS selected the Standard Accounting and Reporting System (STARS) to serve as Navy's system for general fund accounting. In the process, STARS has taken over the functions of some outdated field-level systems and is expected to produce some net cost savings, primarily from not having to maintain and operate those older Navy systems.

DFAS selected STARS because it was believed to be the least deficient of Navy's 25 existing accounting systems. Although the least deficient system, STARS still had serious shortcomings. For example, it did not comply with Department of Defense (DOD) basic financial requirements, such as DOD's standard general ledger and key accounting requirements. DFAS plans to enhance STARS to overcome these serious deficiencies, but its efforts are hampered by the lack of a target systems architecture that would define the systems' expected functions, features, and attributes, including internal and external interfaces, and data flows for all STARS components. The lack of an architecture—or blueprint—also has contributed to problems with the enhancement efforts, such as incomplete

[1]CFO Act Financial Audits: Increased Attention Must Be Given to Preparing Navy's Financial Reports (GAO/AIMD-96-7, March 27, 1996).

planning and date-driven or missing milestones, and makes it difficult to evaluate alternatives that may be more effective or less expensive. DFAS's piecemeal approach to the STARS improvement project could result in costly and time-consuming redesign efforts in the future.

In addition, implementation of STARS at field-level activities we reviewed was not completely successful. For example, Navy activities we visited said that Navy field staff received limited training and DFAS provided insufficient technical support. The Director of the STARS Project Office has acknowledged these problems and has taken or planned actions to correct them.

Background

The Navy operates thousands of shore activities worldwide and employs over 1 million military and civilian personnel. Hundreds of Navy Fund Administering Activities at the field level provide budgeting and accounting for more than 9,000 Navy cost centers. A cost center is the lowest level in the Navy's financial management chain of command and may be a ship, an aircraft squadron, a staff office, or a department or division of a shore activity where identification of costs is required.

DFAS, which organizationally reports to the Under Secretary of Defense (Comptroller), was created in January 1991 to streamline and standardize DOD's finance and accounting procedures, systems, and operations while reducing the costs of such services. Ownership of many DOD financial management systems, including some Navy systems, was transferred to DFAS. At the same time, many mixed financial management systems,[2] such as logistics systems which provide inventory and property financial data, remained under the control of the services or other DOD components. Policy guidance and direction related to accounting system development and operations is performed by the DOD Comptroller's Office.

In the past, Navy activities reported financial information to Defense Accounting Offices maintained by DFAS which, in turn, generated monthly reports to DFAS Cleveland Center. Beginning in fiscal year 1995, DFAS began consolidating its Navy Defense Accounting Offices into six sites called

[2]A mixed system supports both financial and nonfinancial functions.

operating locations. Information from these operating locations will continue to be reported to DFAS Cleveland Center.[3]

Navy financial management systems have many long-standing problems that prior system development efforts have not fixed. For example, according to the Naval Audit Service, during the 1980s, Navy spent over $260 million on two failed attempts to consolidate and standardize its accounting systems. Both the Standard Automated Financial System and the Integrated Disbursing and Accounting Financial Management System were terminated in 1989 due to design problems, excessive cost escalations, and slippages in completion time.

Navy's financial management system problems continue even though many of Navy's systems have been transferred to DFAS. For example, DOD's fiscal year 1995 Federal Managers' Financial Integrity Act (FMFIA) report stated that a majority of DOD's financial systems did not comply with Office of Management and Budget (OMB) Circular A-127 and that many perform similar functions, resulting in inefficiencies and disparate business practices. Navy's Statement of Assurance, used to prepare the DOD Federal Managers' Financial Integrity Act report, also stated that its systems did not comply with Circular A-127's integration, accounting classification codes, and general ledger requirements.

In August 1991, DFAS began to review DOD's accounting systems and to develop a plan to (1) decrease the number of financial systems and (2) correct systems deficiencies. In December 1993, DFAS developed an Interim Migratory Strategy, consisting of the following two phases.

- First, DFAS planned to reduce DOD's 91 general fund systems to 11 interim migratory systems. The interim migratory systems were to be selected from the military services' existing financial systems that were considered to be the least deficient. In addition, DFAS planned to identify and correct the interim migratory systems deficiencies. In particular, DFAS plans called for enhancing the systems to comply with DOD's standard general ledger,

[3]The following GAO reports contain our assessment of this consolidation effort: DOD Infrastructure: DOD Is Opening Unneeded Finance and Accounting Offices (GAO/NSIAD-96-113, April 16, 1996) and DOD Infrastructure: DOD's Planned Finance and Accounting Structure Is Not Well Justified (GAO/NSIAD-95-127, September 18, 1995).

key accounting requirements,[4] and standard budget and accounting classification code[5] by October 1, 1997.

- Second, DFAS planned to eventually select the best interim migratory system(s) to implement DOD-wide as its target system(s).[6] DFAS has not established time frames for this effort.

In June 1994, DFAS Cleveland Center selected STARS Field Level to serve as Navy's interim migratory system for field-level general fund accounting. The Assistant Secretary of the Navy for Financial Management concurred with STARS' selection. DFAS Cleveland and Navy personnel deemed STARS the newest, least deficient, and most advanced of Navy's 25 existing general fund accounting systems. Through April 30, 1996, the largest of the former field-level systems had been converted to STARS Field Level at 923 activities, and 122 activities remained to be converted to STARS Field Level. In addition to STARS Field Level, the STARS umbrella includes other components—an on-line bill paying component and components that provide financial data to Navy's major claimants.[7] DFAS Cleveland Center is also in the process of developing a STARS financial reporting module at the departmental level. The STARS enhancement effort is intended to ensure that all STARS components comply with DOD's key accounting requirements and standard general ledger as well as to implement other improvements.

In April 1996, DFAS created the Defense Accounting System Program Management Office to centrally manage the consolidation and modernization of DFAS accounting systems. After the period of our review,

[4]The 13 key accounting requirements are (1) general ledger control and financial reporting, (2) property and inventory accounting, (3) accounting for receivables, including advances, (4) cost accounting, (5) accrual accounting, (6) military and civilian payroll procedures, (7) system controls, including funds control and internal control, (8) audit trails, (9) cash procedures and accounts payable, (10) system documentation, (11) system operations, (12) user information needs, and (13) budgetary accounting. We did not evaluate these requirements to determine whether they comply with federal financial system requirements.

[5]DFAS is developing the standard budget and accounting classification code with the objective of providing a structure for financial data to ensure comparable and consistent financial information reporting. Because the code is not finalized, we did not examine the proposed budget and account classification code's adequacy in meeting this objective.

[6]The DOD Inspector General has called into question the strategy's overall goal of enhancing seriously deficient systems—which entails a significant investment of time and money—for later consolidation into yet another DOD-wide system. In a recent report, the Office of the Inspector General recommended that the DFAS interim migratory strategy be cancelled and that a single DOD-wide system approach be adopted for general fund accounting. The General Fund Interim Migratory Accounting Strategy (DOD Office of the Inspector General, report no. 96-180, June 26, 1996).

[7]Major claimants are Navy bureaus, offices, commands, or headquarters designated to receive operating budgets for operation and maintenance appropriations and procurement appropriations directly from the Office of the Chief of Naval Operations.

DFAS selected STARS as one of three DFAS target general fund accounting systems,[8] under the oversight of this Program Management Office.

Scope and Methodology

To assess Navy's efforts to reduce the number of accounting systems and implement and enhance STARS, we examined DOD, DFAS, and Navy documents and conducted interviews with appropriate officials. We also reviewed STARS system documentation and compared it to the financial management system architecture guidance in the Joint Financial Management Improvement Program's Framework for Federal Financial Management Systems. We also interviewed the Director of the STARS Project Office on this issue.

To evaluate DFAS Cleveland Center's plans to enhance STARS, we examined STARS project planning documentation, such as its April 18, 1996, Plan of Action and Milestones and software project plans. We also reviewed analyses related to implementing various key accounting requirements in STARS prepared by an outside contractor. We interviewed officials from this contractor, the STARS Project Office, DFAS Cleveland Center, and Navy's Fleet Material Support Office (FMSO)—which serves as the primary STARS Central Design Agency.[9]

To review the implementation of STARS at the field level, we judgmentally selected 18 Navy shore activities that converted to STARS Field Level between July 1993 and March 1995, from a universe of east and west coast activities. We visited each of these sites, examined documents related to various aspects of Navy's financial management operations, and identified areas applicable to or interfacing with field-level accounting and reporting. We obtained sample financial reports with explanations of their purpose and use, conducted interviews with field-level financial managers, and reviewed supporting accounting and reporting documentation. During this review, we noted any problems concerning accuracy, timeliness, and usefulness and examined their cause and resultant effect on field-level financial operations.

We performed our work at the Office of the DOD Comptroller, DFAS Headquarters, DFAS Cleveland Center's STARS Project Office, Navy's FMSO (Mechanicsburg, PA), and the 18 Navy shore activities listed in appendix I.

[8]The other two target general fund accounting systems selected were the Standard Accounting, Budgeting, and Reporting System and a modified Corps of Engineers Financial Management System.

[9]A Central Design Agency is responsible for system analysis, program development, and system maintenance/enhancements.

The Department of Defense provided written comments on a draft of this report. These comments are presented and evaluated in the "Agency Comments and Our Evaluation" section of this report and are reprinted in appendix II. Our work was performed from April 1995 through early August 1996 in accordance with generally accepted government auditing standards.

Some Cost Savings Are Expected

We believe that savings will accrue as a result of eliminating the duplication and inefficiencies of supporting and maintaining Navy's 25 existing accounting systems, although we did not attempt to quantify such savings. In October 1994, a contractor to the STARS Project Office completed an economic analysis that compared the costs of developing and implementing STARS to continuing with the existing systems. This economic analysis estimated that converting five of Navy's existing general fund accounting systems to STARS (primarily at the field level) would save $162 million in the first 5 years. This initial estimated savings, primarily in maintenance and operating costs, was reduced by the estimated STARS Field Level system development, maintenance, operating, and training costs of $145 million, for a net savings of $17 million. Over 15 years, net savings were projected to total $293 million.

We did not assess the reliability of these estimates. However, we note that achieving the projected level of net savings could be diminished by the need to provide additional training and technical support to field activities in using STARS Field Level. These issues are discussed later in this report. In addition, the October 1994 economic analysis was not a total life-cycle economic analysis of all STARS components. For example, it did not include costs to enhance all of the STARS components to bring them into compliance with DOD's standard general ledger, key accounting requirements, and the standard budget and accounting classification code. The Major Automated Information Systems Review Council,[10] which is reviewing the STARS project, directed the STARS Project Office to conduct a total life-cycle economic analysis of all STARS components. This analysis is expected to be completed by December 31, 1996. In addition, as discussed in the next section, DFAS has not developed a complete system architecture for STARS—basically a blueprint for what the system will do and how it will operate. As a result, any estimate of STARS total costs will be incomplete.

[10]The Major Automated Information Systems Review Council is convened to review system development projects' compliance with DOD life-cycle management policy, procedures, and standards when (1) program costs for any single year exceed $30 million, (2) total program costs exceed $120 million, or (3) total life-cycle costs exceed $360 million. STARS is undergoing such a review because it met these criteria.

We also found that, in less than 2 years, actual obligations to enhance STARS in certain areas were significantly higher than budgeted. The STARS Project Office estimated that in fiscal years 1995 and 1996, STARS software development costs would total $35.6 million. Of this amount, $18.8 million was budgeted for projects pertaining to the key accounting requirements, the budget and accounting classification code, and the consolidation efforts.[11] As of July 23, 1996, actual obligations for the software projects related to these three areas were $24.5 million, or 30 percent, above the budget estimate, although total STARS software development obligations were close to what was estimated. In addition, some software development projects have already exceeded their total budget. For example, the STARS Project Office estimated that for fiscal years 1995-1997 (1) property and inventory accounting and (2) cash and accounts payable key accounting requirement enhancements would each cost $500,000. However, as of July 23, 1996, obligations for these enhancement efforts were $1.1 million and $1.2 million, respectively. Neither of these projects is scheduled to be completed in fiscal year 1996, although, according to DFAS, an accounts payable function was implemented for one STARS component—STARS Field Level (but not for the STARS claimant module).

In addition, STARS budget estimates were incomplete and lacked supporting documentation. For example, these budget estimates did not include DFAS' internal costs, such as the STARS Project Office. In fiscal year 1996, the STARS Project Office personnel costs alone were estimated at $1.4 million. Moreover, the STARS Project Office could not find documentation for much of the July 1995 budget estimate and instead provided us with a written rationale on the methodology it used to estimate the STARS software development costs. According to this rationale, the STARS Project Office consulted with FMSO and, based on these discussions, used prior projects of similar scope and size as a basis for the estimates. However, the STARS Project Office used projects related to only one STARS component to estimate the cost of enhancing all of the STARS components. Each STARS component would require different levels of effort to modify since the components do not have the same program attributes.

[11]The STARS budget estimate did not include any costs to implement the key accounting requirements and the budget and accounting classification codes past fiscal year 1997. The total fiscal year 1995-1997 STARS software development budget estimate was $50 million, of which $21.7 million pertained to the key accounting requirements, budget and accounting classification code, and consolidation efforts.

Enhancement Efforts Not Guided by Systems Architecture

The STARS enhancement effort is not guided by a target system architecture. A target systems architecture is a composite of all interrelated functions, information, data, and applications associated with a system. Specifically, such a systems architecture is an evolving description of an approach to achieving a desired mission. It describes (1) all functional activities to be performed to achieve the desired mission, (2) the system elements needed to perform the functions, (3) the designation of performance levels of those system elements, and (4) the technologies, interfaces, and locations of functions. The lack of a target STARS architecture increases the likelihood of project failure, additional development and maintenance costs, and a system that does not operate efficiently or effectively.

Moreover, the information contained in a complete architecture provides the opportunity to perform a thorough alternatives analysis for the selection of the most effective system at the least cost. According to a February 1994 DFAS memorandum, the decision to choose STARS Field Level was "an intuitive one based on the collective experience of the capitalized Navy field general fund accounting network...." We have found that successful organizations manage information systems projects as investments and use a disciplined process—based on explicit decision criteria and quantifiable measures assessing mission benefits, risks, and cost—to select information system projects.[12] In addition, recent OMB guidance recommends that agencies select information technology projects based on rigorous technical evaluations in conjunction with executive management business knowledge, direction, and priorities.[13] Further, the Congress and the administration recognized the value of treating information system projects as investments by enacting the Information Technology Management Reform Act of 1996 (Public Law 104-106, Division E), which calls for agency heads, under the supervision of the Director of OMB, to design and implement a process for maximizing the value of their information technology acquisitions and assessing and managing the associated risks, including establishing minimum criteria on whether to undertake an investment in information systems. Managers can use the detailed information found in the systems architecture to enhance their analysis of these critical issues.

[12]Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology (GAO/AIMD-94-115, May 1994).

[13]Office of Management and Budget, Evaluating Information Technology Investments: A Practical Guide, November 1, 1995.

Although STARS was selected without the benefit of an established architecture, such an architecture can provide needed structure and discipline as the STARS enhancement projects move forward. For example, it is unlikely that Navy and DFAS could ever achieve the requirement set forth in the Chief Financial Officers (CFO) Act and OMB Circular A-127 that agencies implement an integrated financial management system[14] without the structure provided by a STARS financial management systems architecture. In order to implement a single, integrated financial management system, Circular A-127 specifies that agencies should plan and manage their financial management systems in a unified manner with common data elements and transaction processing. A critical step in accomplishing this is the development of a financial management systems architecture.

According to the Joint Financial Management Improvement Program Framework for Federal Financial Management Systems, a financial management systems architecture provides a blueprint for the logical combination of financial and mixed systems to provide the budgetary and financial management support for program and financial managers. Preparing a financial management system architecture is also consistent with the best practices we found[15] in leading organizations, which established and managed a comprehensive architecture to ensure the integration of mission- critical systems through common standards. In addition, DOD Directive 7740.2, Automated Information System Strategic Planning, states that automated information system strategic processes shall be supported by information architectures that address the information requirements, flows, and system interfaces throughout the organization, including headquarters, major commands, and separate operating agencies.

Although the decision to enhance STARS was made over 2 years ago, DFAS Cleveland Center has not yet developed a target STARS system architecture which would include a definition of the systems' expected functions, features, and attributes, including internal and external interfaces, and data flows. An architecture is particularly critical since several of the STARS enhancements are not only to correct existing system problems but are expected to add new functions to STARS (either programmed as part of

[14]To be most effective, a Navy financial management systems architecture should be developed within the context of a DOD-wide financial management systems architecture. However, DOD does not have a financial management system architecture.

[15]Executive Guide: Improving Mission Performance Through Strategic Information Management and Technology (GAO/AIMD-94-115, May 1994).

STARS or through interfaces with other systems) at considerable cost. For example, the STARS Project Office plans to add an accounts payable function to the STARS claimant module and plans to interface STARS with a property system. (STARS does not currently collect property data.)

In addition, without an architecture, DFAS is not in a position to reasonably estimate the total cost to enhance STARS. For example, as previously mentioned, actual obligations to enhance STARS to comply with the cash and accounts payable and property and inventory key accounting requirements were already double the total $500,000 budget estimate for fiscal years 1995-1997, even though these projects were still in the planning stage. Further, complex development efforts such as these pose a greater technical risk of failure which can be mitigated by developing a target architecture.

The Director of the STARS Project Office agreed that a STARS architecture should be developed. He stated that he plans to develop a STARS architecture that would include identifying the data sources of systems that interface with STARS. Although STARS is a DFAS system, many of the systems that interface with STARS are controlled by Navy. As a result, a STARS architecture cannot be developed without the direct involvement of Navy and the identification of all feeder systems, interfaces, and supportive detailed data elements. Therefore, it is imperative that DFAS and Navy's Assistant Secretary of the Navy (Financial Management and Comptroller) work cooperatively to develop a STARS target architecture to ensure that STARS will meet the needs of its primary user in an effective manner.

Incomplete Planning and Unrealistic Milestones Hamper Enhancement Efforts

Our analysis noted instances of incomplete planning and missing or slipped milestones that strongly suggest that STARS enhancements will not meet DOD requirements in the near future. We believe that these problems are symptomatic of the lack of a STARS system architecture. As one of the first steps in any systems development effort, the development of an architecture would guide the enhancement efforts and set the appropriate time frames for the completion of major tasks.

One example that highlights STARS architecture and planning issues is DFAS' evaluation of how another system could provide property accounting data to STARS. A June 1996 contractor analysis of this property system found that differences between the STARS and the property system's lines of accounting would have to be resolved before an interface is developed.

Moreover, as of July 1, 1996, the property system had been implemented at only one Navy site and only eight additional sites have been scheduled to implement the property system. As a result, even if the interface issues between STARS and the property system were resolved, only a very limited amount of Navy property data could be transmitted. Additionally, a STARS contractor was directed not to work on certain problem areas related to the cash procedures and accounts payable key accounting requirement.[16] According to the STARS Project Office Director, the necessary analysis that the contractor was to complete will be done internally, although no specific plans existed as of early August, 1996.

We also found several instances of milestones that were date-driven rather than based on an analysis of the tasks to be completed. DFAS' September 1995 Chief Financial Officers Financial Management 5-Year Plan stated that STARS key accounting requirement deficiencies would be corrected by September 30, 1997. However, the April 18, 1996, STARS Plan of Action and Milestones stated that STARS enhancements would comply with DOD's key accounting requirements by October 1, 1996. The plan included no reason for the accelerated time frame. The STARS Project Office Director stated that the October 1, 1996, milestone for completing the programming, testing, and data conversion for modifying STARS to comply with the key accounting requirements was not derived from an assessment of the scope of these projects. Rather, the implementation date was established to coincide with the Navy's requirement to prepare and have audited financial statements.[17]

In addition, we reviewed the April 18, 1996, STARS Plan of Action and Milestones and found that it did not include several key analysis tasks that are needed to successfully implement the DOD standard general ledger and some of the key accounting requirements. The Plan of Action and Milestones also indicates missing and slipped milestones. For example, we found that the plan

- did not address how one of the STARS modules, which currently has its own general ledger account structure, will be brought into compliance with DOD's standard general ledger;

[16]These problem areas relate to (1) suspense transactions, (2) successor checks, (3) military and civilian payroll interface procedures, and (4) accounting for travel.

[17]The Chief Financial Officers Act of 1990, as expanded by the Government Management Reform Act of 1994, requires major agencies, including DOD and the services, to prepare financial statements and have them audited, beginning with those for fiscal year 1996.

- did not address how STARS will be enhanced to comply with the audit trail key accounting requirement which states that all transactions be traceable to individual source records maintained in the system;
- did not specify how the systems analysis for enhancing STARS field-level and headquarters claimant modules to meet the key accounting requirement for budgetary accounting will be performed and by whom, and did not provide for analyzing and documenting the current environment and identifying needed changes, which is the approach planned in making most key accounting requirement analyses;
- did not provide for identifying needed changes and solutions to control weaknesses as part of the analysis of the current environment related to the system control function of STARS field-level and headquarters claimant modules; and
- provided, in several cases, milestones for completing the analyses of the current STARS environment and planning for future STARS enhancements that were dated several months before a contractor was scheduled to provide them.

We also found that the lack of an overall plan or architecture contributed to the lack of participation of one of Navy's key systems development offices. Specifically, although Navy's FMSO is the primary Central Design Agency for STARS, it has had a limited role in the STARS enhancement project. For example, in December 1994, the STARS Project Office tasked FMSO with completing, by December 1995, functional descriptions and/or system specifications to enhance STARS to comply with six key accounting requirements, including those related to accounts receivable and accounts payable. On September 14, 1995, FMSO was also tasked with completing, by March 31, 1996, an expanded functional requirement analysis and detailed system specifications for the key accounting requirements related to general ledger control and financial reporting for the STARS claimant module.

A project status report dated May 30, 1996, showed that FMSO had not completed these tasks and had (1) spent little time on the analyses required for the accounts receivable, cash procedures and accounts payable, and general ledger and (2) spent no time on the other key accounting requirements analyses. According to FMSO officials, the STARS Project Office Director instructed them to work on other priorities. Additionally, FMSO officials stated that they did not know whether the milestones and costs for modifying the STARS components to comply with the key accounting requirements were reasonable because the scope of the modifications to be made were not known.

Field-Level Implementation Could Be Improved

Our review of STARS Field Level implementation at 18 Navy shore activities disclosed problems related to training and technical support. Specifically, field staff received limited training. Representatives of over half of the activities told us that the STARS Field Level training (1) did not focus on areas specifically related to their daily jobs, (2) was provided by instructors, often contractors, that had STARS Field Level knowledge but did not have a working knowledge of Navy accounting and/or the activity's existing accounting system, and (3) did not include follow-up training in most cases. Further, only about one-half of these activities had received training in using available software that would allow them to use the system more effectively and efficiently.[18] After we brought these training deficiencies to the attention of the Director of the STARS Project Office, he agreed that training needed to be improved. According to the Director, the STARS Project Office has collected information on the field activities' training needs and plans to develop a set of training requirements. However, he stated that additional STARS training will be contingent on available funding.

We also found that DFAS provided insufficient STARS Field Level technical support. For example, representatives at six activities cited DFAS' failure to provide a central focal point or people with sufficient knowledge to provide timely answers to questions and responses to problems. The Director of the STARS Project Office agreed that STARS technical support was a concern. He stated that he planned to consider options to address this concern and that better training would also reduce the number of user problems.

Conclusions

Because the DFAS STARS enhancement project was not guided by a target systems architecture—a critical step in any systems development effort—DFAS' efforts to enhance STARS and correct numerous shortcomings have not been adequately planned, in conjunction with Navy, the system's primary user, to mitigate technical and economic risks. This is particularly true for planned new STARS functions, such as property, which would entail the greatest risk. As a result, the likelihood that the large investment already made and planned for this project will not yield a reliable, fully integrated Navy general fund accounting system is increased. In addition, STARS implementation has been hampered by limited training and insufficient technical support, which will have to be addressed as the enhancement project moves forward.

[18]These include the on-line query management function, a "help" function to assist users in utilizing the system more efficiently, and the capabilities of the MONARCH software, which enables users to download data from STARS Field Level to extract, reformat, and analyze information.

Recommendations

To increase the likelihood that the STARS enhancement project will result in an efficient, effective, and integrated Navy general fund accounting system, we recommend that the Under Secretary for Defense (Comptroller), in conjunction with the Assistant Secretary of the Navy (Financial Management and Comptroller), expeditiously develop a target STARS architecture. As part of this process, the Comptroller should (1) identify the economic and technical risks associated with the implementation of STARS enhancements, (2) develop a plan to avoid or mitigate these risks, and (3) obtain the Major Automated Information Systems Review Council's assessment and approval. Until this architecture is complete, the Comptroller should cease the funding of enhancements to STARS components that add new functions to STARS.

Also, once a target STARS architecture has been developed and approved, we recommend that the Director, DFAS, enhance its Plan of Action and Milestones to ensure that it contains (1) the steps that will have to be taken to achieve this architecture, including key analysis tasks which relate to how STARS modules will meet the key accounting requirements, (2) the parties responsible for performing these steps, and (3) realistic milestones.

In addition, to improve STARS Field Level's day-to-day operations at the field level, we recommend that the Director, DFAS,

- provide additional user training, particularly in functions that allow users to use the system more effectively and efficiently and
- provide a central focal point for enhanced technical support through such means as establishing a "hot line" staffed by knowledgeable personnel.

Agency Comments and Our Evaluation

In providing written comments on a draft of this report, DOD generally agreed with our findings but did not concur with our overall recommendation that it cease funding of STARS enhancements until the target architecture is completed. The full text of DOD's comments is provided in appendix II.

DOD's response stated that since 1991, DOD has made substantial functional and technical improvements, compliance improvements, and significant financial reporting refinements to STARS. While DFAS has implemented some STARS improvements, STARS does not yet fully comply with DOD's key accounting requirements or standard general ledger, which is why the enhancement effort was started.

With respect to our recommendations, DOD agreed that a STARS target architecture must be completed which includes the identification of source data in the target system for all interfaced systems. However, DOD stated that STARS is a fully operational system with a documented architecture of current interfaces, processes, and procedures except for Navy-owned logistic systems. According to DOD, as new enhancements are added to STARS, they will be added to the target architecture. We disagree that STARS has a current documented architecture. DFAS was unable to provide us with an architecture.

In addition, DOD did not concur with our recommendation to stop funding enhancements that add functions to STARS until the target architecture is complete. DOD's comments indicated that STARS enhancements must continue so that the migratory strategy can be completed as soon as possible because (1) Navy's funding has been either curtailed or terminated beginning in fiscal year 1997 in anticipation of completing the enhancements, (2) key accounting provisions are needed in the current system to establish needed controls and meet CFO reporting requirements, and (3) a "learning curve" situation would be created because personnel resources would have to be removed and later returned to the initial staffing level.

Continuing to develop STARS enhancements without the benefit of a completed target architecture runs counter to the basic purpose of developing such an architecture—to provide structure and discipline to a system enhancement effort before changes are made to ensure that the best decisions are made in terms of operational effectiveness, flexibility, maintenance, and cost. Although Navy has funds available now to work on the enhancements, to spend them without a proper planning effort has not proven in the past to be an effective use of resources. Without a target architecture, DOD runs a high risk of spending millions of dollars enhancing STARS and implementing a system that still will not meet the CFO Act financial reporting requirements nor be developed in a timely and cost-effective manner. Indeed, as we discussed in the report, the STARS enhancement project has already experienced incomplete planning, missed milestones, and budget overruns.

In regard to DOD's point that personnel resources would have to be removed and later returned to the initial staffing level, creating a "learning curve" situation, we believe that any personnel currently assigned to the enhancement efforts could be reassigned to the architecture development effort. This would allow them to use the expertise they have gained from

working on the enhancements to efficiently produce an accurate and complete target architecture. Once the architecture is completed, these personnel could then continue to use their expertise on the systems development efforts that DFAS and Navy decide to pursue in light of the architecture results.

DOD concurred with our remaining recommendations. In regard to the establishment of a "hot line," DOD's response noted that it had established a "hot line" to address technical system problems at DFAS Cleveland Center and the Defense Mega Center in Mechanicsburg. DOD's response also stated that, by December 31, 1996, DFAS will perform a follow-on review to determine the feasibility of expanding the "hot line" service to DFAS operating locations.

We are sending copies of this report to the Chairmen and Ranking Minority Members of the Senate Committee on Armed Services, the House Committee on National Security, the Senate Committee on Governmental Affairs, the House Committee on Government Reform and Oversight, and the House and Senate Committees on Appropriations. We are also sending copies to the Secretary of Defense, the Secretary of the Navy, and the Director of the Office of Management and Budget. We will also make copies available to others on request.

The head of a federal agency is required by 31 U.S.C. 720 to submit a written statement on actions taken on these recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Reform and Oversight within 60 days of the date of this report. You must also send a written statement to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this report.

If you or your staffs have any questions concerning this report, please contact me at (202) 512-9095. Major contributors to this report are listed in appendix III.

Lisa G. Jacobson
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Abbreviations

CFO	chief financial officer
DOD	Department of Defense
DFAS	Defense Finance and Accounting Service
FMFIA	Federal Managers' Financial Integrity Act
FMSO	Fleet Material Support Office
OMB	Office of Management and Budget
STARS	Standard Accounting and Reporting System

List of Activities Visited

Headquarters, Naval Audit Service, Arlington, VA

Navy Reserve Readiness Command, Region Six, Washington, DC

Naval Hospital, Pensacola, FL

Naval Air Station, Pensacola, FL

Naval Technical Training Center, Pensacola, FL

Naval Education and Training, Program Management Support Activity, Pensacola, FL

Fleet Combat Training Center-Dam Neck, Virginia Beach, VA

Naval Amphibious Base-Little Creek, Norfolk, VA

Naval Air Station-Oceana, Virginia Beach, VA

Naval Hospital, Newport, RI

Naval War College, Newport, RI

Naval Reserve Readiness Command, Region One, Newport, RI

Naval Station, San Diego, CA

Naval Air Station, North Island, San Diego, CA

Naval Air Station, Whidbey Island, Oak Harbor, WA

Trident Refit Facility, Bangor Bremerton, WA

Naval Submarine Base, Bangor Silverdale, WA

Strategic Weapon Facility, Pacific, Silverdale, WA

Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

OFFICE OF THE UNDER SECRETARY OF DEFENSE
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WASHINGTON, DC 20301-1100

COMPTROLLER

SEP 26 1996

Mr. Gene L. Dodaro
Assistant Comptroller General
Accounting and Information Management Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Dodaro

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DOD ACCOUNTING SYSTEMS: Efforts to Improve System for Navy Need Overall Structure," dated August 21, 1996 (GAO Code 918844/OSD Case 1210). In general, the Department agrees with the findings and the major part of the recommendations as discussed on the enclosure. The report, however, should mention and compare the condition of the Navy general fund accounting systems before 1991 against the current enhanced functionality in the selected Standard Accounting and Reporting System (STARS). In 1991, the accounting systems did not meet statutory and regulatory accounting requirements and were outdated and inefficient. Since 1991, the Department has made substantial functional and technical improvements to STARS which include improved compliance and significant refinements in financial reporting.

See comment 1.

Notwithstanding all the efficiencies achieved in the operation of STARS since 1991, the Department has been pursuing, in a parallel operation, a consolidation strategy which has achieved overall improvements for the Department of the Navy while lowering overall costs. Today, as a result of standardization and consolidation initiatives, STARS provides accounting support for over 95 percent of the dollars in the Navy's budget. In support of the consolidation initiative, the Defense Finance and Accounting Service (DFAS) has consolidated accounting operations from over ten Defense Accounting Offices (DAOs), Navy-wide, to six operating locations (OPLOCs), while standardizing specific operational functions with STARS--such as the Defense Business Operations Fund (DBOF) bill paying function.

The Department appreciates the opportunity to comment on the draft audit report.

Sincerely,

Alvin Tucker
Deputy Chief Financial Officer

Enclosure

GAO DRAFT REPORT - DATED AUGUST 21, 1996
OSD CASE 1210, GAO CODE 918844

"DOD ACCOUNTING SYSTEMS: EFFORTS TO IMPROVE SYSTEM FOR NAVY NEED OVERALL STRUCTURE"

DEPARTMENT OF DEFENSE COMMENTS ON THE GAO RECOMMENDATIONS

RECOMMENDATION 1: To increase the likelihood that the STARS enhancement project will result in an efficient, and integrated Navy general fund accounting system, the GAO recommended that the Under Secretary of Defense (Comptroller) in conjunction with the ASN(FM&C) expeditiously develop a target STARS architecture. As part of this process, the Comptroller should (1) identify the economic and technical risks associated with the implementation of STARS enhancements, (2) develop a plan to avoid or mitigate these risks, and (3) obtain the Major Automated Information Systems Review Council's assessment and approval. Until this architecture is complete, the Comptroller should cease the funding of enhancements to STARS components that add new functions to STARS. (p. 23/GAO Draft Report)

See comment 1.

DOD RESPONSE: Partially concur. The Department of Defense concurs that a STARS target architecture must be completed; and that the target architecture should include, in the target system, the identification of source data in systems interfaced with STARS. The Department does not concur that the funding of enhancements to the STARS should cease until the target architecture is completed. STARS is a fully operational system which has a documented architecture of its current interfaces, processes and procedures. This architecture, however, does not identify the source data locations in Navy owned logistics systems. As new enhancements are added to STARS, they will be added to the target architecture, to include the identification of source data. STARS enhancements must continue unencumbered if the Department is to realize the anticipated benefits associated with completion of the migratory strategy as soon as possible. Beginning in FY 1997, funding for the Department of Navy has been either curtailed or terminated in anticipation that enhancements to STARS would be accomplished within the interim migratory strategy. To cease establishing new functionality in STARS, until the target architecture is completed, would be deleterious as certain modifications are needed in the current system in order to establish needed controls and Chief Financial Offers financial reporting requirements. To cease the funding of enhancements to STARS, until the target architecture is completed, also would be counter productive as personnel resources would have to be reduced from the effort, only to be increased later. This could be expected to create a "learning curve" situation as personnel subsequently added to the STARS effort would be, in all likelihood, different personnel from those which initially would be removed.

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RECOMMENDATION 2: Once a target STARS architecture has been developed and approved, the GAO recommended that the Director, DFAS enhance its Plan of Action and Milestones to ensure that it contains (1) the steps that will have to be taken to achieve this architecture, including key analysis tasks which relate to how STARS modules will meet the key accounting requirements, (2) the parties responsible for performing these steps, and (3) realistic milestones. (pp-23-24/GAO Draft Report)

DOD RESPONSE: Concur.

RECOMMENDATION 3: To improve STARS day-to-day operations at the field level, the GAO recommended that the Director, DFAS provide additional user training, particularly in functions that allow users to use the system more effectively and efficiently. (p. 24/GAO Draft Report)

DOD RESPONSE: Concur.

RECOMMENDATION 4: To improve STARS day-to-day operations at the field level, the GAO recommended that the Director, DFAS provide a central focal point for enhanced technical support through such means as establishing a "hot line" staffed by knowledgeable personnel. (p. 24/GAO Draft Report)

See comment 1.

DOD RESPONSE: Concur. A Customer Help Center (CHC) with telephone "hotline" service was initially established on November 19, 1995, at the DFAS Cleveland Center for the STARS customers to address technical system problems. It was subsequently expanded on May 1, 1996, with new customer help procedures and tools to improve coordination and problem resolution with the Defense Mega Center (DMC) in Mechanicsburg, Pennsylvania. The DFAS will perform a follow-on review to determine the feasibility of expanding the "hotline" service to the DFAS field operating locations (OPLOCs). This review is planned to be completed by December 31, 1996.

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The following are GAO's comments on the Department of Defense's letter dated September 26, 1996.

GAO Comments

1. See the "Agency Comments and Our Evaluation" section of this report.

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