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DEFENSE INFRASTRUCTURE

Savings From Cataloging Consolidation are Uncertain



**National Security and
International Affairs Division**

B-278308

March 6, 1998

The Honorable Robert Borski
The Honorable David L. Hobson
House of Representatives

On March 25, 1997, the Department of Defense (DOD) announced its decision to centralize and, ultimately, consolidate DOD cataloging operations in Battle Creek, Michigan. According to DOD, “centralizing” cataloging operations entails transferring existing military service and defense agency cataloging operations to Battle Creek, and “consolidating” entails organizing them under one command using standardized cataloging processes and systems. Battle Creek was selected by a DOD Steering Committee and Working Group following an assessment of five candidate sites.¹ DOD estimates that, by centralizing and consolidating operations, it will be able to reduce the number of full-time equivalent civilian employees performing cataloging functions from 907 to 753 and save \$7.1 million (in fiscal year 1996 dollars) annually.

As you requested, this report addresses (1) the likelihood that DOD’s decision will result in the estimated personnel reductions and savings, (2) challenges DOD may face when implementing the consolidation effort, and (3) proposals made by two employee groups that state that DOD could achieve even greater personnel reductions and savings by centralizing and consolidating cataloging operations in other locations (instead of in Battle Creek, Michigan).

Background

“Cataloging” is the process of naming, describing, classifying, and numbering items that are repetitively purchased, stocked, and distributed by DOD. The purpose of cataloging is to enable customers to acquire the appropriate item and prevent duplicate items from entering the supply system. DOD officials estimate that approximately 2,000 to 2,200 employees are involved in cataloging.² DOD reports that its catalog currently consists of seven million items and the military services and defense agencies reportedly spend \$72.8 million annually (in fiscal year 1996 dollars) to maintain it. Each military service and defense agency separately catalogs

¹DOD’s site selection criteria considered cost of operation and quality of life.

²DOD officials estimate that 2,000 to 2,200 personnel perform cataloging tasks on a full- or part-time basis. The total amount of time these personnel devote to cataloging equates to 907 full-time equivalent personnel.

those items it manages. Cataloging is primarily performed at the 14 military service and defense agency locations listed in table 1.³

Table 1: Main Military Service and Defense Agency Cataloging Sites

Army Logistics Support Activity Huntsville, Ala.	Army Aviation and Missile Command Huntsville, Ala.
Army Tank and Automotive Command Warren, Mich.	Army Communications Electronics Command Fort Monmouth, N.J.
Army Chemical Armament Logistics Agency Rock Island, Ill.	Marine Corps Logistics Base Albany, Ga.
Navy Inventory Control Point Philadelphia, Pa.	Navy Inventory Control Point Mechanicsburg, Pa.
Air Force Cataloging and Standardization Center Battle Creek, Mich.	Defense Industrial Supply Center Philadelphia, Pa.
Defense Supply Center Columbus Columbus, Ohio	Defense Supply Center Richmond Richmond, Va.
Defense Personnel Support Center Philadelphia, Pa.	Defense Logistics Services Center Battle Creek, Mich.

DOD's most recent effort to centralize and consolidate cataloging operations came about as a result of the report by the 1995 Commission on Roles and Missions of the Armed Forces,⁴ which recommended reducing the cost of DOD's support infrastructure through increased outsourcing and better management. Materiel management was specifically identified as an area for outsourcing and, within this area, the commission recommended outsourcing cataloging.

Following the Commission's report, each of the services looked at materiel management to identify potential candidate programs for outsourcing and similarly concluded that cataloging was a good candidate. The Defense Logistics Agency (DLA) began a catalog reengineering project to examine the overall cataloging business process, and both the Army and the Navy separately started business case analyses for materiel management functions, including cataloging. In early 1996, the Deputy Under Secretary

³Various other agencies also perform cataloging functions but these agencies account for only a small percent of reported cataloging transactions.

⁴Directions for Defense, Report of the Commission on Roles and Missions of the Armed Forces (May 24, 1995).

of Defense for Logistics proposed a DOD-wide study (business case analysis) of cataloging operations within DOD that would bring the assessments then under way by the services and DLA into one comprehensive assessment.⁵

DOD's business case analysis assessed four ways to manage cataloging operations: (1) maintaining the status quo, (2) contracting them out (using a commercial firm to provide cataloging services), (3) consolidating them, and (4) centralizing and consolidating them. For each alternative, the analysis assumed a 7-year implementation period (starting in fiscal year 1997 and ending in fiscal year 2003) and that personnel reductions would all take place in fiscal year 1999. Estimated savings both during the 7-year implementation period and after implementation are primarily labor cost savings. Table 2 presents the results of the analysis.

Table 2: Estimated Costs and Savings of Alternatives for Managing Cataloging Operations (fiscal years 1997-2003)

In millions of fiscal year 1996 dollars			
Alternative	Cost during implementation	Savings during implementation	Annual savings after implementation
Status quo	\$305.3	N/A ^a	N/A ^a
Consolidating	279.8	\$25.5	\$3.8
Centralizing and consolidating	274.8	30.5	7.1
Contracting out	\$276.1	\$29.2	\$11.1

^aNot applicable.

Source: DOD Cataloging Business Case Analysis.

The results of the business case analysis were briefed to the Deputy Secretary of Defense in August 1996. DOD officials decided that, while contracting out appeared to offer the greater annual recurring savings, centralizing and consolidating cataloging posed fewer risks. However, the officials decided that contracting pilot tests would be conducted where it made sense. On August 30, 1996, DOD asked DLA to take the lead in implementing required actions in support of centralizing and consolidating cataloging. Within DLA, the Defense Logistics Services Center was given responsibility for implementation.

⁵DOD Cataloging Business Case Analysis, KPMG Peat Marwick LLP (Aug. 8, 1996).

Results in Brief

It is uncertain that the estimated personnel reductions and savings will occur. DOD's estimates are based on several assumptions that either will not necessarily occur or have changed since DOD made the estimates. DOD based the estimates, for example, on an assumption of what a standardized cataloging process may look like but has not settled on an actual design of the centralized and consolidated system. Detailed studies to document existing cataloging processes are still ongoing and will be important for determining how cataloging processes can be separated from other materiel management functions. DOD also assumed that an ongoing system development project to develop a standardized cataloging system would be successful and thus did not consider any system development costs in estimating savings. However, DOD has since halted work on that system, and costs to develop a new one are uncertain.

DOD faces significant challenges in implementing the consolidation. Prior DOD cataloging consolidation efforts incurred problems that will need to be taken into consideration in developing detailed implementation plans for consolidation. First, separating cataloging from other service provisioning and materiel management functions may be difficult and could negatively affect cataloging operations during the transition.⁶ Second, DOD may lose much of its cataloging experience because of the reluctance of experienced catalogers to relocate. A DLA official stated that DLA has begun developing plans that address these risks and that no cataloging functions will be transferred to Battle Creek until these plans are complete. However, these plans were not available for our review. Third, planning for the new standardized cataloging process and the necessary standardized cataloging system will not be completed until after catalogers are moved to Battle Creek. DOD also plans, in conjunction with the move, to reduce the number of catalogers to levels envisioned only after process reengineering and consolidation of cataloging have occurred. DOD officials believe the move will increase the likelihood of catalogers adapting to the as yet unplanned new processes and systems. However, senior officials responsible for service cataloging operations have expressed concerns about the risks inherent in proceeding without detailed plans to guide the consolidation.

Until a standardized cataloging process is developed, it is not possible to determine the reasonableness of the employee groups' proposals concerning further staff reductions.

⁶"Provisioning" is the process of ensuring effective spare parts support for new weapons and equipment.

Until DOD's Plans Are Finalized, Personnel Requirements and Savings Will Remain Uncertain

DOD's 1996 business case analysis projected that DOD could potentially reduce the number of full-time equivalent catalogers from 907 to 753 and save approximately \$7.1 million annually by centralizing and consolidating its cataloging operations. The staff projections, however, are based on assumptions about what a standardized cataloging process might look like rather than on actual plans for reengineered processes. DOD also assumed that a standardized provisioning and cataloging system under development at the time the business case analysis was conducted would meet its cataloging system needs and did not recognize costs to develop such a system. The system DOD was counting on, however, has been terminated. Development costs for a new system are uncertain. Until DOD completes its planning on a design for the new cataloging process and develops a cost estimate for the new standardized system, it has no firm basis for projecting staff requirements and savings from centralizing and consolidating cataloging operations.

Standardized Design Is Needed as a Basis for Projecting Savings

Differences exist among the services and defense agencies both in their approaches to cataloging and the extent to which cataloging tasks are integrated into other functions. Some differences are organizational (such as the Air Force's operating a consolidated cataloging process while the other military services and agencies do not), and some involve process differences (such as the degree to which cataloging tasks are integrated into other materiel management and acquisition processes). The Navy, for example, no longer has stand-alone cataloger positions. Instead, its cataloging tasks are performed in conjunction with other provisioning, procurement, and integrated logistics data management actions. Standardizing these diverse cataloging processes is essential to operating in a consolidated environment.

DOD has not yet decided how a standardized cataloging process would work. Its projection that 753 full-time equivalent employees will be needed for a centralized and consolidated operation is an estimate based on the assumption that the new standardized process will not differ markedly from some of the best practices currently in use and that these best practices can be adopted by the other services and agencies. Accordingly, DOD identified the best practices currently in use and, using productivity data for the best practices, extrapolated that data to the total DOD workload to approximate the staff requirements for a new standardized process. DOD's business case analysis acknowledges that this methodology does not dictate the way that cataloging functions would be performed in a real consolidated environment, but DOD officials stated that they believe

it provides a good estimate of the resources that will be needed. We do not agree that this provides an adequate basis for making staff reductions. More information on DOD's methodology is provided in appendix I.

Staffing Requirements Are Uncertain

DOD's business case analysis methodology provides a good starting point for more detailed analysis and planning. However, sufficient uncertainties about future processes make the analysis a questionable basis for making actual personnel reductions in the absence of more detailed planning. Because DOD has not yet developed its new cataloging business process, its staff requirements are subject to change. In October 1997, for example, a senior-level cataloging committee recommended that DOD exempt two cataloging functions from consolidation—item management coding and nuclear cataloging. DLA officials report that these two cataloging functions involve 26 full-time equivalent catalogers. Because 26 catalogers will remain at their present work sites, this will reduce expected personnel savings. DOD has not yet made a decision on the committee's recommendation.

Other changes in DOD's staffing requirements may come from individual service and defense agency requests to exempt some cataloging activities, or portions of activities, from centralization and consolidation. For example, in October 1997, the Commander of the Navy Inventory Control Point formally requested that DLA exempt 62 of the 92 positions the Navy was scheduled to lose from its cataloging operations. According to the Navy's request, cataloging activities are integrated into other materiel management processes, and it is not possible to separate them without disrupting other processes and creating redundancies between the Navy and the new centralized cataloging facility. The Navy also pointed out that the business case analysis found that its integrated process was the most efficient, responsive process for the two largest cataloging functions—new item introduction and data management. Thus, the Navy is reluctant to risk disrupting its cataloging process until DLA determines if consolidation offers greater efficiencies than the Navy's integrated processes. DLA catalogers have asked for exemptions for 39 personnel performing data maintenance activities, and the other military services and defense agencies may seek exemptions for some of their personnel as well. Were all of these waiver requests valid, they would negate a major portion of the savings expected to occur through cataloging consolidation. A DLA official said that these requests will be addressed when DLA develops the individual service and defense agency business plans, but he expects that most requests for exemptions will likely be denied.

DLA is in the preliminary stages of planning how it will standardize processes and meet its system needs but intends to move existing cataloging services to Battle Creek in three groups. Catalogers from (1) the Army, the Air Force, and the Defense Supply Center-Columbus would move in 1998; (2) the Defense Supply Center-Richmond and the Marine Corps in 1999; and (3) the Navy, the Defense Industrial Supply Center, the Defense Personnel Support Center, and the Defense Special Weapons Agency in 2000. Catalogers from the Air Force and the Defense Logistics Services Center are already located in Battle Creek. After the move the services and defense agencies would continue to operate using their unique cataloging processes and systems. Meanwhile, DLA would begin the task of developing a common process. Detailed studies of the individual service and defense agency cataloging processes that DLA officials describe as a first step in reengineering cataloging processes began in October 1997, and a DLA official estimates that these studies will take approximately 2 years to complete. These studies will document how (1) each of the services' and agencies' existing processes work and (2) cataloging processes would be separated from other materiel management processes. Presumably such studies would also determine whether consolidation is the preferred option from a cost and operational standpoint compared with some current approaches where cataloging is integrated into other materiel management processes.

Cost to Standardize Cataloging Systems Is Unknown

The military services and defense agencies maintain separate logistics data management systems, and these systems provide the data needed to perform cataloging functions. According to cataloging managers at the sites visited, the system differences are significant and a cataloger from one service or agency would be unable to perform cataloging functions using another service's or agency's logistics data management systems. To consolidate operations, DOD will need to develop a standardized system that can handle the differing service and defense agency item management processes. However, DOD did not consider costs for a standardized cataloging system in its estimate for a centralized and consolidated cataloging operation. Such costs could materially affect the projected savings from consolidating cataloging operations.

At the time the business case analysis was conducted, DOD was in the midst of developing a standardized system called the Provisioning and Cataloging Technical Support System (PCTSS). This system was being developed by the Joint Logistics Services Center to standardize a cataloging and provisioning system for logistics data management across

DOD. According to DOD, approximately \$48 million was spent on development, and the business case analysis estimated that completing the cataloging portions of the PCTSS system would cost \$139 million. However, a contractor official told us that system completion costs were not included in the analysis because of the assumption that the costs for completing the system would be incurred with or without consolidation.

The contractor's assumptions were valid at the time the business case analysis was completed, but in late 1996, DOD terminated development of the PCTSS system. With the demise of PCTSS, DOD will need a new development effort for a standardized cataloging system. System development costs have not yet been estimated. The team leader for DLA's cataloging and transition office believes that the \$139 million estimate in the business case analysis is excessive but has not offered an alternative estimate. As a first step DLA hired a contractor to review the former PCTSS development effort and to determine what is usable and what must be redone. DOD officials also stated that whatever the development costs are, they would be offset by the costs that would have been incurred in maintaining the myriad of existing systems. However, DOD could not provide us with data to support this position. Further, we believe that to fully assess costs DOD would need to evaluate the expected life-cycle costs of the two approaches. Without a full assessment of costs and savings, DOD cannot fully determine the extent to which savings will exceed costs and the amount of time that would be needed for savings to offset the costs associated with this consolidation effort.

DOD Faces Significant Challenges in Centralizing and Consolidating Operations

Although DOD has not yet developed a standardized cataloging process or determined how it will meet its needs for a standardized cataloging system, it has decided to relocate catalogers to Battle Creek, and reduce the number of catalogers to be relocated to a level envisioned after the processes and systems are standardized. According to the business case analysis, centralizing catalogers under one command will increase the likelihood of catalogers adopting to the new processes and procedures. However, DOD's prior experiences in consolidating cataloging operations show that consolidating entails risks that if not adequately addressed can significantly degrade cataloging services. A DLA official told us they are preparing plans that address these risks. However, at the conclusion of our review the plans had not been completed.

Questions Exist About Separating Cataloging From Other Functions

Senior officials at the two DLA and two military service cataloging sites we visited expressed concerns about consolidating cataloging operations without a clearly defined business process to guide the consolidation. According to these officials, many cataloging processes are integrated with other processes, and separating them without a clear understanding of how a new process will work could affect customers and create additional costs and inefficiencies. For example, Navy officials report that cataloging data maintenance is generally done by a weapon system equipment specialist, item manager, or other noncataloging person in conjunction with other provisioning, procurement, or logistics data management actions. While the Navy would have to give up positions to a centralized cataloging activity, supply center personnel will still be required to determine and originate the appropriate data changes. They suggest that cataloging centralization will result in some redundancy between the service and the centralized cataloging activity. The Deputy Director of the Defense Supply Center-Columbus similarly maintains that removing some functions from the inventory control point may have negative effects on some processes and could result in increased response times.

A DOD official stated that, in the short term, centralizing cataloging personnel before reengineering cataloging processes could result in inefficiencies and added costs. However, the official said these inefficiencies would disappear when the processes were reengineered. The official also said that centralizing before reengineering is justified because prior efforts to consolidate had met with resistance and an inability to develop consensus between the services and defense agencies on a common approach to cataloging. This official also said that centralizing cataloging under one command is key to further efforts to achieve an integrated and consolidated cataloging operation. We believe that, while consolidating into one command may be necessary to overcome service parochialism, a sound decision should be predicated on a clear understanding of the new process and its expected costs and benefits, including confirmation of the feasibility and benefits of separating integrated cataloging functions from the services that include cataloging as part of the services' overall provisioning processes.

Cataloger Experience Was Lost in Previous Consolidations

DOD's prior experiences in consolidating cataloging operations indicates a high risk of losing substantial cataloger experience and that such moves must be carefully managed. For example, in 1976 when the Air Force consolidated its cataloging and standardization operations in Battle Creek, it suffered a significant loss of cataloging experience from catalogers who

were unwilling to relocate. According to an Air Force history of the move, only 87 of 574 persons slated to relocate made the move, and no supervisory cataloging personnel relocated.⁷ The history reports that personnel problems were so severe that all other problems paled beside them. Air Force cataloging productivity suffered during the first year of operations and only high-priority work was accomplished. Routine work, such as revising existing catalog data, was put aside until the second year of operation. The Air Force reports that it ultimately resolved its problems and was able to reduce its cataloging and standardization infrastructure by 69 percent. The Army was able to fill 90 percent of its authorized positions when it partially consolidated its cataloging operations in Huntsville, Alabama, in 1994, but officials report they lost a significant amount of cataloger experience because many people swapped jobs to avoid moving. Sixty percent of those transferring had little or no cataloging experience and had to be trained on the job. Army officials also state that insufficient management personnel transferred to ensure effective supervision of employees, and productivity following the move dropped severely for more than a year.

DOD Actions Also Create Risk

DOD is adding to its risk by reducing the number of catalogers before cataloging processes are standardized. DOD's business case analysis found that 907 full-time equivalent persons are required to maintain existing cataloging processes and projected that 753 persons would be needed after cataloging processes were consolidated. However, DLA plans call for transferring only 753 full-time equivalent persons to Battle Creek where initial operations would be centralized but not consolidated. Senior service and defense agency representatives told DOD that they could operate existing systems at those levels, but no additional assessments were made to indicate how the existing processes would be maintained with fewer staff. Cataloging managers at the inventory control points we visited expressed serious reservations about the ability to operate existing processes at reduced staffing levels.

The impact of DOD's decision to reduce the staffing for its centralized cataloging activity to 753 full-time equivalent positions may also be much greater than it appears. If only 753 full-time equivalent personnel of the 2,200 personnel involved in cataloging are transferred, approximately 66 percent of the experience base would be lost. While DOD's business case analysis assumed that the 753 transferred catalogers would be able to

⁷The Centralization of Cataloging and Standardization at Battle Creek, Office of History, Air Force Logistics Command, Study No. 396, Sept. 1980.

perform all cataloging tasks of their service or agency, this is an assumption that may be questionable if cataloging tasks are as integrated into other processes as cataloging managers claim.

DOD is aware of the potential loss of technical knowledge from catalogers that do not wish to relocate but states that the strategy of moving personnel over a 3-year period will allow time to replace or train new personnel. Additionally, some catalogers will become available as the Defense Logistics Services Center and the Air Force Cataloging and Standardization Center, already located in Battle Creek, reduce their staffs.

DOD Reports That Its Plans Will Address Known Risks

DOD originally planned to move the first group of catalogers to Battle Creek in October 1997 but has since postponed the move until at least April 1998. According to a DLA official, DLA now intends to leave all cataloging functions at their current work locations until DLA completes detailed plans for separating and moving each services' and agencies' cataloging processes and connectivity plans for their automation systems. At the conclusion of our review, these plans were still being developed.

Prospects for Additional Staff Reductions Are Uncertain

We reviewed proposals from employee groups from Philadelphia, Pennsylvania, and Columbus, Ohio, who have expressed the view that cataloging operations could be performed at their respective locations with fewer staff than DOD plans for the centralized facility in Battle Creek. Until a standardized process for cataloging is developed, however, it is not possible to determine the reasonableness of either DOD's or the employee groups' staffing projections.

Employees of the Naval Inventory Control Point-Philadelphia, the Defense Personnel Support Center-Philadelphia, the Defense Industrial Supply Center-Philadelphia, and the Defense Supply Center-Columbus, maintain that DOD cataloging operations could be performed using fewer employees if processes currently in use at their respective locations were adopted. Specifically, the Philadelphia group believes that cataloging operations could be run using 431 full-time equivalent employees and Columbus believes cataloging operations could be run using 472 full-time equivalent employees. Our analysis of both groups' projections, however, found that the methodologies were not based on reengineered cataloging processes. Instead, both groups assumed that their processes could be adopted by the other services and agencies. However, because cataloging tasks are

embedded in numerous other materiel acquisition and provisioning processes and developing a standardized process will be a complex task, the extent to which ongoing processes could be adopted as is assumed in the proposals is not known.

Conclusions

Many uncertainties exist regarding what personnel reductions and savings will occur from DOD's planned centralization and consolidation of its cataloging operations. To estimate savings, DOD first needs a detailed plan showing how a standardized cataloging process will work and an estimate of the development costs for a standardized cataloging system. Until these steps are completed, the personnel reductions and expected savings from centralizing and consolidating cataloging operations are uncertain.

DOD's prior experiences in centralizing and consolidating cataloging operations show that separating cataloging processes from other materiel management processes is a complex task. To avoid interruptions to cataloging services, implementation should be predicated on a sound plan that addresses the known risks and defines how a standardized cataloging process will work and existing processes will be separated from other integrated processes.

DOD began preliminary studies of the services' and agencies' cataloging processes in late 1997 as a first step toward developing a standardized process. These studies will take approximately 2 years to complete. Until these studies are completed and DOD has developed a detailed design for a consolidated system, there is a high risk of DOD's disrupting cataloging services by centralizing cataloging personnel.

Recommendations

We recommend that, before cataloging personnel are transferred to Battle Creek, Michigan, the Secretary of Defense direct the Director of DLA to develop a clearly defined plan for standardizing the cataloging processes. We also recommend that DOD develop a full assessment of the costs and savings of the consolidation and determine the time required for savings to offset the implementation costs.

Agency Comments and Our Evaluation

DOD provided written comments on a draft of this report and they are included in their entirety in appendix II along with our evaluation of them. DOD partially concurred with our recommendation that a clearly defined plan for standardizing the cataloging processes should be developed

before cataloging personnel are moved to Battle Creek and did not concur with our recommendation that it should develop a full assessment of the costs and savings of consolidation.

DOD reported that it started developing a business plan for each location for the transition of cataloging to Battle Creek prior to our audit and is working on establishing a standardized cataloging system. Additionally, DOD stated that we incorrectly reported that it has not considered the lessons learned from prior consolidation efforts. DOD also stated that it had already conducted a business case analysis and that representatives from each of the military services and defense agencies supported the cost and personnel data and savings the study identified. DOD believes that conducting another business case analysis would needlessly delay any effort to consolidate and centralize and would not necessarily ensure more accurate cost and savings data because assumptions in the follow-on business case analysis could easily change over time as well.

Our draft report recognized that DOD has started developing some business plans for transferring catalogers to a central cataloging facility, including connectivity plans for the existing computer systems and plans for separating and moving each services' and agencies' cataloging processes, and we did not mean to imply that DLA was ignoring lessons learned from prior consolidations. However, at the time of our review none of the plans had been completed or were available for us to review. In the absence of plans, we identified those areas that we believe needed to be addressed, particularly those historical problem areas from prior cataloging consolidations. Further, it is not clear to us to what extent each of the services endorse the savings estimate from the business case analysis. Our report points out questions and uncertainties about savings identified by service level officials associated with service cataloging activities. These uncertainties are underscored by the requests for exemptions to the planned personnel reductions.

The intent behind the plan called for in our recommendation is not the business plan DOD refers to in its comments. We were referring to the need for DOD to develop a plan that details how a consolidated cataloging process will work and the costs of developing a standardized cataloging system. As we stated in the report, DOD plans to move catalogers to Battle Creek where they would continue to operate using the service-unique cataloging processes and systems. DLA would then complete the task of developing a common process and system. However, without detailed plans on how a consolidated process will work and a clear identification

of the costs of developing a standardized system, DOD cannot be certain of its resource needs or the costs of implementation and has no assurance that it will achieve its objective of reducing infrastructure and saving money. A well-informed decision should be based on clearly identified resource needs and implementation costs, particularly given the relatively small annual savings projected.

Advance planning is also critical to selecting the most cost-effective cataloging option. For example, the business case analysis found that the Navy's cataloging processes for the two largest cataloging tasks—data maintenance and new item introduction—were the most efficient, and the Navy reports that this efficiency stems from integrating the processes, not consolidating them. By centralizing prior to completing planning, however, the possibility that integrating these functions may be the preferred option is not addressed.

DOD also misunderstands our second recommendation that it develop a full assessment of the costs and savings of consolidation. We did not mean to imply that DOD should conduct another business case analysis of cataloging prior to proceeding. Rather, we meant that DOD should clearly identify costs based on its current implementation plan. The business case analysis was not an implementation plan, and many of its assumptions are no longer valid. For example, the plan assumed that all personnel reductions would take place in fiscal year 1999. However, this is not what DOD currently plans. Similarly, at the time of the analysis no decision had been made on where cataloging operations would be centralized. Since that time DOD has decided to centralize in Battle Creek and cost estimates for renovating work space can be firmed up, as can estimates of the number of personnel who will be displaced, moved, and trained. Most importantly, system development cost data needs to be assessed.

Scope, and Methodology

To assess DOD's cost and savings projections, we reviewed DOD's business case analysis and implementation plans. We reviewed DOD's estimation methodology, potential problems that may affect current cost and schedule estimates, and the causes of previous schedule slippages and cost increases. We discussed DOD's planning and estimated costs and savings with KPMG, the contractor who conducted the analysis; officials from the Office of the Deputy Under Secretary of Defense for Logistics; the Defense Logistics Agency, Ft. Belvoir, Virginia; the Defense Logistics Services Center, Battle Creek, Michigan; the Air Force Cataloging and Standardization Center, Battle Creek, Michigan; the Army Logistics

Support Activity, Huntsville, Alabama; the Army Aviation and Missile Command, Huntsville, Alabama; the Defense Supply Center, Columbus, Ohio; the Navy Inventory Control Point, Philadelphia, Pennsylvania; the Navy Inventory Control Point, Mechanicsburg, Pennsylvania; the Defense Industrial Supply Center, Philadelphia, Pennsylvania; and the Defense Personnel Support Center, Philadelphia, Pennsylvania. Our tentative findings were also discussed with the Assistant Deputy Secretary of Defense for Materiel and Distribution.

Our information on DOD's planning to support its consolidation effort was obtained from the Air Force history of its 1976 consolidation and discussions of lessons learned from the consolidation with officials at the Air Force Cataloging and Standardization Center. Our information on lessons learned from the Army's 1994 experience in partially consolidating its cataloging operations in Huntsville, Alabama, was obtained from discussions with the Army's Cataloging Branch Chief, Logistics Support Activity, Huntsville, Alabama, who was involved in managing the Army's consolidation in Huntsville. We also discussed the risks of collocating and consolidating the cataloging function with senior officials at each of the sites we visited during our assessment of DOD's plans.

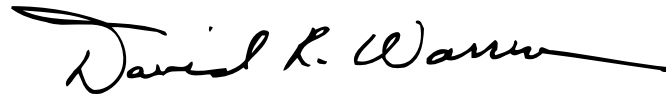
Our information on the proposals made by two employee groups that state that DOD could achieve even greater personnel reductions and savings by consolidating cataloging operations in other locations (instead of Battle Creek, Michigan) was obtained from employees at the Navy Inventory Control Point, Philadelphia, Pennsylvania; the Defense Industrial Supply Center, Philadelphia, Pennsylvania; the Defense Personnel Support Center, Philadelphia, Pennsylvania; and the Defense Supply Center, Columbus, Ohio. We analyzed both groups' staff projections and discussed our conclusions with them. We also discussed the Philadelphia and Columbus employees' assertions about staffing needs with officials at the Defense Logistics Services Center and the Office of the Deputy Under Secretary of Defense for Logistics.

We performed our review from September 1997 to January 1998 in accordance with generally accepted government auditing standards.

We are providing copies of this report to the Chairmen and Ranking Minority Members of the Senate Committees on Armed Services and on Appropriations and the House Committees on National Security and on Appropriations; the Secretaries of Defense, the Army, the Navy, and the

Air Force; the Commandant of the U.S. Marine Corps; and the Director of DLA. Copies will be made available to others upon request.

Please contact me at (202) 512-8412 if you or your staff have any questions concerning this report. Major contributors to this report were Barry W. Holman, Glenn D. Furbish, and David F. Combs.

A handwritten signature in black ink that reads "David R. Warren". The signature is written in a cursive style with a long horizontal line extending to the right.

David R. Warren, Director
Defense Management Issues

Contents

Letter	1
Appendix I The Department of Defense's Methodology for Identifying Alternative Staff Requirements	20
Appendix II Comments From the Department of Defense	21
Tables	
Table 1: Main Military Service and Defense Agency Cataloging Sites	2
Table 2: Estimated Costs and Savings of Alternatives for Managing Cataloging Operations	3

Abbreviations

DLA	Defense Logistics Agency
DOD	Department of Defense
PCTSS	Provisioning and Cataloging Technical Support System

The Department of Defense's Methodology for Identifying Alternative Staff Requirements

Department of Defense (DOD) officials assumed that the new reengineered cataloging process would be similar to current processes. By using productivity data for the best practices currently in use and extrapolating that data to the total DOD workload, they approximated the staff requirements for the new standardized process. The following steps were used:

1. Actual cataloging costs for 11 common cataloging functions were identified for each military service and defense agency and a service or defense agency was identified that performed each function most economically.
2. Using cost data from the most economical process, DOD projected function costs for the other services and agencies. For example, the Navy introduced new items most economically at an average of \$77 per item. Estimated costs for new item introduction for the other services and defense agencies were computed by multiplying the number of new items they introduced by \$77.
3. Estimated function costs were then adjusted upward for risk based on the perceived difficulty of implementation. Low-risk tasks were adjusted by 25 percent, medium by 50 percent, and high by 75 percent.
4. A total process cost for each alternative was then computed by adding the individual function costs. DOD's existing cataloging process costs were \$72.8 million annually. Process costs in a consolidated environment were projected to be \$64.6 million annually. Process costs in a centralized and consolidated environment were projected to be \$60.5 million annually.
5. Staffing requirements for the alternatives were then determined based on the projected savings for each alternative. To illustrate, a centralized and consolidated process would save DOD an estimated 17 percent ($\$60.5/\$72.8 = 0.83$). A 17-percent reduction in the existing cataloger workforce leaves 753 catalogers needed for a centralized and consolidated operation ($907 \times 83\% = 753$).

Comments From the Department of Defense

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



ACQUISITION AND TECHNOLOGY

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24 FEB 1998

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National Security and International
Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Warren:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, GAO/NSIAD-98-71, "DEFENSE INFRASTRUCTURE: Savings From Cataloging Consolidation Are Uncertain" (OSD Case 1531). The DoD partially concurs with the report regarding the need for implementation plans. In fact, we were already in the process of developing business plans by site prior to the audit. The GAO draft report further indicates that the DoD had not taken into account the lessons learned from the consolidation of cataloging in the Air Force. This is incorrect. The Project Manager in the Transition Office at the Defense Logistics Information Service was involved in the Air Force transfer and has taken steps to ensure that proper planning was done prior to implementation.

The DoD nonconcurrs with the second recommendation regarding the need for further business case analysis as outlined in the our detailed response which is enclosed.

The Department appreciates the opportunity to review and comment on the draft report.

Sincerely,

Roy R. Willis
Acting Deputy Under Secretary
of Defense (Logistics)

Enclosure



See comment 1.

Appendix II
Comments From the Department of Defense

GAO DRAFT REPORT - DATED JANUARY 29, 1998
(GAO CODE 709292) OSD CASE 1531

**"DEFENSE INFRASTRUCTURE: SAVINGS FROM CATALOGING
CONSOLIDATION ARE UNCERTAIN"**

DEPARTMENT OF DEFENSE COMMENTS TO THE RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that, before cataloger personnel are transferred to Battle Creek, Michigan, the Secretary of Defense direct the Commander, DLA to develop a clearly defined plan for standardizing the cataloging processes. (p. 20/GAO Draft Report)

Now on p. 12.

DOD RESPONSE: Partially concur. The DoD began the development of business plans by location for the transition of cataloging to the Defense Logistics Information Service prior to the initiation of the audit. The business plans include business rules, business processes, automated information system capabilities and connectivity needs.

See comment 2.

The Defense Logistics Information Service (DLIS) is currently working on establishing a standardized system for all cataloging. A contract has been let with Lockheed-Martin to assess what features of the Provisioning, Cataloging and Technical Standard System (PCTSS) can be utilized in the development of a standard system for cataloging.

RECOMMENDATION 2: The GAO recommended that the DoD develop a full assessment of the costs and savings of the consolidation and determine the time required for savings to offset the implementation costs. (pp. 20-21/GAO Draft Report)

Now on p. 12.

DOD RESPONSE: Nonconcur. The Department has already conducted a business case analysis (BCA) with contractor assistance. All Military Service and Defense Agency representatives participated in this analysis. The BCA identified four alternatives, the first of which was to outsource the cataloging function. The Military Services and Defense Agencies recommended that the DoD support the second of four alternatives, which was to consolidate and centralize the cataloging function. While the cost savings were slightly less than in the first recommendation, the second alternative involved less risk. Prior to briefing the Deputy Secretary of Defense, the Acting Principal Deputy Under Secretary of Defense for Logistics asked each of Military Service and Defense Agency representatives if they agreed with the cost and personnel data and savings identified in the BCA and if they

See comment 3.

Appendix II
Comments From the Department of Defense

supported the alternative to consolidate and centralize. There was unanimous support for the second option.

While the BCA was completed two years ago and some of the assumptions may have changed, conducting another BCA and developing another implementation plan would needlessly delay any effort to consolidate and centralize. Moreover, a second BCA would not necessarily assure more accurate cost and savings data since the assumptions in the follow-on BCA could easily change over time as well.

The Department notes that another recent GAO Report, "DEFENSE INFRASTRUCTURE: Inventory Control point Consolidation Savings Would be Substantial" (GAO Code 709232/OSD Case 1365) recommends that the DoD consolidate the Military Service and Defense Logistics Agency's Inventory Control Points (ICPs). The consolidation and centralization of cataloging simply implements that recommendation for the one functional area within an ICP for which it makes the most sense. The Department believes the case for consolidating cataloging is overwhelming. If perfect information is required before consolidation can begin, it is unlikely any consolidation can ever be implemented.

See comment 4.

GAO Comments

1. Our draft report included statements by Defense Logistics Agency (DLA) officials that they have begun developing plans that address these risks. We highlighted previous problems to emphasize their importance or the need for a plan to deal with future risks, not to suggest that DOD was not aware of these problems. However, at the conclusion of our fieldwork in November 1997, no plans had been completed or were available for review that showed how DLA intended to deal with these known risk areas.

2. The business plans DOD refers to in its official comments are not those intended by the recommendation. DOD's plans are those discussed in comment 1. We are referring to the need for DOD to develop a plan that details how a consolidated cataloging process will work and the costs of developing a standardized cataloging system. DOD does not currently intend to complete this plan until after catalogers are centralized, but not consolidated, in Battle Creek. However, as stated in our report, without this plan DOD can neither identify its resource needs nor the cost of implementing its decision. Given the relatively small annual savings involved, we believe this information is critical to a well-informed decision.

3. We did not recommend that DOD conduct another business case analysis. Rather, we recommended that DOD develop a full assessment of the costs and savings of the consolidation and determine the time required for savings to offset the implementation costs. DOD's business case analysis is not an implementation plan and does not clearly identify the costs of implementation. Instead, it projected costs based on numerous assumptions, many of which are no longer valid. DOD now has considerably more information regarding centralization at its disposal and should update its information before it proceeds. In particular, DOD should identify the costs for standardizing its cataloging systems.

4. DOD's comment does not accurately reflect our recommendation. We recommended that DOD have the then-ongoing defense review being conducted by the National Defense Panel also examine the savings and risks associated with inventory control point consolidation. We do not necessarily agree that the consolidation of cataloging is the one area that makes the most sense, given service concerns about their ability to easily separate cataloging from their integrated provisioning processes. DOD's detailed documentation of existing cataloging processes should provide greater insight into the feasibility and desirability of breaking apart such integrated functions.

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