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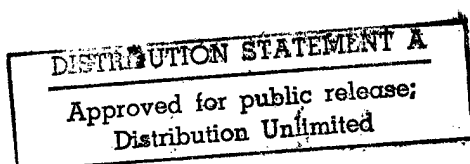
**Consolidation of DoD Inventory
Control Points Under the
Defense Logistics Agency
An Analysis of the Risk
and Benefits**

LG601R1

September 1997

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Consolidation of DoD Inventory Control Points
Under the Defense Logistics Agency: An Analysis
of the Risks and Benefits

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Executive Summary

The National Defense Authorization Act for FY96 directed DoD to review the consolidation of management of all DoD inventory control points (ICPs) under the Defense Logistics Agency (DLA). In response, the Deputy Under Secretary of Defense (Logistics) tasked the Logistics Management Institute with analyzing the potential risks and benefits of such a mission transfer.

We found a potential for substantial savings. Over the period addressed by DoD's program objective memorandum (POM), we estimated that savings could range between \$553 million and \$951 million. Our savings estimate for a post-POM period that extended to FY10 ranges between \$1,609 million and \$2,859 million.

However, we also found a potential risk to ICP mission performance. We polled subject-matter experts within the military services on the potential negative impacts of transferring ICP functions to DLA. Their responses revealed their concerns that the transfer would disrupt the current relationship between management of weapon-systems and management of secondary-item materiel and also would increase standardization and thus reduce the ability of the ICPs to provide tailored support to their customers. Although circumstances exist that somewhat mitigate these concerns, our own assessment of the transfer concluded that the transfer could have some negative impacts.

In this report we document the analyses behind these two major findings. It shows the criteria that the military services used to judge impact, their scoring of impact for individual ICP functions, and how we consolidated their input and produced our own assessment. We also show how savings were developed for the initial in-place-transfer of military-service ICPs to DLA, for business process improvements made possible by a single ICP manager, and for physical-site consolidation that a single ICP manager would pursue at some time.

The findings of our analyses were subsequently included in a report to Congress. In that report, DoD announced its intent to systematically examine this alternative to the present ICP infrastructure, along with other alternatives, in its *Quadrennial Defense Review*.

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Chapter 1

Introduction

This report documents the results of a Logistics Management Institute analysis of the potential risks, costs, and benefits of transferring management of all DoD inventory control points (ICPs) to the Defense Logistics Agency (DLA). Currently, the military services manage a total of 11 ICPs at 13 locations, while DLA manages 5 ICPs at 5 locations. This transfer would turn over management of all of the service-managed ICPs to DLA and effectively make DLA DoD's single ICP manager as well as its wholesale manager for all secondary items.¹

The transfer of management of all DoD ICPs to DLA would represent a major undertaking. It would change a support structure that has served the department well for more than 30 years. More than 12,000 DoD employees would be directly affected; the supply support provided to all of DoD's operating forces may also be affected. Consequently, our analysis is centered on developing best estimates for the potential performance and economic impacts of the transfer.

BACKGROUND

Traditionally, an ICP is associated with wholesale materiel management, although most ICPs are also involved in some aspect of retail materiel management. Establishing a precise definition of an ICP is difficult because the ICPs managed by the Army, Navy, Air Force, Marine Corps, and DLA differ in their operating philosophies and in their organizational structures. Past studies² have defined an ICP as any activity performing certain materiel management functions, including provisioning, cataloging, requirements determination, acquisition, distribution, maintenance, and disposal.

DoD's ICPs play a major role in supplying our fighting forces with the equipment, assemblies, repair parts, and general supplies that they need to operate weapon-systems and conduct contingency and wartime operations. For the past 30 years, DLA has operated ICPs responsible for consumable items such as repair parts; personnel support items (i.e., clothing, food, and medical supplies); fuel; other bulk items and materiel; and expendable, minor end items. DLA supplies each of the military services, as well as other DoD and non-DoD agencies, with

¹The military services would continue to manage, through their program managers, principal items (such as tanks, aircraft, and ships) that may or may not be collocated at secondary-item ICPs. The military services would also continue to manage their own retail supply activities.

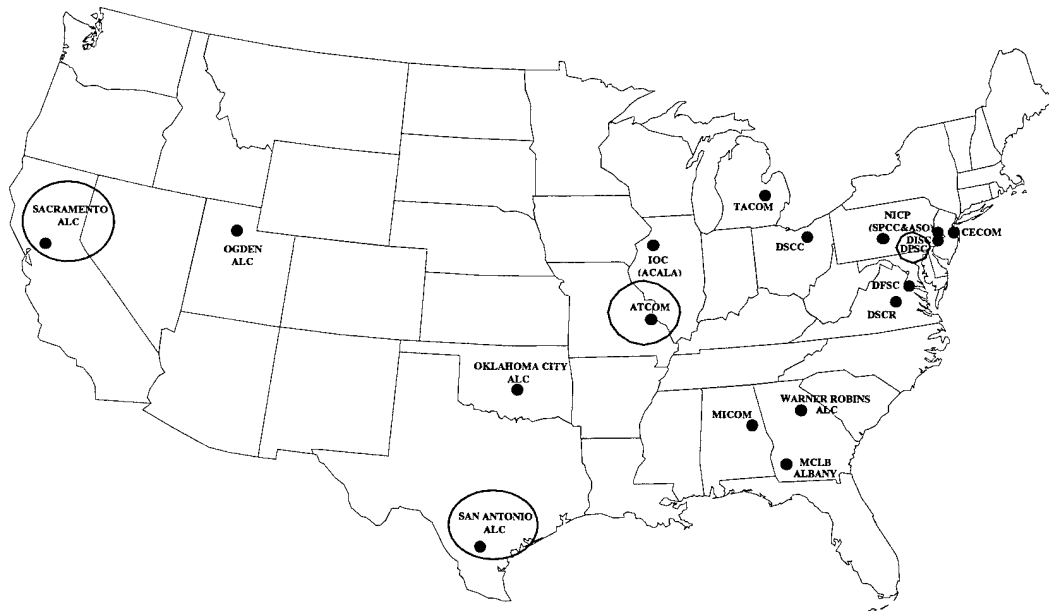
²The *1990 ICP Consolidation Study* (Defense Management Report Decision 926), the Commission on Roles and Missions, and *ICP Benchmarking Study* all defined an ICP in terms of a set of materiel management functions.

these items. Over the same period, the services have operated ICPs that manage reparable components, subsystems, and assemblies and selected consumable items as well as certain principal and major end items, including ammunition. Although military service ICPs may provide cross-service support for some common items, service ICPs generally provide support to their respective services.

Current ICP Infrastructure

Since the end of the Cold War, the DoD logistics establishment has acted to reduce its infrastructure in response to the downsizing of its military forces. Because DLA and each of the military services manage ICPs, they have been responsible for their own ICP downsizing initiatives. Figure 1-1 show the 18 locations of the activities traditionally labeled ICPs.

Figure 1-1. Locations of Major DoD ICPs



Note: ALC = Air Logistics Center; IOC = Industrial Operations Command; ACALA = Armament and Chemical Acquisition and Logistics Activity; ATCOM = Aviation and Troop Command; TACOM = Tank-automotive; MICOM = Missile Command; DSCC = Defense Supply Center Columbus; NIP = national inventory control point; SPCCA&ASO = Ships Parts Control Center and Aviation Supply Office; CECOM = Communications and Electronics Command; DISC = Defense Industrial Supply Center; DPSC = Defense Personnel Support Center; DFSC = Defense Fuel Supply Center; DSCR = Defense Supply Center Richmond; MCLB = Marine Corps Logistics Base.

Circled activities are subject to future downsizing. Specifically, the Army is moving from four ICPs at five locations to three ICPs at four locations; the Air Force is moving from five to three Air Logistics Centers, thereby reducing its ICPs from five to three; and DLA is moving to four ICPs by consolidating its two ICPs in Philadelphia, Pennsylvania, into one ICP. (Appendix A gives a complete listing of the ICPs and their abbreviations.)

Congessionally Mandated Review

The FY96 Defense Authorization Act directed the Secretary of Defense to “conduct a review of the management by the Defense Logistics Agency of all inventory control points in the Department of Defense.” In April 1996, the Deputy Under Secretary of Defense (Logistics) asked for the support of the military services in carrying out the mandated review and at the same time, he also tasked the Logistics Management Institute to act as an unbiased and independent evaluator working with the services and DLA to conduct this analysis.

In directing the department to review management of ICPs under DLA, Congress also directed that, as part of the review, the Secretary of Defense “examine the management and acquisition practices of the Defense Logistics Agency for inventory of repairable spare parts.” This requirement highlights the need to examine not only the impacts of transferring the ICP mission from the services but also the ability of DLA to accept this new mission. It also confirms the Congressional intent to focus on the transfer of ICP functions associated with secondary repairable and consumable item support and not on the transfer of other functions that are performed at the same activities but are associated with weapon-system management.

SCOPE

This analysis looks at the Congressional proposal to consolidate management of all DoD ICPs under DLA. It does not evaluate other alternatives for configuring DoD's ICP infrastructure.

Functions That Compose an ICP

In 1990, Defense Management Review Decision (DMRD) 926, *ICP Consolidation Study*³, identified the functions that define an ICP. DMRD 926 categorized the functions as either integrated materiel manager (IMM) functions or user functions. IMM functions can also be categorized as Primary Inventory Control Activity (PICA) functions, while user functions can be categorized as Secondary Inventory Control Activity (SICA) functions.

³ Joint Service White Paper, “Defense Management Review Decision 926: Consolidation of Inventory Control Points,” 31 January 1990 (For Official Use Only)

For purposes of our analysis, we condensed the DMRD 926 functions into the 19 functions⁴ listed in Table 1-1 by

- ◆ dividing functions that were both IMM and user functions into two functions with separate tasks under each;
- ◆ combining several IMM functions into the IMM item-management function and several user functions into the user inventory management function; and
- ◆ deleting the weapon-system management function, which had tasks specifically dealing with principal items, and replacing it with weapon-system secondary-item supply support, which retains those tasks that are associated only with secondary items.

*Table 1-1. Functions Considered by the Military Services
in Assessing Impact*

PICA/IMM functions	SICA/User functions
Budget funding	Allowance/Initial supply support list (ISSL) development
Cataloging	Budgeting/Funding
Contracting	Cataloging
Customer services	Configuration management
Engineering support	Customer services
Item management	Engineering services
Requisition processing	Inventory management
Stock control	Provisioning
Technical support	Technical support
Weapon-system secondary-item supply support	

Appendix B defines the functions and the tasks under each function.

Transfer Scenario

The Office of the Secretary of Defense directed the Institute to evaluate an ICP management transfer that would take place as follows:

- ◆ The transfer would start in FY98 to allow for a one-year period of decision-making and preimplementation planning.

⁴ We initially split the DMRD 926 Weapon-System Management function into the PICA function of weapon-system secondary-item supply support and a user function of weapon-system management. Later, since the tasks under the user function are not associated with secondary-item materiel management but are tasks performed by military-service program managers for principal end items, we eliminated weapon-system management as an ICP function.

- ◆ Between FY98 and FY03 (i.e., the period covered by DoD's most recent program-objective memorandum, or POM), ICP functions being performed at military service ICPs would continue at those locations under DLA management, using the same people, policies, systems, and procedures (i.e., "in-place-transfer"). DLA may elect to consolidate support functions regionally or at a single site and thereby reduce personnel requirements.
- ◆ Starting in FY04, DLA may start to reduce the number of ICPs and standardize systems and procedures.
- ◆ Throughout the planning horizon (i.e., FY98 to FY10), DLA may introduce process improvements that reduce inventory costs (i.e., requirements levels and unit prices), automated system costs, and storage costs as well as ICP labor and nonlabor costs.

This scenario presents a controlled process for changes that would give DLA time to assimilate current military service management and acquisition practices and develop universal process improvements.⁵ However, if consolidation were to occur, actual implementation may well differ from this scenario, and any site consolidation would have to go through the base closure and realignment process.

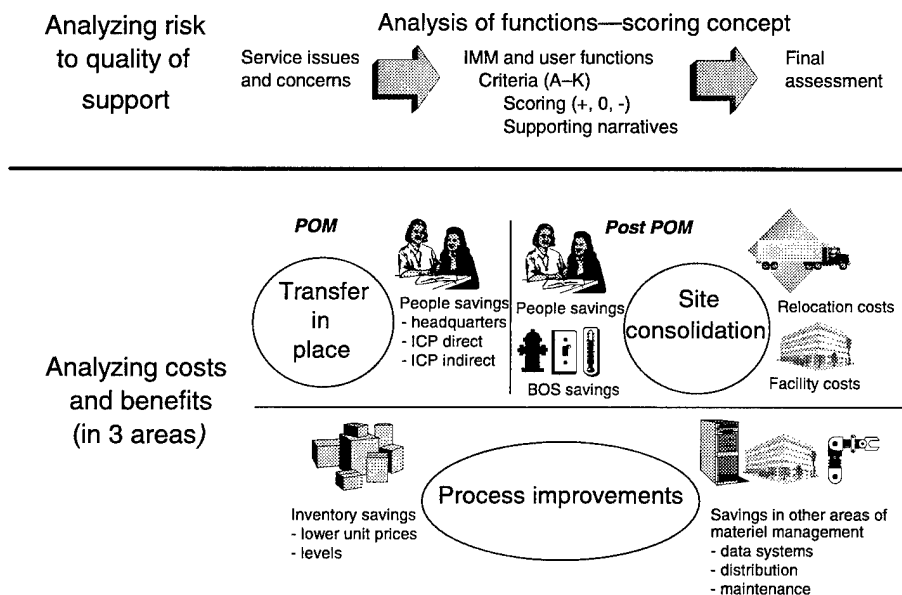
APPROACH

Figure 1-2 illustrates our overall approach to analyzing the risk to performance and economic impacts of the transfer. As shown, our two objectives were to analyze the risk that the transfer might pose to the quality of supply support provided by military service ICPs and to analyze the costs and benefits of consolidating ICP management under DLA.

Using a scoring concept to accomplish our first objective, we worked with the services to conduct an impact assessment. That assessment involved establishing impact criteria and scoring the impact of transferring individual functions against those criteria to arrive at final assessments.

⁵ Within the department, DLA has proven itself to be an effective and efficient wholesale manager for almost 4 million consumable items. To achieve its goal of beating inflation, the agency has introduced a number of innovative management and acquisition practices. However, the transfer of ICPs to DLA would not only put additional consumable items under DLA but also repairable and secondary end items. Currently, DLA does not have the expertise or all of the management and acquisition practices needed to manage these items.

Figure 1-2. Overall Approach to Analysis



To accomplish our second objective, we looked at how a single ICP manager might reduce or increase costs in three areas:

- ◆ Labor costs during the in-place-transfer period
- ◆ Labor and relocation costs during site consolidation
- ◆ Labor and nonlabor costs due to business process improvements.

Three sources of data were available for use in our cost analysis. The first source was ICP cost data through the POM period, which was provided by the military services and DLA. The second was logistics headquarters data pertinent to ICPs, which was provided by the military services. The third was background data that military service and DLA project leaders provided us on their initiatives involved in ICP downsizing and business process improvements.

To estimate cost savings, we could use either a bottom-up or topdown approach. The bottom-up approach identifies and costs out individual initiatives that would result from the transfer and then sums the associated savings to arrive at percentages for reducing labor and nonlabor costs. The topdown approach adopts reasonable low- and high-end percentages for savings from similar cases or expected future trends and then supports those percentages by citing individual initiatives that would result from the transfer.

We favored the topdown approach because we could develop reasonable and timely estimates in spite of

- ◆ the uncertainty involved in predicting what changes would happen if the transfer were to occur and
- ◆ the limitations on the amount of available data and on the time required to develop detailed analyses of potential changes and their associated savings.

Since we had a complete set of data for ICP and supporting headquarters costs, we were able to apply percentages to estimate savings in these costs. However, some of process improvement savings involved costs for which we did not have a comprehensive database (e.g., distribution costs). We had to apply a bottom-up approach to estimate those savings.

Since some of the potential improvements we identified in our analysis are extensions of ongoing initiatives of the military services, we wanted to avoid any potential double counting of savings in our analyses. Since savings data on ongoing initiatives was part of our database of ICP and supporting headquarters costs, we did not have to be concerned with double counting in our topdown analyses. However, similar data were not available to us in other cost areas and we had to compensate for potential double counting in our bottom-up analyses. As a way of not overinflating expected savings from those analyses, we selected only a few potential improvements to price out. We then used the estimates for those few as our estimates for all improvements less savings from existing initiatives.

Table 1-2 summarizes our approach to estimating savings in each area, the type of savings involved, and whether we included implementation costs in our savings. To avoid overinflating implementation costs, we assumed that, in most cases, the labor required to implement changes would be absorbed within current staffing.

Table 1-2. Summary of Analysis of Savings

Area	Approach	Savings in ICP and HQ costs	Savings in other costs	Implementation costs included
In-place transfer	Topdown	Yes	No	Yes
Process improvements	Topdown	Yes	No	No
	Bottomup	No	Yes	Yes
Site consolidation	Topdown	Yes	No	Yes

HQ= Headquarters

FINDINGS

We concluded that

- ◆ transfer of all ICP functions is feasible, although some potential risk exists that the current relationship between weapon-system management and materiel management might be disrupted and support decreased;
- ◆ going to a single DoD ICP manager offers the potential for significant POM and post-POM savings; and
- ◆ retention by the military services of some functions being performed at ICPs might reduce the risk.

Potential Risk to ICP Performance

To assess the potential risk to ICP performance, we polled subject-matter experts in the military services on what they would foresee as the negative impacts of transferring management of ICP functions to DLA. We consolidated their scoring of potential impacts and their supporting rationale and reduced them to two major concerns:

- ◆ The transfer would disrupt the current relationship between weapon-system management and secondary-item materiel management and thereby decrease materiel support to readiness.
- ◆ The transfer would increase standardization and reduce the ability of the ICPs to provide tailored support to their customers.

We reviewed the concerns of the military service experts and developed our own independent assessment of potential impacts. Although our scoring of potential impacts is generally more positive than that of the military services, we also foresaw some potential negative impacts. Our scoring was closer to the scoring of some of the military services than those services were to the scoring of the other services. Chapter 2 describes our risk analysis in detail.

Potential for Significant Savings

In each area of potential savings, we developed two sets of estimates for savings that might accrue by having a single manager for ICPs. One set of estimates deals with savings during the POM period that extends to FY03, while the other set deals with savings during a post-POM planning period that extends to FY10.

In Chapter 3 we discuss our POM analysis. In that analysis, our topdown approach for estimating the potential range of savings from in-place-transfer considered the following conservative low-end and optimistic high-end reductions:

- ◆ Pertinent headquarters labor costs—10 percent and 20 percent
- ◆ ICP direct labor costs—0 percent and 2 percent
- ◆ ICP indirect labor costs—2 percent and 4 percent
- ◆ ICP general and administrative labor costs—2 percent and 4 percent
- ◆ ICP nonlabor costs—1 percent and 2 percent.

To estimate ICP cost savings due to process improvements, we reduced ICP direct, indirect, and general and administrative labor costs an additional 2 to 6 percent. In our bottom-up approach for estimating other cost savings due to process improvements, we focused on two process improvements in contracting and inactive-item reduction.

In Chapter 4 we describe our post-POM analysis. To estimate post-POM ICP cost savings due to in-place-transfer initiatives, we used the same percentages that we used to make our POM estimates. We also used the same process improvement percentages. However, to estimate process improvement savings in other costs, we added two process improvements dealing with the integration of initial and replenishment requirements and a reduction of ICP materiel management policies and procedures. To provide a range for site-consolidation savings, in our topdown approach we considered two generic scenarios—one consolidating the 13 planned sites to 6 and one consolidating the 13 sites to 3.

Table 1-3 summarizes all of our savings estimates.

Table 1-3. Potential Savings (in millions of dollars)

Area	POM		Post-POM		Total	
	Low	High	Low	High	Low	High
In-place transfer	\$76	\$210	\$133	\$364	\$209	\$573
Site consolidation	0	0	\$445	\$503	\$445	\$503
Process improvements	\$477	\$742	\$1,031	\$1,992	\$1,508	\$2,734
Total estimate	\$553	\$952	\$1,609	\$2,859	\$2,162	\$3,810

Potential Reduction in Risk

In Chapter 2, we suggest one way to reduce the potential negative impact of the transfer while not significantly reducing savings. This solution involves the retention of certain user functions by the military services. Those functions are configuration management, engineering services, technical support, provisioning, and allowance/ISSL development.

In Chapter 2, we also discuss our rationale for the military services retaining selective tasks within these functions. In Chapter 3, we show how retention of these functions would only reduce estimated POM savings by 5.3 to 8.7 percent.

Chapter 2

Assessment of Impact on Performance

The transfer of management of all DoD ICPs to DLA and the subsequent standardization of business practices would represent a significant change in the way the military services execute their materiel support mission and therefore requires careful analysis.

Within its current organization, DLA does not have the people, expertise, information systems, or acquisition and management practices to assume the mission of the military service ICPs. However, the transfer scenario defined by Office of the Secretary of Defense (OSD) provides for the same people, policies, systems, and procedures that are currently performing the mission to be transferred in place to DLA. Under these circumstances, consolidation of all ICPs under DLA is feasible.

However, the decision to consolidate should not be based on whether or not DLA *could* do the mission. It should be based on whether or not DLA *should* do the mission. If DLA management of all ICPs would impair ICP mission performance by adversely affecting the people, policies, systems, and procedures performing that mission, then the transfer should not occur. However, if the perceived risk to mission performance is manageable and the potential savings are significant, then the case for transfer is strong.

Therefore, the first part of our study assesses where the transfer might have potential impacts that would have a negative effect on ICP performance and pose a risk to military supply support. We also sought to identify where the transfer would have little or no impact or where it would have a positive effect on supply support. In this chapter, we discuss our general approach for accomplishing the overall assessment. We then present the results of the assessments prepared by the military services and the results of our own independent assessment.

GENERAL APPROACH TO ASSESSING IMPACT

Conducting an assessment of potential impacts is difficult in this case because

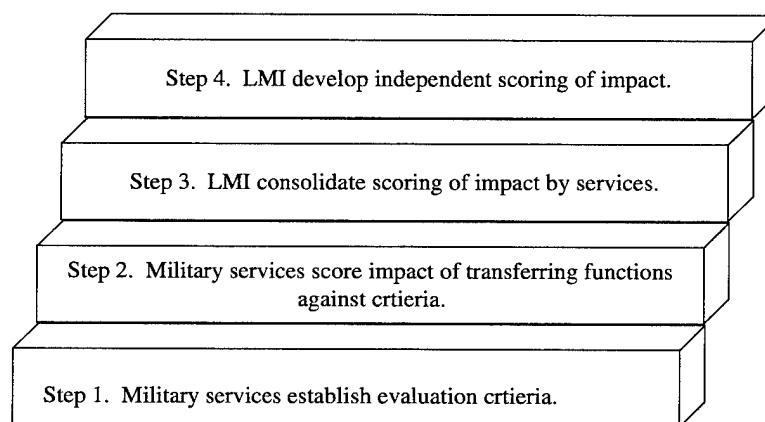
- ◆ ICPs perform a broad spectrum of functions that entail a large number of interactions with other logistics and nonlogistics activities;
- ◆ metrics, such as supply availability and requisition response time, can be used to track overall ICP supply support, but few metrics exist that directly relate performance in ICP functional areas to ICP supply support; and

- ◆ no analytical model, comparison of similar cases,¹ or other methodology exists that would permit a complete and objective evaluation of the performance impact of consolidating management of all of these functions under DLA.

Under these circumstances, the only impact assessment that can be made is a subjective evaluation based on input from subject-matter experts involved in ICP operations.

The four-step approach that we used to develop an impact assessment (Figure 2-1) relied on the judgments of military service experts. To temper any bias in their judgments, OSD asked us to develop an independent assessment of the potential impact of the transfer.

Figure 2-1. General Approach to Developing Assessment



Before the implementation of past consolidations (e.g., the consolidation of consumable-item management and distribution depots under DLA), the military services expressed strong concerns about the possibility of negative impacts. However, the subject matter experts we interviewed expressed overall satisfaction with the results of those consolidations and could only cite minor problems.

¹Some possibilities for similar-case comparisons were the transfer of the distribution mission to DLA, the establishment of Defense Finance and Accounting Service, and the latest consumable-item transfer to DLA. However, in all of these cases, the scope of the transfer (i.e., functions, complexity, and interactions) was much narrower and, as such, made each comparison inadequate for assessing the impact of transferring management of all ICPs to DLA. Other possibilities include recently completed or ongoing ICP realignments. Although they provide information on the types of cost reductions that might result from the proposed transfer, they too were not suitable for impact assessment in this case since they were intraservice or intra-agency actions.

To avoid overemphasizing or unduly minimizing any potential risk that the ICP transfer might pose, we adopted the following guidelines:

- ◆ Any and all evaluation criteria posed by military service experts would be included in the analysis, but the contribution of each criterion to the overall assessment would differ based on the criterion's relative importance.
- ◆ Any and all negative (or positive) impacts asserted by military service experts would require supporting rationale.
- ◆ Our independent assessment would consider the inputs of the military services but also reflect any mitigating factors that might exist.

RESULTS

Step 1—Criteria

We started the assessment process by working with the military services to identify the criteria that they would use to judge the risks of transferring management of functions to DLA.² Our objective was to establish criteria that could be used to determine if a function should or should not be transferred to DLA.

Although most of the criteria are the same across the military services, some criteria were only applied by one service or were applied by all services except one. Table 2-1 lists the criteria and which military services used each criteria. The weights in Table 2-1 give the relative importance of a negative impact in one criterion compared with a negative impact in another (e.g., a negative impact to weapon-system readiness, with a weight of 9, is three times more important than a negative impact to data processing systems, with a weight of 3).³

Although we considered all of the military service criteria and scoring of the criteria to be important, we did want to differentiate between the many concerns expressed by the experts. Our goal in using weights was to surface and focus on “show stoppers”—those impacts that would negate any potential savings from the transfer and rule out the transfer as a viable alternative for further consideration.

²The Institute worked with the Navy to establish an initial list of six criteria. All of the military services adopted those original six criteria and, except for the Marine Corps, added other criteria.

³We developed the weights in Table 2-1. Originally, we planned to have the military services rank the criteria. Except for the Marine Corps, who did rank the criteria, the services used the time allocated for this part of the analysis to focus on the scoring itself.

Table 2-1. Military Service Criteria for Judging the Risks of Transferring Management of Functions to DLA

Criterion	Definition	Service applying the criterion	Weight
Customer support	ICP ability to economically provide products and services that are responsive and tailored to each customer's unique and changing needs.	All	9
Weapon-system readiness	Weapon-system operational availability attributable to secondary-item supply support.	All	9
Resource allocation	The ability to reallocate resources (personnel and funds) to competing and changing requirements in order to achieve optimum performance.	All	8
Sustain-ability	The ability to build up and provide the secondary-item supply support needed to maintain weapon-system readiness levels on station over an extended period of time.	All	8
Weapon-system life cycle	Total costs associated with the acquisition, fielding, support, and retirement of weapon-systems.	All	7
Interfaces	The internal (within ICP materiel management) and external (with program managers, systems commands, and customers) functional interfaces.	All	6
Synergism	The productivity multipliers that come from teaming (e.g., weapon-system teaming at the Army's integrated materiel management centers).	Army only	4
Transparent to warfighter	Major command policies, procedures, and data systems for sustainment logistics.	Air Force only	4
Ability to implement	Complexity of the planning process to carry out a transfer in place to DLA.	Air Force only	3
Data-processing systems	Degree of integration of the data-processing system supporting a function, i.e., whether it is a stand-alone system or part of an integrated system networked to other functions and a central data-base.	All except Marine Corps	3
Qualified personnel	Personnel of the appropriate grade level, training, and experience.	Air Force only	3

Step 2—Scoring of Impact

Our next step was to poll subject matter experts in the military services on the potential impact of the transfer. Using either a minus sign, plus sign, or zero, they scored the impact of transferring management of each ICP function against each criterion. A minus sign indicated that the transfer of management for that function would result in a negative impact for that criteria, a plus sign indicated a positive impact, and a zero meant little or no impact. The services provided supporting rationale for every minus sign. Appendix C presents the scoring of each military service.

We consolidated the scores of the military services and looked at the distribution of negative impacts across the evaluation criteria. Figure 2-2 shows how the evaluation criteria are ranked according to their percent of negative impacts scored by the military services, from highest to lowest, with a break between criteria used by all military services and those used by only one or two services.

Figure 2-2. Negative Impact—by Criteria

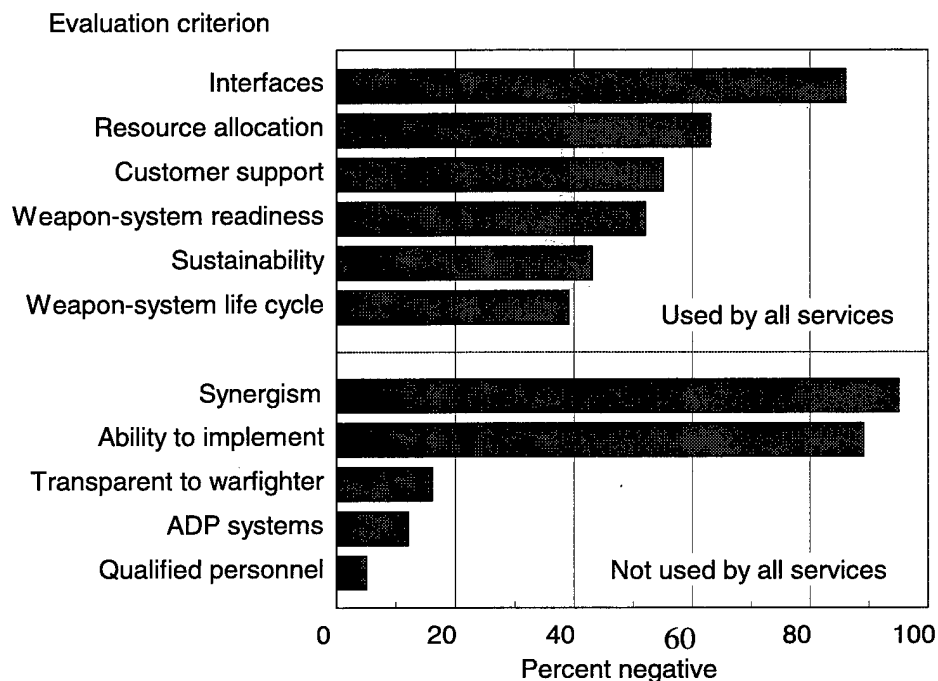
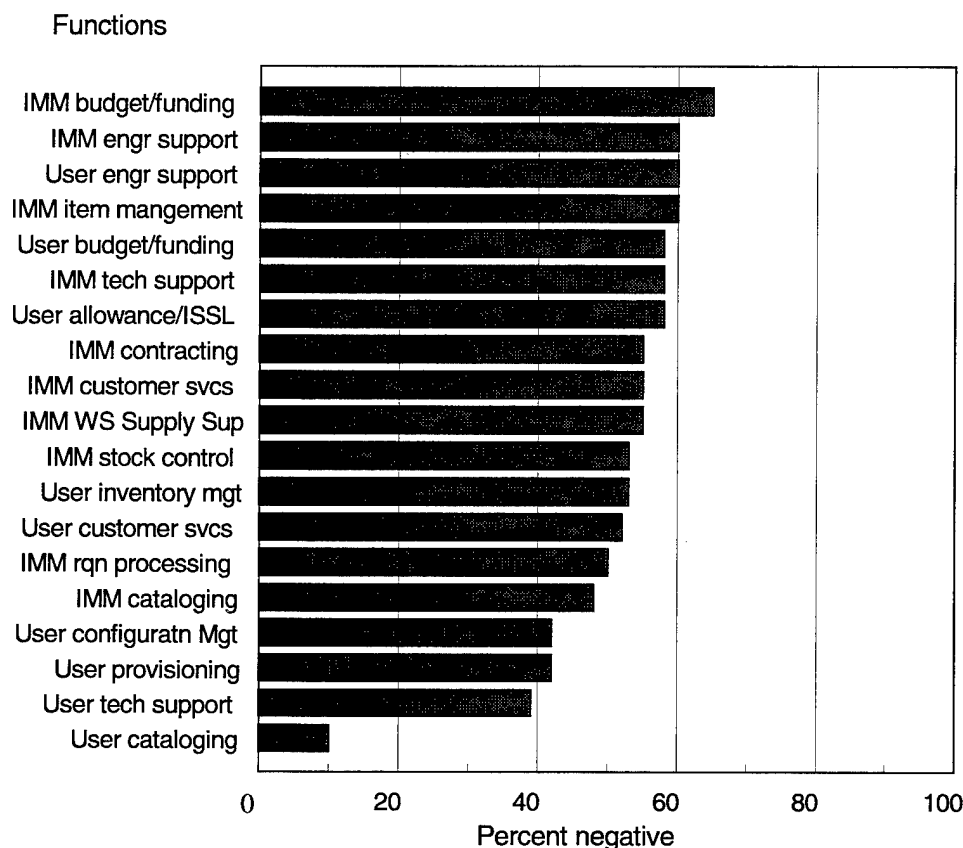


Figure 2-3 ranks the ICP functions by their percent of negative impacts scored by the military services, from highest to lowest.

Figure 2-3. Negative Impact—by Function



Step 3—Consolidated Assessment of Military Services

We were able to take the scoring and supporting rationale of the military service experts and reduce them into the following two major concerns:

- ◆ *Potential impact on weapon-system readiness.* Transfer would disrupt the current relationship between weapon-system management and secondary-item materiel management and thereby decrease materiel support to readiness.
- ◆ *Potential impact on customer support.* Transfer would increase standardization and reduce the ability of the ICPs to provide tailored support to their customers.

The other concerns that the military service experts expressed involved integrated automated systems, qualified personnel, and the ability to implement. After we discussed the transfer scenario with the experts, they generally agreed that the transfer scenario somewhat mitigated these concerns.

POTENTIAL DISRUPTION OF THE RELATIONSHIP BETWEEN WEAPON-SYSTEM AND MATERIEL MANAGEMENT

Many of the negative impacts cited by the military service experts revolve around their concern that the transfer would disrupt the current close relationship between materiel management of secondary and principal end items. Today, military service weapon-system program managers have authority over management functions related to principal end items (i.e., weapon-system acquisition, engineering, configuration management, funding, distribution, and maintenance planning), while military service ICPs perform similar functions for the secondary repairable items that are key components of those end items. In many instances the program managers are collocated with the ICPs.

The military services have moved to strengthen the key interfaces between principal- and secondary-item functions to avoid waste when fielding new weapon-systems and modifications to existing weapons systems. Through modifications of repairable components, the military services insert new technologies into weapons systems and thereby reduce their operating and support costs and extend their service lives. This process relies on the integration of component maintenance data collection, failure analysis, and sustaining engineering into equipment and system redesign and modification. The general concern of the military services was that organizationally separating these functions and their funding could disrupt this integration and thereby cause costs to go up and weapon-system performance to go down and hinder future modernization programs.

Specific concerns voiced by the military service experts were as follows:

- ◆ The transfer would adversely affect interfaces between secondary-item management and weapon-system management by increasing the organizational separation
 - between weapon-system program managers and materiel managers, causing delays in the evaluation and resolution of support issues;
 - between principal end-item procurements and secondary-item procurements, resulting in less joint procurements; and
 - between weapon-system program managers and ICP personnel involved in weapon-system configuration (i.e., engineers, technicians, and equipment specialists), resulting in less configuration control.
- ◆ DLA may allocate funds for new procurements differently than the current intraservice allocation.

-
- ◆ Although no quantifiable evidence exists that weapon-system readiness would decline as a result of the transfer, the combined effects on interfaces and resource allocation could potentially affect readiness.
 - ◆ If military service operational commanders and ICP managers are under different command and control, ICPs might be less responsive to critical support requirements during contingency operations.
 - ◆ The synergism within weapon-system teams could be affected if team members are under different management.

POTENTIAL REDUCTION IN THE ABILITY TO TAILOR CUSTOMER SUPPORT

Another major concern expressed by the military service experts was that the transfer would lead to increased standardization and reduce their ability to tailor their support to specific customers. The military service ICPs feel closely aligned to their customers. They cited numerous interfaces and some special procedures they perform to provide levels of support required by particular customers.

Specific concerns voiced by the military service experts were as follows:

- ◆ DLA will uncouple stock-fund budgeting and allocation from specific military service projects, including modernization, and thereby hamper the success of such projects.
- ◆ If the ICPs were transferred to DLA, the military services may withdraw from those ICPs the administration of funds other than stock funds (e.g., appropriated funds).
- ◆ Determination of war-reserves materiel requirements should not be transferred to DLA because it is tailored to military service wartime mission accomplishment and not peacetime support.
- ◆ DLA's management priorities would be based more on sales and less on readiness and sustainability.
- ◆ The military services would have to establish new activities to monitor ICP performance in support of their respective missions and weapon-system program managers.
- ◆ After FY03, when the in-place transfer period ends, DLA will want to standardize its systems and procedures; this standardization will disrupt the roles that military service ICPs play as part of a supply chain that each service has established to provide materiel support to its units within its operating environments.

Step 4—Our Independent Assessment

We reviewed the input from the military services and developed our own assessment of the impact of the transfer. We based our assessment not only on an evaluation of the military service input but also on discussions and interviews we conducted as part of this analysis and on our past research experience in DoD supply support.

ITEMS MITIGATING SERVICE CONCERNS

In reviewing the assessments of the military services, we felt that the following items mitigated some of their concerns:

- ◆ The transfer of personnel at military service logistics headquarters and ICPs to DLA would provide the agency with the expertise it needs in each ICP functional area to perform the mission and to maintain many of the current interfaces regardless of the new management organizational structure.
- ◆ The Navy has demonstrated that weapon-system teaming can be successfully accomplished through matrix support; under the transfer, teaming could be retained, with DLA personnel providing matrix support.
- ◆ Work done by personnel directly involved in principal-item support could be performed on a reimbursable basis if it is for secondary-item support and vice versa.
- ◆ While DLA could be made responsible for determining levels and applying computational algorithms, the military services can continue to control the management objectives of these processes for determining requirements by retaining responsibility for setting materiel support goals, either by weapon system or by groups of items.
- ◆ Although each military service emphasizes weapon-system support in its ICP operations, factors such as commonality, commodity specialization (e.g., engines), and functional specialization (e.g., provisioning) have precluded any military service ICP from achieving total management of secondary items by weapon-system.

OUR SCORING OF IMPACT

To score the impact of transferring management of a function to DLA, we used a scale from -1 (negative impact) to 1 (positive impact). Table 2-2 shows the results of our scoring.

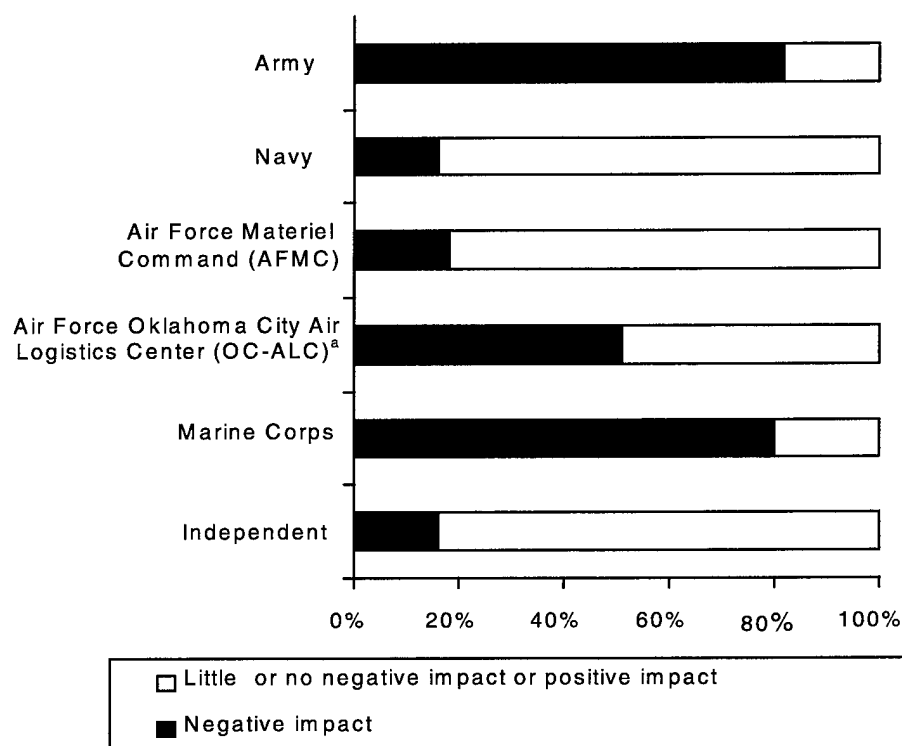
*Table 2-2. Logistics Management Institute Scoring
of Function Transfer*

Function	Score
IMM cataloging	1.000
IMM contracting	1.000
IMM budgeting/funding	0.667
IMM engineering support	0.667
IMM item management	0.667
IMM requisition processing	0.667
IMM stock control	0.667
IMM technical support	0.667
IMM weapon-system secondary-item supply support	0.667
User cataloging	0.667
User inventory management	0.667
User budgeting/funding	0.333
User customer services	0.333
IMM customer services	0.333
User provisioning	0.000
User technical support	0.000
User configuration management	-0.333
User engineering services	-0.333
User allowance/ISSL development	-0.667

Although our scoring is more positive than that of the military services, we also foresaw some potential negative impacts. Figure 2-4 graphs our negative scoring as well as the negative scoring of each of the military services. It shows that, in total, some of the military services are closer to us in their scoring than they are to other services.

We foresee many positive impacts from the transfer, but we also foresee some problem areas. One of these problem areas is the oversight responsibilities of the program managers for the design, development, acquisition, deployment, and sustainment of their assigned weapon-systems. To fulfill these responsibilities, the program managers must have final approval authority over design and engineering changes and funds for the acquisition of those changes. The transfer of ICP functions related to these changes (e.g., engineering services) could dilute that authority and cause cost increases and delays in making changes. As a result, the transfer could diminish the ability of the military services to modernize their weapon-systems through the introduction of new technologies.

Figure 2-4. Graphing of the Overall Potential for a Negative Impact



^ᵃ Only the Air Force provided both ICP and headquarters responses.

We are also concerned that the establishment of a single wholesale manager who is organizationally separated from the management of retail supply activities could impede DoD's ability to coordinate the management of all echelons of supply supporting our military units. Materiel managers within the private sector and within the department are relying more and more on supply-chain management to minimize inventories while maintaining support to customers. Consolidation of all ICPs under DLA could hinder efforts to link the performance of all echelons of supply to goals for weapon-system readiness.

Reducing the Potential for a Negative Impact

One way of reducing the potential of a negative impact would be for the military services to retain selective ICP functions. We focused on the five user functions where we did not see a positive impact from the transfer—configuration management, engineering services, technical support, provisioning, and allowance/ISSL development.

The rationale for retaining the first three functions is based on our understanding that the objectives associated with the tasks under these functions are oriented toward weapon-system performance, with cost given limited consideration. Since management of weapon-systems is not being transferred to DLA, these user tasks

should remain with the military services. As for the corresponding IMM tasks, cost is a major consideration and the tasks themselves are closely related to the functions of item management, contracting, and cataloging. If those functions are transferred to DLA, then the IMM engineering, technical, and configuration tasks should also be transferred.

The rationale for retaining provisioning under military service management is based on provisioning's relationship with principal-item supply management. Weapon-system program managers are responsible for the provisioning of new and modified systems. They contract for both principal- and secondary-item data that are needed to do provisioning. They assign other key data elements (e.g., source, maintenance, and recoverability factors) used for secondary-item provisioning on the basis of the maintenance philosophy of the military service and the system itself.

However, one disadvantage of not transferring provisioning to DLA is that it would organizationally separate the computations of initial and replenishment requirements. If these two computations could be synchronized, the time between the acquisition of materiel and its actual application could be reduced, thereby saving inventory holding costs. Some potential also exists to reduce the amount of materiel that is bought up front but never used because of changes in configurations. Given these advantages, if the transfer were to occur, tasks under provisioning should be closely examined to determine

- ◆ which tasks should be transferred and which should not; or
- ◆ if all of the tasks and people performing those tasks were transferred to DLA, how program managers could work with DLA to carry out their provisioning responsibilities.

The rationale for retaining allowance/ISSL development under military service management is based on its relationship with retail supply management. If the transfer were to occur, the military services would still be responsible for retail supply management, and the computation of levels is key to carrying out that responsibility. However, here again, there is a disadvantage to not transferring the function, namely, coordinated computation of wholesale and retail supply levels. Research and experience have demonstrated that multiechelon or multilink computations generate smaller inventory levels than single-echelon wholesale and retail computations for the same performance targets. If the transfer were to occur, the tasks under this function would also have to be examined in greater detail to determine who and how they could best be accomplished.

Summary of Findings

In summary, our analysis of the potential impact of the transfer found that

- ◆ military service experts believe that the risk of a negative impact on performance does exist, particularly in the relationship between weapon-system and materiel management and in an ICP's ability to tailor its support to customers;
- ◆ the size of that risk is perceived differently by each of the military services;
- ◆ although items exist that do mitigate the concerns of the military services, the transfer is not without risk; and
- ◆ the military services that scored a minority of the potential impacts as being negative are correct, and retention of some ICP functions by the military services could reduce the risk.

Chapter 3

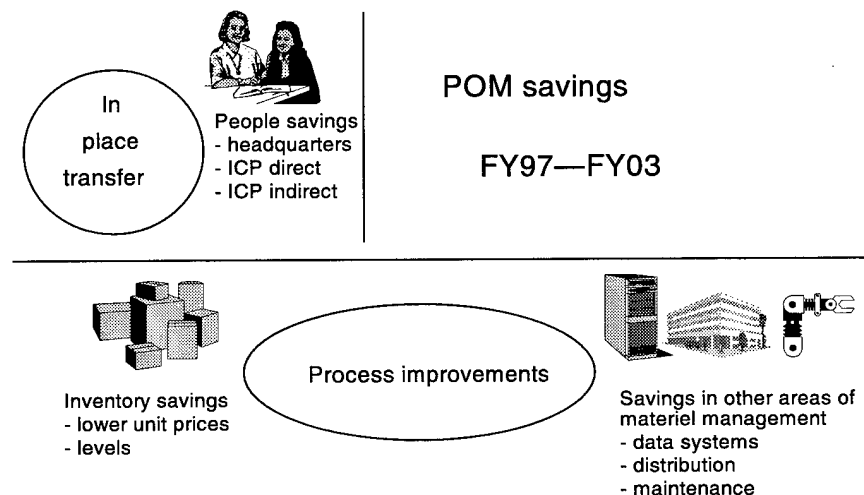
Economic Impact During the Program Objective Memorandum Period

While the first part of our study was designed to assess the potential performance impact of the transfer, the second part was designed to determine the potential savings that the transfer might produce. This chapter deals with potential savings during the POM period. In Chapter 4 we discuss potential savings during the post-POM period.

As shown in Figure 3-1, the two types of savings that could occur during the POM period are the following:

- ◆ Savings from single agency decisions that affect which functions or tasks are performed at specific sites. Examples of this type of savings are regional consolidation of some direct and indirect tasks (e.g., contracting, budgeting) and regional consolidation of certain general and administrative (G&A) functions (e.g., personnel, comptroller, legal, data processing). We refer to this type of savings as “*in-place transfer savings*.”
- ◆ Savings from process improvements introduced by the single agency. Examples of this type of savings are development and use of DoD-wide corporate contracts, increased item reduction and inactive-item deletion, and improved stock positioning. We refer to this type of savings as “*process improvements savings*.”

Figure 3-1. The Focus of Chapter 3



Given the many uncertainties involved in the transfer, we could only estimate the magnitude of these savings. To better portray those uncertainties, we chose to estimate a potential range of savings rather than a single value. The low end of our range is based on what we believe is a conservative estimate of what the transfer might save, while the high end is an optimist estimate.

Our estimates are based on the following timetable:

- ◆ The earliest that a transfer could occur would be the beginning of FY99.¹
- ◆ Once the transfer occurred, DLA would require one year to implement savings initiatives.
- ◆ The first year of savings would therefore be FY00.

Although Congress called for a review of the transfer of all functions, the impact assessment presented in Chapter 2 suggests the possibility of a less risky alternative—the transfer of all functions except for 5 user functions (i.e., technical support, provisioning, allowance/ISSL development, configuration management, and engineering support). This chapter gives the savings if all 19 ICP functions were transferred or if only 14 functions were transferred.

DEVELOPING AN ECONOMIC BASELINE

Before we address savings from in-place transfer and process improvements, we need to describe the economic baseline against which we computed the POM savings in this chapter and the post-POM savings in Chapter 4. To establish an economic baseline, we decided to update the 1994 cost database developed by the Commission on Roles and Missions (CORM).² Since the military services are familiar with the CORM database, using it had the advantages of speed and credibility.

The database contains both staffing- and dollar-cost data for ICPs and logistics headquarters managing those ICPs. Staffing cost is given in full-time equivalents (FTEs). While a single set of FTE and dollar statistics is collected for each logistics headquarters, ICP data are collected by the following four categories:

- ◆ *Direct labor by function:* The FTE and dollar cost of civilian and military personnel actually performing individual ICP functions.³

¹ 1 October 1998.

² The CORM data call format was nearly identical to the format used in 1989 during the DMRD 926 ICP Consolidation Study.

³ We started with our original list of functions and added Foreign Military Sales (FMS) as an additional ICP function. However, only the Navy was able to break out ICP costs for FMS.

- ◆ *Indirect labor:* The FTE and dollar cost of other civilian and military personnel within the ICP who are not directly performing ICP functions but are supporting the personnel who are performing these functions. Examples include supervisors, clerical, administrative support, management support, and system support.
- ◆ *G&A:* FTE and dollar administrative and base-support labor and nonlabor costs charged to the ICP activity. Examples are command, personnel, comptroller, data-processing operations, utilities, and maintenance of facilities.
- ◆ *Nonlabor costs:* The dollar costs of supplies, equipment, training, travel, and contract support actually charged to the ICP.

Data Collection

We asked the military services to update the CORM database to reflect changes that have occurred between FY94 and FY96. Since DLA was excluded from the original CORM database, we also asked DLA to provide data for their ICPs. Finally, to address future years in our analysis, we asked the military services and DLA to provide FTE and dollar projections through FY03 based on their POM submissions.

Once we collected the data submissions of the military services, we reviewed them for content and consistency. On the basis of our review, we adjusted the data as follows:

- ◆ We reduce headquarters data to only reflect secondary items.
- ◆ We increase ICP data to correspond to the management of secondary end items.
- ◆ We reconstruct ICP nonlabor costs on the basis of budget submissions.

We discuss these three adjustments in greater detail in the following subsections.

ADJUSTMENT TO HEADQUARTERS DATA

The logistics headquarters data that we collected covered all personnel involved with secondary- and principal-item management functions performed at ICP locations. Since we were concerned only with secondary-item management functions, we needed to adjust the data downwards.

In the 1994 CORM database, slightly less than 75 percent of the ICP work force was dedicated to secondary-item management. We assumed that the ratio of secondary item to total would remain constant and reduce the headquarters data provided to us by 25 percent.

ADJUSTMENT TO ICP DATA

We increased the number of ICP personnel that the military services reported as secondary-item personnel. The original CORM database separated personnel by whether they worked with consumable, repairable, or end items, whereas our study makes a distinction between secondary and principal items. The difference is that secondary items include all consumable and repairable items and some portion of end items, while principal items are end items.

The problem with this difference is how to divide end-item data between secondary and principal items. The Army considers all personnel associated with operations and maintenance or procurement account (PA) funds as principal end-item personnel and not as secondary-item personnel. Similarly, the Air Force excludes a portion of its ICP personnel from the secondary-item roles. We believe that a portion of those personnel should be included as secondary end-item personnel.

To inflate the Army and Air Force data provided to us to include secondary end items, we did the following:

- ◆ We developed staffing and dollar ratios of end-item data to consumable- and repairable-item data from the Army and Air Force portions of the 1994 database.
- ◆ We used those factors to estimate FY96 Army and Air Force end-item data on the basis of the FY96 secondary-item personnel data provided to us.
- ◆ We then estimated that 25 percent of those end-item personnel were really secondary end-item personnel.
- ◆ We added that 25 percent to the ICP direct, indirect, and G&A numbers that we collected from the Army and Air Force.

ADJUSTMENT TO NONLABOR DATA

The nonlabor costs as reported by the military services were inconsistent—ranging from a few thousand dollars to a few billion dollars. To make sure that we had comparable data, we reviewed the FY96 Defense Business Operating Fund (DBOF) budget submissions on ICP costs. From those detailed submissions, we developed a new consistent set of ICP nonlabor costs for the military services and DLA.

We include only those costs that were directly related to secondary-item ICP functions—such as travel, materiel equipment and supplies, and wholesale data processing costs—and other DBOF purchases. We excluded labor costs (already collected) and other costs, such as distribution depots and depot maintenance, that

would not change as a result of the transfer. In total, we included a little more than 14 percent of the total costs that were reported.

Consolidated FY96 Baseline

Table 3-1 shows the DoD consolidated baseline.⁴ The ICP figures include data from the military services and DLA. The logistics headquarters data only includes military service data.

Table 3-1. FY96 Baseline (in thousands of dollars)

Breakout	IMM		User		Total	
	FTEs	Dollars	FTEs	Dollars	FTEs	Dollars
Allowance/ISSL development	0	\$0	241	\$12.0	241	\$12.0
Budgeting/funding	480	\$24.5	160	\$7.8	639	\$32.3
Cataloging	488	\$25.2	81	\$4.0	569	\$29.2
Configuration management	0	\$0	374	\$18.6	374	\$18.6
Contracting	4,459	\$211.8	0	\$0	4459	\$211.8
Engineering support	131	\$6.6	341	\$16.6	472	\$23.2
Item and inventory management	3,901	\$190.5	288	\$14.1	4,189	\$204.6
Provisioning	0	\$0	477	\$24.1	477	\$24.1
Requisition processing	781	\$40.9	156	\$7.8	937	\$48.7
Technical support	2,326	\$112.1	792	\$40.8	3,118	\$152.9
War reserve requirements	103	\$5.4	8	\$0.4	111	\$5.8
Weapon-system supply support	1,057	\$55.7	0	\$0	1,057	\$55.7
FMS	0	\$0	148	\$7.1	148	\$7.1
Total direct	13,725	\$672.7	3,067	\$153.4	16,792	\$826.1
Indirect	1,887	\$95.6	930	\$40.5	2,817	\$136.1
G&A	3,370	\$166.8	623	\$27.9	3,993	\$194.7
Nonlabor	0	\$1,145.0	0	\$237.4	0	\$1,382.4
ICP total	18,187	\$2,038.1	4,619	\$459.1	23,602	\$2,539.2
Headquarters	241	\$16.6	118	\$8.1	359	\$24.7
Total	18,428	\$2,055.0	4,737	\$467.0	23,962	\$2,563.9

⁴The functions in Table 3-1 match the functions in Chapter 2, with the exceptions of war reserve requirements and FMS. Tasks under these exceptions were included under either item management or inventory management in Chapter 2. This distinction did not affect either the risk or cost analyses but is shown here for the sake of accuracy.

Figure 3-2 shows how the FY96 personnel numbers are divided between ICP direct, ICP indirect, ICP G&A, and headquarters. By far, ICP personnel directly involved in performing ICP functions represent the largest share of the personnel.

Figure 3-2. FY96 Baseline FTE Breakdown

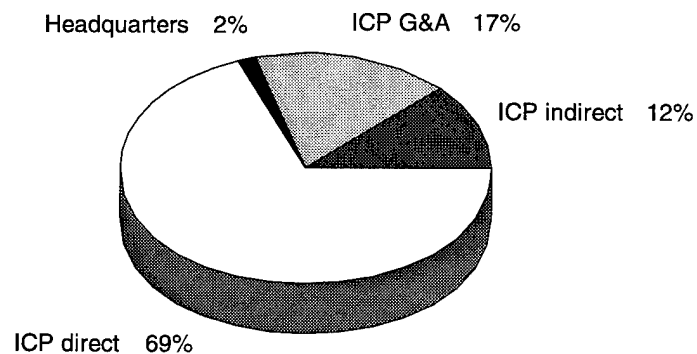
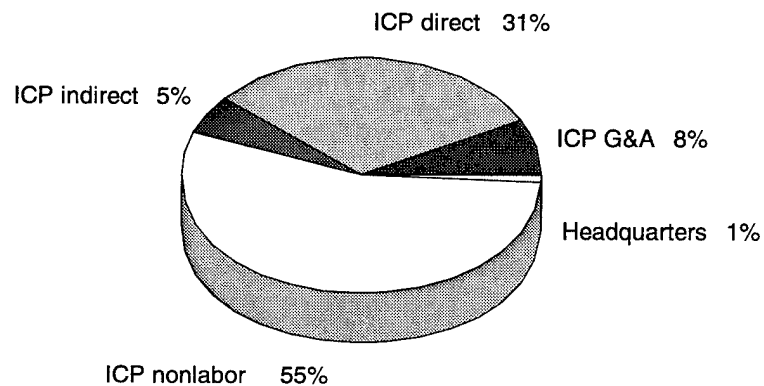


Figure 3-3 shows how FY96 costs are divided between ICP direct, ICP indirect, ICP G&A, ICP nonlabor, and headquarters.

Figure 3-3. FY96 Baseline Dollar Breakdown



Extending Our Baseline Through the POM and Beyond

After we established the FY96 personnel and cost baseline, we extended the baseline through the POM period by factoring in reductions that were already programmed. These reductions are due to force-structure changes, service initiated

consolidations and process improvements, and base realignment and closure (BRAC) decisions. These reductions will take place whether or not the ICP functions transfer to DLA in the future.

Figure 3-4 shows that the logistics staffs at headquarters that support the ICPs are projected to be reduced by approximately 13 percent through FY99. As shown, no further reductions are anticipated through the POM period.

Figure 3-4. Logistics Headquarters POM Reductions

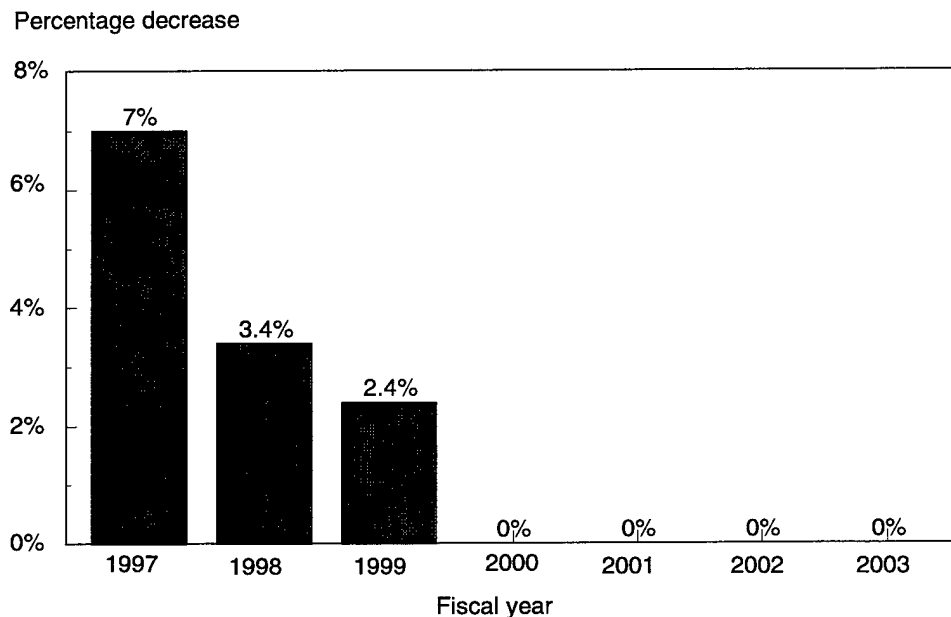


Figure 3-5 shows the reductions currently scheduled for the ICP portion of the baseline. By the end of FY03, ICP staffs will be reduced by approximately 17 percent. We did not project any further reductions past FY03 because the size of the reductions tailed off by the end of the POM and no basis exists to support additional post-POM reductions.⁵

⁵ This does not mean that future reductions will not be programmed, budgeted, and executed for the period FY04 to FY10. It means that, at this time, a definitive basis for quantifying what will happen during that period of time is not available.

Figure 3-5. ICP POM Reductions

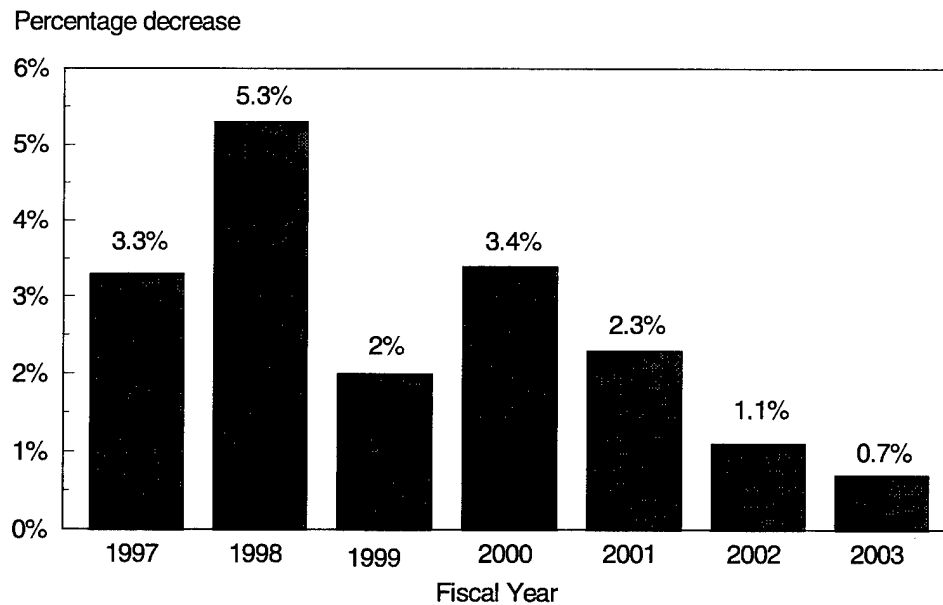


Table 3-2 shows the complete baseline through FY03 based upon the headquarters and ICP projected reductions. It is against this new and shrinking baseline that we must now compute the savings that might accrue if either of the two options are pursued.

Table 3-2. Baseline (millions of dollars)

Breakout	Fiscal year							
	1996	1997	1998	1999	2000	2001	2002	2003–2010
Direct	\$826	\$799	\$757	\$741	\$716	\$699	\$692	\$687
Indirect	\$136	\$132	\$125	\$122	\$118	\$115	\$114	\$113
G&A	\$195	\$188	\$178	\$175	\$169	\$165	\$163	\$162
Nonlabor	\$1,382	\$1,337	\$1,266	\$1,241	\$1,198	\$1,170	\$1,158	\$1,149
ICP subtotal	\$2,539	\$2,455	\$2,326	\$2,279	\$2,201	\$2,150	\$2,126	\$2,111
Headquarters	\$25	\$23	\$22	\$22	\$22	\$22	\$22	\$22
Total	\$2,564	\$2,478	\$2,348	\$2,300	\$2,223	\$2,171	\$2,148	\$2,133

IN-PLACE-TRANSFER SAVINGS

To estimate in-place-transfer savings, we relied entirely on a top-down approach; that is, from similar cases or expected future trends we adopted reasonable low and high end percentages for savings. Table 3-3 shows the factors that we used to estimate savings for in-place transfers for the POM period.

Table 3-3. In-Place-Transfer Factors

Factor	Low end	High end
Headquarters reduction	10%	20%
Reduction in ICP direct labor costs	0%	2%
Reduction in ICP indirect labor costs	2%	4%
Reduction in ICP G&A costs	2%	4%
Reduction in ICP nonlabor costs	1%	2%
First-year (FY99) savings	0%	0%
First-year costs (thousands)	\$1,200	\$1,200
Annual recurring costs (thousands)	\$120	\$120

We derived the headquarters reduction of 10 to 20 percent from interviews with DLA management personnel and our own judgment. We derived the ICP direct, indirect, G&A, and nonlabor reductions from our analysis of the Navy's in-place consolidation of their former two ICPs and interviews with military service and DLA logisticians.

The Navy has (or will have over time) experienced an overall 10 percent reduction of personnel and costs associated with the establishment of the Naval ICP (NAVICP). Although some of the savings are due to process improvements, some of the savings were also from in-place-transfer initiatives that could be extended DoD-wide by a single manager of all ICPs.

One initiative would be the use of comparable labor standards for example items per direct FTE, direct to indirect labor ratios. When the Navy brought its two ICPs together, it compared labor standards and made adjustments that reduced labor requirements. We believe that, although labor standards should differ among ICPs because of the types of items they manage, a single ICP manager could compare standards against sites and make adjustments to standards that may be dated or too liberal. The result would be reduced direct and indirect labor costs.

Under another initiative, we think that the potential exists for DLA to centralize certain tasks that are currently performed at many ICP sites to one site per military service or perhaps a single site for all of DoD. For example, certain overhead tasks within the contracting directorate that were formerly performed at both sites (policy formulation for example), are now performed at a single site. The result would be reduced indirect and G&A labor costs.

Another NAVICP initiative that could be further expanded is the concept of a "virtual ICP," which relies on modern computer and telecommunications technologies to reduce costs. By creating a wide area network (WAN) among sites, multiple ICPs at geographically disperse locations can think and act as one. Non-labor costs, such as travel, are reduced through the use of e-mail and video teleconferencing among individuals. Networking also facilitates "single siting" of

certain overhead functions by making the services of those functions available to all sites.

Given these types of savings initiatives, we believe our low- and high-end percentages for savings, as shown in Table 3-3, are reasonable and achievable. When applied to our baseline, they result in the savings summarized in Table 3-4.

*Table 3-4. POM In-Place-Transfer Savings
(in millions of dollars)*

Category	Complete 19-function transfer		Partial 14-function transfer	
	Low end	High end	Low end	High end
Headquarters	\$8.6	\$17.3	\$7.1	\$14.1
Direct labor	\$0.0	\$55.9	\$0.0	\$45.4
Indirect labor	\$9.2	\$18.4	\$7.5	\$15.0
G&A labor	\$13.2	\$26.3	\$10.7	\$21.4
Nonlabor	\$46.8	\$93.5	\$38.0	\$76.1
Total savings	\$77.8	\$211.5	\$62.3	\$172.0
Costs	\$1.8	\$1.8	\$1.8	\$1.8
Net savings	\$76.0	\$209.7	\$61.5	\$170.2

PROCESS IMPROVEMENT SAVINGS

To estimate process improvement savings, we relied on a top-down approach to estimate savings in the ICP costs reflected in the CORM database and a bottom-up approach to estimate cost savings in other areas of materiel management. All of the process improvements we identified were either

- ◆ extensions of ongoing ICP initiatives within a military service;
- ◆ results from other similar ICP actions, such as Navy interweaving, Army and DLA consolidations, and realignments; or
- ◆ recommendations of other initiatives, such as the ICP benchmarking study and the Logistics Corporate Information Management effort.⁶

As noted in Chapter 1, the fact that some of the possible improvements are extensions of ongoing initiatives of the military services did raise the possibility of “double dipping” when estimating savings. It was not a problem in estimating savings in ICP costs, where our baseline included the results of ongoing and

⁶ Reference, *Inventory Control Point Benchmarking Team*, Final Report, April 1995.

planned initiatives. However, it was a problem in estimating savings in other costs where specific estimates of savings from these ongoing initiatives were not made available. To overcome this problem, we decided that a reasonable approach would be to develop cost out of the other savings for a few improvements and use them as estimates for all improvements, less savings from existing initiatives.

Potential Process Improvements

Table 3-5 shows the process improvements that could be initiated during the POM period and, when taken together, could generate ICP and other savings. In what follows, we will briefly discuss the two improvements we priced out for POM savings. (Appendix D describes all of the process improvements we identified for the POM period, as well as post-POM process improvements.)

Table 3-5. POM Process Improvements

Improvement	Area of savings				Part of estimate
	ICP labor	Materiel acquisition	Inventory storage	Other	
Contracting methodology and process	X	X	X		Yes
Inactive-item deletion	X		X	X	Yes
Catalog total quality management	X			X	No
Improved demilitarization			X	X	No
Improved stock positioning				X	No
Item reduction and entry control	X	X	X		No
More efficient work loading of depot maintenance		X	X		No
Secondary item provisioning on the end-item contract	X				No
Source breakout		X			No

CONTRACTING METHODOLOGY AND PROCESS

The first initiative, contracting methodology and process, is probably the most significant. It increases use of corporate contracting and reduces overall acquisition lead-times.

Under corporate contracting, it would create DoD-wide multiple-year, multiple-line, indefinite-delivery contracts for items that lend themselves to this contracting technique. Then, instead of relying on separate drawn-out procurement actions to replenish stock, item managers at any ICP could place quicker and simpler delivery orders against a set of corporate contracts. The result would be significant labor savings within both the contracting and item management work force. In addition, DoD could realize a lower acquisition price as economies of scale and lower contractor administrative costs take effect.

Under lead-time reduction, we would expect delivery lead-times for items under corporate contracts to be significantly less than current procurement lead-times. In addition, for other items we would expect DLA to institutionalize its processes for reducing administrative and production lead-times. The result of shorter lead-times would be a one-time savings from reductions in item safety levels and a recurring savings in associated inventory holding costs.

INACTIVE-ITEM DELETION

The second initiative, inactive-item deletion, is a one-time major action to delete inactive items. A significant portion of the items in the catalog have had no demands for one or more years. Although the Defense Inactive Item Program is supposed to annually review and delete inactive items, the program appears inadequate.

A single ICP manager would be in a position to strengthen the program and cause all registered users to identify current applications and the expected life of the applications. The program could further check those items with assets against procurement histories for date of last procurement, transaction registers for date of last activity, catalog records for date of entry into the catalog system, and provisioning records. An enhanced program would lead to the disposal of the unneeded inventory and thereby reduce holding costs.

Savings

Table 3-6 shows the savings factors that we used to estimate ICP savings from process improvements. Table 3-7 sums up our estimates for POM savings associated with process improvements. Since the retention of the five functions in the partial transfer alternative did not affect the process improvements that were the basis of our savings estimate for non-ICP costs, our estimate for both alternatives was the same.

Table 3-6. Process Improvement Factors

Factor	Low end	High end
Headquarters reduction	0%	0%
Reduction in ICP direct labor costs	2%	6%
Reduction in ICP indirect labor costs	2%	6%
Reduction in ICP G&A costs	2%	6%
Reduction in ICP nonlabor costs	0%	0%
First-year (FY99) savings	0%	0%
First-year costs (thousands)	\$0	\$0
Annual recurring costs (thousands)	\$0	\$0

*Table 3-7. POM Process Improvement Savings
(in millions of dollars)*

Area of savings	Complete 19-function transfer		Partial 14-function transfer	
	Low end	High end	Low end	High end
ICP direct labor costs	\$55.9	\$167.6	\$45.4	\$136.3
ICP indirect labor costs	\$9.2	\$27.6	\$7.5	\$22.4
ICP G&A labor costs	\$13.1	\$39.6	\$10.7	\$32.2
Savings in other materiel management costs	\$398.4	\$507.0	\$398.4	\$507.0
Total	\$476.6	\$741.7	\$462.0	\$697.9

SUMMARY OF POM SAVINGS

Table 3-8 summarizes the potential savings during the POM period if ICP management were transferred to DLA. The difference between the complete-transfer alternative and the partial-transfer alternative is in the range of \$29.1 million to \$82.7 million, a reduction of 5.3 to 8.7 percent in estimated savings.

*Table 3-8. Estimated POM Savings
(in millions of dollars)*

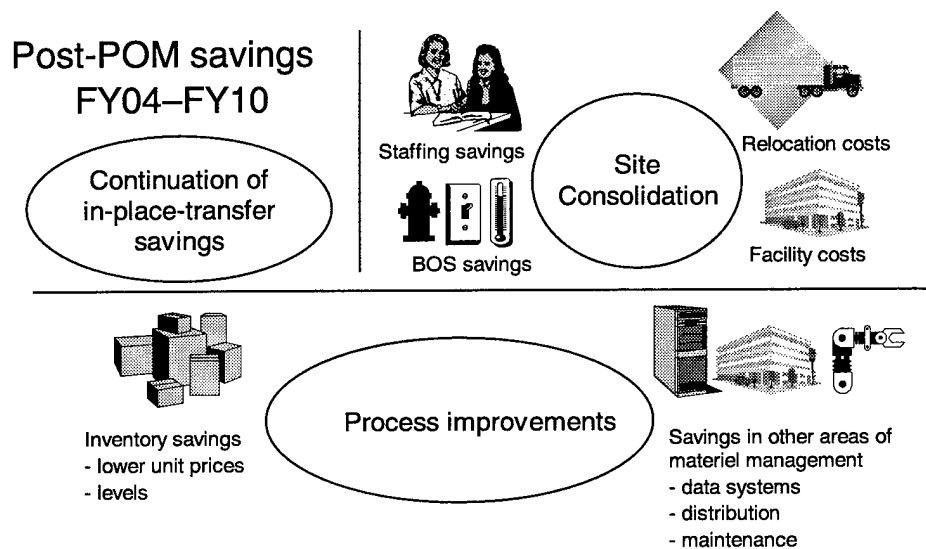
	Complete 19-function transfer		Partial 14-function transfer	
	Low-end estimate	High-end estimate	Low-end estimate	High-end estimate
In-place-transfer savings	\$76.0	\$209.7	\$61.5	\$170.2
Process improvement savings	\$476.6	\$741.7	\$462.0	\$697.9
Total	\$552.6	\$951.3	\$523.5	\$868.1

Chapter 4

Economic Impact After the Program Objective Memorandum Period

In Chapter 3, we discussed the savings that the transfer of ICP management to DLA might generate during the POM period. As illustrated in Figure 4-1, in this chapter we address the savings that could be expected after the POM period.

Figure 4-1. The Focus of Chapter 4



The three types of savings that could accrue during the post-POM period are

- ◆ continuation of in-place-transfer savings that carry forward from the POM period through the post-POM period,
- ◆ savings from physical consolidation of ICP sites, and
- ◆ continuation of POM process improvement savings and additional savings from post-POM process improvements.

In this chapter, we discuss how we developed estimates for each type of savings. As we did in Chapter 3, we develop a conservative low-end estimate and an optimistic high-end estimate that together give a range for potential savings.

However, unlike what we did in Chapter 3, we present only one range of savings, namely, the one for the complete-transfer alternative. We do not present a range of savings for the alternative involving the management transfer of 14 of the 19 ICP functions to DLA. The review directed by Congress is about the complete transfer

of the DoD ICP mission to DLA. The reason we included a partial, 14-function alternative in Chapter 3 was to provide information on the economic implications of limiting the transfer. We have no reason to believe that the difference of 5.3 to 8.7 percent in the POM savings between the partial, 14-function transfer and the complete, 19-function transfer would be significantly different for post-POM savings. Therefore, we chose to exclude the partial transfer alternative from our post-POM cost analysis.

IN-PLACE-TRANSFER SAVINGS CARRIED FORWARD FROM POM PERIOD

In-place-transfer savings that first started to accrue during the POM period are annual recurring savings that carry forward through the post-POM period. To estimate these savings, we again applied a top-down approach. We used the same factors that we used in our POM analysis of in-place-transfer savings but against a different baseline. Table 4-1 shows the results of our post-POM analysis.

Table 4-1. Post-POM In-Place-Transfer Savings

Category	Low end	High end
Headquarters labor	\$15.2	\$30.3
ICP direct labor costs	\$0.0	\$96.1
ICP indirect labor costs	\$15.8	\$31.7
ICP G&A costs	\$22.7	\$45.3
ICP nonlabor costs	\$80.4	\$160.9
Total savings	\$134.1	\$364.3
Costs	\$0.8	\$0.8
Net savings	\$133.3	\$363.5

POST-POM SAVINGS FROM PROCESS IMPROVEMENTS

In Chapter 3, we presented several process improvements that a single ICP manager could implement during the POM period. For our post-POM analysis, we introduce additional process improvements and present estimated savings for both those improvements and improvements initiated during the POM period.

Additional Process Improvements

Table 4-2 lists the additional process improvements we identified for the post-POM period. In what follows, we briefly discuss the two improvements we priced out for additional post-POM savings. (Appendix D describes all of the process improvements we identified for the post-POM period as well as POM process improvements.)

Table 4-2. Additional Post-POM Process Improvements

Improvement	Area of savings				Part of estimate
	ICP labor	Materiel acquisition	Inventory storage	Other	
Integration of initial and replenishment requirements		X	X		Yes
Single set of materiel management policies and procedures				X	Yes
Integration of wholesale and retail requirements		X	X		No
Reduction of service-unique catalog data	X			X	No
Single design activity for materiel management system				X	No
Single ICP managing items on a weapon system		X	X		No
Uniform credit policy for returns	X				No

SINGLE SET OF MATERIEL MANAGEMENT POLICIES AND PROCEDURES

Although all ICPs operate under the same general policies, over time military service ICPs have tailored their materiel management policies and procedures to meet the needs of their respective services. We assume that, during the POM period, DLA would be working toward developing and establishing a standard set of ICP policies and procedures. Once this process is completed, the number of people currently involved in maintaining five sets of ICP policies and procedures could be reduced.

INTEGRATION OF INITIAL AND REPLENISHMENT REQUIREMENTS

The current processes involved in computing initial and replenishment requirements are not integrated, particularly when the items in a new weapon system are managed by DLA and different military services. We believe a single manager for all secondary items would initiate an action to integrate initial and replenishment requirements. Under such an initiative, we would foresee the following changes:

- ◆ The stock dates and demand development periods in the integrated requirements determination would be variable rather than having a single date for all items based on the preliminary operational capability (POC) date.

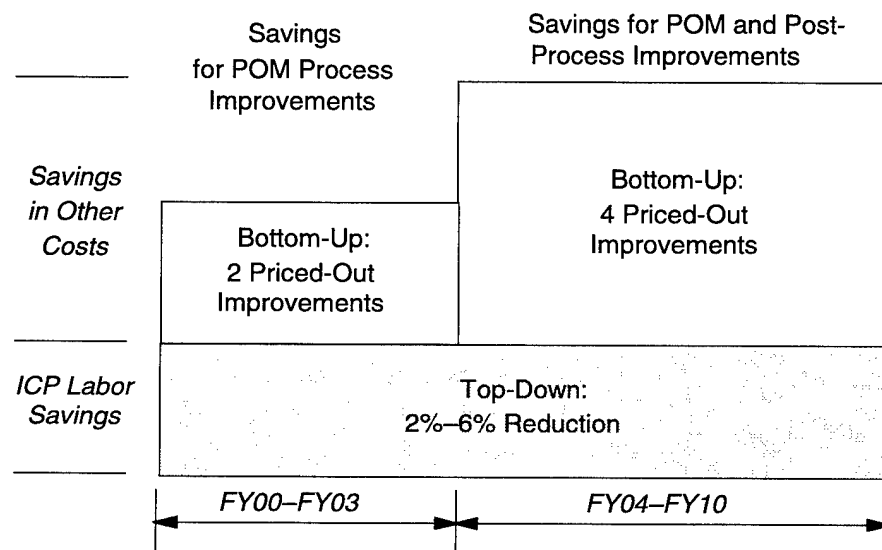
- ◆ The beginning of the demand development period would vary on the basis of the expected date of failure for each item and unexpected failures before that date would be supplied through contractor support.
- ◆ Initial wholesale stocks would be procured to meet the expected failure date for each item rather than the POC date or at the end-of-production date.

The result of such changes would be savings in inventory-investment and holding costs as both the number of premature procurements and the amount of procured materiel that is never used would be reduced.

Estimating Post-POM Savings

Process improvements generate savings in ICP labor costs and savings in other areas of materiel management (e.g., distribution costs). Figure 4-2 illustrates how we estimated savings from POM and post-POM process improvements and how they compare.

Figure 4-2. Estimating Process Improvement Savings



SAVINGS IN ICP LABOR COSTS

As shown in Figure 4-2, we did not attribute any additional level of savings in ICP labor costs for post-POM process improvements although some additional savings are conceivable for these improvements. Given the uncertainties involved in pricing out process improvements and our desire not to overinflate potential savings, we felt that our factors of 2 to 6 percent for reductions in ICP labor costs

were reasonable estimates of what reductions might occur because of POM and post-POM process improvements.

Table 4-3 shows the results of our top-down analysis of post-POM process improvement savings. Although we used the same factors in both our POM and post-POM top-down analyses, the results are different due to the different cost base-lines.

Table 4-3. Post-POM Process Improvement Savings in ICP Labor Costs (in millions of dollars)

Category	Low end	High end
ICP direct labor costs	\$96.2	\$288.4
ICP indirect labor costs	\$15.9	\$47.5
ICP G&A costs	\$22.6	\$68.0
Total savings	\$134.7	\$403.9

SAVINGS IN OTHER COST AREAS

To estimate post-POM process improvement savings in areas other than ICP labor costs, we used a bottom-up approach that involved the pricing out of four potential process improvements. We increased the number of improvements from two in our POM analysis to four to account for new post-POM process improvements.

Specifically, we computed potential savings for two improvements initiated during the POM period and two initiated during the post-POM period. Then we used the sum of the savings for the four improvements as our estimated savings for all process improvements. Table 4-4 presents the results of our bottom-up analysis.

Table 4-4. Post-POM Process Improvement Savings in Other Costs (in millions of dollars)

Improvement	Low-end estimate	High-end estimate
Contracting methodology and process	\$405.0	\$763.3
Inactive-item deletion	\$27.2	\$40.8
Integration of initial and replenishment requirements	\$368.0	\$681.5
Single set of materiel management policies and procedures	\$95.9	\$102.9
Total	\$896.1	\$1,588.5

PHYSICAL CONSOLIDATION OF ICPs

Having a single manager for all secondary-item ICPs offers the potential for dramatic reductions in the number of ICPs. We would anticipate that, in concert with another BRAC commission, DLA would reduce the total number of ICPs, possibly to six or three physical sites. Such a reduction would result in significant long-term infrastructure savings.

Reasons for Physical Consolidation of ICPs

DoD should reduce the number of ICPs through physical site consolidation. Upon completion of the current BRAC, DoD will still have 13 major ICP physical locations. Given the number of people formerly at individual ICP sites and the size of recent and planned reductions in ICP staffs, we believe that this number of locations is too many. We feel that the number of sites could be significantly reduced without creating an unacceptable span of control.

Planned and implemented process improvements as well as further automation will increase the ratio of overhead costs to direct costs if the number of ICPs stays the same. Under these circumstances, the continuance of so many sites adds unnecessarily to the overhead costs paid for in the form of surcharges by the combat forces without adding commensurate value.

The military services and DLA could consolidate ICPs within their respective organizations. However, if consolidation were to take place under a single manager for ICPs, then military service or agency ownership would be less of a factor in the final number of ICPs and the item populations managed by individual ICPs. Instead, we would anticipate a more logical grouping of ICPs based on the types of weapon systems being supported and on presenting one face to commercial suppliers. For example, instead of each military service having at least one ICP managing aviation items, all aviation items could be managed at one ICP.

Table 4-5 lists one possible three-ICP configuration.

Table 4-5. Potential Three-ICP Configuration

ICP	Mission
Air	Materiel support for aircraft and air-launched missiles
Ground, sea, and communications	Materiel support for vehicles, ships, ground-launched missiles, armament, and communications equipment
Personnel and general supplies	Subsistence, medical, fuels, clothing, general supplies, and construction-equipment support

This configuration would

- ◆ provide for greater emphasis on management of secondary items for weapon systems by minimizing the amount of interactivity coordination,
- ◆ provide for greater specialization on selective weapon-system components (such as on engines and landing gear) without geographically separating the management of those components from the remainder of the weapon system,
- ◆ facilitate process improvements by concentrating expertise and bringing together items for consideration of item reduction and standardization and for corporate contracting from the same sources, and
- ◆ provide for greater flexibility in the use of the work force in transitioning from old to new weapon systems and in dealing with workload fluctuations.

Although outside the scope of this study, consolidation of ICPs does create the possibility of program-manager consolidation. If ICPs were consolidated at a few sites, it would be desirable to collocate on the same installations many, if not all, of the corresponding program managers under their respective commands.

Model Used to Estimate Costs and Savings Associated with Physical Consolidation

To compute savings for physically consolidating ICPs, we used a model developed for DMRD 926, *ICP Consolidation Study*, in 1990. The same model was also used by the CORM in 1994 for a similar study effort. In the subsection that follows, we will discuss how we used the model to estimate consolidation savings and costs.

SETTING LOW- AND HIGH-END ESTIMATES

The savings from a consolidation action are inversely proportional to the number of sites being consolidated and directly proportional to the number of people that would be transferred or severed. To have a range of savings, we chose a reduction to six ICPs as our low-end estimate and a reduction to three ICPs as our high-end estimate. Since we wanted to be conservative in both of these estimates, we wanted to start with the consolidation baseline that had the least number of people. Therefore, we used the high-end scenario for in-place transfer and process improvement because it generated the larger number of personnel reductions during the POM period and, therefore, had less people in its end-of-POM database than other scenarios.

ICP BASELINE FACTORS

Table 4-6 shows the ICP baseline factors that we used in the consolidation model.

Table 4-6. Consolidation ICP Factors

Factor	Value
Direct labor FTEs	12,843
Direct labor dollars per FTE per year (thousands of dollars)	\$49.20
Indirect labor FTEs	2,108
Indirect labor dollars per FTE per year (thousands of dollars)	\$48.29
G&A FTEs	2,988
G&A dollars per FTE per year (thousands of dollars)	\$48.76
Nonlabor dollars per year	\$1,126,248

COST AND SAVINGS FACTORS

Table 4-7 shows the cost and savings factors used in our analysis. The values for factors dealing with reductions in ICP costs are from DLA's recent experience in consolidating Defense Electronic Supply Center and Defense Construction Supply Center into Defense Supply Center Columbus.

Table 4-7. Consolidation Cost and Savings Factors

Factor	Value
Number of years to complete consolidation	5
Starting month for consolidation within first year	6
Number of months during which productivity is lost for the ICP segment being transferred	3
Reduction in losing-site direct labor as a result of consolidation	5%
Reduction in losing-site indirect labor as a result of consolidation	25%
Reduction in losing-site G&A expenses as a result of consolidation	50%
Reduction in losing-site nonlabor costs as a result of consolidation	20%
Cost to transfer or sever one FTE at losing site	\$20,000
Average FTEs per site	1,380
Ability to expand capacity without any additional facilities costs (given as a percent of gaining site's work force)	86%
Facility cost per gained FTE that is above site's expanded capacity	\$20,000

Note: Losing site refers to the ICP site that is eliminated and gaining site refers to the ICP site that gains the work previously done at the losing site.

We assumed that it would take 5 years to complete a consolidation of this magnitude. If consolidation began midway through FY04, it would be completed in FY08. Starting in FY09, annual savings should be in a steady state (i.e., they would be constant from that point on).

To cover lost time for personnel who would be transferred (i.e., house hunting trips, move time, and time to settle in at the new activity), the model provides for a period of lost productivity. We set that period equal to 3 months.

The model has a single personnel cost factor that addresses the anticipated severance pay for those employees leaving employment, the expected number of personnel that will find new federal jobs, and the combined number of married and single moves. We updated the DMRD 926 value for that factor to \$20,000 per transferred employee.

Given the magnitude of ICP downsizing since the late 1980s, we assumed that the gaining activities could absorb much of the transferring work force without additional facility costs. On the basis of the reduction of personnel from the original 1990 DMRD 926 database to our updated 1996 database, we estimated that a gaining activity could expand its work force by 65 percent without any additional cost. For every gained employee above that percentage, we used a facility cost factor of \$20,000 per person.

Results of the Consolidation Analysis

Tables 4-8 and 4-9 show the results, based upon the factors discussed above, of a 13 to 6 and a 13 to 3 site consolidation. In both cases, the costs exceed the savings through the first 3 years; that is, DoD would need to initially spend money to later save money. Starting in year four, savings exceed costs and net savings increase each year to FY09, when they reach steady state of between \$191 million and \$273 million per year. Based on these two tables, the estimated cumulative total for post-POM period savings ranges from \$445 million to \$503 million for site consolidation.

Table 4-8. Consolidation to Six ICPs (in millions of dollars)

Category	Fiscal year							Total
	2004	2005	2006	2007	2008	2009	2010	
Cost savings at losing sites	\$45.3	\$293.0	\$563.0	\$833.0	\$1,057.7	\$1,080.0	\$1,080.0	\$4,952.0
Cost increases at gaining sites	\$79.6	\$295.5	\$517.6	\$739.8	\$882.4	\$888.7	\$888.7	\$4,292.3
Personnel transfer costs	\$36.2	\$48.3	\$48.3	\$48.3	\$12.1	\$0.0	\$0.0	\$193.2
Facilities construction costs	\$5.4	\$5.4	\$5.4	\$5.4	\$0.0	\$0.0	\$0.0	\$21.6
Net savings	(\$75.9)	(\$56.2)	(\$8.3)	\$39.5	\$163.3	\$191.2	\$191.2	\$444.7

Note: Numbers in parentheses are negative savings.

Note: Losing site refers to the ICP site that is eliminated and gaining site refers to the ICP site that gains the work previously done at the losing site.

Table 4-9. Consolidation to Three ICPs (in millions of dollars)

	Fiscal Year							
Category	2004	2005	2006	2007	2008	2009	2010	Total
Cost savings at losing sites	\$64.7	\$418.7	\$804.4	\$1,190.1	\$1,511.1	\$1,542.8	\$1,542.8	\$4,952.0
Cost increases at gaining sites	\$113.7	\$422.1	\$739.5	\$1,056.8	\$1,260.6	\$1,269.6	\$1,269.6	\$6,131.9
Personnel costs	\$51.7	\$69.0	\$69.0	\$69.0	\$17.3	\$0.0	\$0.0	\$276.0
Facilities costs	\$40.9	\$40.9	\$40.9	\$40.9	\$0.0	\$0.0	\$0.0	\$163.6
Net savings	(\$141.6)	(\$113.3)	(\$45.0)	\$23.4	\$233.2	\$273.2	\$273.2	\$503.0

Note: Numbers in parentheses are negative savings.

SUMMARY

Table 4-10 summarizes the estimated savings for the post-POM period due to continuation of savings from in-place transfer, process improvement (both post-POM and during the continuation of POM), and site consolidation.

Table 4-10. Post-POM Estimated Savings (in millions of dollars)

Area	Low-end estimate	High-end estimate
In-place-transfer savings carried forward	\$133.3	\$363.5
Process improvement total savings	\$1,030.8	\$1,992.4
ICP labor savings carried forward	\$134.7	\$403.9
Savings in other costs	\$896.1	\$1,588.5
Site-consolidation savings	\$444.7	\$503.0
Total savings	\$1,608.8	\$2,859.0

Appendix A

DoD Inventory Control Points

CURRENT ALIGNMENT OF ICP MATERIEL MANAGEMENT RESPONSIBILITIES

The DoD ICP infrastructure has been divided between the military services and DLA for the past 30 years. DLA has become DoD's wholesale manager for most consumable items, such as repair parts, personnel support items (i.e., clothing, food, and medical supplies), fuel, other bulk items and materiel, and expendable minor end items. Military service ICPs manage major end items and reparable assemblies and subassemblies as well as selected consumable items. Historically, DLA ICPs have been associated with commodity management, although DLA has a Weapon System Support Program (WSSP) and is realigning its ICPs more along the lines of weapon-system support.¹

ICP STATISTICS

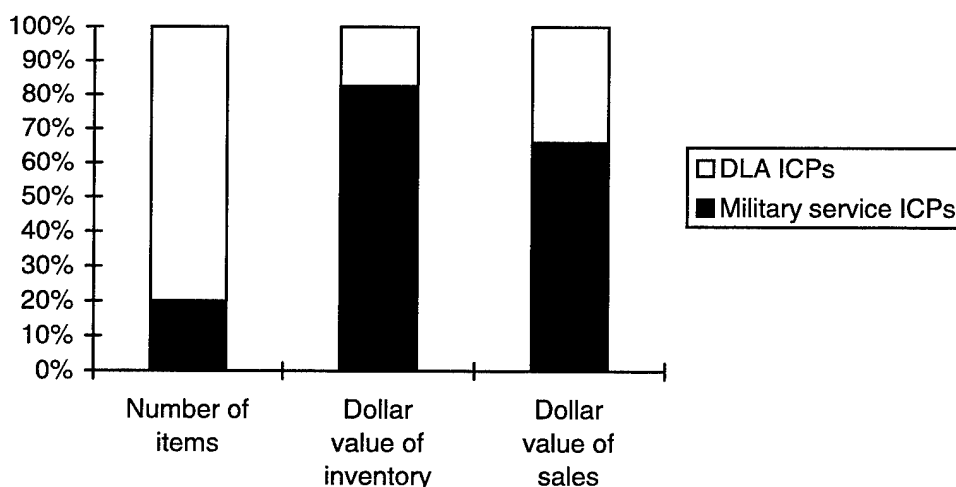
Currently, DoD ICPs manage nearly 5 million secondary items with a wholesale inventory valued at more than \$54 billion. Navy and Air Force ICPs are also involved in the management of their retail reparable inventories, valued at \$10 billion.² In FY95, they sold \$16 billion in materiel to forts, bases, ships, camps, posts, and other installations located in this country and overseas. Figure A-1 shows how this workload is divided between military service and DLA ICPs.³ The military services manage fewer items than DLA, but these are the more expensive reparable items that have a major impact on weapon-system readiness.

¹ Reparable items managed by the military services are often associated with weapon-system readiness. However, the data show that consumable items managed by DLA, particularly items that go directly on weapon systems rather than within a reparable assembly, can also keep weapon systems from being mission capable.

² Dollar values for wholesale and retail inventory were taken from the DoD *Supply System Inventory Report*, 30 September 1995.

³ Workload measurements do not include fuel managed by DLA's Defense Fuel Supply Center (DFSC). DFSC, which is collocated with DLA headquarters, is not included in any data presented in this report.

Figure A-1. Division of ICP Workload



INITIATIVES AFFECTING ICP PLANNING AND PROGRAMMING

DoD is engaged in several initiatives that affect its future ICP planning and programming. In addition to the establishment of global Primary Inventory Control Activities (PICAs), several other consolidation studies and efforts are now underway that will affect DoD ICPs. The primary example is in item cataloging, where the department is moving to consolidate this function at one site under a joint program office. Another example is the establishment of regional personnel offices supporting all defense sites, including ICPs, within a geographic area.

The department is also modernizing its logistics systems and improving the communication of logistics information. It is evolving its current logistics systems into an integrated functional and interoperable technical environment. This environment will maximize the use of standardized data, data repositories, and commercial and government off-the-shelf software to support ICP functions, particularly configuration management and cataloging. DoD is also developing the capability for total asset visibility (TAV). The TAV effort will improve the exchange of information among ICPs; and between ICPs and other organizations, such as retail supply activities, commercial sources of supply, and operating and planning units. These efforts by DoD to modernize its information systems and improve data communications will present new opportunities to reengineer ICP business processes.

Besides these DoD-wide initiatives, each military service and DLA has its own ICP initiatives. For example, each military service has reduced or is reducing functional teaming at its ICPs to implement some form of weapon-system team-

ing. The teaming of skilled professionals who are performing different tasks for the same group of items improves information exchange and decision-making and avoids unnecessary costs (e.g., item managers and engineers share information to avoid new procurements of items that are being replaced). Another example is expanded use of corporate contracting, where the military services and DLA are establishing multiple-item, multiple-year contracts with prime vendors. (Current corporate contracting is typically within a military service or DLA and not across the services and DLA.)

LOCATIONS

Figure 1-1 locates the DoD ICPs on a map of the United States. They are as follows:

- ◆ Army
 - Army Missile Command (MICOM), Huntsville, Alabama
 - Aviation and Troop Command (ATCOM), St. Louis, Missouri
 - Communications and Electronics Command (CECOM), Ft. Monmouth, New Jersey
 - Tank-Automotive Command (TACOM), Warren, MI and, under TACOM, the Armament and Chemical Acquisition and Logistics Activity (ACALA), Rock Island, Illinois
- ◆ Navy—Naval ICP (NAVICP), Mechanicsburg and Philadelphia, Pennsylvania
- ◆ Air Force
 - Ogden Air Logistics Center (OO-ALC), Ogden, Utah
 - Oklahoma City Air Logistics Center (OC-ALC), Oklahoma City, Oklahoma
 - Sacramento Air Logistics Center (SM-ALC), Sacramento, California
 - San Antonio Air Logistics Center (SA-ALC), San Antonio, Texas
 - Warner Robins Air Logistics Center (WR-ALC), Warner Robins, Georgia
- ◆ Marine Corps—Marine Corps Logistics Base (MCLB), Albany, Georgia

◆ DLA

- Defense Industrial Supply Center (DISC), Philadelphia, Pennsylvania
- Defense Personnel Support Center (DPSC), Philadelphia, Pennsylvania
- Defense Supply Center Columbus (DSCC), Columbus, Ohio
- Defense Supply Center Richmond (DSCR), Richmond, Virginia
- Defense Fuels Supply Center (DFSC) (not part of the review), collocated with DLA headquarters, Ft. Belvoir, Virginia.

Appendix B

Inventory Control Point Functions

The following list of functions and supporting tasks was originally developed in 1990 by the Operations Subgroup of the DMRD 926, *ICP Consolidation Study Team* and later was used by the DoD Commission on Roles and Missions of the Armed Services in 1994. The team's objective in preparing the list was to define the functions and supporting tasks that constitute an ICP or, as it is sometimes referred to, an "integrated materiel management activity."

We have divided the list into two parts. The first part addresses functions that are IMM functions and are normally associated with a PICA. The second part addresses functions that are performed by the using military service, or simply user functions, and are normally associated with a Secondary Inventory Control Activity (SICA). A function may appear under both categories, but its supporting tasks will differ.

We used the list in both our risk and cost analyses. We condensed the original description of supporting tasks to facilitate our discussions with DoD subject-matter experts. Specifically, we

- ◆ combined several IMM functions into the IMM item management function and several user functions into the user inventory management function and
- ◆ deleted the weapon system management function, which had tasks specifically dealing with principal items, and replaced it with the weapon system secondary item supply support function, which retains those tasks that are only associated with secondary items.

The remainder of this appendix defines each of the functions. Where we combined DMRD 926 functions, we listed the functions that we combined under our new function. Although it was excluded from our analysis, we describe, under the SICA/user functions, a weapon system management function that includes principal end-item management tasks that we did not include under our new weapon system secondary item supply support function.

PICA/IMM FUNCTIONS

Budgeting/Funding

This function involves the financial planning and resource management associated with the acquisition and maintenance of inventories of IMM managed materiel and with the preparation of planning, programming, and budgeting documents including the POM. Specific tasks under this function are

- ◆ controlling procurement and depot maintenance funds (appropriated and stock funds),
- ◆ developing and maintaining standard prices,
- ◆ billing for reimbursable issues, and
- ◆ performing financial management and participating in the program or budget process.

Cataloging

This function involves generating the comprehensive logistics data record required to identify, requisition, ship, store, dispose of, or make other logistics decisions related to an item of supply during its operational life cycle. Tasks in this process include the following:

- ◆ *Item name assignment*—the designation of a commonly recognized noun or noun phrase to an item of supply that answers the question, “What is it?”. (An item name may be refined later on the basis of subsequently available technical data and ongoing tool development.)
- ◆ *Federal Supply Class (FSC) determination*—the categorization of an item of supply that establishes its relationship with other items on the basis of the assigned item name and/or characteristics. (FSC determination, like item name assignment, may be refined later on the basis of available technical data and ongoing tool development.)
- ◆ *Item identification preparation and maintenance*—the recording of characteristic data (i.e., words, numbers, and/or codes) to describe the physical and functional attributes of a supply item. Proper item identification is contingent upon accurate item name assignment and FSC.
- ◆ *Item entry control*—a filtering process that scrutinizes potential candidates for inclusion in the federal catalog by manually and mechanically comparing candidates to existing items and recognized standards.

- ◆ *Technical data validation*—the process by which the quality of technical data is confirmed for purposes of item name assignment, FSC determination, item-entry control, and item identification.
- ◆ *Provisioning support*—those actions taken to facilitate the best selection, procurement, and cataloging of items of supply required to sustain weapon systems and other government requirements (e.g., data calls, provisioning, guidance and logistics support analysis conferences, technical data validation).
- ◆ *Data recording and maintenance*—those actions necessary to ensure complete, accurate, and current logistics data records (excluding data on item characteristics) for a supply item. Such actions are normally accomplished as a result of item-manager requests, system incompatibility notices, technical data revisions, interchangeability and substitutability (I&S) decisions, and periodic record review. Representative of this function are actions involving the Defense Inactive Item Program, DoD I&S, item-reduction study decisions, major-item maintenance, catalog management data, and logistics reassignments.
- ◆ *Cataloging tools*—the process of initiating and enhancing documents and procedures required to research, record, and organize item logistics information. Tools include item names; definitions; and FSC structure; federal guides for item identification; descriptive guides for logistics name; and other publications. Tool development is directed by established principles, yet driven by technological advancements.

Contracting

This function involves developing, executing, and managing contracts supporting item management, including pre-award and post-award decisions. Specific tasks under this function are

- ◆ performing pre-award tasks,
- ◆ issuing contractual instruments, and
- ◆ performing post-award tasks.

Customer Services

This function involves expediting procurement- and requisition-related repair, issuance, and delivery of urgent item requirements that may impair mission capabilities, cause work stoppages, and include customer liaison efforts. Specific tasks under this function are

- ◆ coordinating with users and logistics support agents,

-
- ◆ expediting the processing of high-priority requisitions, including edit and generation of material release orders,
 - ◆ maintaining suspense files and providing status information and customer liaison,
 - ◆ maintaining status boards for high-priority requisitions that are not immediately issued, and
 - ◆ receiving and processing customer complaints related to requisitions, including shipment discrepancies.

Engineering Support

This user function involves engineering expertise related to equipment and item management. Specific tasks under this function are

- ◆ conducting value engineering studies and
- ◆ performing reverse engineering analyses.

Item Management

This function involves determining customer needs, selecting the method of management, developing stock levels, and determining and initiating supply actions (i.e., buy, repair, contract termination, distribution, maintenance, and disposal actions). It includes the DMRD 926 functions of disposal decisions, distribution decisions, maintenance management, and requirements determination. Specific tasks under this function are

- ◆ obtaining, reviewing, and maintaining requirements computation factors (i.e., authorization allowance data; demand data; failure rates; condemnation rates; turn-around times; and program data—flying hours, steaming hours, and troop strengths);
- ◆ computing gross worldwide requirements (i.e., replenishment, special peacetime requirements, foreign military sales requirements, and other war reserve materiel requirements);
- ◆ initiating procurement, repair, reclamation, assembly and disassembly, manufacture (depot), distribution, expedite action, and disposal;
- ◆ performing supply control reviews, which include verification of factors (e.g., price, assets onhand or due in, lead-times, carcass return rates) and determining supply action (i.e., buy, repair, redistribute, or dispose);
- ◆ developing requirements for depot-level maintenance program;

- ◆ performing management functions for modifications until the modifications are accomplished (e.g., preparing procurement requests for kit procurement or initiating action to assemble kits from stock or local manufacture, maintaining surveillance over kit delivery and distribution, managing field and depot accomplishment until all affected systems are modified);
- ◆ maintaining status and control of funds required to support accomplishment of modification; and
- ◆ obtaining, reviewing, and assigning data and codes for supply management systems (e.g., data or codes for critical, management-review, or inactive-review items, or for lead-times, procurement cycles, demand weight).

Requisition Processing

This function involves receiving, recording, and filling requisitions; maintaining requisition files; researching technical data incidents; processing incoming request documents; providing status information on requisitions; and maintaining liaisons with using activities. Specific tasks under this function are

- ◆ processing requisitions (including performing availability edits) and generating materiel release orders;
- ◆ reconciling and validating back orders;
- ◆ taking appropriate supply action on materiel release denials;
- ◆ conducting authorization review and approval for issuing items controlled by the item manager (supply-source review in lieu of military service or agency review); and
- ◆ reviewing requisitions for nonstocked items, including items with national stock numbers and local purchase items, for determination of supply action.

Stock Control

This function involves establishing and maintaining accountable and memorandum on-hand asset records and due-in asset records and includes reconciling records, processing documents other than requisition-related documents affecting stock records, and coordinating physical inventories with storage activities. Specific tasks under this function are

- ◆ maintaining accountable and memorandum stock records and reconciling storage depot and ICP records;

-
- ◆ processing inventory adjustments, e.g., adjustments to item condition, ownership, purpose, or location;
 - ◆ coordinating physical inventories;
 - ◆ processing count cards of physical inventory and making adjustments;
 - ◆ initiating and processing reports of surveys done by the accountable officers;
 - ◆ establishing and maintaining due-in asset information from procurement, repair, customer returns, logistics transfers, assembly/disassembly, and reclamation;
 - ◆ processing receipt transactions and documents;
 - ◆ processing capitalization and decapitalization transactions; and
 - ◆ processing material on loan, including government-furnished equipment.

Technical Support

This function involves the determination of technical supply management criteria related to reparability, interchangeability, and usage factors; the determination of preservation, packaging, and marking requirements; the development of weight and cube information; the development, maintenance, and furnishing of drawings or military specifications and standards, purchase descriptions, shelf life codes, deterioration codes, acquisition method codes, or other technical data efforts related to value engineering, reverse engineering, or breakout screening programs. Specific tasks under this function are

- ◆ receiving, maintaining, and furnishing technical data (e.g., specifications, standards, engineering drawings, and maintenance specifications, limitations, standards);
- ◆ providing technical support to item management, e.g., by reviewing requisitions and procurement requests for potential use of other assets (including substitution, cannibalization, use of actions for possible modification or interchangeability); and advising if nonstock numbered items should be stock numbered;
- ◆ providing technical support to the cataloging function (e.g., by performing technical review of part-numbered items to identify existing stock-numbered items and to preclude entering duplicate items);
- ◆ providing technical support to procurement by

- providing procurement technical data packages,
- identifying possible sources,
- answering contractors' technical inquiries,
- determining price reasonableness,
- approving or obtaining approval of requests for waivers, deviations, or alternate items,
- technically evaluating bids,
- evaluating freight origin or destination alternatives, and
- validating and revising procurement-method codes, including reviewing sole-source breakout;
- ◆ determining and coordinating preservation, packaging, packing, and quantities in unit packs for assigned items;
- ◆ proposing and maintaining I&S relationships;
- ◆ reviewing, recommending, or initiating actions resulting in materiel improvements and reduction of costs or complexity, including value engineering analyses and studies subject to the approval of the using military service;
- ◆ developing and effecting quality-assurance policies for procurement and storage, reviewing quality assurance provisions of contracts, and processing deficiency reports; and
- ◆ developing and maintaining technical data for
 - depot maintenance reparability standards;
 - specifications and limitations for repair, rebuild, and modification of items; and
 - work and project orders.

Weapon System Secondary Item Supply Support

This function involves actions (beyond normal item-management tasks) taken by the wholesale manager to maintain required levels of supply support for secondary items that apply to weapon systems and major end items. Specific tasks under this function are

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- ◆ acting as a liaison with program and system managers, acquisition commands, contractors, and activities responsible for technical data;
 - ◆ acquiring and maintaining application and essentiality data;
 - ◆ providing intensive management of items according to their criticality; and
 - ◆ reporting supply performance by weapon system.

SICA/USER FUNCTIONS

Allowance/Initial Supply Support List (ISSL) Development

This function involves determining, documenting, delivering, and adjusting secondary-item requirements that support the operational readiness of installed equipment and systems and are specifically tailored to customer and intermediate echelons. Specific tasks under this function are preparing and maintaining allowance lists, initial outfitting lists, equipment lists, and load lists and does not include tables of allowance or tables of organization and equipment.

Budgeting/Funding

This function involves the financial planning and resource management associated with the acquisition and maintenance of initial-issue and prepositioned war-reserve inventories of material owned by a military service and with the preparation of planning, programming, and budgeting documents, including the POM. The principal task under this function is to perform financial management and budget support.

Cataloging

This function involves those tasks resulting in the comprehensive logistics data record required to identify, requisition, ship, store, dispose of or make other logistics decisions related to an item of supply during its operational lifecycle. The tasks in this process include the following:

- ◆ *Supply support request (SSR) processing*—actions involved in processing a military service request to be made a user of an item managed by another military service or agency. Included in this process are the cataloging actions that record user interest, assign management data, and review and accept substitutes offered.
- ◆ *Data recordation and maintenance*—those actions necessary to ensure complete, accurate, and current logistics data records (excluding item characteristics data) for an item of supply. Such actions are normally ac-

completed as a result of item manager requests, system incompatibility notices, tech data revisions, I&S decisions, and periodic record review.

- ◆ *Item management coding*—the process of determining whether items of supply qualify for management by the military services rather than by DLA or the General Services Administration (GSA), in accordance with DoD Directive 4140.26-M¹.
- ◆ *Data dissemination*—all those events and products that provide logistical information to those customers who need it at every level of the supply system. These include
 - access to primary data systems;
 - microfiche, hard-copy, and compact-disc products based on those systems; and
 - telephonic information and written communication transmitted by various means.

Configuration Management

This function involves controlling and ensuring visibility of the physical and functional characteristics of items installed in equipment and weapon systems and ensuring form, fit, and functional compatibility of secondary items. The configuration management function includes processes such as serial number tracking and commodity modification planning. Specific tasks under this function are

- ◆ analyzing failure reports and unsatisfactory equipment reports, proposing material improvement projects, and coordinating action with engineering and the configuration control board; and
- ◆ participating in the configuration management process, including maintaining the status of modification applications.

Customer Services

This function involves customer liaison efforts for the respective military service. Specific tasks under this function are

- ◆ performing as the military service focal point for resolution of retail- and user-level supply and technical-support problems and
- ◆ coordinating with foreign countries on military sales.

¹ DoD Directive 4140.26-M, "Defense Integrated Materiel Management for Consumable Items," Volume II, Weapon System Oriented Items, August 1972.

Engineering Services

This function involves using engineering expertise relative to equipment and item management. Specific tasks under this function are

- ◆ conducting reliability assessments and quality-assurance reviews;
- ◆ making I&S considerations;
- ◆ determining assembly definition and material composition;
- ◆ performing accident and incident investigations and developing subsequent redesigns, engineering change proposals, and technical orders; and
- ◆ developing depot maintenance specifications.

Inventory Management

This function involves determining military service needs, developing stock levels, and determining and initiating supply actions. It includes DMRD 926 functions of requirement determination, distribution, requisition processing, and stock control. Specific tasks under this function are

- ◆ conducting approval review of controlled-item requisitions before passing them to PICA for action and providing funding authorization for valid requisitioned requirements;
- ◆ managing prepositioned war reserves (PPWR) for the respective military service, including processes such as requirements determination, funding acquisition, distribution, and stock control;
- ◆ preparing and submitting requisitions for PPWR materiel to PICA;
- ◆ preparing and submitting requisitions to PICA for delivery of initial spares to users or to SICA for consolidation and subsequent transshipment;
- ◆ maintaining accountable and memorandum stock records for initial-issue items and PPWR, establishing and maintaining due-in asset records, and processing receipt, issue, and adjustment transactions;
- ◆ providing program data to PICA, e.g., troop strength, flying hours, steaming hours, and ration factors; and
- ◆ computing and providing special program requirements to PICA and preparing the SSR or the comparable internal document.

Provisioning

This function involves determining and acquiring the range and quantity of support items necessary to operate and maintain an end item. Specific tasks under this function are

- ◆ participating in provisioning, including determining the range and depth of support items (does not include international logistics support);
- ◆ making initial code determinations for the SSR or the comparable internal document, including codes for acquisition advice, item management, procurement methods, source, maintainability, recoverability, I&S, and shelf life;
- ◆ determining and assigning condemnation codes, maintenance replacement factors, and rates for mean time between failures;
- ◆ instructing contractor personnel on FSC classification principles and provisioning screening; and
- ◆ preparing and submitting—or arranging for—provisioning screening requests.

Technical Support

This function involves determining the criteria for technical supply management in terms of reparability, interchangeability, and usage factors; determining requirements for preservation, packaging, and marking; developing weight and cube information; developing, maintaining, and furnishing drawings or military specifications standards, purchase descriptions, shelf life codes, deterioration codes, acquisition method codes, or other technical data; and efforts related to value engineering, reverse engineering, or breakout screening programs. Specific tasks under this function are

- ◆ providing application data to PICA;
- ◆ reviewing proposals for newly developed items for type classification;
- ◆ collaborating on I&S determination;
- ◆ reviewing and forwarding material deficiency reports to PICA;
- ◆ as the technical authority for the using military service, providing technical support to PICA (e.g., providing new and revised technical data and application data; determining acceptability of substitutes offered by the manufacturer or PICA; determining the acceptability of deviations, modified items, or waivers; and obtaining and providing engineering coordination);

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- ◆ developing, revising, and maintaining data for technical publications; and
 - ◆ analyzing failure reports and unsatisfactory-equipment reports, proposing materiel improvement projects, and coordinating action with engineering and the configuration control board.

Weapon System Management

This function involves the process of planning, organizing, and coordinating the efforts of responsible organizational elements and individuals, beginning with the production phase and continuing through the life of the system, to ensure operational readiness of a weapon system or support system through effective, timely, and economical logistics support. Specific tasks under this function are

- ◆ performing support capability studies;
- ◆ performing as the military service focal point for logistics support of assigned weapon systems;
- ◆ participating in preparation of all applicable sections of the integrated logistics support plan;
- ◆ keeping informed of the logistics support status of assigned systems by tracking and analyzing systems readiness and deficiencies, investigating and analyzing causes of excessive failure rates (parts failure, training, and supply), determining action required to correct outstanding deficiencies, and evaluating logistics support problems and ensuring adequate and timely action by appropriate functional elements to resolve such problems;
- ◆ maintaining liaison with operating commands and other DoD components;
- ◆ maintaining liaison with all functional elements involved in weapon-system support, including item management, technical support, requisition processing, depot maintenance, and engineering;
- ◆ developing an annual depot-level maintenance program for assigned weapon and support systems (including proposed work requirements and intervals), negotiating with using commands, and programming and controlling funds for depot-level maintenance; and
- ◆ allocating and scheduling assigned weapon and support systems into organic or commercial depot-level maintenance facilities, initiating procurement where applicable, and exercising surveillance over production.

Appendix C

Scoring of Impact

We polled military service subject-matter experts at service logistics headquarters and one inventory control point on the potential impact of transferring ICP functions. These experts scored the impact of transferring management of each ICP function against their respective criteria, using either a minus sign, a plus sign, or a zero. A minus sign indicated that the transfer of management for that function would result in a negative impact for that criteria, a plus sign indicated a positive impact, and a zero meant little or no impact. Using the same system, we also scored the impact of transferring each function.

The remainder of this appendix presents a brief description of each function followed by the impact scoring of each military service for each criterion in Tables C-1 through C-19. In Figures C-1 through C-19 we show the percentage distributions of negative scores, little- or no-impact scores, and positive scores. Separate distributions are shown for each military service and for our own scoring.

The Air Force has two sets of scores for each function—one for the AFMC and one for OC-ALC. We had wanted to get two sets of scores from each military service, but most services gave us one set representing both their logistics headquarters and ICP positions.

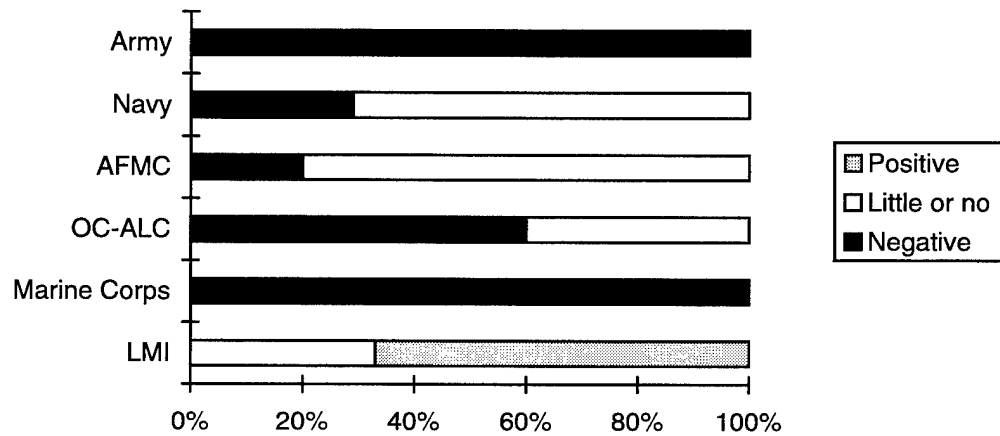
IMM BUDGETING/FUNDING

This function involves financial planning and resource management associated with the acquisition and maintenance of inventories of materiel managed by the IMM; and with the preparation of planning, programming, and budgeting documents, including the POM.

Table C-1. Impact Scoring for IMM Budgeting/Funding Function

Criterion	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	—	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	—	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	—	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-1. Impact Distributions for IMM Budgeting/Funding Function



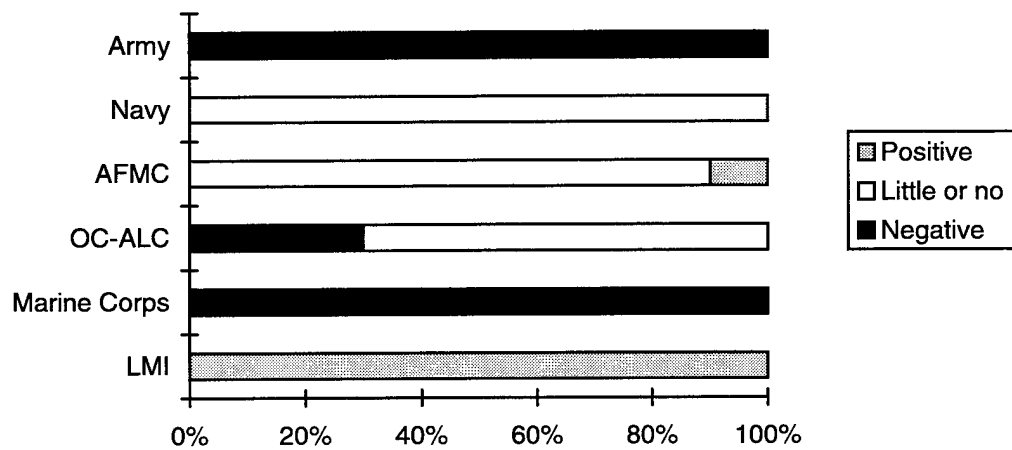
IMM CATALOGING

This function involves generating the comprehensive logistics data record required to identify, requisition, ship, store, dispose of, or make other logistics decisions about an item of supply during its operational life cycle.

Table C-2. Impact Scoring for IMM Cataloging Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	0	—
Weapon-system life cycle	—	0•	+	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	0	0	—	—
Automated data-processing systems	—	0	0	0	
Qualified personnel			0	0	
Ability to implement			0	0	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-2. Impact Distributions for IMM Cataloging Function



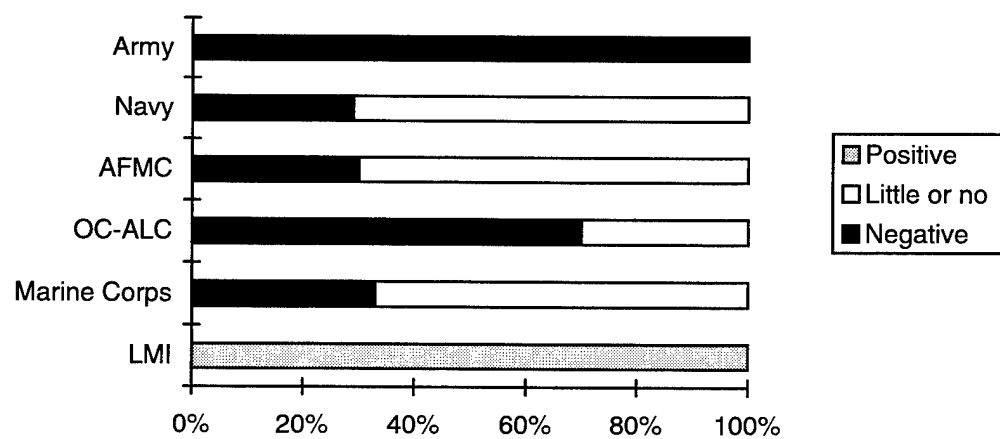
IMM CONTRACTING

This function involves developing, executing, and managing contracts supporting item management, including pre-award and post-award decisions.

Table C-3. Impact Scoring for IMM Contracting Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	0
Sustainability	—	0	0	0	0
Customer support	—	—	0	—	—
Weapon-system life cycle	—	0	0	0	0
Resource allocation	—	0	—	—	0
Interfaces	—	—	—	—	—
Automated data-processing systems	—	0	0	—	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-3. Impact Distributions for IMM Contracting Function



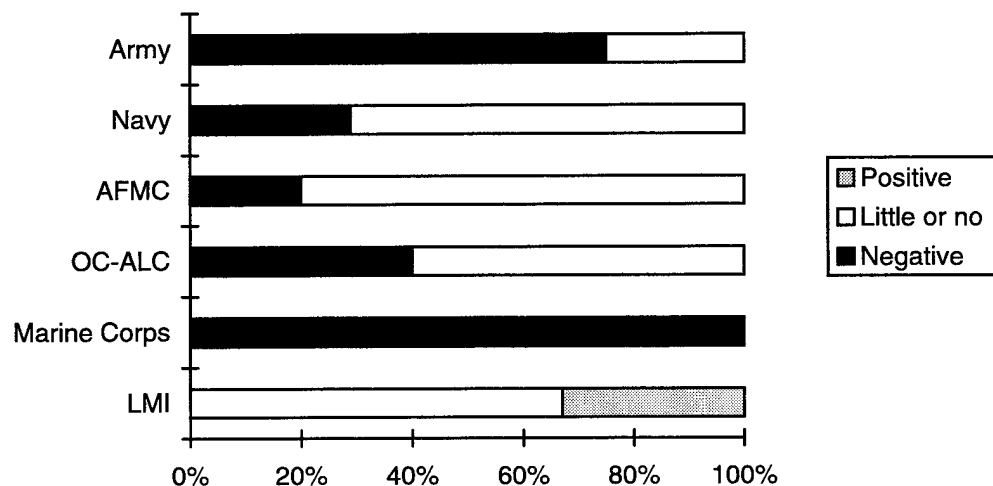
IMM CUSTOMER SERVICES

This function involves the process of expediting procurement and requisition-related repair, issuance, and delivery of urgent item requirements applicable to impaired mission capabilities and work stoppages and includes customer liaison efforts.

Table C-4. Impact Scoring for IMM Customer Services Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	0	0	0	0	—
Customer support	—	—	0	0	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-4. Impact Distributions for IMM Customer Services Function



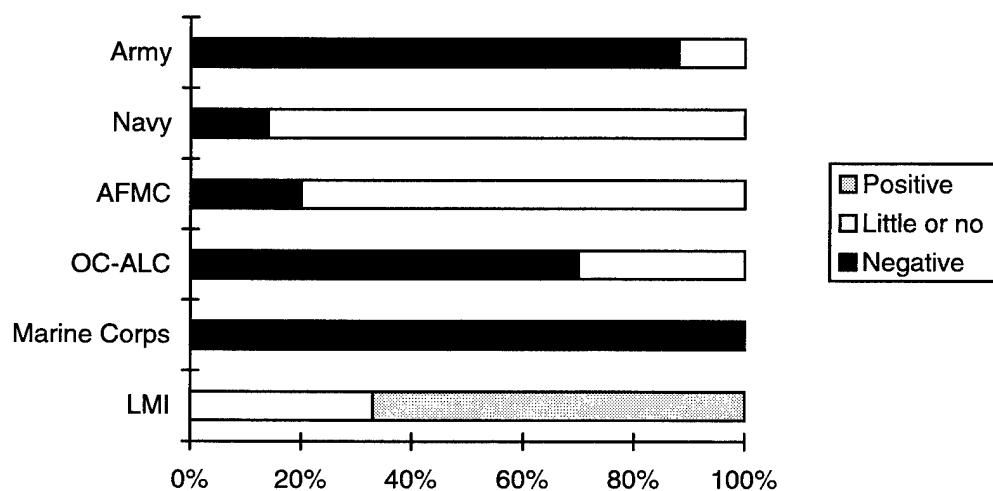
IMM ENGINEERING SUPPORT

This function involves using engineering expertise relative to equipment and item management.

Table C-5. Impact Scoring for IMM Engineering Support Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	—	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-5. Impact Distributions for IMM Engineering Support Function



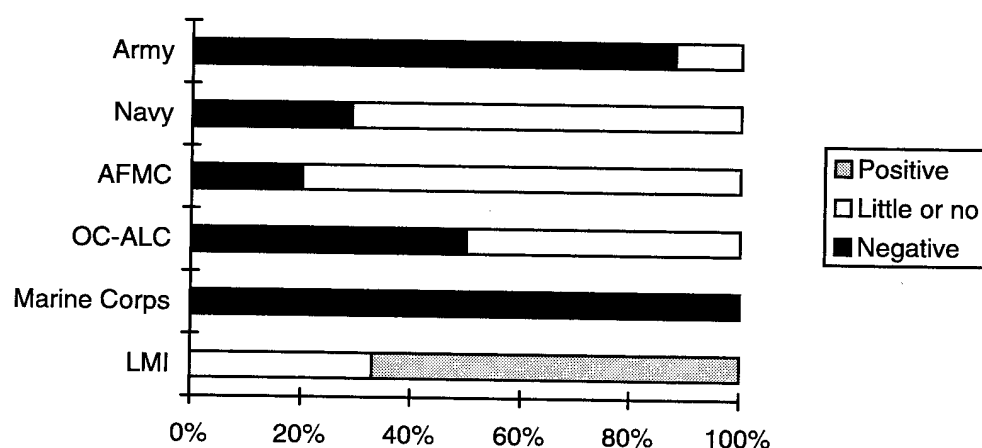
IMM ITEM MANAGEMENT

This function involves determining customer needs, selecting the method of management, developing stock levels, and determining and initiating supply actions (i.e., buy, repair, contract termination, distribution, maintenance, and disposal actions). It includes the DMRD 926 functions that involve disposal decisions, distribution decisions, maintenance management, and requirements determination.

Table C-6. Impact Scoring for IMM Item Management Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	—	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-6. Impact Distributions for IMM Item Management Function



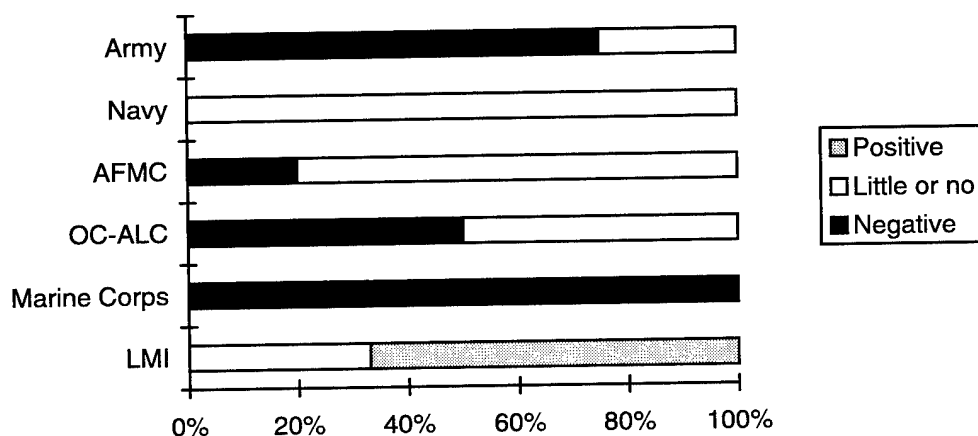
IMM REQUISITION PROCESSING

This function involves receiving, recording, and filling requisitions; maintaining requisition files; researching technical-data; providing status information on requisitions; and maintaining liaisons with using activities.

Table C-7. Impact Scoring for IMM Requisition Processing Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	0	0	0	—	—
Weapon-system life cycle	0	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	0	—	—	—
Automated data-processing systems	—	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-7. Impact Distributions for IMM Requisition Processing Function



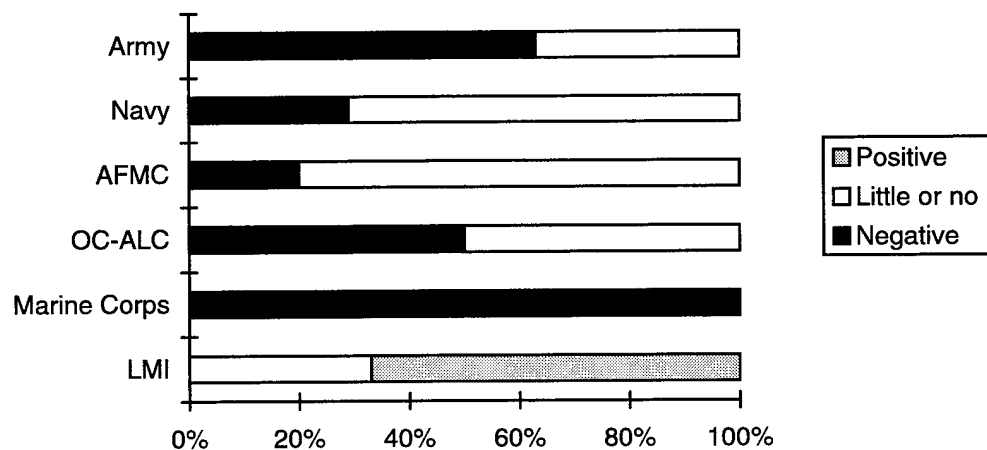
IMM STOCK CONTROL

This function involves establishing and maintaining accountable and memorandum on-hand asset records and due-in asset records and includes reconciling records, processing documents other than requisition-related documents affecting stock records, and coordinating physical inventories with storage activities.

Table C-8. Impact Scoring for IMM Stock Control Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	0	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	—	0	—	—
Interfaces	0	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-8. Impact Distributions for IMM Stock Control Function



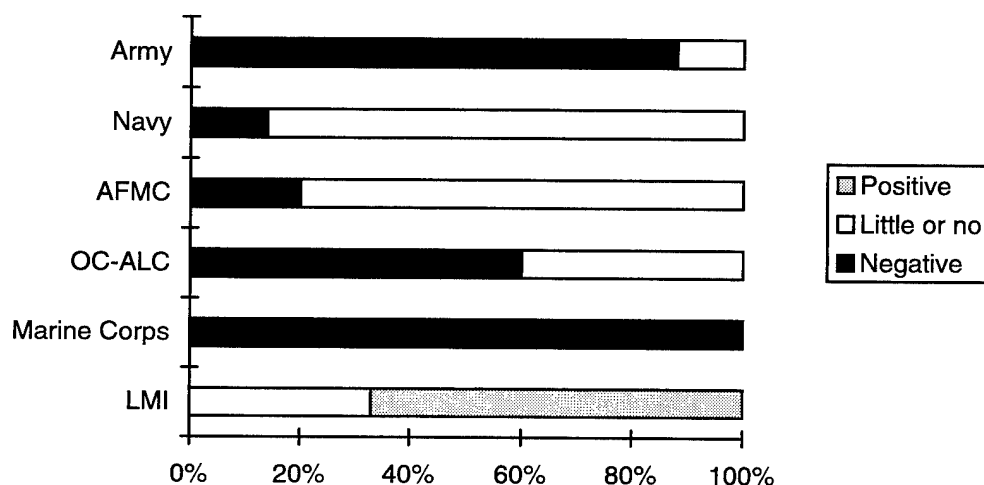
IMM TECHNICAL SUPPORT

This function involves determining technical supply management criteria regarding reparability, interchangeability, and usage factors; determining preservation, packaging, and marking requirements; developing weight and cube information; developing, maintaining, and furnishing drawings or military specifications and standards, purchase descriptions, shelf life codes, deterioration codes, acquisition method codes, or other technical data; and efforts related to value engineering, reverse engineering, or breakout screening programs.

Table C-9. Impact Scoring for IMM Technical Support Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-9. Impact Distributions for IMM Technical Support Function



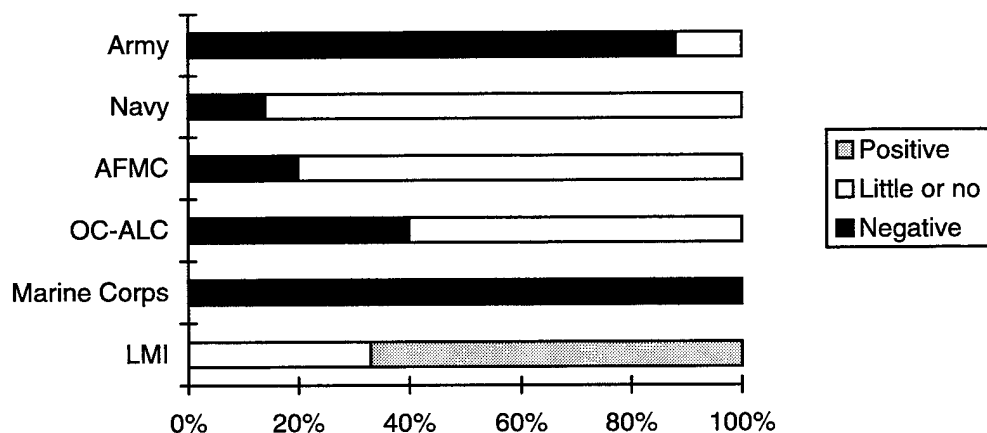
IMM WEAPON SYSTEM SECONDARY ITEM SUPPLY SUPPORT

This function involves actions (beyond normal item management tasks) taken by the wholesale manager to maintain required levels of supply support for secondary items with application to weapon systems and major end items.

Table C-10. Impact Scoring for IMM Weapon System Supply Support Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	0	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-10. Impact Distributions for IMM Weapon System Supply Function



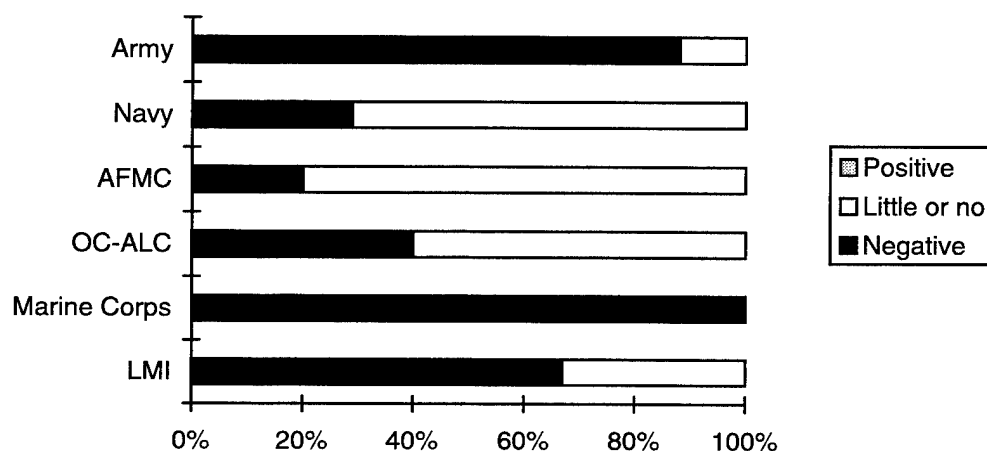
USER ALLOWANCE/INITIAL SUPPLY SUPPORT LIST DEVELOPMENT

This function involves determining, documenting, and adjusting secondary-item requirements to support the operational readiness of installed equipment and systems and tailoring those requirements to customer and intermediate echelons of supply.

Table C-11. Impact Scoring for User Allowance/ISSL Development Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	0	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	—	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-11. Impact Distributions for User Allowance/ISSL Development Function



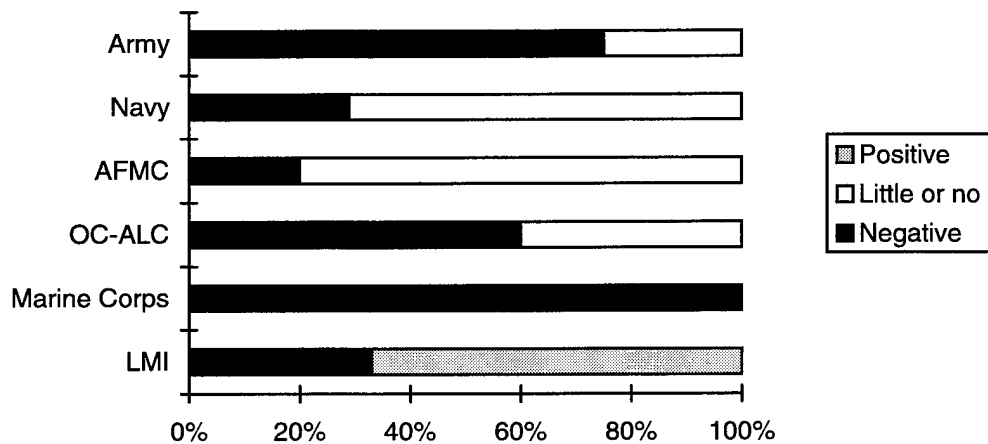
USER BUDGETING/FUNDING

This function involves the financial planning and resource management associated with the acquisition and maintenance of initial issue and prepositioned war reserve inventories of service-owned materiel, including the preparation of planning, programming, and budgeting documents (e.g., the POM).

Table C-12. Impact Scoring for User Budgeting/Funding Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	0	0	0	—	—
Sustainability	—	0	0	—	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	—	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-12. Impact Distributions for User Budgeting/Funding Function



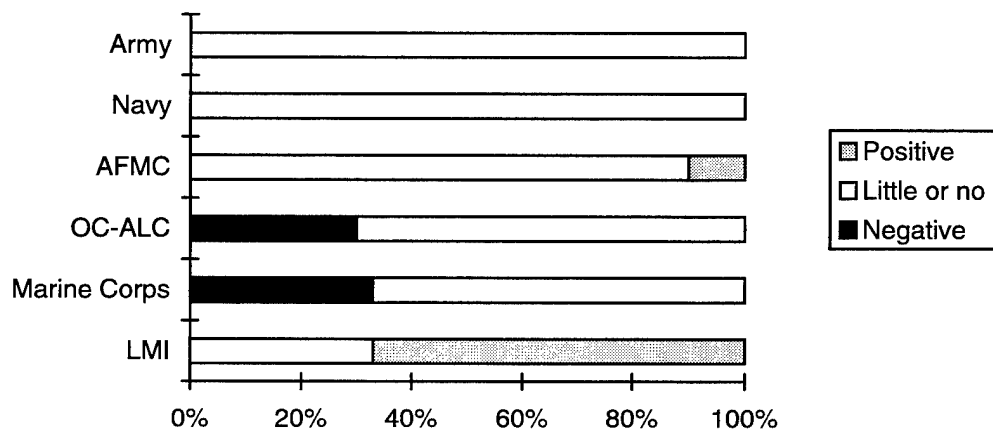
USER CATALOGING

This function involves those tasks resulting in the comprehensive logistics data record required to identify, requisition, ship, store, dispose of, or make other logistics decisions related to an item of supply during its operational life cycle.

Table C-13. Impact Scoring for User Cataloging Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	0	0	0	—	0
Sustainability	0	0	0	0	0
Customer support	0	0	0	0	—
Weapon-system life cycle	0	0	+	0	0
Resource allocation	0	0	0	—	0
Interfaces	0	0	0	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			0	0	
Synergism	0				
Transparent to warfighter			0	0	

Figure C-13. Impact Distributions for User Cataloging Function



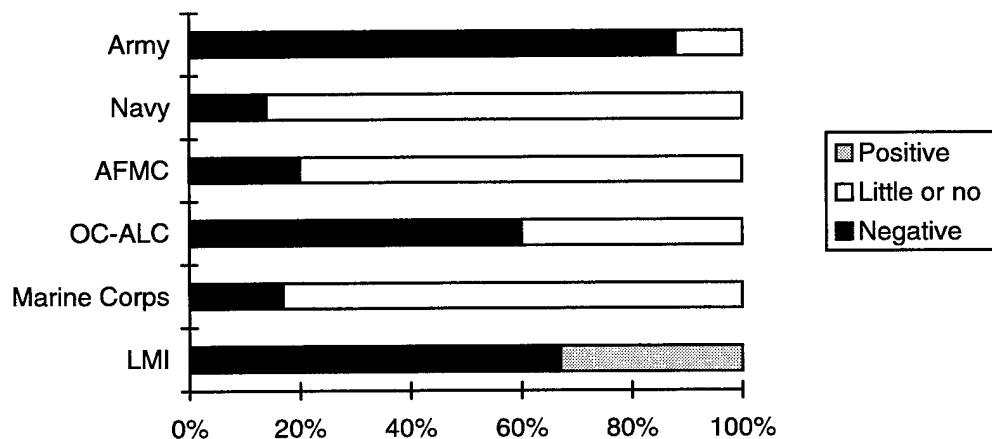
USER CONFIGURATION MANAGEMENT

This function involves controlling and ensuring visibility of the physical and functional characteristics of items installed in equipment and weapon systems and ensuring form, fit, and functional compatibility of secondary items. It includes processes such as tracking serial numbers and planning commodity modifications.

Table C-14. Impact Scoring for User Configuration Management Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	0
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	0
Weapon-system life cycle	—	0	0	0	0
Resource allocation	—	0	0	—	0
Interfaces	—	—	—	—	0
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-14. Impact Distributions for User Configuration Management Function



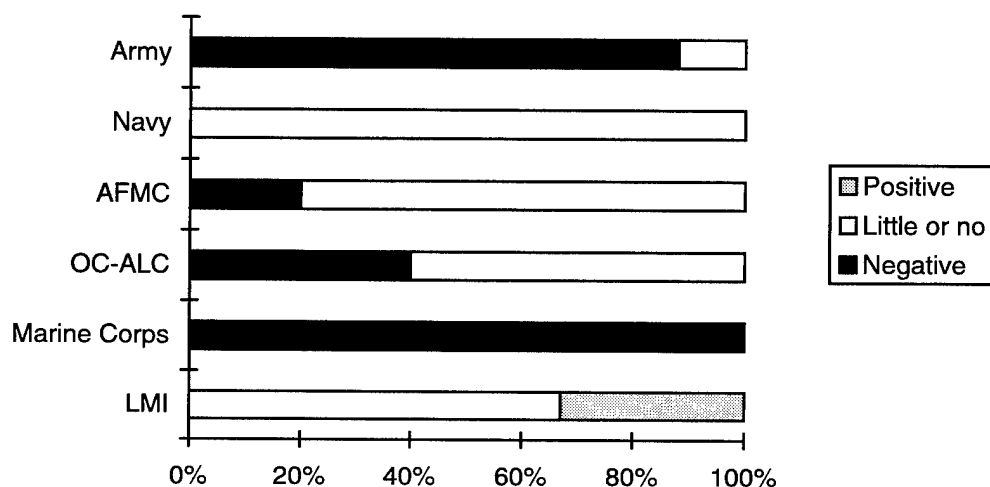
USER CUSTOMER SERVICES

This function involves customer liaison efforts for the respective military service.

Table C-15. Impact Scoring for User Customer Services Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	0	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	0	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-15. Impact Distributions for User Customer Services Function



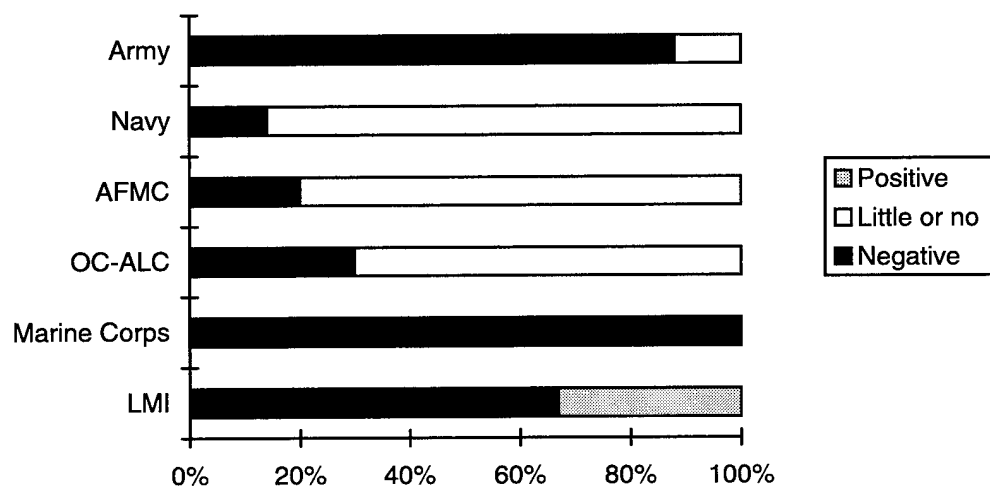
USER ENGINEERING SERVICES

This function involves the application of the using Service's engineering expertise in equipment and end item management.

Table C-16. Impact Scoring for User Engineering Services Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	—	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-16. Impact Distributions for User Engineering Services Function



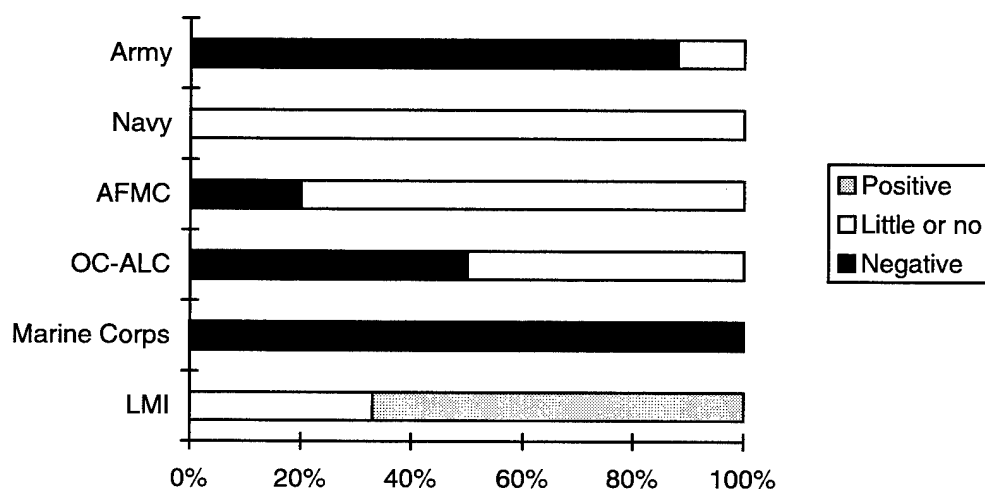
USER INVENTORY MANAGEMENT

This function involves determining military service needs, developing stock levels, and determining and initiating supply actions.

Table C-17. Impact Scoring for User Inventory Management Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	—
Sustainability	—	0	0	0	—
Customer support	—	0	0	—	—
Weapon-system life cycle	—	0	0	0	—
Resource allocation	—	0	0	—	—
Interfaces	—	0	—	—	—
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-17. Impact Distributions for User Inventory Management Function



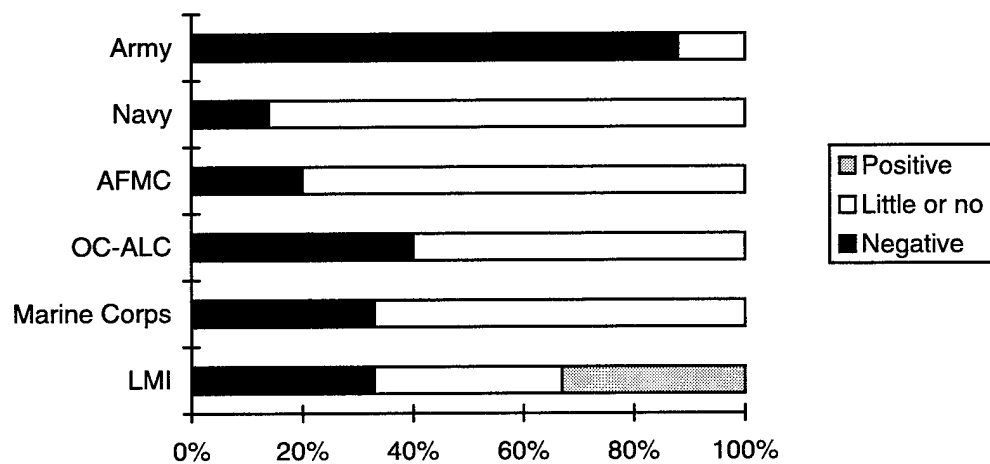
USER PROVISIONING

This function involves determining and acquiring the range and quantity of support items necessary to operate and maintain an end item of materiel.

Table C-18. Impact Scoring for User Provisioning Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	0
Sustainability	—	0	0	0	0
Customer support	—	0	0	0	—
Weapon-system life cycle	—	0	0	0	0
Resource allocation	—	0	0	—	—
Interfaces	—	—	—	—	0
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	0	

Figure C-18. Impact Distributions for User Provisioning Function



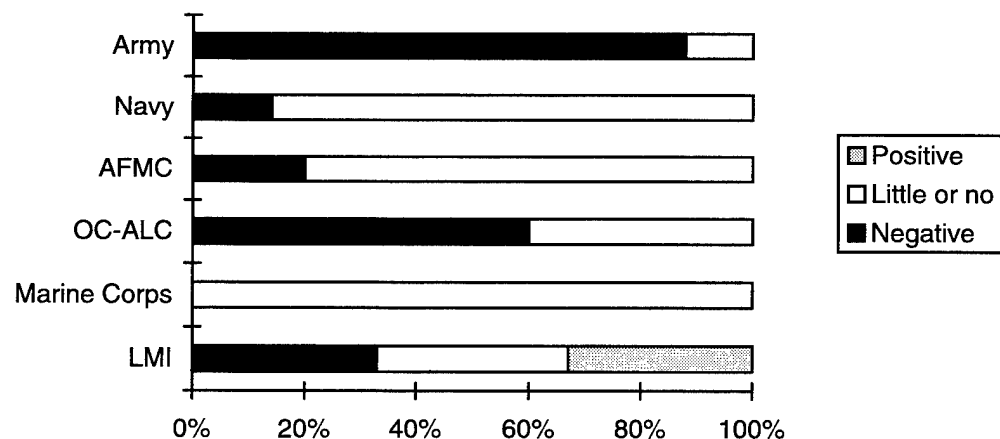
USER TECHNICAL SUPPORT

This function involves determining criteria for technical supply management. These criteria relate to reparability, interchangeability, and usage factors; determination of preservation, packaging, and marking requirements; development of weight and cube information; development, maintenance, and furnishing of drawings or military specifications and standards, purchase descriptions, shelf life codes, deterioration codes, acquisition method codes, or other technical data; and efforts related to value engineering, reverse engineering, or breakout screening programs.

Table C-19. Impact Scoring for User Technical Support Function

Criteria	Army	Navy	AFMC	Air Force OC-ALC	Marine Corps
Weapon-system readiness	—	0	0	—	0
Sustainability	—	0	0	0	0
Customer support	—	0	0	—	0
Weapon-system life cycle	—	0	0	0	0
Resource allocation	—	0	0	—	0
Interfaces	—	—	—	—	0
Automated data-processing systems	0	0	0	0	
Qualified personnel			0	0	
Ability to implement			—	—	
Synergism	—				
Transparent to warfighter			0	—	

Figure C-19. Impact Distributions for User Technical Support Function



Appendix D

Process Improvements

This appendix discusses the business process improvements that DLA could make as the single manager for all inventory control points. Currently, DLA is the single manager for DoD's supply depots (excluding ammunition depots), marketing and reutilization business (i.e., disposal), and contract administration.

The Logistics Management Institute is the source of the 16 improvements listed in Table D-1 and presented in detail in this appendix. In compiling the list, we considered current initiatives in the military services and DLA and how they might be extended DoD-wide, recommendations of major studies in materiel management, and our own experiences in studying ways to improve DoD materiel management.

Table D-1. Process Improvements (in order presented in appendix)

Improvement	Implementation	Part of estimate of savings in costs other than ICP labor costs
Contracting methodology and process	POM	Yes
Inactive-item deletion	POM	Yes
Catalog total quality management	POM	No
Improved demilitarization	POM	No
Improved stock positioning	POM	No
Item reduction and entry control	POM	No
Secondary-item provisioning on end-item contracts	POM	No
Source breakout	POM	No
Work-loading of depot maintenance	POM	No
Integration of initial and replenishment requirements	Post-POM	Yes
Single set of ICP policies and procedures	Post-POM	Yes
Integration of wholesale and retail requirements	Post-POM	No
Reduction of service-unique catalog data	Post-POM	No
Single-design activity for materiel management system	Post-POM	No
Single ICP managing items on a weapon system	Post-POM	No
Uniform credit policy for returns	Post-POM	No

CONTRACTING METHODOLOGY AND PROCESS

This process improvement would improve the efficiency of contracting by emphasizing corporate contracting (i.e., combining all military service and DLA procurement requirements from a vendor on a contract that all can use) and reduced lead times in policies and procedures. Savings from this improvement are included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

For purposes of this improvement, items and their procurements fall into two categories—those that lend themselves to multiple-year, multiple-item, indefinite-delivery contracts and those that do not. We will refer to these items and procurements as Category A and Category B, respectively.

For Category A, DLA would review all of the items that are normally procured from common industry sources and establish individual 4- to 5-year contracts with those sources. The contracts would be either requirement or indefinite-quantity type (when maintaining more than one source is desirable, indefinite-quantity contracts would be used). To maximize the number of contracts reduced during the POM phase, in those instances where both a former military service ICP and a current DLA ICP have a significant number of items from a common source, one ICP would be designated as the lead activity for awarding a single contract. Implementation would take from 4 to 6 years and would not begin until at least year 2 of the POM period.

Once Category A contracts are in place, orders could be placed frequently (e.g., daily for direct delivery orders, weekly or monthly for stock orders). Administrative lead-time (ALT) for these orders would be one or two days, a considerable reduction over the normal administrative time for a procurement. We would also anticipate a substantial reduction in production lead-time (PLT), as the commercial source would be supplying smaller and more regular orders.

Category A contracting offers several advantages:

- ◆ The transition from multiple contracts to a single contract for a source of supply would reduce contracting and contract administration workload by several orders of magnitude.
- ◆ The transition from multiple procurements to multiple delivery orders against a single contract should also significantly reduce inventory management and technical workload, since the labor required to process a procurement is much greater than that required for a direct order.
- ◆ As previously noted, ALT would become insignificant and PLT would be reduced significantly.

- ◆ Establishing a broad-based, long-term relationship with sources of supply should result in lower acquisition prices.
- ◆ A one-time postponement of obligations should occur, as a one-time delay in procurements would take place to account for shorter production lead-times and that delay will cause funds to be obligated later.
- ◆ The reductions in ALT and PLT, coupled with direct vendor delivery, would reduce safety-level requirements.
- ◆ The lower cost of processing a delivery order versus a procurement will reduce order quantities and this in turn will reduce on-hand inventory and inventory holding costs.
- ◆ ALT and PLT reductions would cause orders to be placed closer in time to actual demand and the results could be less overstockage and understockage and more responsiveness to customer orders with less inventory investment.

For Category B items and their procurements, we anticipate that DLA processes (not requiring major system changes) would be applied to reduce ALT. We would also anticipate that DLA would include, for bid evaluation, PLT factors as well as price in their invitations to bid and this would provide incentives to contractors to reduce delivery times. We would also foresee the use of phased deliveries to reduce production lead-times.

Category B contracting offers two advantages:

- ◆ Reductions in ALT and PLT will result in lower safety levels with associated reductions in inventory and holding costs.
- ◆ The lower times would also result in a contracting system that is more responsive to changing materiel requirements.

Costs and Benefits

For Category A contracts, DLA would incur the cost of establishing multiple-year, multiple-item contracts. We foresee no additional costs for Category B contracting, as those actions could be taken within current staffing levels.

Tangible benefits from both categories of improvement would include savings in direct and indirect personnel (in the functions of inventory management, contracting, and technical support), inventory investment, and acquisition costs. (Less tangible savings could occur in contract administration costs.)

Intangible benefits would include a more responsive acquisition process to changing materiel requirements and less paperwork for the government and prime contractors as the number of contracts between the two parties decreases.

Expected Period of Savings

We assumed that it would take DLA one year (FY98) to promulgate new contracting policies and another year (FY99) to award the first indefinite delivery contracts. Therefore, costs would start to accrue in year 2 of the POM period, while savings would start to accrue in year 3 of the POM period (FY00) and continue into the post-POM period.

Analysis of Savings

To estimate savings, we used the following data sources:

- ◆ The September 1995 budget estimate submissions (BESs) of the military services provided the dollar value and number of days for each of their requirement levels (i.e., safety levels, ALT and PLT levels, and procurement-cycle quantities). For the Army, consumable and reparable item levels are combined, but we were able to use March 1994 stratification reports to obtain the consumable-to-reparable ratios to split the levels.
- ◆ The number and value of procurement actions were obtained from the DMRD 926, *ICP Consolidation Study*, data; the CORM data for the military services; and data provided to OSD ICP benchmarking study and provided by DLA.

Table D-2 summarizes our savings estimates in ICP labor costs. We did not include these savings separately in our process improvement estimates but used them to justify our process improvement savings percentages in ICP labor costs during the POM and post-POM periods.

Table D-2. Category A Labor Savings

Fiscal year	FTE reduction	Dollar savings (in millions)	Overall reduction in procurement related labor
1999	(33)	\$(1.6)	-1%
2000	113	\$5.6	2%
2001	260	\$12.8	5%
2002	406	\$20.0	8%
2003	553	\$27.2	10%
2004–	670	\$33.0	13%

Note: Numbers in parentheses are negative.

Table D-3 summarizes our savings estimates in costs associated with areas of materiel management other than ICP labor costs. In deriving our estimates, we assumed the following values for key factors:

- ◆ Category A had 20 percent of the consumable items and contracts and 5 percent of the reparable items and contracts, while Category B had the remainder.
- ◆ Category A items had a 96 percent reduction in ALT and 33 percent and 20 percent reductions in consumable and reparable PLT, respectively.
- ◆ Category B items had 25 percent and 15 percent reductions in consumable and reparable ALT, and 15 percent and 10 percent reductions in consumable and reparable PLT, respectively.
- ◆ Category A items had a low-end price reduction of 5 percent for consumable items and 2.5 percent for reparable items and high-end price reductions of 10 percent for consumable items and 5 percent for reparable items.
- ◆ Safety-level reductions were equal to the square root of the total lead-time reductions, while procurement-cycle quantity reductions were equal to the square root of price reductions.
- ◆ Starting in FY00, all changes were phased in at 20 percent per year for consumable items and 25 percent per year for reparable items.

*Table D-3. Estimated Savings in Other Costs
(in millions of dollars)*

	Requirement-level savings		Acquisition-price savings		Total savings	
Fiscal year	Safety level	Procurement cycle	Low end	High end	Low end	High end
1998	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
1999	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
2000	\$68.7	\$0.3	\$10.9	\$21.7	\$79.8	\$90.7
2001	\$70.7	\$0.5	\$21.7	\$43.4	\$92.9	\$114.6
2002	\$72.8	\$0.8	\$32.6	\$65.1	\$106.2	\$138.7
2003	\$75.0	\$1.1	\$43.4	\$86.8	\$119.5	\$162.9
POM	\$287.3	\$2.7	\$108.5	\$217.1	\$398.4	\$507.0
2004	\$19.6	\$1.3	\$51.2	\$102.4	\$72.2	\$123.3
2005—(steady state)	\$3.0	\$1.3	\$51.2	\$102.4	\$55.5	\$106.7
Post-POM	\$37.5	\$9.3	\$358.3	\$716.5	\$405.0	\$763.3

INACTIVE-ITEM DELETION

This process improvement would involve a one-time major action to delete the number of inactive items and thus reduce the staffing requirements associated with item management and the costs associated with maintaining unneeded materiel. Savings from this improvement are included in our bottom-up post-POM estimate of savings in costs other than ICP labor costs.

Description of Improvement

A significant portion of the items in the DoD catalog have had no demands for one or more years. The Defense Inactive Item Program (DIIP) is supposed to review and delete inactive items annually. However, the current organizational boundaries between DLA item managers and military service ICP personnel who are managing user application files tends to reduce emphasis on the program and thereby favors the retention of inactive items.

DLA could strengthen the program by promoting mechanized processes that would enable registered users of an inactive item to identify current applications and expected life of the applications. For example, items that have Air Force registered users would be checked against the Air Force Stock Number User Directory files, while Navy registered items would be checked against Navy allowance files (i.e., shipboard, aviation, and shore-based allowances). Items without demands would be checked for assets. Those items with assets would be further checked against procurement histories for date of last procurement, transaction registers for date of last activity, catalog records for date of entry into the catalog system, and provisioning records to try to identify item applications. Items that fail to pass any mechanized processes for activity identification would be prime candidates for deletion from the catalog.

The number of inactive items could be as high as 1 million items. A major reduction in this number of items could

- ◆ improve management information by eliminating items without application or use and simplify the cataloging workload,
- ◆ dispose of the inventory of those items no longer used by DoD,
- ◆ reduce the number of items assigned to inventory managers, and
- ◆ lead to improvement in the quality of application data as DIIP increases the attention given to those data.

Costs and Benefits

We assume that any costs to enhance DIIP could be absorbed within current staffing. Tangible benefits of an enhanced DIIP would be direct labor savings (in the inventory management, technical support, and cataloging functions) and non-labor costs associated with maintaining the Defense Logistics Service Center (DLSC) catalog and all user catalogs.

An intangible benefit is that this process improvement would improve the DoD image as a good steward of the public investment in inventory by eliminating any waste in maintaining items that no longer have an application within DoD.

An intangible cost could arise if materiel were disposed of but was required later and had to be reprocured. This situation could occur for high-reliability items on older, low-density weapon systems. Such systems did not have complete item application files, and high reliability items on these systems would appear to inactive when in fact they just has extended periods of no demand.

Expected Period of Savings

Savings would begin in the POM period (in FY01) and continue through the post-POM period.

Savings Analysis

The military service submissions to the DMRD data call reported 1,501,130 consumable items, of which 812,197 or 54 percent were without demands for 2 or more years. Currently, approximately 4.5 million consumable items have registered DoD users. After we rounded down the number of items to 4 million and the percentage of items without demand to 50 percent, we arrived at an estimated 2 million candidate items that might be inactive.

To estimate the savings that an enhanced DIIP might yield for the 2 million candidate items, we used the following factors:

- ◆ An estimated \$25 for the annual cost of maintaining an inactive item (includes the cost of having the item in the DLSC and ICP files, labor costs of managing an inactive item, and inventory costs for an inactive-item asset).
- ◆ Low- and high-end estimates of 8 percent and 12 percent for the actual number of inactive items from the population of candidate items.

Table D-4 summarizes the results of our savings computations. Given that the savings are a mixture of savings in ICP labor and other costs, we used the POM-period estimates to support our process improvement savings in ICP labor

costs during the POM period and used the post-POM estimates as part of our post-POM savings in other costs.

*Table D-4. Estimated Savings for Inactive-Item
Process Improvement*

Period	Low-end estimate	High-end estimate
POM	\$4.8	\$7.2
Post-POM	\$27.2	\$40.8
Annual steady state	\$4.0	\$6.0

CATALOG TOTAL QUALITY MANAGEMENT

This process improvement builds on a special program developed by DLSC to review all coding in the item catalog for consistency among the data elements and to ensure that all codes and combinations are authorized. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

To correctly make requirement computations, process requisitions, and make repair or procurement recommendations, materiel management systems depend on the accuracy of the catalog data. However, many erroneous and inconsistent data elements exist within the catalog. Items are coded as depot-level reparable items and principal items but have low unit prices and improper acquisition advice codes.

As the single ICP manager, and therefore the single cataloger within DoD, DLA could move to strengthen the program and thereby correct a much larger number of these errors. The enhanced program would eliminate "user data" when the supplier of that data is not a registered user. It would identify apparent inconsistencies and refer them to the proper source for review and correction.

Costs and Benefits

The cost of an enhanced program could be absorbed within current staffing. Intangible savings would arise from better decision-making by materiel management personnel using the catalog data.

Expected Period of Savings

Savings would begin in year 2 of the POM period and continue on through the post-POM period.

IMPROVED DEMILITARIZATION

This process improvement would attack demilitarization coding and funding problems that are cited in the 1995 report of a DoD inventory review task force.¹ Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Before being disposed of, some items must be demilitarized. Currently, the military services equipment specialists are responsible for assigning demilitarization codes, while DLA's defense reutilization and marketing offices are responsible for funding and accomplishing demilitarization.

Historically, confusion has existed about who is responsible for funding demilitarization, and ICPs were reluctant to dispose of materiel in the belief that they lacked funding. However, because DLA is now requiring ICPs to reimburse the agency for the cost of storing their materiel, incentive exists to transfer potential excess materiel to disposal. Therefore, to avoid unnecessary demilitarization costs or delays in disposing of materiel, demilitarization codes need to be validated before materiel disposal. As both the manager of the demilitarization process and the manager of equipment specialists setting demilitarization codes, DLA could act to ensure that all codes are valid and up-to-date before materiel disposal.

Costs and Benefits

A new demilitarization and disposal process could reduce demilitarization costs through better need verification and reduce inventory holding costs through faster processing of disposal actions.

Expected Period of Savings

We would anticipate that this process improvement could be implemented in year 2 of the POM period, with the first savings occurring in year 3 of the POM period and continuing through the post-POM period.

IMPROVED STOCK POSITIONING

This process improvement would combine DLA's joint responsibilities of ICP materiel management and depot distribution to better integrate the stock-positioning policies for materiel management with objectives for distribution

¹ Inventory Review Task Force, *Final Report to the Deputy Under Secretary of Defense (Logistics)*, March 1995, pp. 3-6 and 3-7.

depots. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Currently, DLA manages all distribution depots. However, ICPs store their materiel in a limited number of depots and no coordination exists among the military services on where support for particular customers is coming from.

If DLA controlled all the ICPs, it could institute new stock-positioning policies and procedures that would coordinate the storage and distribution of materiel for all customers. These new policies and procedures would consider special conditions, such as the Navy's tidewater requirements; depot maintenance requirements, including receipt, storage, and issue of depot-level reparable items at storage sites collocated with the depot maintenance point; and the possibility of wholesale warehouse locations within the maintenance facilities to minimize the cost and time to transfer materiel to and from maintenance.

The advantages of these new policies and procedures would be

- ◆ increased shipment consolidation, resulting in reduced transportation costs and response time;
- ◆ reduced response time, through better positioning of stock; and
- ◆ better depot planning, which could result in reduced storage costs through decreasing the number of occupied buildings and/or installations.

Costs and Benefits

This improvement would reduce distribution costs and retail inventory costs involved in maintaining inventory to cover wholesale response times.

Expected Period of Savings

We would anticipate that the new policies and procedures would be implemented in year 2 of the POM period, with savings starting in year 3 of the POM period and continuing until warehouse and depot reduction and repositioning of stock are complete.

ITEM REDUCTION AND ENTRY CONTROL

This process improvement would extend the DLA program to review items for possible reduction from several items to one item. It would build on the closer relationship between DLA and weapon-system program managers after the transfer to reduce the introduction of new items during the design phase of weapon-system

development. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

The current ICP infrastructure causes some proliferation of items, as one or more military service could be managing items that are the same or substitutable but with different national stock numbers and different nomenclatures. Often this problem occurs during the design phase of a new weapon system, when a new item is established although an equivalent item is already in the system.

As the single manager for all secondary items, DLA could act to reduce any item duplication. It could establish better processes during weapon-system design to ensure that all equivalent items are identified.

The advantages of such a program would be

- ◆ a reduction in the number of items cataloged and managed, and the amount of technical data purchased;
- ◆ an associated reduction in both wholesale and retail inventory investment; and
- ◆ a lower disposal rate when equivalent items become obsolete.

Costs and Benefits

This improvement would reduce the number of items and thereby reduce the inventory-management, contracting, technical, cataloging, and engineering personnel involved in managing those items. It would also reduce the amount of inventory and related holding costs in stocks for equivalent items. Lower disposal rates would lower the surcharge that goes into customer purchase prices.

Expected Period of Savings

We would anticipate that DLA would begin to implement the program in year 2 of the POM period, with first results in year 3 of the POM period. The program would be ongoing for new items, but the overall savings-to-cost ratio should decrease as the number of existing duplicates are reduced.

SECONDARY-ITEM PROVISIONING ON THE END-ITEM CONTRACT

This process improvement would establish a DoD program that would include provisioning line items in the end-item contract for the purchase of sole-source

secondary items from the prime contractor rather than preparing separate contracts. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Currently, provisioning often is divided between military service ICPs and DLA ICPs. Within a military service ICP that has collocated weapon-system program managers (i.e., Army and Air Force ICPs), secondary-item managers take advantage of provisioning contracts for end items and include additional lines for the secondary items they manage. This improvement would extend that advantage across all ICPs so that initial parts procurement would be obtained by writing modifications (provisioning orders) against the prime contract rather than negotiating a separate contract.

The advantages of this improvement are

- ◆ fewer procurement contracts and, therefore, lower labor requirements and
- ◆ potential price reductions as contractor administrative costs are reduced when more items are on a single contractual vehicle.

Costs and Benefits

This improvement would produce tangible savings in direct-contracting FTEs and, potentially, in acquisition prices. It may also have intangible benefits in that quality should be less of a problem if prime contractors were used.

Expected Period of Savings

We would anticipate that DLA would begin to implement the program in year 2 of the POM period, with first results occurring in year 3 and continuing thereafter.

SOURCE BREAKOUT

This improvement would strengthen DLA's program to review items procured from prime contractors for procurement from subcontractor or competitive sources. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Once an item has been established as an active item in the DoD supply system, its DoD manager should look for alternative sources of supply to the prime contractors, i.e., subcontractors or competitive sources. The advantages of having

alternative sources is lower acquisition cost, resulting in lower inventory investment and reduced prices to customers.

Costs and Benefits

Although source breakout will reduce materiel purchase costs, it does require personnel to research alternative sources. We would anticipate that DLA would establish a program that, at a minimum, would pay for itself.

Expected Period of Savings

We would expect that a program could be put in place by year 2 of the POM period, with first results beginning in year 3 and continuing thereafter.

WORK LOADING OF DEPOT MAINTENANCE

This process improvement would accelerate the implementation of changes to depot work loading that improve its flexibility and result in amount of materiel under- and overinducted. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Currently, maintenance depots negotiate with a number of ICPs on future workload. If DLA were responsible for all depot workloading, it could consolidate and coordinate requirements and establish a program that would provide depots with an induction schedule that is more closely related to current requirements and current awaiting of repair parts.

The advantages of such a program are

- ◆ reduced inventory investment in depot repair-cycle times and
- ◆ a one-time postponement of repair and procurement; reflecting the new times.

Costs and Benefits

Savings would come from the reduced inventory investment and reductions in the ICP and depot personnel costs involved in quarterly and semiannual program negotiation.

Expected Period of Savings

We anticipate that DLA would begin to implement a program in year 2 of the POM period, with the first results occurring in year 3. The program would continue until after the new standard system for managing secondary-item materiel and the corresponding depot maintenance systems were fully operational.

INTEGRATION OF INITIAL AND REPLENISHMENT REQUIREMENTS

When it was established in 1985, the DoD Secondary Item Weapon System Management Program called for the integration of initial and replenishment requirements. This improvement is aimed at accomplishing that integration. The savings of this process improvement are included in our bottom-up estimate of post-POM savings in costs other than ICP labor costs.

Description of Improvement

Today, program managers often use different requirement procedures to compute initial inventory levels for their weapon systems than item managers use to compute replenishment levels for the same items. The purpose of this improvement would be to integrate the two procedures.

We would foresee that an integrated procedure for determining initial and replenishment requirements would have variable stockage dates and demand development periods rather than a single date for all items on the basis of the preliminary operational capability (POC) date. The variable demand-development period would be based on the expected date of failure for each item. Spares to fix unexpected failures before that date would be supplied by the contractor. Initial wholesale stocks would be procured to supply the spares needed to fix expected failures throughout the variable demand-development period. Replenishment would start after an item experienced its tailored demand-development period and not a date that is arbitrary relative to the demand pattern for the item, such as the POC period or at the end of production.

Costs and Benefits

This improvement would generate savings in excessive initial inventory investment due to a limited number of initial nonrepresentative failures. Savings would also come in stock replenishment as the use of a more representative demand-development period would reduce over- or under-stockage problems.

Expected Period of Savings

We would anticipate that the integration of processes for determining initial and replenishment requirements would coincide with the implementation of a single secondary-item management policy and appropriate portions of a standard management system for secondary-item materiel.

Savings Analysis

We priced out the following two types of savings that occur with this process improvement:

- ◆ Avoidance of procuring items whose design will change so that they no longer fit in the system before they are in demand (and are thus obsolete). We estimated that, of the annual provisioning budget, a low of 3.75 percent and a high of 7.5 percent of the procurements could have been completely avoided.
- ◆ Reduced storage costs as procurements are delayed to dates closer to item true demand dates. On the basis of the percent of items and quantities for the F-16 provisioning that did not experience their first demand in six months (89 percent) and 30 months (41 percent), we computed high-end holding costs that would be avoided if we delayed those procurements.

Tables D-5 and D-6 show the results of our computations of low-end and high-end estimates, respectively.

Table D-5. Low-End Estimate for Integration of Initial and Replenishment Requirements (in millions of dollars)

Conservative Estimate										
Year	Obsolescence	Storage							Subtotal	Total
		04 Buy	05 Buy	06 Buy	07 Buy	08 Buy	09 Buy	10 Buy		
FY04	\$42.0	\$3.5	0	0	0	0	0	0	\$3.5	\$45.5
FY05	\$42.0	\$5.0	\$3.5	0	0	0	0	0	\$8.6	\$50.6
FY06	\$42.0	\$3.0	\$5.0	\$3.5	0	0	0	0	\$11.6	\$53.6
FY07	\$42.0	\$1.0	\$3.0	\$5.0	\$3.5	0	0	0	\$12.6	\$54.6
FY08	\$42.0	\$0.0	\$1.0	\$3.0	\$5.0	\$3.5	0	0	\$12.6	\$54.6
FY09	\$42.0	\$0.0	\$0.0	\$1.0	\$3.0	\$5.0	\$3.5	0	\$12.6	\$54.6
FY10	\$42.0	\$0.0	\$0.0	\$0.0	\$1.0	\$3.0	\$5.0	\$3.5	\$12.6	\$54.6
Total	\$293.9	\$12.6	\$12.6	\$12.6	\$12.6	\$11.6	\$8.6	\$3.5	\$74.1	\$368.0

Table D-6. High-End Estimate for Integration of Initial and Replenishment Item Requirements (in millions of dollars)

Optimistic Estimate										
Year	Obsolescence	Storage							Subtotal	Total
		04 Buy	05 Buy	06 Buy	07 Buy	08 Buy	09 Buy	10 Buy		
FY04	\$84.0	\$4.6	0	0	0	0	0	0	\$4.6	\$88.5
FY05	\$84.0	\$6.4	\$4.6	0	0	0	0	0	\$11.0	\$95.0
FY06	\$84.0	\$3.8	\$6.4	\$4.6	0	0	0	0	\$14.8	\$98.7
FY07	\$84.0	\$1.1	\$3.8	\$6.4	\$4.6	0	0	0	\$15.8	\$99.8
FY08	\$84.0	\$0.0	\$1.1	\$3.8	\$6.4	\$4.6	0	0	\$15.8	\$99.8
FY09	\$84.0	\$0.0	\$0.0	\$1.1	\$3.8	\$6.4	\$4.6	0	\$15.8	\$99.8
FY10	\$84.0	\$0.0	\$0.0	\$0.0	\$1.1	\$3.8	\$6.4	\$4.6	\$15.8	\$99.8
Total	\$587.9	\$15.8	\$15.8	\$15.8	\$15.8	\$14.8	\$11.0	\$4.6	\$93.6	\$681.5

SINGLE SET OF MATERIEL MANAGEMENT POLICIES AND PROCEDURES

A single ICP manager would establish a single set of materiel management policies and procedures for secondary items. Savings from this improvement are included in our bottom-up estimate of post-POM savings in costs other than ICP labor costs.

Description of Improvement

In addition to eliminating the duplication of policies and procedures among the military services and DLA, the consolidation of ICP management under a single manager would undoubtedly spawn the establishment of major new DoD-wide materiel management policies and procedures. These policies and procedures would include those involving integration of initial and replenishment requirements and integration of the computations for wholesale and retail requirements. In general, the time required to coordinate and implement new DoD policies would be greatly reduced, since coordination and implementation would be within one organization.

Costs and Benefits

This improvement would produce savings in DLA headquarters personnel (current personnel and those transferred from the military services) who are involved in maintaining military service and DLA policies during the POM period.

Expected Period of Savings

We anticipate that development of a single set of policies and procedures would begin during the POM period, with this implementation coinciding with the implementation of the standard system for managing secondary-item materiel.

Savings Analysis

In developing our in-place-transfer savings, we identified 316 personnel in the military service headquarters and their logistic headquarters that are associated with secondary-item management. Of those, the numbers in Table D-7 were identified as transferring to DLA.

Table D-7. Personnel Transfer to DLA

	Low	High
Headquarters personnel transferred to DLA during POM period	284	252
POM FTE savings	32 (10% savings)	63 (20% savings)
Average annual salary	\$68,610	\$68,610

Although the reduction in headquarters personnel would be scattered between current and transferred personnel, we estimated the savings as a percent of the transferred personnel. Our post-POM estimates are as shown in Table D-8.

Table D-8. Headquarters Savings Due to a Single Set of Policies and Procedures

	Low	High
Post-POM FTE reduction	199 (63% savings)	214 (67% savings)
Savings per year (millions)	\$13.7	\$14.7
Cumulative 7-year savings (in millions)	\$95.9	\$102.9

INTEGRATION OF WHOLESALE AND RETAIL REQUIREMENTS

This improvement would seek to minimize DoD's investment in wholesale and retail inventory while sustaining high levels of supply responsiveness. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvements

Today, the Air Force minimizes its investment in depot-level reparable items that support aircraft operational availability by using a multiple-echelon requirement model. The objective of this model is to trade off wholesale and retail levels of stock to provide an overall level of responsiveness for supply systems. Another way of achieving the same objective is to set wholesale response times that result in the minimum total wholesale and retail levels of inventory that meet a given level of responsiveness.

If DLA were established as the single wholesale manager for all secondary items that support weapon systems, it could establish procedures that integrate its responsiveness and inventory costs with retail responsiveness and inventory costs.

Costs and Benefits

Savings from this improvement would come from a reduction in inventory investment and in inventory storage costs, since integrated wholesale goals would yield smaller, more optimal levels of stock. An intangible benefit might be improved customer confidence, since wholesale and retail levels of supply would work together to guarantee required levels of supply support to DoD customers.

Expected Period of Savings

We anticipate that the integration of wholesale and retail supply would coincide with the implementation of a single policy for secondary-item management and integration of appropriate portions of a standard system for managing secondary-item materiel.

REDUCTION OF SERVICE-UNIQUE CATALOG DATA

This improvement would arise from the implementation of the single secondary-item management policies and a more standard materiel management system. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Under a standard set of policies and procedures, the need for many of the current unique service management codes will no longer exist. In particular, that portion of the item catalog will no longer be required. However, some standard codes may need to be converted into service-unique codes for retail systems until they are updated.

Costs and Benefits

The reductions in codes should reduce cataloging direct labor costs associated with entering data for new items and maintaining those data for established items. Nonlabor costs involved in maintaining the catalog would also be reduced.

Expected Period of Savings

We would anticipate that code reduction and associated savings would begin in the post-POM period.

SINGLE DESIGN ACTIVITY FOR SECONDARY-ITEM MATERIEL MANAGEMENT

If DLA were to implement a standard system for managing secondary-item materiel during the post-POM period, the agency would only require one design activity for continuing software support. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

Maintenance of a single system for the management of all secondary items will reduce the cost of system development and maintenance, facilitate the implementation of new policies, and provide uniform management information.

Costs and Benefits

DoD already has an initiative to develop a common operating environment for its materiel management systems. The transfer would only strengthen this initiative by eliminating organizational barriers to standardization and promoting greater exchange of procedures and technologies. We are not in a position to estimate what, if any, reductions this benefit might have on the future costs of developing a standard system.

However, it is reasonable to assume that changing to having one design activity would reduce current personnel (direct, indirect, and general and administrative) costs and nonlabor costs at DoD design centers. It would also reduce the number of headquarters personnel required to oversee system development for multiple systems at multiple locations.

An intangible benefit of moving to a single system is that it would facilitate the implementation of new procedures and the introduction of new technologies.

Expected Period of Savings

We anticipate that, as modules of the standard system for managing secondary-item materiel are completed, the total number of personnel required for system maintenance will be reduced. This reduction will begin in the post-POM period and continue until all modules are operational.

SINGLE ICP MANAGING ITEMS ON A WEAPON SYSTEM

Site consolidation during the post-POM period would spawn a program to consolidate management for all items in a given weapon system at a single site. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvements

As sites are consolidated during the post-POM period, a logical approach to realigning item management would be along weapon-system lines. Positioning all items supporting a weapon system at one site would have the advantages of

- ◆ eliminating duplication of customer services and technical files,
- ◆ facilitating requirement computation using weapon-system readiness goals, and
- ◆ facilitating corporate contracting and the use of end-item contracts for provisioning.

Costs and Benefits

Besides the normal savings from site consolidation, we also foresee additional savings in direct personnel and nonlabor costs from a more comprehensive weapon-system orientation in ICP materiel management.

Expected Period of Savings

We would anticipate that savings would begin after the consolidated materiel-management sites are determined and the weapon systems and commodities assigned to each are determined. These determinations would probably not begin before FY02 and actual site consolidation would not begin until FY04. We would assume that only those items unique to weapon systems would be initially transferred.

UNIFORM RETURN-CREDIT POLICY

This improvement would implement a uniform set of procedures for giving credit to returns. Savings from this improvement are not included in our bottom-up estimate of savings in costs other than ICP labor costs.

Description of Improvement

DoD has long had as a policy goal the implementation of a single method of applying credit for the return of materiel to wholesale ownership. Under a single wholesale manager, the multiple accounts that exist under the Defense Business Operating Fund would be reduced. In their place, a single account with standard procedures for billing and crediting would evolve. These procedures would provide for a single method of determining credit and surcharges for depot-level repairable items and thereby simplify operations and maintenance budgeting and accounting at the customer level.

Costs and Benefits

This improvement would reduce the requirement for budgeting and accounting personnel at the ICP level and within the Defense Finance and Accounting Service.

Expected Period of Savings

Although it could be accomplished with changes in current systems, at a minimum, we would expect this improvement to be implemented as part of a standard materiel-management system, beginning with the post-POM period.

Appendix E

Glossary

ACALA	Armament and Chemical Acquisition and Logistics Activity
AFMC	Air Force Materiel Command
ALC	Air Logistics Center
ALT	administrative lead-time
ATCOM	Aviation and Troop Command
BES	budget estimate submission
BOS	base operating supplier
BRAC	base realignment and closure
CECOM	Communications and Electronics Command
CORM	Commission on Roles and Missions
DBOF	Defense Business Operating Fund
DFSC	Defense Fuel Supply Center
DIIP	Defense Inactive Item Program
DLA	Defense Logistics Agency
DLSC	Defense Logistics Service Center
DMRD	Defense Management Review Decision
DSCC	Defense Supply Center Columbus
DSCR	Defense Supply Center Richmond
FMS	Foreign Military Sales
FSC	Federal Supply Class
FTE	full-time equivalent
G&A	general and administrative
GSA	General Services Administration
I&S	interchangeability and substitutability
ICP	inventory control point
IMM	integrated materiel manager
ISSL	initial supply support list

MCLB	Marine Corps Logistics Base
MICOM	Missile Command
NAVICP	Naval ICP
O&M	operations and maintenance
OC-ALC	Oklahoma City Air Logistics Center
OO-ALC	Ogden Air Logistics Center
OSD	Office of the Secretary of Defense
PA	procurement account
PICA	Primary Inventory Control Activity
PLT	production lead-time
POC	preliminary operational capability
POM	program objective memorandum
PPWR	prepositioned war reserves
SA-ALC	San Antonio Air Logistics Center
SICA	Secondary Inventory Control Activity
SM-ALC	Sacramento Air Logistics Center
SPCCA&ASO	Ships Parts Control Center and Aviation Supply Office
SSR	supply support request
TACOM	Tank-automotive and Armaments Command
TAV	total asset visibility
WAN	wide area network
WR-ALC	Warner Robins Air Logistics Center
WSSP	Weapon System Support Program