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STOCK FUNDING OF DEPOT LEVEL REPARABLE COMPONENTS.(U)
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Reparables; stock fund; procurement appropriation; financial management of reparable components; inventment vs expense realignment; depot level reparables.

20. ABSTRACT *(Continue on reverse side if necessary and identify by block number)*

The study attempts to determine the feasibility of stock funding all depot level reparable (DLR) components as a means of materially improving the return rate of unserviceable items.

The study concludes that there is no strong evidence that stock funding of depot level reparable components would have any significant effect on the rate of return. More intensive management of all reparable items, rather than a change in the method of funding is needed. The study also notes that

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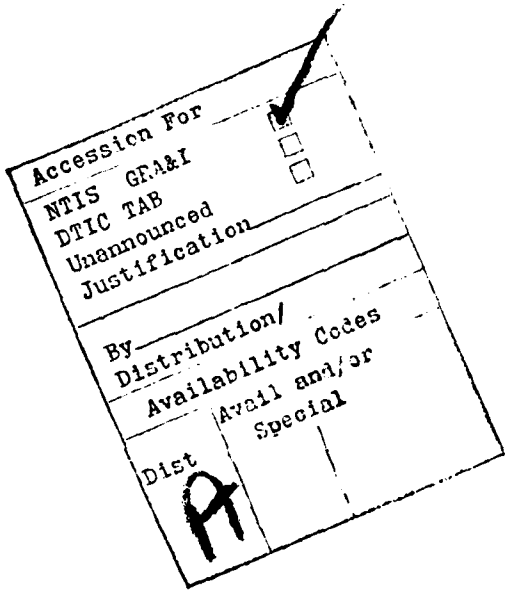
60% of all depot level reparables are now stock funded.

As an aid to developing an orderly intensive management system, with maximum funding flexibility, the study recommends:

- Stock funding (expense) of all low cost (below $3,000) depot reparable items. (About 80% of the DLRs fall in this category.)

- Procurement appropriation funding (investment) of all remaining depot level reparable items.

- Development of an authorization document system for all items with an annual issue value of $900,000 or more. (391 items are identified in this category.) Visibility of assets by the item manager would be through the Selected Item Management System-Expanded (SIMS-X).



DEPARTMENT OF THE ARMY

ODCSLOG

STUDY

STOCK FUNDING OF DEPOT LEVEL REPARABLE COMPONENTS

MAY 1980

DISCLAIMER

The views, opinions, and/or findings contained in this report are those of the author(s) and should not be construed as an official Department of the Army position, policy, or decision, unless so designated by other official documentation.

Results contained in this study will not be released outside DOD until final approval is accomplished.

EXECUTIVE SUMMARY

GENERAL:

The study was developed by an ad hoc Army staff team in response to a formal OSD tasking that requested a study to determine the feasibility of stock funding all depot level reparable (DLR) components. The items studied are currently funded in the five Procurement Appropriations and are issued to units, installations, and activities in the field without reimbursement. This proposal was selected by OSD as a possible means of increasing unserviceable DLR return rates which have been historically low and a constant source of criticism. In 1979 the Defense Audit Service (DAS) released the draft of a proposed audit report which was critical of the Army's unserviceable return rate and pertinent procedures. In June 1979 OSD reduced the Army's proposed FY 1981 Budget POM by $28 million in anticipation of savings expected from DLR procedural changes. There are many factors which contribute to unsatisfactory return rates which are addressed in the report. The study reviews these factors and attempts to show the complexity of the problem because a change in one procedure can impact on one or more major management systems or other procedures. While changes must be implemented to improve return rates they must be tailored to produce maximum improvement while causing minimum turbulence in the Army's established systems. Major changes, if necessary, must clearly reflect a payoff that justifies the impact and cost of the changes.

DISCUSSION:

The Army's initial decision is to determine if the OSD initiative concerning the feasibility of making PAA secondary items consumer funded will help improve return rates. If it can be determined that return rates can be materially improved by moving PAA secondary items to the Army Stock Fund thereby causing users to become more cost conscious, then this method may influence or possibly solve the return rate problem.

During the course of the study it was determined that a number of factors influence the return rate for PAA DLRs. Several of these factors such as failure to recognize and account for washouts below CONUS depot level, loss of the non-recurring demand code on some requisitions and failure to match issues/returns due to factors such as NSN conversions, can be corrected with systems and procedural improvements. These improvements should be made regardless of final action taken on the OSD proposal, and are included as an integral part of each alternative course of action developed by the study group.

A comparison of return rates for both PAA and ASF coded DLRs, show that PAA return rates are considerably higher than ASF return rates. As an example, 47% of PAA DLRs had a return rate of 50% or higher while only 24% of ASF DLRs had a return rate of 50% or higher. While these comparisons tend to refute the value of a financial incentive, it must also be recognized that a much larger portion of PAA items are intensively managed through systems such as Aviation Intensive Managed Items and Automatic Return Items.

ALTERNATIVES:

A series of alternatives were developed which range from full implementation of the OSD proposal to only an implementation of procedural changes to correct current system deficiencies. Two alternatives were developed which include all or partial stock funding of PAA secondary items and two were developed which include no stock funding changes but implement major or minor systems changes. The alternatives developed were:

- Transfer all PAA secondary items to stock fund. Improve existing system through procedural changes.

- Transfer the majority of PAA secondary items to stock fund but retain selected high dollar/volume items in PAA and administer as major items. Improve existing system through procedural changes.

- Administer selected secondary items as major items. PAA secondary items would not be transferred to stock fund. Improve existing system through procedural changes.

- Improve existing system through procedural changes only.

CONCLUSIONS:

There is no strong evidence that stock funding of depot level reparables would improve the rate of return.

A combination of the various alternatives offers the most promising course of action. Although under existing DOD instructions all DLRs should be PA funded, it was noted that about 60% of DLRs are now stock funded. Using 1978 data, about 8,300 active items have a unit cost below $3,000. The flexibility of the stock fund system might well facilitate the formal incorporation of all DLR items in this low cost group. Any impact or activity manpower requirements or dollar costs should be minimal.

All other DLRs should remain PA funded. Item visibility might well be improved through use of the Selected Item Management System - Expanded (SIMS-X). Expensive DLRs, those with an annual issue value over $900,000, must have better controls than are now exercised. About 400 items would be in this group, and should be in a formal allowance document.

Current materiel management, financial management and data processing procedures should be continued and enhanced.

RECOMMENDATIONS:

- That the Army adopt the stock funding concept for low item dollar value/low annual issue value depot level reparable components.

- That the Army continue the procurement appropriation funding concept for all other depot level reparable components.

- That the Army develop authorization documents for, and intensively manage, high item dollar value/high annual issue value depot level reparable components.

- That current materiel management procedures and data processing systems be continued and enhanced as appropriate.

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FOREWORD

The thrust of this review is to determine the feasibility of extending the stock fund concept to depot level reparable components. In doing so, other alternatives have been developed to determine if unserviceable return rates for depot level reparables can be improved by implementing other measures.

Comments from the field have been included in appropriate portions of the report.

CHAPTER 1 INTRODUCTION

CONTENTS

CHAPTER 1

INTRODUCTION

BACKGROUND:

By memorandum dated 9 May 1978, OSD established a DOD Steering Group to monitor study efforts to determine the feasibility of extending the stock fund concept to depot level reparables (DLRs). Subsequently, OSD directed the services to independently review the feasibility of stock funding DLRs. (See Appendix A.) The Navy and Air Force studies have been completed. Their recommendations appear at Figure 1-1.

STATUS OF AIR FORCE AND NAVY STUDIES

- o NAVY:
  - oo STUDY COMPLETED
  - oo PROTOTYPE STOCK FUNDING NON-AVIATION DLRs - START 1 Oct 81
  - oo AVIATION DLRs TO REMAIN PA FUNDED
- o AIR FORCE:
  - oo STUDY COMPLETED
  - oo RECOMMENDED:
    - ooo AGAINST STOCK FUNDING DLRs
    - ooo CONTINUING IMPROVEMENTS TO CURRENT SYSTEM

Figure 1-1

By memorandum dated 1 December 1978, the Office of the Deputy Chief of Staff for Logistics (ODCSLOG) established an ad hoc study group for the purpose of reviewing the feasibility of stock funding depot reparables. (See Appendix B.)

To assist the members of the ad hoc study group, an Analysis Advisory Group (AAG) was established and consisted of selected members of the Army Staff.

During 2d quarter 1979, the Defense Audit Service (DAS) released the draft of a proposed audit report (Project 8SS-114) which was critical of the Army's unserviceable return rates and pertinent procedures. In June 1979, OSD reduced the Army's proposed FY 1981 Budget POM by $28 million in anticipation of savings expected from improved management of DLRs (return of unserviceables).

METHODOLOGY: See Appendix C.

TERMS OF REFERENCE:

Assumptions: The OSD Memorandum (Appendix A) provided basic assumptions to establish parameters for the study. These were expanded by the Army to confirm that changes should not increase overall budget requirements.

ASSUMPTIONS

o OSD's:

oo EXISTING STOCK FUND DIRECTIONS AND REGULATIONS WILL REMAIN IN EFFECT
oo NONCONSUMABLE ITEM INTEGRATED MATERIAL MANAGEMENT ASSIGNMENTS WILL REMAIN IN EFFECT
oo SIGNIFICANT REVISIONS TO CURRENT SUPPLY MANAGEMENT CONCEPTS, POLICIES, SYSTEMS OR PROCEDURES WOULD NOT BE REQUIRED BY IMPLEMENTION OF A STOCK FUND APPROACH TO DEPOT REPARABLES MANAGEMENT

Figure 1-2

Objective: To determine the feasibility of stock funding depot reparables. This objective was expanded to include desirability as well as feasibility. Accordingly, the review addresses both the feasibility and desirability of stock funding depot reparables.

Scope: The review describes the current system for managing depot level reparables, describes the impact of the current system under the concept of stock funding, identifies procedural changes that should be implemented regardless of the outcome, and describes alternatives to the stock funding concept.

DEFINITIONS

DODI 4140.44, Supply Management at the Intermediate and Consumer Levels of Inventory, 28 Feb 78.

Reparable. An item of supply subject to economical repair, and for which the repair (at either depot or field level) of unserviceable assets is considered in satisfying computed requirements at any inventory level.

1. Depot Level Reparables - A reparable item of supply that may be repaired at designated levels of maintenance, but can be condemned only at the depot level, or at the direction of the depot maintenance activity.

2. Field Level Reparable - A reparable item of supply normally repaired below the depot level of maintenance, and for which condemnation authority can be exercised below the depot level of maintenance.

CHAPTER #2 BACKGROUND

INTRODUCTION

This chapter outlines the essential elements of the initial decision package. It contains a general overview of how the current system works to provide a baseline to assist in understanding the impact of proposed changes and the complexity of some of the identified issues. It also examines the basic question of whether stock funding of depot level reparables will improve their return rates, identifies basic alternatives to the current system, and identifies procedural changes that should be made to enhance return rate statistics and improve overall operations.

GENERAL DISCUSSION OF CURRENT SYSTEMS

Classification of Secondary Items (PAA)

The classification of an item as investment (funded in the procurement appropriation) or expense (funded in operations and maintenance accounts and purchased from the stock fund) is accomplished in accordance with instructions in DODI 7040.5, "Definitions of Expenses and Investment Costs." Investment secondary items are defined as reparable assemblies, spares and repair parts which are centrally managed recoverable items that are designated as reparable because unserviceable quantities of the items are considered by the inventory manager in determining requirements.

Expense items are consumed in use and are not programmed for return to the wholesale supplier. Some expense items are reparable below the wholesale level but are not centrally managed as recoverable items. Investment items are not normally consumed in use and are repaired at retail level or rebuilt at wholesale level. They are centrally managed as recoverable items, and items judged unserviceable by the user are considered by the wholesale manager in requirements determination, rebuild, and procurement program development. The initial classification is based on maintenance engineering evaluations of whether the item will be consumed or recovered for repair at the wholesale (depot) level. Classifications are occasionally revised and it is not uncommon for items to migrate back and forth based on prevailing judgment. A stratification of depot level reparables is presented at Appendix D.

Funding of PAA(Investment) Secondary Items

PAA (secondary items) are financed annually by the Congress within the five commodity-oriented procurement appropriations of the Army's section of the President's Budget. They are aircraft, missiles, weapons and tracked combat vehicles, ammunition, and other procurement Army (OPA). Selection of items for inclusion in the budget is based on Army plans and projections as reflected in supply control studies which predict future inventory requirements as a result of equipment density, stockage objectives, washout rates, and other relevant factors. Currently, planning, programming and budgeting for PAA requirements are centrally managed by the USA Materiel Development & Readiness Command (DARCOM). Congressionally appropriated funds are available for obligation during the

apportionment year plus two years. These items are procured into the Army inventory and are then "free issued" to consumers.

Funding of Army Stock Fund (Expense) Items

The Army Stock Fund (ASF) does not require Congressional approval since it is not an annual appropriation. It is reviewed and approved annually by the Office of the Secretary of Defense and Office of Management and Budget. Obligational authority is approved by OSD/OMB and is used to finance orders placed on wholesale and local supply sources. The ASF operates on a revolving principle, i.e. ASF cash is used to pay bills rendered by its suppliers and is then replenished by reimbursement from consuming appropriations based on the sales of materiel to consumers (using units, activities) and by cash sale of materiel in commissaries or clothing sales stores. Consumer funds are financed annually by the Congress in the Army's section of the President's Budget and are contained in appropriations such as Operations and Maintenance, Army (OMA); Operations and Maintenance, Army National Guard (OMANG); and Operations and Maintenance, Army Reserve (OMAR). These are annual (one year) appropriated funds.

Annual Congressional Appropriations

Procurement and Consumer Operations and Maintenance (OMA, OMANG, & OMAR) appropriation requests are submitted to the Congress after extensive OSD and OMB hearings and review, as a part of the President's Budget during the month of January each year. These budgets are reviewed in detail over a period of many months and hearings are conducted by the House Armed Services, Senate Armed Services, House Appropriations, and Senate Appropriations Committees. The budget is also examined by the House and Senate Budget Review Committees and is eventually debated on the Senate and House floors prior to passage. Program reductions, additions, and changes are effected by the Congress based on their reviews. The Department of Defense can appeal committee recommended reductions prior to Senate or House final floor action but normally appeals are limited to major issues which have significant DOD impact. Once an appropriation bill is passed the Department of Defense is obligated to execute the budget as approved and changes beyond minor reprogramming thresholds must be resubmitted to Congress for prior approval. Funds cannot be transferred between appropriations without Congressional approval.

Army Industrial Fund (AIF)

The Army Industrial Fund does not require Congressional approval and is a resolving fund used to operate depots, arsenals, laboratories, port terminals and two materiel readiness commands. The AIF activity accepts work such as depot maintenance, depot supply, weapons assembly, manufacture of ammunition, research and development, and loading and unloading transportation, performs the work, and then obtains reimbursement from its customer's appropriated funds. In some cases reimbursement is

obtained after the work is completed and in others reimbursement is received on bi-weekly progress billings. Like the stock fund, cash is used to pay expenses, and is replenished by reimbursement for the work performed. AIFs currently pay cash to the stock fund for supplies drawn but receive PAA secondary items on a "free issue" basis like other consumers.

Army Supply System

There are two levels of materiel management and inventory within the Army: wholesale and retail, with the retail echeloned into intermediate, and direct support/user levels. The wholesale level procures and manages stocks positioned in depots within CONUS which are used to support DOD and non-DOD customers on a worldwide basis. Intermediate echelon supply activities such as installation supply activities (ISAs) and Corps Support Commands (COSCOMs) are employed to obtain stocks from wholesale sources and issue them to direct support/user and other customers.

The direct support/user level consists of stocks required on an immediate basis to sustain equipment/unit operations in the field, obtained directly from the wholesale level or from a supporting intermediate level activity.

The U.S. Army Materiel Development and Readiness Command (DARCOM) is the principal manager of the Army wholesale level. DARCOM is organized with five materiel readiness commands (MRC) responsible for materiel management of specific weapons systems, a Depot Systems Command responsible for storage and maintenance activities, and a service command responsible for test and evaluation.

a. The MRCs presently manage about 325,000 items including approximately 41,000 items coded as depot level reparables (DLRs). Approximately 27,000 items coded as DLRs are stock funded and are issued to Army customers on a reimburseable basis. The remaining 14,000 items coded as DLRs are financed by appropriations and issued free of charge to Army customers. Once items (including DLRs) have been issued to the customer, the customer assumes the responsibility for the management and control of these stocks.

b. The depots are storage and maintenance activities that perform the functions of distribution and maintenance management.

c. The Materiel Readiness Commands are supported by the Commodity Command Standard ADP System (CCSS) and the depots are supported by the Depot Standard ADP System.

In CONUS, the retail segment is based upon major installations under MACOMs such as TRADOC, FORSCOM, and the HSC. The MACOMs supervise installation activities on a selective basis leaving day-to-day operations to the installation commander who is responsible for the management of supplies to ensure that customers are adequately supported.

The intermediate echelon functions as the interface and link between the wholesale level and the direct support/user echelon. Support may be provided through TDA installation activities but, whenever feasible, it is provided by deployable Army direct support and general support units trained to operate under the same procedures that would be used in a tactical environment. The intermediate echelon is supported by the Standard Army Intermediate Level Supply Sub-System (SAILS). The direct support echelons are supported by the Division Logistics System (DLOGS).

In oversea commands such as Europe, the retail segment is based at the Corps level and the Theater Army Materiel Management Center (TAMMC) under the supervision/control of HQ, USAREUR. The day-to-day operations are the responsibility of the Corps Support Commands (COSCOMS) and the TAMMC who deal directly with the CONUS wholesale level. The COSCOMS are composed of tactical general support and direct support units who are responsible for the management of supplies and ensuring customers are adequately supported. The COSCOMS and/or the TAMMC function as the link(s) between the wholesale level and the direct support/user echelon. The COSCOMS and the TAMMC (or intermediate echelons) are supported by SAILS. The GS/DS echelons are supported by the NCR 500 or the DLOGS. Additional support has been provided to USAREUR by the establishment of wholesale maintenance activities for the repair of combat automotive and missile related assemblies/components. Within the Army's supply system, there are several important programs designed specifically to control and manage DLRs.

a. Aviation Reparables:

(1) Selected aviation reparable components are managed under the Aviation Component Intensive Management System (ACIMS). This system provides for worldwide daily transaction reporting by serial number to the wholesale level on changes in condition for approximately 42 prime stock number items including items such as engines and transmissions. At the wholesale level, serviceable items are managed down to MACOM level. Unserviceable items are managed once they are reported as being returned to the CONUS depot system until placed in a serviceable condition. MACOMs manage serviceable assets and unserviceable locally repairable assets within thier respective commands. Supply levels for these DLRs are tailored to local maintenance/rebuild capabilities.

(2) An Aviation Intensive Management Item (AIMI) Program provides supply support for selected DLRs based on the criticality or supply status of an item. Supportable command stockage levels, replacement requirements and unserviceable return quantities are negotiated between the wholesale and the retail levels. Presently, there are 160 DLRs in the AIMI Program which includes those ACIMS DLRs discussed above. Items selected are broadcast to the field and included in the automatic return item list (ARIL).

b. Automatic Return Item (ARI) Program: The ARI Program functions to expedite the return of selected DLRs from field activities to repair/supply activities. Approximately 5,500 DLRs are designated as items to

be shipped immediately to a predesignated repair/supply CONUS wholesale level depot without requesting or waiting for, disposition instructions from the wholesale level. DLRs selected are usually in short supply worldwide or have unserviceable return rates that could cause the DLRs to be in short supply. Once selected, the items are placed on an Automatic Return Item List (ARIL) and the list is sent to the retail level for use in their automated system.

c. Direct Exchange (DX) Program:

(1) Selected DLRs are managed under an installation/GSU/DSU direct exchange program. Under this program, unserviceable DLRs are exchanged for serviceable items on a one-for-one basis except in the case of initial issues, increases to stockage levels and replacements for lost or destroyed items. The unserviceable DLRs are sent to an appropriate maintenance repair activity where they are repaired and returned to stock for reissue. To facilitate the repair of these items, the operation of the direct exchange activities (DXAs) are the responsibility of the installation/GSU/DSU maintenance activities.

(2) DLRs controlled by the DX program are stocked in the DXAs only; thus, all requests for DX DLRs must be preocessed through the installation/GSU/DSU DX activities.

(3) Stockage levels are computed manually and stockage levels are calculated using resupply cycle and repair cycle times. Items excess to the authorized stockage levels may be held for 90 days and used through attrition. Items that are not consumed are turned in to the supporting supply activity (SSA).

(4) The Army has recently implemented a special DX program for the management of approximately 400 selected missile DLRs in Europe. Under this program, unserviceable missile items are exchanged for serviceable missile items on a one-for-one basis. Unserviceable items are repaired by GS missile maintenence units and returned to stock. Those items that cannot be repaired at the GS level are forwarded to the Pirmasens Missile Activity (PIRMA), a wholesale maintenance activity located in Europe. Unserviceable assets are either repaired by the PIRMA or sent to a CONUS depot maintenance activity or contractor facility. A unique aspect of this program is that the stockage levels at each echelon below the wholesale level are negotiated between representatives of the retail level and the wholesale level. Once established, these levels can only be changed upon agreement by both parties.

Supply Requisitioning channels

a. Each user of DLRs is provided supply support from a variety of supporting supply activities (SSAs). User requirements are made known to the SSA by request or requisition depending upon the type of DLR required (DX or non-DX), the type of user activity and the user's geographical location. Their requirements for stock funded DLRs are O&M funded.

b. Within CONUS, when a user requires a DLR, a request is submitted to a supporting supply activity (SSA) or supporting DXA. If the required item is not available at the SSA/DXA, the installation passes the requisition to the appropriate ICP for direct delivery to the DS unit or the installation. The SSA/DXAs replenish stocks by submitting a requisition to the installation supply activity (ISA) or installation DX activity. If these activities cannot fill the requisition from installation stocks, the requisition is passed to the appropriate ICP for direct delivery to the SSA/ DXA.

c. In oversea commands, except USAREUR, requisition and materiel flow is substantially the same as at a CONUS installation with minor variations to accommodate differing geographical and political conditions.

d. In USAREUR, when a customer requires a DLR, a request is submitted to a supporting supply activity (SSA) or supporting DXA. If the required item is not available at the SSA/DXA and it is not identified as a controlled item, the Corps Support Command (COSCOM) passes the requisition to the appropriate ICP for direct delivery to the SSA/DXA or the COSCOM. If the DLR is a controlled item, the requisition is submitted by the COSCOM to the Theater Army Materiel Management Center (TAMMC). If the item is not available, the requisition is passed to the appropriate ICP for direct delivery to the SSA/DXA or COSCOM. If the COSCOM is unable to meet the requirement, the requisition is passed to the ICP for direct delivery to the SSA/DXA. If the DLR is a controlled item the requisition is passed through the TAMMC to the appropriate ICP for direct action and shipment to the user.

e. Army regulations require that unserviceable (and serviceable excess) DLRs be returned to supply turn-in points located in the SSAs or supporting maintenance activities (SMAs). Unserviceable DLRs that are needed to meet stockage requirements are sent to an appropriate maintenance facility for repair and return to stock. Unserviceable DLRs that are beyond the capability of the local maintenance activity are returned to the SSA for shipment to an appropriate repair facility. DLRs that are not needed by the retail level to meet future requirements, are reported to the wholesale level (or automatically shipped to a CONUS wholesale depot) and subsequently shipped to a CONUS depot unless otherwise directed by the wholesale item manager. Upon receipt, the depot will inspect and classify the DLR. Receipt information is reported by the depot to the ICPs. Unserviceable assets are then programmed for overhaul/repair, overhauled/repaired, and placed in stock for reissue.

f. New DLR items are intially stocked in the supply system to support the introduction of new weapon systems or modifications to existing weapon systems. During this interim support period, the demands for these DLRs are usually unstable. Many of the high dollar DLRs are controlled by the ICPs and funded in the Procurement appropriation accounts.

THE MAINTENANCE SYSTEM

The Army's maintenance system is normally divided into four categories: organizational, direct support (DS), general support (GS), and depot.

Organizational: The function of organizational maintenance is to sustain material readiness. Each unit organization or other activity has a self-sufficient capability and capacity for maintaining equipment assigned to them. Organizational maintenance operations normally encompass minor repairs, diagnosis and isolation of equipment malfunctions, and replacement of modular and unserviceable repair parts.

Direct Support: Direct support maintenance is performed by divisional and non-divisional DS units. They are structured to provide maintenance service that is beyond the capability of the supported organizations. Operations normally performed by DS maintenance units encompass repairing unserviceable, economically reparable equipment (including minor repair of DLRs) on a repair-and-return to user basis, diagnosing and isolating equipment/module malfunction and providing quick reaction supply support through the stockage and issuance of direct exchange supplies to using activities.

General Support: General support maintenance is performed by designated TOE/TDA maintenance activities in support of a major Army command, subcommand or other forces as a whole rather than specific elements. GS maintenance activities are characterized as containing a greater degree of skills, tools and test equipment which allows them to perform a more detailed repair of components/modules than is found at the DS level. Operations normally performed by GS maintenance activities encompass repair/modification of equipment (including DLRs) for return to installation/command/local area supply stocks, replacement of defective modules which are beyond the authorized capability of lower maintenance categories, operation of cannibalization points to augment the DX and/or local/area/wholesale supply system stocks and providing supply support through the stockage and issuance of direct exchange supplier to supported activities.

Depot: Depot maintenance is performed by designated TDA, industrial-type activities operated by the Army or by contract with commercial firms. This is the highest level of maintenance performed in the Army. Operations normally performed encompass repair of items which exceed the capability of the DS and DS maintenance activities, manufacturing of items and parts not provided by or stocked in the supply system and overhauling end items/components. Depot maintenance is performed both in CONUS depots and non-TOE depot maintenance activities overseas.

Current System: Under the current system, organizational maintenance activities are not authorized to repair depot level reparables (DLRs). Unserviceable DLRs are forwarded to a supporting DS maintenance activity for repair/adjustment as required. DLRs that are beyond the capability of the DSU are forwarded to the GS maintenance activity where they are

repaired and returned to the DS activity or placed in stock for future issue. All maintenance at these levels is funded with OMA funds.

DLRs that are beyond the capability/capacity of the GS unit are sent to CONUS or repaired at oversea depot maintenance activities.

The ICPs develop reparable secondary item requirements based upon demand data and projected returns. This information is used to develop the Army's depot maintenance program. This program, developed by line item, is submitted to the Depot Systems Command under DARCOM Standard Automated System via a Procurement Request Order Number (PRON). DESCOM then programs the workload into the appropriate maintenance depot(s), using a fixed price concept based upon actual previous costs incurred. In certain instances, national contracts and/or interservice agreements are also considered and/or let.

Under the current HQDA policy, all secondary items programs receive top priority and are fully funded. PAA items are financed with Direct Army Program 7M funds and Stock Fund items with ASF. DESCOM provides funds to the organic depot activities, which are Army Industrially Funded (AIF), i.e., DA P7M funds are used to reimburse AIF. Required items are returned to wholesale supply system as serviceable/issuable assets for subsequent redistribution under existing regulatory supply policies/ procedures.

In oversea depots, like Europe, the procedures differ somewhat in that selected tank-automotive and missile DLRs are repaired in theater and returned to stock. There are other instances where Special Repair Activities (SRA) are designated to repair DLRs. These SRAs are also authorized to dispose of uneconomically repairable DLRs.

The budget for depot maintenance follows the standard procedures beginning with the POM and is reviewed, adjusted and finally approved through all levels of the Army, OSD and Congress. In all cases, repair of secondary item reparables is funded before repair of major items. The FY 81 budget for overhaul/repair of PAA secondary items (OMA P7M) is approximately $329.7 million

THE PROBLEM

The major problem that generated this review is that the Army is not achieving an acceptable rate of return of unserviceable assets to depot repair facilities. There are many factors which contribute to unsatisfactory return rates which will be addressed later in this report. While changes must be implemented to improve return rates, they must be tailored to effect maximum improvement while causing minimum turbulence in the Army's established systems. Major changes, if necessary, must clearly reflect a payoff that justifies the impact and cost of the changes.

Return Rates

A review of return rates for 5625 lines of PAA funded DLRs which received recurring demands during CY 1978 revealed that 2974 lines or fifty-three (53) percent had unserviceable return rates below fifty percent. (See Figure 2-1)

CY 1978 RETURN RATES
(PAA DRLs) BASED ON ACTIVE LINES

% Return Rate	% Lines	% Total Lines
100	1410	25.0%
90-99	149	2.6
80-89	253	4.5
70-79	222	3.9
60-69	250	4.4
50-59	367	6.5
0-50	2974	53.0
TOTAL LINES	5625	100.0%

Figure 2-1

INITIAL DECISION PACKAGE

The Army's initial decision is to determine if making PAA secondary items consumer funded will help improve return rates. If it can be determined that return rates can be materially improved by moving PAA secondary items to the Army Stock Fund and thereby causes users to become more cost conscious, then this methology would be available to influence or possibly solve the return rate problem. This action would necessitate changes in planning, programming, budget execution and financial systems management as well as realignment of Congressionally appropriated funds. Conversely, changes would benefit the supply system and other economies by consolidation of items into the stock fund. There is an objective gap between supply and financial considerations at the outset that must be addressed in this report so that all benefits and liabilities can be placed in perspective.

Will Stock Funding Improve Return Rates?

The question of whether consumer and stock funding those items currently classified as PAA DLRs would cause a significant increase in unserviceable return rates must be answered. Two schools of thought currently exist and discussions about the advantages and disadvantages, in the absence of actual statistics or data, usually relegates to an emotional confrontation between adversaries. Those in favor of the proposition (Yes School) contend that if consumers must pay for the DLRs they will become more cost conscious and will afford the equipment better care thus extending its serviceable life. Further, repairs would be accomplished at the lowest level authorized to avoid "buying" a replacement thus having the effect of reducing depot backlog. Finally, when the DLR becomes

unserviceable and beyond the repair scope of the installation, the financial incentive to obtain a credit would induce its rapid return to the depot thus improving return rates. The basic contention is that the "free issue" nature of PAA items eliminates any incentive to care for these items. Those disputing this logic (No School) maintain that the units that operate the equipment on the ground still will not pay for anything and will not change their habits by virtue of a funding change. While the No School concedes that it will make a command more cost conscious in terms of budget preparation it maintains that, in reality nothing good will come from this proposal and that fiscal constraints will impact readiness while return rates will actually decline further. The basic logic is that no command will return anything once they have paid for it and that maintenance backlogs will increase at installation level because nothing will be returned if it can be repaired there. This will result in cannibalization of equipment at the installation, an imbalance of the depot workload, and a further acceleration of the magnitude of the return rate problem.

Study Group Analysis

Data for all PAA and ASF DLRs with recurring demands during CY 1978 were obtained from DARCOM for the purpose of comparing actual return rates from historical demand and return data. Figure 2-2 reflects the results of that inquiry.

UNSERVICEABLE RETURN RATES FOR ALL ITEMS
WITH ISSUES GREATER THAN ZERO

PERCENT RETURN RATE	STOCK FUND ITEMS #LINES	CUM%	PAA ITEMS #LINES	CUM%
≥100	523	(13)	1,410	(25)
≥ 90	535	(14)	1,559	(28)
≥80	627	(16)	1,812	(32)
≥70	702	(18)	2,034	(36)
≥ 60	817	(21)	2,284	(41)
≥ 50	1,005	(26)	2,651	(47)
Below 50	2,912		2,974	
TOTAL	3,917		5,625	

Figure 2-2.

At every percent of return thresholds examined, PAA items enjoyed a higher rate of return than did those stock funded. A closer examination of Figure 2-2 reveals that return rates for PAA DLRs were about twice as high as ASF DLRs. For example, 36% of the PAA DLRs had a 70% or higher return rate where 18% of the ASF DLRs had a 70% or higher return rate. A further analysis was conducted of 408 randomly selected high volume DLRs to determine how the return rates of the high dollar volume ASF DLRs compared to the high volume DLRs. Of these 67% of the PAA DLRs had a return rate of 70% or higher whereas 23% of the ASF DLRs had a return rate of 70% or higher. (See Figure 2-3.)

UNSERVICEABLE RETURN RATES FOR
408 SELECTED ITEMS

PERCENT RETURN RATE	STOCK FUND ITEMS #LINES	CUM%	PAA ITEMS #LINES	CUM%
> 100	13	(10)	82	(29)
≥ 90	16	(13)	120	(42)
≥ 80	22	(18)	155	(55)
≥ 70	28	(23)	189	(67)
≥ 60	34	(27)	207	(73)
≥ 50	42	(34)	228	(80)
Below 50	82		56	
TOTAL	124		284	

Figure 2-3

The question of why the PAA DLRs experienced higher return was considered. It was concluded that the controls placed on these items (DX, AIMI, automatic return procedures) are in most cases more stringent than those placed on ASF items since PAA DLRs are more directly related to materiel readiness. In addition there is a reluctance to return something that was obtained with operating funds that can be used in the future; so consumers tend to retain unserviceable items if they can be repaired at field level. The logic is to retain the item to avoid buying it back. It appears that management and control of DLRs below the wholesale level is a function of their impact on materiel readiness and the capability to repair unserviceables.

BASIC ALTERNATIVES

A series of alternatives were developed which ranged from full implementation of the OSD proposal (alternative 1) on one extreme to only an implementation of procedural changes identified by this study to correct current system deficiencies. Two alternatives were developed which include all or partial stock funding of PAA secondary items and two were developed which included no stock funding changes but implemented major or minor systems changes.

ALTERNATIVE #1

This would encompass the full implementation of the OSD proposal to stock fund all PAA funded DLRs currently found in the five procurement appropriations and convert them to stock funded. This would result in the transfer of approximately 14,000 PAA DLRs to the ASF. It would also include procedural changes to the current systems.

ALTERNATIVE #2

This would cause the intense management of selected high unit cost or high dollar annual issue volume items. It would, however, leave these items procurement funded as secondary items and continued as free issue. Those PAA DLRs items not selected for intensive management would be transferred to the stock fund and procedural changes to current systems would be made as in Alternative 1.

ALTERNATIVE #3

This would cause the intensive managemen of selected high unit cost or high dollar annual issue volume items as would Alternative 2 except no PAA DLRs would be transferred to the stock fund. Procedural changes to current systems would also be made as in Alternative 1.

ALTERNATIVE #4

This would implement only procedural changes and would rely entirely on these to correct current problems.

PROCEDURAL CHANGES

The procedural changes referred to in all the above alternatives are the same and do not vary with the alternative selected. These are procedural/system inadequacies identified by the study group that are currently compounding the return rate problem and must be corrected regardless of the final system change decision. Each problem will be discussed in detail to explain how it is contributing to low return rate statistics.

PROCEDURAL CHANGE #1

Examination of current credit return policies and procedures reveals they must be revised to improve responsiveness.

a. Problem: The present stock fund credit system as it actually operates tends to reduce return credit incentive.

b. Discussion:

(1) Generally stated, credits are dependent on the asset position of the supplier in relation to its validated requirements for an item within the approved force acquisition objective (AFAO) or other stockage objective. At the retail level, credits are allowed for quantities of materiel needed to satisfy: (a) the requisitioning objective (RO) plus the issue requirements through the budget year or through the peacetime authorized retention level, whichever is the lesser quantity; (b) authorized prepositioned war reserve (PPWR) requirements funded during the current year; or, (c) specifically known requirements which will result in a reimburseable issue. At the wholesale level, credits are allowed for materiel needed to bring the net assets up to the funded AFAO quantity. Return instructions are generated for materiel that is needed to establish a net position between the funded AFAO and a higher retention limit quantity; however, credit is not given for the return of these items. An exception to this policy is that credit is automatically issued for stock funded items that have been designated automatic return items (see page 2-4). No credit is given for uneconomically repairable items or for returns that would place the intermediate or wholesale supply activities in excess of the authorized retention level quantities.

(2) Credit at the full standard price is allowed for authorized returns that are returned:

(a) In a new, and serviceable less than new, condition and are reissuable at full standard price without requiring modification, or

(b) To the intermediate level in unserviceable, economically repairable condition that are within prescribed retention limits and which after being restored to an issuable condition in local maintenance facilities at OMA expense, will be retained for reissue at full standard price.

(3) Credit at less than full standard price (current standard price less the average of actual cost to a stock fund division for repair) is granted for items returned in an unserviceable, economically repairable condition that are within the prescribed retention limits and which after being restored to an issuable condition at stock fund expense, will be retained for reissue at full standard price.

(4) At the retail level, the customer is given a percentage credit for unserviceable, reparable DLRs by materiel category (MATCAT). This percentage is calculated quarterly by comparing total credit received from the wholesale level in each materiel category with the standard price value of the DLRs returned to the wholesale level. The percentages are broadcast to each installation quarterly and loaded in the installation's computer. The percentages for selected MATCATS for two of the MACOMS are shown in figure 2-4.

Percent of Credit Granted to Customers for Return of Unserviceable, Economically Reparable DLRs (1979)

	1 Jan-31 Mar	1 Apr-30 Jun	1 Jul-30 Sep	1 Jan-31 Mar	1 Apr-30 Jun
Ground Equip.	23%	23%	22%	20%	20%
Electronics	24	21	20	15	10
Air	30	26	24	25	20
Cbt Auto	34	30	28	30	20
Missiles	34	29	24	15	10
Wpns, Fire Control, Chemical, other.	45	38	35	30	20

Figure 2-4

(5) When a customer unit turns in an unserviceable, economically reparable DLR, the unit will receive these percentages of the standard unit price as credit if the DLR is returned to the wholesale system. The MRCs are required to conform to AR 37-111 on granting credit on stock fund materiel.

(6) At the wholesale level, credit for unserviceable returns was set in the Commodity Command Standard System (CCSS) at 50 percent of the standard unit price. On the average, the remaining 50 percent

defrayed the rebuild, nonrecoverable (wash out) and transportation costs. On 1 Jan 79, this percentage was raised to 75 percent per OSD Decision Package Set 427. However, this percentage factor is only applied to creditable returns of unserviceable reparable assets; thus, a MACOM could turn-in $1,000 worth of DLRs of which only $500 are creditable returns. The 75 percent factor would then be applied only to the $500 of creditable materiel for an effective credit return percentage of 37.5 percent. In FY 78, one wholesale activity received returns valued at $48.3 million and granted credit for $16.1 million (33%).

(7) In some instances, the time to process credit returns to the retail customer by the installation stock fund is acceptable; however, the time to process credit returns to the installation stock fund by the wholesale stock fund is excessive. (as of 31 Dec 78, two MACOMs had $22 million worth of turn-ins for which credit had not been received.) It can take as long as four months to pack, transport, inspect, and process returns. Analysis of the current system reveals that unless responsiveness is improved, it would not allow the satisfactory implementation of Alternative #1 and #2.

c. Conclusion: Without improvements in credit return practices/procedures the credits actually being given to the customers will generate little incentive to return DLRs. This is especially true for DLRs that are subsequently classified as uneconomically reparable at the wholesale level. In this case, the installation will expend funds to inspect, classify, pack, and ship potentially creditable returns for which they will not receive reimbursement. Additionally, the policy of not granting credit for a DLR that does not fall within certain stockage levels works against the incentive supposedly provided by the credit return system. Finally, if stock funding of PAA DLRs is implemented, the system must be responsive, the percent of credit must be adequate and requirements for initial provisioning must be closely monitored to insure consumer funds are adequate to support the mission. Otherwise, the requisitioning process could be interrupted because of fiscal constraints on other programs impacted by reprogramming requirements.

d. Recommendations:

(1) Review the operation of the credit system to identify causes of denied or delayed credit, and delayed returns. Strengthen credit procedures to correct identified deficiencies.

(2) Implement a policy whereby the wholesale level grants credit amounting to the difference between the standard unit price and the average overhaul cost.

(3) Authorize credit for DLRs that are needed by the wholesale level to establish a net position between the funded AFAO and a three year retention limit quantity (or some other quantity supportable by the ASF).

Procedural Change #2: Revise the Unserviceable Return Rate (UNRR) Stratification to Account for NSN Conversions.

a. Problem: The UNRR is a percentage which expresses the dollar value of unserviceable returns in relation to the dollar value of recurring demands. Some DLRs are returned under one NSN, modified by an approved product improvement program (PIP), and reissued under another NSN with a higher standard unit price. This distorts the UNRR.

b. Discussion:

(1) The Army has a program to convert the Vehicle, Tank Recovery (VTR) from gas to diesel. To accomplish this, the transmission for the gas model, NSN 2520-00-937-5285, is being converted to NSN 2520-00-140-7531. Currently, 42 older model transmissions have been returned to the wholesale system. At the current standard unit price of $60,000 the dollar value of the returned items is $2,520,000. These 42 transmissions will be converted to an item whose standard unit price is $101,970. When the new item is issued against recurring demands, the dollar value of the demands will be $4,282,740. Thus, until the newer models begin to make their way back to the wholesale system (which may take a year or more), the combined UNRR will be shown at 58.8% percent when in reality, a one-for-one exchange has taken place and procurement dollars have not been used to meet the recurring demands for the new items.

(2) A similar situation exists with tank engines. Approximately 550 older model tank engines valued at $18,453,600 are being converted to newer models. At the increased standard unit price, the newer model engine will be issued against recurring demands valued at $20,585,000. Here again, the combined UNRR will be shown as 89.6 percent when in reality, a one-for-one exchange has occurred.

(3) The net effect can be illustrated by combining the dollar value of the issues and recurring demands. For the two examples, the UNRR would be:

Dollar Value of Returns: $2,520,000 + $18,453,600 = $20,973,600
Dollar Value of Recurring Demands $4,282,740 + $20,585,000 = $24,867,740

$$\text{UNRR} = \frac{\$20,973,600}{\$24,867,740} = 84.3\%$$

c. Conclusion: It should be noted that the dollar value of returns is not used in the computation of a return rate. CCSS utilizes quantities in the supply control study, and those are the statistics that are used to determine a percentage of returns against the quantity of demands on a given item. The current method of stratifying the UNRR in the budget does not consider conversions and their effects on the unserviceable return rates. Consequently, the Army is subjecting itself to unnecessary criticism by OSD and other agencies.

d. Recommendation: Revise the UNRR stratification to include discussions of conversion programs and their effects on unserviceable return rates.

Procedural Change #3: Revise the Methodology For Processing Non-Recurring Demand Requirements.

a. Problem: The current methodology precludes the passing of certain non-recurring requirements to the wholesale system. This distorts the Army's UNRR.

b. Discussion:

(1) Under the current system, all requisitions for the same stock number are consolidated and processed as one requisiton, regardless of the assigned demand code. Consequently, non-recurring demands and recurring demands will be consolidated and passed as one recurring demand for the total quantity required.

(2) Increases in the requisitioning objective (RO) quantities are now classified as nonrecurring requirements. When the RO is recalculated, the ADP systems will order the difference between the on-hand and due-in quantity and the new RO quantity. For instance, assume that the on-hand quantity is 20 and the current RO is 30. Also, assume that the difference of ten has not yet been ordered because the reorder point (ROP) has not been reached. Now, as a result of normal requisition processing, a new RO of 34 is established. Technically, the system should generate a non-recurring demand for a quantity of four (the difference between the old RO and the new RO). However, if the ROP has been reached, the system will generate a recurring demand for a quantity of 14 (the difference between the on-hand/due-in quantity and the new RO). Consequently, the NICP will receive a recurring demand for 14 DLRs, expect a return of 14 DLRs, and actually receive only 10 RLRs. Because the requisitioner cannot turn-in assets that it does not have, a quantity of four will not be returned.

(3) To show how this distorts the UNRR, assume that the standard unit price of the item is $100. The dollar value of recurring demands would then be recorded as $1,400 when in fact, it is only $1,000. When only ten DLRs are actually returned, the UNRR will be 71.4 percent ($1,000 : $1,400 = 71.4 percent). It should be 100 percent since $400 worth of DLRs were increases to the RO (or non-recurring demands) and there will be no returns.

c. Conclusion: While the consolidation reduces requisition traffic and associated workload, the workload associated with revising wholesale procurement and maintenance budgets/programs caused by "no shows," no longer justifies the continuation of the current methodology for processing non-recurring requirements.

d. Recommendations:

(1) Revise the "rules" for submitting and processing non-recurring demands.

(2) Reprogram the retail ADP systems to accommodate the passing of all non-recurring requirements to the wholesale level and prevent their conversion to recurring demands.

Procedural Change #4: Automate Direct Exchange (DX) Procedures to Improve the Management of DLRs.

a. Problem: The current DX supply procedures are complicated and not automated. Asset reports are prepared manually and are inadequate for effective supply management of DLR assets.

b. Discussion:

(1) Authorized DX stockage levels are computed using the repair cycle time and the resupply cycle time. The formula for these computations requires the DX clerk to collect and maintain information on repair rates, resupply rates, repair cycle times and resupply cycle times for each DLR stocked by the DXA.

(2) To ascertain the asset position information, the DX clerk must review each item and manually transcribe the data to a report form. Because of the critically of these items to operational readiness and the considerable dollar value of the inventory, timely asset reporting is essential for effective supply management.

(3) Based on a sample of 408 DLRs, it was found that approximately 66 percent of the items were managed by installation DX programs. At four CONUS installation DX activities, the number of lines managed averaged 120 and demands for these items during the last year approximated $30 million.

c. Conclusion: The process of manually calculating authorized DX stockage levels is complex and time-consuming and often results in inaccurate stockage levels. Furthermore, manual asset reporting of DX stocks is time-consuming and often inaccurate; thus, visibility of "big dollar" DLRs is adequate for effective asset management.

d. Recommendations: Develop and implement an automated DX program (using dedicated ADPE) that will compute authorized DX stockage levels and provide asset reports for selected DLRs stocked by the DX activity. The asset reports should be compatible with the SIMS-X reporting system (see Procedural Change #5).

Procedural Change #5: Implement an Automated Selected Item Management System (SIMS-X) to Improve Asset Visibility and Management of DLRS.

a. Problem: The current manual SIMS-X system provides very little visibility of DLRs stocked at the intermediate/direct support levels.

(1) In accordance with DODI 7040.5 all services are required to provide daily transaction reporting on all items with an annual dollar value of procurement over $50,000.

(2) The Army has attempted to gain visibility of selected DLRs through the implementation of a SIMS-X program; however, this program has been ineffective primarily because it is a manual reporting system.

c. Conclusion: The Army must develop and implement a system which provides asset visibility of DLRs at all levels regardless of how they are funded.

d. Recommendations:

(1) Eliminate the current manual SIMS-X reporting system.

(2) Expedite the development and implementation of an automated SIMS-X asset reporting system for DLRs (including DLRs stocked at the intermediate and direct support level).

Procedural Change #6: Revise the Unserviceable Return Rate (UNRR) Process to Recognize Washouts of DLRs at Special Repair Activities (SRAs) and Overseas Repair Facilities.

a. Problem: The Army is not getting credit (or recognition) for DLRs disposed of by SRAs and overseas wholesale repair facilities.

b. Discussion:

(1) The Army has authorized overseas wholesale repair facilities and SRAs to repair DLRs. To preclude the unnecessary expenditure of transporation funds, these activities are authorized to dispose of assets that are uneconomically reparable rather than return them to CONUS wholesale activities for disposal.

(2) An example is the Mainz Army Depot in Europe. During the first six months of FY 79, Mainz disposed of 253 DLR items valued at $1,048,448. It was determined that the disposal of these assets were reported to the wholesale level; however, the item managers for these items were not apprised of the disposal action.

(3) This is significant from the standpoint that these items were issued against recurring demands; consequently, the UNRR will be calculated as zero, when in fact, the items have been returned, but the returns are not reflected in the UNRR stratification.

(4) Technically, this procedure is correct in that these items, not being part of the wholesale inventory, will not be included in the requirements determination process. However, the fact that they were issued against recurring demands tends to cause the item manager to

expect the return of these unserviceable items. These items will not be returned nor will their disposal be reported to the wholesale item manager.

c. Conclusion: The current UNRR process results in a "paper" return rate cost. In the example above, this amounted to $1.0 million.

d. Recommendations:

(1) Revise the UNRR process to recognize the return of DLRs that are disposed of below wholesale level.

(2) Include disposal actions in the reporting criteria for the automated SIMS-X program (see Procedural Change #5).

3. It should be noted that the Army has established programs to implement Procedural Changes 4 and 5.

ADDITIONAL CONSIDERATIONS

ISSUE #1: Requisitioning objectives (ROs) keep increasing without associated increases in densities of equipment or other apparent reasons.

a. Requisitioning objectives (ROs) reflect the quantity of items that are authorized to be on hand or on order to support a piece of equipment. As the demands for an item increase, the RO is increased to accommodate the increased demand. Requisitions for these increases are supposed to pass to the wholesale level as non-recurring requirements; however, because of the current ADP systems logic, these requirements are received at the wholesale level as recurring requirements. Consequently, the wholesale level will anticipate the return of an asset when in fact a return will not be generated. When the wholesale level queries the field, they are told that the demand was non-recurring and therefore no return is forthcoming. Additionally, when the wholesale level questions that portion of a non-recurring demand which is in fact coded as non-recurring they are told that it represents an RO increase.

b. As an example, an installation's RO for engines is increasing without increases in the number of vehicles supported. In another case, an activity has a large number of jeep transmissions deadlined due to the lack of repair parts kits. The activity has requisitioned transmissions rather than wait for the repair parts kits. If the transmissions are issued and the parts kits are provided at a later date, the activity ends up with twice as many transmissions as they need. While this is authorized under current regulations, the activity is required to cancel the requisitions for the parts kit as the transmissions are received or vice versa. There was no evidence to indicate that this had occurred. Consequently, the demands (unless cancelled) will cause the ROs for both items to increase.

c. This processing results in many more issues than returns as well as underforecasting and underbudgeting at the wholesale level. In

one wholesale level activity, the program for one major weapon system experienced a $34.2 million shortfall.

d. The implementation of Procedural Change #3 (Revise the Methodology for Processing Non-Recurring Demand Requirements) will resolve some of the troublesome aspects of this issue; however, not until some effective method is found to limit or control increases to ROs for DLRs will the issue be resolved fully. This will be covered in study conclusions and recommendations.

ISSUE #2: There is no effective automated system to match issues and turn-in of DLRs.

a. Under the current system, units are required to turn-in unserviceable DLRs prior to or shortly after servicable DLRs have been issued. This system works well for DLRs that are controlled by a DX program. However, for DLRs that are not controlled by a DX program, this system is not effective in ensuring a one-for-one turn in.

b. At the intermediate level, the SAILS computer will generate two follow-up cards each time a DLR is issued. One card is sent to the unit with instructions to provide the intermediate level with information pertaining to the disposition of the unserviceable DLR. The other card is retained in a suspense file. Unfortunately, there is no way for the ADP systems to verify that, in fact, the unserviceable DLR has been turned in. This must be done manually by matching the issue to the turn-in document.

c. Enforcement of the current system is at best marginal. The volume of transactions alone makes the system difficult to enforce and execute. Therefore, the Army must refine its ADP systems to provide pipeline status.

ISSUE #3: Any action to stock fund PAA DLRs will have an impact on the Procurement Army (PA); Operation and Maintenance Army (OMA), Operation and Maintenance Army Reserve (OMAR); Operation & Maintenance, Army National Guard (OMARNG) Appropriations as well as the Army Industrial and Stock Fund budgets for depot level reparables. It becomes essential to carefully assess any proposed changes to insure financial management/systems impacts are identified at all command levels should a decision be made to place all PAA funded DLRs in the stock fund.

ISSUE #4: Changes to current policy on funding classification must be made to eliminate item migration between investment and expense funding.

The rules for classifying an item as expense or investment is contained in DODI 7040.3, "Definitions of Expenses and Investment Costs." Expense DLRs are those that are not centrally managed recoverable items and are not designated as reportable for the reason that repair of unserviceable quantities of the items are not considered by the ICP in requirements determination. Investment DLRs are those that are centrally managed and

which are designated as reparable because unserviceable quantities of the items are considered by the ICPs in their requirements determination.

AR 37-111 states that consumable type materiel includes DLRs (regardless of unit cost) which are not managed by an ICP as recoverable items, and are not designed as reparable for the reason that the quantities becoming unserviceable and required are not considered by the ICP in the determination of requirements. Additionally, ASF acquisition authority will not be used to finance any costs incurred for procurement of items of equipment (regardless of unit price) for which an ICP maintains authorized individual items management throughout the Army supply system down to the user level (i.e., the items are subject to individual item reporting).

While DODI 7040.5 and AR 37-111 may appear to provide the necessary guidance regarding classification of DLRs, the fact that the Army has 27,000 DLRs classified as expense items indicates that the guidance is either misunderstood or not being followed. Attempts by the study group to obtain the classification procedures from the wholesale level operations were unsuccessful indicating that there probably are none and the item managers are free to assign a classification without concerns for a formalized classification process.

Obviously, if all DLRs were stock funded there would not be a need to pursue this issue; however, if the Army does not stock fund all DLRs, explicit classification procedures should be developed and implemented. Additionally, these procedures should identify the conditions under which a DLR would be allowed to migrate from one funding classification to another.

CHAPTER #3 - STOCK FUND CONSIDERATIONS

INTRODUCTION

The purpose of this chapter is to examine the feasibility of extending the stock fund concept to depot level reparable components in accordance with the Memorandum from the Deputy Assistant Secretary of Defense, dated 3 October 1978, subject: Stock Funding of Depot Level Reparable Components (See Appendix A). The DOD Steering Group tasking (attached as Incl #3 to Appendix A) presented a series of questions to be answered in conjunction with the review. The following evaluation and discussion of the proposal to stock fund current procurement funded secondary items is keyed to the OSD questions referenced above.

FEASIBILITY EVALUATION

Legal Aspects: The legal implications of stock funding all depot level reparables was examined to determine if legislative changes were required and to identify what OSD regulations, if any, would require modifications.

US Code: The US Code was researched and a determination was made that no revision would be required. Specifically 10US2208 authorizes the Secretary of Defense to require establishment of working capital funds in the DOD to finance inventories of such stores, supplies, and equipment as he may designate. In as much as Congress currently finances these items in the procurement appropriations, it would appear that notification should be given to the Congress of a contemplated change prior to the development or submission of a revised budget.

DOD REGULATIONS: In order to implement the stock funding of Depot Level Reparable Components (DLRs) several directives and instructions would require revision. Those which have been identified are shown below:

1. DOD Directive 7410.4, "Regulations Governing Industrial Fund Operations," prohibits the use of industrial funds to purchase investment material.

2. DOD Instruction 7040.5, "Definitions of Expenses and Investment Costs," requires change to the investment cost decision diagram.

3. DOD Directive 7420.1, "Regulations Governing Stock Fund Operations," would require revision to incorporate policy to cover the stock funding of depot level reparable items which are centrally managed and have individual reporting.

ARMY REGULATIONS: Various Army regulations and internal procedures which implement DOD Directives would require revision depending on the extent and nature of Congressional approval and DOD changes.

FINANCIAL/RESOURCE CONSIDERATIONS

DOLLAR VALUE OF TRANSFERS: The approximate dollar impact of transfers associated with a decision to consumer fund (stock fund) DLRs that are currently included in the procurement appropriations, measured in millions of dollars is reflected at Figure 3-1.

Estimated Funding Transfers - FY 81-85
(Millions of $) Source - POM

Appropriation	FY 81	FY 82	FY 83	FY 84	FY 85
Procurement	647	732	809	825	780
Maintenance-OMA	288	363	399	434	427
Total Transfers	935	1095	1208	1259	1207

Figure 3-1

In addition, funds currently included in maintenance accounts used to overhaul "free issue" DLRs have been identified for transfer to consumer accounts. This would be necessary to comply with the concept of complete consumer funding the procurement, repair, and return of these items to the system by use of the Stock Fund concept. The total of the funds identified for transfer within the budget based on the current Army POM, FY 1981-1985, is reflected in figure 3-2.

Estimated Funding Transfer - FY 81-85
(Millions of $) Source - POM

Appropriation	FY 81	FY 82	FY 83	FY 84	FY 85
Procurement	647	732	809	825	780
Maintenance-OMA	288	363	399	434	427
Total Transfers Out	935	1095	1208	1259	1207
OMA	843	992	1095	1144	1095
OMANG	33	37	40	40	40
OMAR	59	66	72	74	72
Total Transfers - IN	935	1095	1208*	1259*	1207

*Rounding

Figure 3-2

Based on a theoretical distribution of funds in the same ratio as the total of the OMA, OMAR, and OMANG, the impact on individual appropriations is theorized. No more definitive numbers than these estimates are available. This identifies only funds in the current POM and does not consider potential savings nor additional costs.

METHODS OF REIMBURSEMENT

The Army Stock Fund is a revolving fund, self sustaining in nature, which maintains its integrity through reimbursable sales to customers.

These sales are based on the standard price of the item, which includes surcharges for transportation, inventory losses and more recently cost growth. PAA Secondary Items (DLRs) are issued to the user on a non-reimbursable basis.

Currently there are two "buy/sell" relationships for ASF items, i.e. (1) between wholesale and retail levels of the ASF and (2) between retail ASF and the consumer, or consumer appropriations. Consumer funds (appropriations) requisitioning from and reimbursing the ASF are OMA, OMAR; OMARNG and the five procurement appropriations.

Reimbursement from retail to wholesale is at full standard price, less 1/2 percent allowed for retail stock losses. Reimbursement from consumer to retail ASF is at full standard price.

The above method is satisfactory when dealing with consumable expense type items currently financed with the ASF. However, the investment nature of reparables, i.e., recovery of unserviceables through depot repair at a cost much less than new procurement, dictates that other alternatives be considered for reimbursement, so that the consuming appropriation pays only the net cost of an item when reimbursing the ASF and in effect receives some form of credit for the unserviceable carcass returned to the system.

Alternatives for reimbursement must consider the two basic types of issues of investment type items, i.e. (1) issues for initial stockage and (2) issues for replenishment of stocks due to wearout or other loss.

In developing/considering alternative methods for reimbursement, two basic assumptions are made:

1. Normal ASF pricing policies, i.e., addition of all surcharges, will apply to DLR's.

2. Items issued as "initial issue" must be billed/reimbursed as is currently done for ASF items between retail/wholesale and consumer/retail. A variation of the current method, i.e., control of consumer funds to reimburse the ASF by DARCOM/wholesale managers is being considered by the Army staff in an action separate to this study. Results of that effort should have no effect on this analysis, since it will determine who has the dollars and not the amount of actual reimbursement.

With the basic assumption that reimbursement for initial issue follows normal procedures, alternatives discussed apply to issues for replenishment, or recurring demands.

There are currently 27,000 ASF items coded as depot reparable items in the system. The Army has developed a system of providing credit for unservicable returns for these items so that in effect the consumer/consuming appropriation pays only for the cost to repair. Since this system exists, it is considered as:

Alternative 1

The consumer requisitions a DLR from the retail stock fund, he is billed and reimburses the ASF at full standard price on receipt of the materiel. When he returns the unserviceable DLR to the ASF he receives a predetermined percent of credit. When the consumer budgets his operating funds he should take expected credits into consideration. In theory, the billing/reimbursement/credit processes between retail and wholesale ASF are the same and the retail stock fund "breaks even" by providing credit received from wholesale to the consumer. The wholesale ASF breaks even by charging full standard price and giving credit at standard price less the cost to repair.
Advantages of this process are:

a. A relatively simple system for charging the customer the actual "recycling" cost of the item.

b. Encourages the consumer/retail ASF to return unserviceables to the wholesale system to obtain credit.

The major disadvantage of this alternative is at retail ASF level. All MACOMs process credits to consumers under the alternate credit policy, which provides immediate credit at predetermined percentages. However, the retail stock fund must wait for its credit until the item is returned to depot and credit is processed. Addition of high dollar DLRs to the ASF could magnify the cash drain on the ASF.

Alternative 2

The customer can be charged a net price for a replacement DLR which would be the standard price less a predetermined cost to repair the unserviceable returns. This cost to repair would be a precentage of standard price based on actual repair cost plus losses due to wash outs. This percentage would be developed on a commodity group basis, e.g., air items, tank items, electronic items. Failure of the customer to return the reparable would result in a billing to recover the full standard price. Advantages of this procedure would be:

a. To let the consumer know what his actual cost would be in a short period of time.

b. Negate the need for processing credits.

c. Provide incentives to return unserviceables to escape additional billing.

The disadvantage to this procedure is the extensive effort required to control unserviceable returns after the customer has his replacement. The controls would be necessary at both retail and wholesale level ASF.

Both alternative 1 and 2 above will provide the resources to finance the repair of unserviceables, with no change in current procedures other than the fact that OMA depot maintenance funds are currently appropriated

for repair of PAA DLRs. A system/procedure also currently exists to repair ASF items through AIF facilities, and reimbursement is made by the stock fund. Should all DLRs be stock funded the existing procedure is satisfactory. The method of sales and credits between ASF and Consumer will provide the ASF required resources to reimburse AIF P7M funds.

STOCK FUND AND INDUSTRIAL FUND RELATIONSHIP: The Army Industrial Fund (AIF) and Army Stock Fund (ASF) have two basic interactions, i.e., (1) AIF purchases repair parts from the ASF to support repair/overhaul/rebuild of both principal and secondary items and (2) ASF is a customer of AIF as a purchaser of repair services for reparable ASF items.

In todays system AIF repairs both ASF and PAA secondary items. The only difference in this process is "who reimburses AIF for service." If an ASF item is repaired, ASF reimburses AIF. If a PAA item, annually appropriated depot maintenance funds reimburse the AIF. All repair orders for both ASF and PAA items are placed on the AIF facility by the wholesale (DARCOM/MRC) level of supply.

There would be no change in the relationship between ASF and AIF if all (or a larger portion) of DLRs are transferred to the ASF, except that ASF would fund more services, while PAA would fund less services and AIF would purchase necessary DLRs to support their major item rebuild programs from the ASF. The total magnitude of AIF repair of secondary items would remain stable.

PRICING POLICY: Army stock fund prices, with minor exceptions for items purchased locally, are standard throughout the system. Prices are developed using the latest (or representative) procurement cost of an item, plus surcharges to cover transportation costs, inventory losses, and expected cost growth. This pricing policy provides the necessary resources to maintain the capital of the stock fund. Surcharges, other than cost growth, vary by commodity. Current surcharges (FY 30) added by each NICP are shown in Figure 3-3.

	ASF SURCHARGE			
NICP	TRANS	LOSS	Cost Growth	Total FY 79
ARRCOM	2.0	3.0	4.3	9.3
CERCOM	2.5	2.0	4.3	8.8
MICOM	1.0	5.0	4.3	10.3
TARCOM	4.5	2.5	4.3	11.3
TSARCOM	2.0	5.0	4.3	11.3

Figure 3-3

Current stock fund pricing policies are adequate and appropriate for application to DLRs. Addition of surcharges, to include cost growth is a satisfactory method to recover replacement costs and fund the necessary transportation costs and expected inventory losses. It is fair to both the stock fund and the consuming appropriation and represents true

operational costs. Minor adjustments in actual percentage may be required. This presents no unusual action or problem, since current surcharges are reviewed for adequacy each year and updated accordingly.

CREDIT RETURN POLICIES: The present stock fund credit system as it actually operates would not support the conversion of procurement funded PAA secondary items to consumer funded (Stock Funded). This is examined in Chapter 2.

The current credit system also tends to reduce the credit return incentive. Units are reluctant to turn in materiel, especially when they feel that they may have to purchase it at the full standard price at a future date.

COSTS AND BENEFITS OF STOCK FUNDING: The costs associated with implementation appear in Appendix F.

INITIAL FINANCING: In determining the method of initially financing the ASF to accommodate DLRs, two basic assumptions are made.

a. The ASF structure will not change, i.e., the wholesale/retail relationship will be retained.

b. Each level of supply has assets on hand, due in from maintenance, or due in from procurement to fill all valid requirements on the date of implementation. At wholesale level, this includes unobligated balances of PAA dollars which will be obligated at a future date. Under current operating procedures, the ASF accommodates many items coded as DLR. These items are replenished by procurement and/or as required by the ASF. Through the system of credits on returns, consumers are in effect charged only the repair cost of an item as long as they turn in an unserviceable carcass. This process maintains the capital of the fund. Thus to accomplish initial financing of DLRs in the wholesale ASF, normal capitalization of on-hand and due in quantities will satisfactorily sustain replenishment procurement.

Unless otherwise funded for, the procurement of initial provisioning DLRs will result in substantial outlays of cash in the form of progress payments for years prior to recoupment because of the long procurement leadtimes associated with PAA DLRs. While funds can be collected from consumers to generate necessary cash, it would also take this money out of circulation, thus reducing overall Army purchasing power.

MANPOWER IMPACT: The overall manpower impact associated with the proposal has been developed by each major command based on the detailed identification of alternatives, problems, and procedures outlined in the draft report. Results are tabulated in Appendix F.

EXCLUSION OF SELECTED SECONDARY ITEMS: Alternative #2 excludes selected secondary items. This alternative is the subject of examination in Chapter 4. The reader should postpone his review of this technique until he reaches that discussion in normal reading sequence.

RELATING FUNDING TO MISSIONS: There is some evidence to indicate that the stock funding of depot level reparables would improve the Army's ability to relate funding to mission and weapon's systems. The current system of materiel category codes (MATCATS) or financial accounting codes would continue to be used in relating a particular DLR to a weapon system or particular mission; however, the stock funding of DLRs would subject them to a more rigorous accounting system at the retail level. On the other hand, it appears more feasible and practical to change the accounting system rather than changing the method by which DLRs are funded. The magnitude and impact of changing the accounting system for DLRs would be significantly less than changing the complete financial management system.

SUPPLY MANAGEMENT ASPECTS

MANAGEMENT, CONTROL AND SUPPLY DISCIPLINE: There is little evidence to support the contention that the stock funding of reparables by itself will result in improved management, control and supply discipline. As shown in Figure 3-4, 21 percent of all ASF DLRs that had recurring demands in CY 78 had return rates of 60 percent or better whereas 41 percent of the PAA DLRs had returned rates of 60 percent or better.

Unserviceable Return Rates For All Items
With Recurring Demands

Percentage	ASF	Cummualtive Percent	OPA	Cumulative Percent	Total	Cumulative Percent
-100	523	(13)	1410	(25)	1933	(20)
90-99	32	(14)	149	(28)	181	(22)
80-89	72	(16)	253	(32)	325	(26)
70-79	75	(18)	222	(36)	297	(29)
60-69	115	(21)	250	(41)	365	(32)
50-59	188	(24)	167	(47)	555	(38)
Below 50	2912	(100)	2974	(100)	5886	(100)
Totals	3917		5625		9542	

Figure 3-4

There are several major reasons for this:

The present stock fund credit system as it actually operates tends to reduce the credit return incentive. Units are reluctant to turn in materiel especially when they feel that they may have to purchase it at the full standard price at a later date. This aspect was discussed in more detail in Chapter 2.

The current retention policy authorizes the intermediate echelon to retain assets up to the sum of the RO, PWRS, and 3 times the annual demand rate (or 3 years worth of stocks). This policy tends to reduce the return of DLRs to the wholesale system. (Note: The Army recently eliminated retention levels for DLRs; however, it is expected to be at least two years before the policy change is implemented throughout the Army.)

PAA DLRs are subjected to more control and management because they are critical in terms of supply availability and operational readiness. This is especially true for PAA DLRs such as engines, transmissions, and final drives. Accordingly, 32.9 percent of PAA DLRs are designated as ARI whereas only 3.2 percent of the ASF DLRs are designated as ARI. This eliminates the need to wait for disposition instructions from the ICP and it authorizes selected ARI to be shipped by air rather than surface transportation, thus reducing return processing time.

The PAA and ASF items that are readiness-related are already intensively managed (DX, AIMI, ACIMS); consequently, it is doubtful that the management intensity or visibility of these items would increase as a result of stock funding all DLRs.

The current supply management systems will remain in effect regardless of how DLRs are funded. The impact on current supply management systems is expected to be minimal.

IMPACT ON FIELD (INTERMEDIATE) LEVEL SUPPLY MANAGEMENT: There would be little, if any, impact on intermediate level supply management.

IMPACT ON PRESENT WHOLESALE MANAGEMENT SYSTEMS: The impact on supply management of DLRs would require minor changes as a result of stock funding depot level reparables. Since approximately 27,000 DLRs are already stock funded, the workload would consist of integrating the remaining 14,000 DLRs into already existing programs.

SIGNIFICANT IMPLEMENTATION PROBLEMS: From a supply management standpoint, the problems that would be covered by implementing the stock funding of reparables would be negligible. All of the problems could be overcome by properly phasing the implementation. Phasing would be sensitive because consumers could order PAA secondary items in large quantities prior to implementation to avoid use of consumer funds. This one-time drain on the system could result in zero balances and has the potential to impact on the readiness of units not in a long supply position on these items. Implementation phasing might consider filling only Not Operationally Ready-Supply (NORS) requisitions during this period. In addition, users might tend to hold unserviceables pending implementation to obtain credit.

INTERFACES WITH OTHER FUNCTIONAL AREAS: Interfaces with other functional areas would not be affected. They would remain the same. It is extremely difficult to assess the potential impacts on Not Operationally Ready-Supply (NORS) rates and other supply performance measures. Assuming that sufficient funds are provided to continue the fill of stockage requirements, there should be little impact on stock availability. However, if consumer funding levels are reduced or directed to other functional areas, NORS requirements would be met but routine replenishment requirements would be held pending the approval of sufficient funding levels.

CUSTOMER IMPACT.

GENERAL: There will be both advantages and disadvantages to proposed changes if secondary items are transferred from the Procurement Appropriation (PAA) to the stock fund. Cost consciousness should be enhanced. If a workable responsive credit system is provided it could provide an incentive for users to turn in excess or unserviceable items and for the installation to evacuate them to the wholesale level.

The workload associated with consumer fund transfers will increase in terms of budgeting and accounting in both the Army Stock Fund (ASF) and consumer funding areas. The transfer will increase the volume of transactions processed in the stock fund and the accounting system; e.g., obligations, receipts, issues, intransits, billings, payables, collections, disbursements, customer credits, depot credits, and adjustments. Currently transactions for PAA secondary items are recorded in single category journals. Elimination of these journal entries will result in some minor transaction reductions. If replacement items are not readily available from the wholesale system and consumer funds are short, customers may attempt to do more repair at the installation instead of returning the items to the wholesale level. This could create a backlog of maintenance and result in a request for additional personnel and funds.

The following areas are the most likely to be affected if stock funding is adopted:

1. Finance and accounting.

2. Directorate of Plans and Training (DPT)/Directorate of Industrial Operations (DIO) level at the installation.

3. Individual units/activities.

MANAGEMENT: The transfer of depot level reparable items from PAA to stock fund to be purchased by the consumer involves the insertion of two additional management levels. The consumer and the stock fund budget personnel now become involved in programming, budgeting, and accounting for these items. From the bottom up on an installation the requirements could possibly flow from the initial user through several sources, Health Service Command Activities, Communication Command Activities, FORSCOM Activities, TRADOC Activities, Research and Development Activities, etc., all located on one installation providing input to different major Army commands who in turn must provide input to the Department of the Army. Initial identification and consolidation creates a problem in coordination of the consumer requirements with the wholesale stock fund manager who must negotiate contracts with the manufacturers. The consumer will be required to develop the requirements and determine the magnitude of funds required. This is a requirement which has not previously existed. Historical data exists, in most cases, but must now be extracted and analyzed prior to inclusion into the consumer and the stock fund budgets. This may require additional personnel at the Directorate of Plans and Training (DPT)/Directorate of Industrial Operations (DIO) level.

Competition for resources has caused the budgetary process to be expanded to include, in some instances, line item justification. Consumers now prioritize funded and unfunded requirements. It may be that based on the prioritization and fund availability, a portion of these items would not be funded within a given fiscal year. This could adversely impact command readiness. The consumer at the retail level does not possess the item knowledge available within the current system. The user's projection for financial resources would be based on historical data. They are limited to their ability to anticipate or consider such things as, item modifications, new equipment, or increases in cost due to manufacturer's start up cost for items not currently in production, and other pertinent factors.

The consumer appropriation is a single year account and under decentralized fund control is more readily susceptible to the Anti-Deficiency Act (Revised Statute (RS) 3679). Major Army Commands (MACOMS) such as Forces Command (FORSCOM) and the Training and Doctrine Command (TRADOC) prepare budgets for each applicable appropriation based on user input. Installations prepare individual appropriation budgets utilizing different sources and chain of command. Examples are:

OMA APPROPRIATION: A procedure which is used in preparing the OMA Budget is to have input from the DPT, DIO, and other program directors. The input is based on requirements of individual units/ activities. These activities are usually co-located on the installation but are sometimes satellited at other locations. Funds and guidance are provided to the DPT, DIO, etc., as appropriate on a funding authorization document. These funds in turn may be provided as a target or limitation to user units/activities. Not all funds used on an installation are budgeted through the Comptroller/DCSRM. Individual commands such as Health Service Command and Communications Command provide funds directly to their activities. Finance and Accounting, the supply activities, and data processing personnel process the administrative workload the same as for funding which flows through the budget office.

OMAR APPROPRIATION: A procedure used in preparing the OMAR Budget is to have input from the DRC and other program directors as required. The Directorate of Reserve Components (DRC) is provided input from the Major U.S. Army Reserve Command (MUSARC). Guidance is provided to the DRC and the MUSARCs by the Army Command (USAONE, USAFIVE, USASIX). The MUSARC is provided input by the units located in various cities. Funds and guidance are provided to the DRC, who in turn provides funds/ guidance to the MUSARCs. The MUSARCs may in turn provide funds as a goal or target to the user unit as appropriate. Certification of funds for technician pay and supplies for equipment are maintained at various levels depending on level of control required. The user unit prepares requisitions and certifies funds as appropriate or sends them through the MUSARC for final certification and forwarding to the servicing installation DRC or applicable activity.

BUDGETING:

CURRENT BUDGETARY METHOD.

The current budgeting procedures used by the consumer does not require any entries concerning Depot Level Reparable (DLR) Items. These items are currently free issue to the consumer.

PROPOSED BUDGETARY METHOD.

The inclusion of Depot Level Reparable Items into the Stock Fund would require these items to be included in the consumer and the Stock Fund Budgets.

The consumer must now institute procedures to extract and maintain adequate records on which to have requirements. This data is required for justification in both the consumer and Stock Fund Budgets. In most instances data required can be obtained from current ADP Systems output at the consumer level. There may need to be some modifications to provide data in a readily usable format. The records which are generated must be analyzed on a continuing basis and projections by item, to include cost, must be made for inclusion in the budget system.

The change from PAA to ASF should not change any of the budgeting and accounting systems at the consumer level. The change will have an impact in the Finance and Accounting Office, Data Processing and the user level (DPT, DIO). Appendix F displays estimated manpower impact. The potential for violation of the Anti-Deficiency Act (RS 3679) will be increased due to the addition of high dollar value items. In addition, potential for non-expenditure of funds is increased due to unexpected delays in deliveries.

CONSUMER STOCK FUNDS:

CONSUMER FUNDS.

Consumer funds are a single year appropriation and must be increased to provide for purchase of these items. The magniture of the funds would be determined by the number of items, dollar value of each and the frequency required. Additional factors which influence the amount of funds and personnel required are:

Level of Maintenance Activity/Backlog--There could be an increased requirement for maintenance personnel and funds due to an increased maintenance backlog. This backlog could result from the reluctance of the user to return items which they feel may be repaired locally and which when requisitioned would cost them more than to repair. Additional funds may be required due to units repairing items not within their authorized repair mission. Unit readiness will drive the decision to repair. If the units need an item, they will fix whatever they can, especially if the item is at zero balance.

Each consumer will attempt to maintain adequate financial controls and balances to support requirements, thus increasing the potential for ineffective fund utilization.

There will be a much greater manhour requirement associated with the detail to which consumers must justify funds. Line item accounting and justification of high dollar value items increases personnel required, at least at the lower consumer levels.

The one-time stockage of items due to increase in authorized stockage level or due to activation/reorganization of existing units will create an added requirement for funds. Currently sufficient data relating to unit activations/reorganizations are not available at the user level. Normally the user does not know the requirement more than one year in advance in sufficient detail to budget consumer funds and stock fund OA.

Stock funding will increase run time in ADP systems as number of line items of transactions increase (postings, billings, credit returns). This raises the question of costs and whether time is available at installation, retail, and wholesale levels.

STOCK FUND:

The stock fund at the user level is to provide interim financing for holding in suspense, cost of consumable type materiel required for inventory purposes, transportation expense and other services. There will have to be some increase in the cash position of the retail stock fund. This is to accommodate increased requirements, credits on items to be turned in, and to accommodate billing delays between disbursements and collections. Consumer funds are one year appropriations and the dollar value of these items plus long lead time and low turnover may impose a hardship on the retail stock fund in terms of cash balances when consumer funds are not available.

TIME PHASING: Time phasing under the PAA system is not as sensitive as under consumer funding since PAA is a multi-year rather than a single year appropriation. There are several factors involved once the items become stock funded. Some of which are:

The availability of consumer funds will impact readiness. Consumer funds must be provided to the consumer to purchase these items either through direct appropriation or a system of credits. Since these are such high dollar value it cannot be assumed that the user will be able to divert funds from other areas to purchase them. The consumer funds must be available as required on a quarterly basis as this is the system that is currently in use.

Time phasing of deliveries becomes extremely critical when items of this dollar value are being considered. The consumer must know what items are being delivered and when. The reason for this is that consumers receive an annual funding program and a quarterly allotment

against a single year appropriation. If 20 items valued at $50,000 each are programmed for receipt in the fourth quarter and these items do not come in until the first quarter of the next fiscal year, then that user has one million dollars to reprogram and obligate before year end and an unprogrammed, unfunded requirement for the next year. If the items are not purchased by the consumer, a drain on ASF cash could occur. This puts the stock fund cash in a precarious position. If the user pays for the items he could be in danger of a supply constraint or RS 3679 violation.

PRIORITY: Because of the Army's system of funding, priorities of issue become all important. If you assume that (a) funds are available, (b) the deliveries will be on schedule, and (c) the consumer knew what and how many, and the dollar value of the items to be delivered, then comes the problem of priority. If anyone changes the priority of issues from one command to another then that command must be notified of the following:

1. What items.

2. When they will be delivered.

3. How much they will cost.

4. When the funding will be transferred from the losing command to the gaining command.

Extremely good coordination and planning must exist, otherwise the ultimate consumer will be in trouble.

FUND UTILIZATION: The dollar value of these items may require line item accounting if for no other reason than to explain deviations from the program. These explanations will be required to justify funds, especially if a major deviation occurs.

MAINTENANCE IMPACT.

BACKGROUND: Under existing procedures, Depot Level Reparables (DLRs) are procured with either Army Stock Funds or various procurement appropriations (PAA). They are required/overhauled/modified with either ASF or O&M, A funds (e.g., P2 or P7M). PAA items are issued "free" to users while ASF items are "sold" to the users. Those assets coded D or L which become unserviceable are reported to the Inventory Control Point for disposition instructions when they cannot be repaired at the intermediate level. Items are either shipped to specific installations for overhaul or are disposed of depending upon such things as condition, and inventory posture.

GENERAL: Since some items are already procured and repaired under stock fund there would be no change to existing system and financial management for maintenance under the consumer funding proposal.

IMPACT: There is a possibility that local maintenance facilities in the interest of conserving funds may try to repair beyound their capability. In addition, without stringent controls on retention of unserviceables, assets could build up at local supply/maintenance points beyond the repair capability of the facility while a depot maintenance facility may have a shortage of unserviceables for repair. While this is a possible result of stock funding DLRs it can not be quantified.

SUMMARY

The OSD proposal appears as Alternative #1 in this study. A complete discussion of the advantages and disadvantages of this alternative and others appear in Chapter Four.

CHAPTER #4 - ALTERNATIVES

CHAPTER FOUR - ANALYSIS OF ALTERNATIVES

INTRODUCTION

Chapter #2 briefly revealed that a series of alternatives were developed for this study which range from full implementation of the OSD proposal (study alternative #1) on one extreme to only an implementation of procedural changes identified by the study to correct current system deficiencies. Two alternatives were developed which included all or partial stock funding of PAA secondary items and two were developed which included no stock funding changes but implemented major or minor system changes. This chapter will examine each alternative in detail and will highlight the advantages and disadvantages of such. Procedural changes have been previously discussed in Chapter #2 and it should be remembered that these are the same without regard to the alternative selected. These changes correct current flaws in the system which either unfavorably suppress true return rate satistics, act as a disincentive, or otherwise hamper effective asset management.

ALTERNATIVE ONE

General: This alternative would encompass the full implementation of the OSD proposal to stock fund all secondary items found in the five Procurement Appropriations and convert them to consumer funded. It would also include procedural changes outlined in Chapter #2.

Discussion:

Depot Level Reparable (DLR). The primary reason that an item is selected as a reparable item is that by its nature the item is not consumed in use. A complete discussion of DLRs appears at Appendix D. As of the end of December 1978, the Army managed approximately 14,000 PAA DLRs. During CY 1978, 5625 of these items had at least one recurring demand. The cumulative dollar value of these demands was $1.1 billion. During this same period there were about 27,000 stock funded DLRs and 3,917 of these experienced at least one recurring demand. The dollar value of these demands was about $200 million.

Return Rates. As previously discussed in Chapter #2, there is no evidence to support the contention that stock funding a secondary item improves its return. To the contrary, this study's conclusion has been that unserviceable return rates on PAA items examined during CY 1973 were substantially higher than those stock funded.

An examination of 408 high dollar items identified by random selection, revealed that return rates for stock funded items remained about the same while the rate for high dollar PAA items was considerable higher than the overall averages reflected in Figure 4-1. (Same as fig 2-3).

Unserviceable Return Rates For
408 Selected Items

Percent Return Rate	Stock Fund Items # Lines	Stock Fund Items Cum %	PAA Items # Lines	PAA Items Cum %
100	13	(10)	82	(29)
90	16	(13)	120	(42)
80	22	(18)	155	(55)
70	28	(23)	189	(67)
60	34	(27)	207	(73)
50	42	(34)	228	(80)
Below 50	82		56	
Totals	124		284	

Figure 4-1

An examination of random high dollar returns in Figure 4-1 indicates that stock funding secondary items by itself has no impact on improving returns. There appears to be a genuine reluctance to return items funded from operating funds if the consumer can repair the item or projects consumption at some later date. In addition, intensive management programs such as AIMI and ARI result in more management emphasis on high dollar PAA items which contributes to the higher return rate.

Transfer to Consumer Funds. Adoption of this option would transfer the funding of PAA secondary items from the five Procurement Appropriations to the consumer appropriations (OMA, OMANG, & OMAR). It would also require the transfer of funds currently included in various maintenance accounts for consumers to fund the repair and return of these items in accordance with the stock fund's operating concept. This has been previously discussed in Chapter #3. The appropriate dollar impact of transfers associated with a decision to consumer fund (stock fund) DLRs that are currently included in the procurement appropriations would be about one billion dollars per year during the current POM period.

Budget Preparation - Command Levels. Perhaps the greatest consequence of implementing this alternative is the workload associated with planning, programming, budgeting, and accounting for the consumer funding of "free issue" items. The transfer will increase the volume of transactions processed in the accounting system; e.g., obligations, receipts, issues, intransits, billings, payables, collections, disbursements, customer credits, depot credits, and adjustments. The lack of trained financial expertise at the retail level and somewhat unpredictable nature of maintenance failures will make accurate estimates difficult to obtain. This is particularly true within the National Guard and Army Reserve where little or no expertise exists in this area. A full discussion of consumer impacts at the retail level appears in Chapter #3.

Budget Preparation - Army Level. One of the most serious consequences of this alternative is that it would change the current budget justification methodology. PAA secondary items are currently programmed by use of a supply control study which projects variables such as washout, demands, fleet (major item supported) density, on hand inventory, receipts from overhaul and procurement. This allows a precise requirement identification that can be placed in the annual President's Budget and defended during OSD or Congressional hearings because it relates directly to a supply control study. The alternative would require installations to compute requirements which would be consolidated by the major commands and eventually go into the President's Budget. If for example, all commands projected a requirement for 15,000 transmissions, funds in this amount will be placed in the President's Budget. If; however, during the Congressional Staff review on hearings, the total transmission availability during that corresponding period is examined, it may not support the budget request because the two cannot be reconciled unless the budget is manipulated before submission. Let us suppose that total depot serviceable assets, plus receipts from overhaul and procurement, less anticipated washout, made only 7,000 transmissions available during the next fiscal year. The Army could expect a budget reduction of funds equating to 8,000 transmissions because projected requirements exceeded availability and Congress would instruct the Army to fund the items in the subsequent budget when assets were available. The long procurement lead time of PAA secondary items associated with their mechanical/ electrical complexity and high dollar nature is between two and three years. This means that procurement action must be initiated long before the preparation of consumer budgets and the likelihood that consumer field projections and asset availability will correspond, is remote at best. If units use high dollar items to justify budgets rather than project a multitude of small items, the budget requirements for these high dollar items will be unrealistically inflated and further susceptible to the types of reduction by review as illustrated in the above example. The only reductions noted during this period were attributed to program/production slips of program cancellations such as Safeguard. The comparison to OMA reductions is not presented fairly because this includes everything in the OMA appropriation. However, more precise data were not available without a major recovery effort. In summary, changes to the current budget methodology are considered high risk in view of the substantial amount of funds envolved (about one billion per year). Vulnerability will exist between defending requirements as identified by the consumer in the field, and the susceptibility of consumer funds to reduction by OSD and Congress.

Budget Preparation-Wholesale Level. There appear to be limited advantages to consolidation of PAA secondary items into the stock fund. The personnel eliminated on the PAA function could be used to staff the stock fund thus eliminating any increased manpower requirements. Items that are stock funded do not require Congressional Authorization or Appropriations and thus a shorter planning, programming, budgeting, and procurement system would evolve. There would be no requirement to

submit reprogramming actions to Congress when the transfer of funds within functional appropriations was necessary thus eliminating a major source of delay and Army inflexibility. If; however, Congress will not relinquish control of high dollar items it may focus attention on stock fund operations. The expertise is available at the wholesale and supply management levels to absorb PAA management. This alternative will also simplify financial management reporting and supply management at the wholesale and retail stock fund levels.

Cost Consciousness. A decision to consumer fund DLRs would certainly make management personnel at the retail level more cost conscious. This would be an advantage of this alternative. However, as a practical matter, it would likely have no impact on the organization that actually controls the equipment. To say that it would make a command cost conscious suggests this is currently not the case on "free issue" items. Commands are currently concerned about their equipment because when it fails it impacts on their readiness reporting and is an indicator of their effectiveness. The impact of making a command cost conscious may be less significant than it sounds in view of their intense focus on readiness and reasons for equipment deadline.

Maintenance Considerations. The adoption of this alternative is likely to increase installation level repairs because consumers will be reluctant to return anything to the depot that they can require to avoid "buying it back." This has the potential to increase maintenance backlogs at this level unless additional personnel (or contract maintenance) and funds are provided. This could also cause a possible increase in cannibalization at installations as serviceable units are reassembled from unserviceables. While depot work in theory will be reduced, increased requirements at installation level should absorb those spaces so no overall savings, other than transportation, is expected.

Control Considerations. While centralized inventories under the stock fund concept has its economies, decentralized funds management by consumers could have serious inefficiencies. It may increase the competition for consumer funds because secondary item monies cannot be realistically "fenced." This could result in more "quality of life" versus "materiel readiness" trade offs. For example, suppose an Armor Battalion has budgeted ten M60A1 RISE engines for FY 1982 at $50,000 each ($500,000 Total) but actually used only five towards the end of the fiscal year. Would the unit turn back $250,000 because consumer funds cannot be carried over, or would it requisition new mess equipment, tentage, or other items? On the other hand a unit in another major command may have programmed ten engines and actually needed fifteen. There is a genuine potential to have readiness monies diverted to other programs or have readiness impacted by a lack of consumer funds. The high dollar/volume nature of PAA items makes it difficult to program funds to the right place, in the right amount, and at the right time to eliminate insufficiencies.

Credit Return System Impact. The sensitivity of the credit return system to the proposal to stock fund PAA secondary items has been discussed in considerable detail in Chapter #2. The degree of system responsiveness and the percent of credit return become critical factors in the equation. The replenishment of funds becomes decisive if accounts are to be reimbursed to support the continued requisitioning of $1.1 billion (the dollar value of recurring demands in CY 78). The current return system would not support the implementation of Alternative #1 unless consumer funds were increased beyond the level of funds available from transference within procurement appropriations and maintenance funds. The development of a more responsive credit return system must be accomplished prior to a decision to implement Alternative #1.

Manpower Impact. (See Appendix F).

Army Stock Fund & Army Industrial Fund Cash Positions. Initial analysis by the Army Staff reveals that cash balances for the ASF (wholesale and retail) must be increased to sustain the additional volume associated with PAA transfers. In addition, cash balances for AIFs will also require increases. While cash balances could be increased by additional collections from consumers it would correspondingly reduce overall Army purchasing power by withdrawing funds that would otherwise be used for something else, unless provided by sources external to the Army. This should be a one-time cash requirement that is needed to implement the conversion.

Consumer Fund Close Out. Consumer funds are subject to a year-end close out and cannot be carried over. Procurement appropriation funds have a three year carryover but can be obligated once a procurement contract is signed. If Alternative #1 is adopted, there is a potential to lose consumer funds if items are not delivered during the fiscal year concerned. The nonavailability of DLRs could have a severe impact on execution of programmed consumer fund programs.

PROCEDURAL CHANGES. A list of the actions identified by this study to implement Alternative #1 appear at Appendix G.

ALTERNATIVE #1 SUMMARY

ADVANTAGES. The adoption of Alternative #1 appears to have five clear advantages: (1) It would simplify procedures within the wholesale level supply system; (2) It would provide more procurement flexibility because stock fund procurements are not subject to Congressional review, authorization, or appropriation; (3) It would eliminate the need to initiate Congressional reprogramming actions for DLR secondary items when funds had to be transferred from one PAA functional area to another (aircraft to missile, etc.); (4) It would make consumer's at the management level more cost conscious; and (5) It should increase installation level repairs. It should be noted that procedural changes will improve the system but this applies equally to Alternatives #1-4 as they are the same in all cases.

DISADVANTAGES. The adoption of Alternative #1 appears to have ten clear disadvantages: (1) It will not increase the return rate and is likely to decrease it; (2) It will cause a significant increase in the financial management workload at the MACOM levels; (3) It changes the current Congressional Budget justification methodology and makes its defense more difficult and more susceptible to reductions; (4) This is not a feasible alternative unless the current credit return system is improved before implementation to make it more responsive; (5) Increases overall manpower requirements at all major command levels; (6) Increases potential for loss of funds attributed to year-end close-out; (7) Increases competition for funds between "quality of life" and "readiness" programs; (8) May increase workload and cannibalization at installation maintenance levels; (9) There is a lack of expertise at the user levels, particularly in the National Guard and Army Reserve, which jeopardizes successful implementation; and (10) Requires increases in the cash account balance of the AIF and ASF on a one-time basis which would draw down Army resources unless provided from sources external to the Army.

ALTERNATIVE #2

GENERAL: This alternative would encompass a partial implementation of the OSD proposal to stock fund all secondary items found in the five Procurement Appropriations. It would transfer the majority (about 11,300 lines or 80%) of PAA DLRs to consumer/stock funding but would retain selected high dollar/volume secondary items (about 2800 lines or 20%) in PAA. It would also manage retained DLRs as major items are administered and establish authorizations for these items to control inventory growth as a result of increased requisitioning objectives. Lastly, it would include procedural changes outlined in Chapter #2,

DISCUSSION:

Depot Level Reparables (DLR). As of the end of December 1978, the Army managed approximately 14000 PAA DLRs. During CY 1978, approximately 5,600 of these items had at least one recurring demand. The cumulative dollar value of these demands was $1.1 billion. During this same period there were about 27,000 stock funded DLRs and approximately 3900 of these experienced at least one recurring demand. The dollar value of these demands was about $200 million. At the end of December 1978, the Army also managed approximately 26,000 major items and 231,000 stock fund items. Since then, the number of major and PAA secondary items has increased by 21% and 11% respectively, while the number of stock fund items has decreased by 3% (See Figure 4-2).

Number of Items Managed By DARCOM
By Funding Category

As of Month Ending 31 Dec 78:

	Stocked	Nonstocked	Total
Major Items	10,867	15,127	25,994
PAA Secondary	12,641	4,548	17,189
Army Stock Fund	155,993	101,541	257,534
Other	92	1,751	1,843
Totals	179,593	122,967	302,560

As of Month Ending 31 Jul 79:

	Stocked	Nonstocked	Total
Major Items	15,884	15,520	31,404
PAA Secondary	14,140	4,961	19,101
Army Stock Fund	160,384	94,635	225,019
Other	129	2,215	2,344
Totals	190,537	117,331	307,868

Figure 4-2

Under this alternative, about 2,800 PAA funded DLRs would be managed as major items. This represents about 20% of the total number of PAA funded DLRs; however, it represents about 92% of the total dollar value of the recurring demands for PAA funded DLRs in CY 1978 (See Figure 4-3).

CY 78 PAA ISSUES
(FY 78 $ - MILLIONS)

ACTIVE	INACTIVE	ANNUAL $ VALUE OF ISSUES
5625		$1077.8
	8527	-0-
(PA Lines Proposed For Transfer)		
4512		$ 88.2
	6814	-0-
(PAA Lines Retained)		
1113		$ 989.6
	1713	-0-

Figure 4-3

Major Item Type Management: The current criteria that an item must meet before it is classified and managed as a major item are:

(1) Centralized management and control of requirements determination, procurement, maintenance, disposal, worldwide asset data, and distribution management and control are required for the item to ensure the Army meets its operational readiness requirements;

(2) The unit value is $3,000 or more and/or total inventory and programmed procurement is greater than $500,000 and a budget line is authorized, and budgeted at DA level; and

(3) The worldwide requirements for the item are individually specified, computed and programmed IAW TAADS and/or TOEs, CTAs or TOAs.

Major Item Type Administration. Using this criteria, it is conceivable that up to 5,700 PAA funded DLRs could be managed and administered as major items. The transfer of such a large number of items is considered prohibitive. Therefore, an analysis of PAA issues during CY 1978 was conducted to determine it items could be selected based on a unit value and value of annual recurring demands. Figure 4-4 reflects that 83% of the total dollar value of PAA issues during CY 1978 were captured by only 211 line items and if the value of annual demands is lowered to $100,000, it only captures another 10% of the total dollars.

CY 78 PERCENT TOTAL DEMANDS
AS REFLECTED BY VALUE OF TOTAL DOLLARS
(MILLIONS OF FY 78 $)

VALUE OF ANNUAL DEMANDS	# Lines	% PAA Lines	TOTAL $	% TOTAL ISSUES
$500,000 +	211	1.5	895.9	83
$400,000 +	262	1.9	918.4	85
$300,000 +	332	2.3	942.6	87
$200,000 +	450	3.2	971.5	90
$100,000 +	669	4.7	1001.9	93

(Total PAA DLR Issues Were $1.1 Billion)

Figure 4-4

This alternative, based on an analysis of unit costs and annual recurring demands, proposes to use a criteria of a unit value of $3,000 or more and/or annual demands greater than $300,000 to select an item for retention in PAA funding and for administration as a major item. All other PAA DLRs (about 4,500 active and 6,800 other lines) would be transferred to consumer funding (See Figure 4-3). This would reduce the number of PAA secondary items to be managed and administered as major items to approximately 2,800 items. Furthermore, the realignment would take place over a period of 3-4 years reducing the workload and impact of the transfer. Some items did not experience recurring demands

in CY 78 but would be retained because their relatively high dollar unit cost (over $3,000) could cause a consumer fund drain if they should become active and because of low mortality rates units would not program these failures or demands into their budgets. For those selected items that would be retained in PAA, authorization documents would be prepared based on past mortality data, adjusted to unit operational, environmental mission considerations, and would be used as a vehicle to control the increases (growth) in requisition objectives. This would solve the problem of increasing RO's outlined in Chapter #2. Since authorization documents would become the basis for requisitioning, a unit would be authorized to order only the quantity established in the authorization documents. Stockage at direct support, general support, and installation levels would also be authorized by these documents.

These authorizations could be changed only by HQDA. By establishing authorizations for these items, a reduction in future inventory requirements could be expected. An alternative would be to assume that most current ROs are valid and would be used to establish the initial authorizations. On the other hand, if the ROs are not valid and new authorizations are developed, this action could result in an immediate reduction in inventory requirements. Managing selected DLRs as major items will require the submission of reports by way of the major item reporting system (CBS-X). This could eliminate (reduce) the need to establish a separate reporting system for intensively managed items. The requirements determination process for
critical DLRs would be facilitated/ improved. As requirements will not be subject to random submissions of demand-based requisitions, the wholesale level will be in a better position to determine the requirements using the authorization documents. The major item reporting system will provide additional information that, when combined with the authorization documents, should improve assets management worldwide.

Return Rates. As previously discussed in Alternative #1, there is no evidence to support the contention that stock funding a DLR improves the management of that DLR; however, unserviceable return rates would improve as a result of controlled stockage levels. There is evidence that indicates that the return rates for items with controlled ROs are significantly better than those not under this type of management (items managed under the AIMI Program where ROs are negotiated between the consumer and wholesale elements reflect overall return rates of between 85-90 %). Under this proposal about 20% (or 92% of the total dollar value of recurring demands for PAA DLRs) would be managed as major items and thus higher return rates could be expected on these items. However, return rates for those items transferred to stock fund management are not expected to improve.

Transfer to Consumer Funds. Adoption of this proposal would transfer the funding of about 11,300 lines of items currently funded as PAA DLRs in the 5 procurement appropriations to consumer appropriations (OMA, OMANG, and OMAR). This would include about 2,800 active and 8,600 other lines. It is estimated that the amount of PAA and maintenance funds that would be transferred to consumer funding would be about $90 million (See Figure 4-5).

FUNDING TRANSFERS, FY 81-85*
(MILLIONS OF $)

APPROPRIATION	FY 81	FY 82	FY 83	FY 84	FY 85
PROCUREMENT	52	59	65	66	63
MAINTENANCE-OMA	23	29	32	35	34
TOTAL CREDITS	75	88	97	101	97
OMA	67.8	79.7	88.0	91.8	88.0
OMANG	2.4	3.0	3.2	3.2	3.2
OMAR	4.8	5.3	5.8	6.0	5.8
TOTAL DEBITS	75.0	88.0	97.0	101.0	97.0

*Source: FY 81-85 POM as modified by DA Staff Estimate.

Figure 4-5

This would greatly reduce the amount of dollars to be transferred and the magnitude of financial restructuring. PAA items would continue to be budgeted in the five procurement appropriations in accordance with current procedures.

Budget Preparation - Command Levels. Because the numbers of line items transferred to stock fund approximates Alternative #1, (80% PAA lines) it will increase the overall manpower requirements needed to manage these items at the consumer level. There is virtually no expertise at this level (except at intermediate level) to program and manage DLRs with consumer funds, especially with OMANG and OMAR appropriations. While the impact of this option is much less than Alternative #1 on an annual dollar volume basis, it still should be noted that this change would impact on the Army's current financial/management system.

Budget Preparation - Army Level. This alternative would change the current budget justification methodology for those items transferred to the stock fund as outlined in Alternative #1. The degree of impact would be reduced because the dollar value of this option is substantially reduced; however, the same justification problem may exist should Congress closely examine the budget request for DLRs transferred to consumer funding under this option.

Budget Preparation - Wholesale Level. This concept would virtually eliminate all of the budgets/programs relating to PAA secondary items managed as major items; however, this process would be incorporated into the major items programming/budgeting process. All remaining PAA secondary items would be incorporated into the ASF programming/budgeting process. Additionally, financial reporting would be simplified. It would also eliminate reprogramming actions for those items transferred to the ASF because Congressional authorization and appropriation is not required to transfer funds within functional areas. This would provide greater flexibility although the dollar value has been greatly reduced.

Cost Consciousness. Cost conciousness at the consumer management level would be enhanced as a result of stock fund constraints and controlled stockage levels. However, the impact of cost consciousness compared to Alternative #1 would be reduced.

Maintenance Considerations. The adoption of this alternative is likely to increase installation level repairs and increase cannibalization for those items transferred to consumer funded as detailed in Alternative #1. This could result in some installation maintenance backlog unless additional personnel (or contract maintenance) and funds are provided.

Control Considerations. A separate system would be needed to account for selected PAA items to account for selected items or they would become property book as well as ASL or DX items. In other words, the current process of accounting for these items may have to be revised. This option could impact readiness if the inventory is reduced too much as a result of too restrictive authorization documents. A significant workload would be associated with the development of authorization documents. The workload would be a function of the number of items actually transferred to major item management category. The process of requisitioning will remain the same as that now used for requesting major items; however, it is expected that more changes to the present ADP supply systems will be required as stockage levels for these items will no longer be established using requisitioning objectives. This option could also increase the competition for consumer funds and increase "quality of life" versus "readiness" tradeoffs as in Alternative #1.

Credit Return System. Although the dollar impact is reduced, the sensitivity of the credit return system remains a problem as discussed in Chapter #2 and Alternative #1.

Manpower Impact. Additions to consumer and stock fund budgets will increase overall manpower effort as the control and justification of budget requirements shifts from the wholesaler to consumer projections as this function is shifted. This will require longer/more complicated planning, programming, and budgeting work at consumer level. However; management of selected PAA DLRs as major items are administrated is not expected to significantly restructure manpower requirements. Overall manpower requirements should be less than Alternative #1. This data is at Appendix F.

Army Stock and Industrial Fund Cash Positions. Initial analysis by the Army Staff reveals that cash balances for the ASF (wholesale and retail) must be increased to sustain the additional volume associated with PAA transfers. In addition, cash balances for AIFs will also require some increases. The infusion of funds from outside the Army would be required to avoid an impact on Army purchasing power. However, the magnitude of the increase is greatly diminished as compared to Alternative #1.

Consumer Fund Close Out. Consumer funds are subject to a year end close-out and cannot be carried over. If Alternative #2 is adopted there is the potential to lose consumer funds if DLRs are not delivered during the fiscal year for which the money is programmed. There could also be a tendancy to spend consumer dollars for supplies other than DLRs as the end of the fiscal year approaches. The impact of this is much less than Alternative #1 because of the reduced scope of the funding transfers.

PROCEDURAL CHANGES: A list of the actions identified by this study to implement Alternative #2 appears at Appendix G.

ALTERNATIVE #2 SUMMARY

Advantages. The adoption of Alternative #2 appears to have nine clear advantages: (1) Use of authorization documents will intensify management and improve unserviceable return rates on selected high dollar DLRs, (2) Will reduce RO growth because of authorization limitations; (3) The use of authorization documents may actually reduce current inventory requirements existing on inflated ROs: (4) Management of selected DLRs could simplify or reduce the need to establish a separate reporting system for intensively managed items; (5) The use of authorization documents could improve the requirements determination process for selected DLRs; (6) Incorporation of the majority of PAA secondary items into the stock fund would simplify wholesale level financial reporting; (7) This option reduces the magnitude of funding transfers from PAA and maintenance accounts to consumer/stock fund as compared to Alternative #1; (8) Cost consciousness at the consumer level is enhanced as a result of controlled stockage levels resulting from authorization documents; and (9) Would provide more procurement flexibility by eliminating some reprogramming actions because stock fund items are not subject to Congressional review, authorization, and appropriation. It should again be noted that procedural changes will also improve the system but this applies equally to all alternatives as they are the same in all cases.

DISADVANTAGES. The adoption of Alternative #2 appears to have thirteen clear disadvantages: (1) It will cause an increase in the financial management workload at all MACOM levels; (2) Increases overall manpower requirements at some major command levels; (3) This is not a feasible alternative unless the credit return system is improved prior to implementation; (4) increases potential loss of funds due to year-end close-out; (5) It changes the current Congressional Budget justification methodology for items transferred to the stock fund and makes its defense more susceptible to reduction for these items; (6) Use of authorization documents will cause initial preparation workload; (7) Cause ADP system changes, (8) Require separate accounting system, and (9) Could impact readiness if valid ROs are reduced; (10) May increase competition for "quality of life" versus "readiness"; (11) May increase workload and cannibalization on items transferred to stock fund at installation level; (12) Be difficult to implement at user level because of a lack of expertise, particularly at

Army Reserve and National Guard levels; and (13) Requires some increase in cash accounts of the AIF and ASF on a one-time basis that would draw down Army resources unless provided from sources external to the Army.

ALTERNATIVE #3

GENERAL. This alternative would encompass no implementation of the OSD proposal. Under this alternative no transfers of PAA secondary items to consumer or stock funding would occur. It would manage selected secondary items (DLRs) as major items are administered and would establish authorizations for these items to control inventory growth as a result of increased requisitioning objectives. Lastly, it would include procedural changes as outlined in Chapter #2, as do other alternatives.

DISCUSSION. This alternative is identical to Alternative #2 except that it does not propose the transfer of any item to consumer/stock funding. As a result, it has no financial impact on the Army or the financial management/systems. Its success relies upon intensive management and procedural changes to improve unserviceable return rates.

Depot Level Reparables (DLR). This alternative has no impact on the number of DLRs categorized as stock fund or PAA because no transfers occur.

Major Item Type Management and Administration. This option, like Alternative #2, would also use a criteria of a unit cost of $3000 or more and/or annual demands greater than $300,000 to select an item for major item type management and administration. Authorization documents would be prepared based on past mortality data, adjusted to unit operational, environmental/mission considerations, and would be used as a vehicle to control the increases (growth) in requisitioning objectives. This would solve problems outlined in Chapter #2. Since authorization documents would become the basis for requisitioning, a unit would be authorized to order only the quantity established in the authorization documents. Stockage at direct support, general support, and installation levels would be authorized by these documents. These authorizations could be changed only by HQDA. This is expected to capitalize on all the management advantages outlined in Alternative #2 but avoids any financial implications. In summary; (1) It should reduce overall inventory requirements; (2) It will contain requisition objective growth; (3) It could eliminate the need for a separate reporting system for intensively managed items; (4) It should improve requirements determination; and (6) It should improve unserviceable return rates on items selected for intensive management. It will require some initial effort to develop authorizations but this should be minimal as compared to the advantages of this sytem.

Return Rates. As previously discussed in Alternatives #1 and #2, there is no evidence to support the contention that stock funding a DLR will result in improved supply management. However, unserviceable return rates would improve as a result of controlled stockage levels. There is evidence that indicates that the return rate for items with controlled ROs are significantly better than those not under this type of management. (Items managed under the AIMI program where ROs are negotiated between the consumer and wholesale elements reflect overall return rates of 85-90 percent). Under this proposal about 92% of the total dollar

value of annual PAA demands or about 2800 lines would be managed as major items and the higher return rates could be expected on these items. It has been previously established that return rates are lower on stock funded items if the consumer determines it can be repaired locally and used in the future. This option avoids the potential for reduction of return rates for items transferred to the stock fund.

Transfer to Consumer Funds. No dollar impact is envolved in this option because no transfers occur under this alternative.

Budget Preparation - Command Levels. No impact. Manpower requirement increases associated with Alternatives #1 and #2 do not apply.

Budget Preparation -Army Level. No impact as budget preparation and defense methodology is not changed.

Budget Preparation - Wholesale Level. No change from current procedures. The requirement for submission of reprogramming actions for transfers within procurement appropriations would continue.

Cost Consciousness. Cost consciousness at the consumer management level would be enhanced by controlled stockage levels for those items selected for intensive management. Other items would depend on readiness monitors, supply inspections, or wholesale managers to examine reasons for failure and efficiency of PAA secondary item management.

Maintenance Considerations. No impact or change is anticipated because the current system would not be altered.

Control Considerations. A separate system would be needed as in Alternative #2 to account for selected items or they would become property book as well as ASL or DX items. In other words, the current process of accounting for these items would have to be revised. This option would eliminate previous concerns about the competition of consumer funds for "quality of life" versus "readiness" considerations. It would also eliminate concerns about the use of funds for other than DLRs because no fund transfers occur.

Credit Return System. While the problems discussed earlier in Alternatives #1 and #2 as well as Chapter #2 exist, this alternative is not dependent on credit return system responsiveness or changes since no funding transfers occur. It could be implemented independent of that problem resolution.

Manpower Impact. No overall manpower increases are envisioned in conjunciton with this option. Overall manpower requirements are less than Alternatives #1 and #2 and are at Appendix F.

Army Stock Fund and Industrial Fund Cash Positions. No fund transfers are involved so no impact on cash balances would occur.

Consumer Fund Close-Out. This is not a factor since no fund transfers occur.

PROCUDURAL CHANGES. A list of the actions identified by this study to implement Alternative #3 appear at Appendix G.

ALTERNATIVE #3 SUMMARY

ADVANTAGES: The adoption of Alternative #3 appears to have fifteen clear advantages. Foremost, it eliminates financial management on systems impacts because (1) No funds are transferred; (2) No additional workload is passed to the consumer, hence no increased manpower requirements evolve;

(3) No impact on the financial management system occurs, hence uncertainty of financial impacts are eliminated; (4) The potential consumer fund close-out problem disappears; (5) No competition for consumer funds between "quality of life" versus "readiness" occurs; (6) Major commands are not impacted by a lack of DLR programming and budget expertise (particularly the Army Reserve & National Guard); (7) This alternative, unlike #1 and #2, can be implemented independent of the credit return problem; (8) No AIF or ASF Impact; (9) This option does not modify the current budget preparation and defense methodology; the use of authorization documents will; (10) Improve unserviceable return rates on items selected for intensive management; (11) Reduce requisition objective growth; (12) reduce overall inventories; (13) Could simplify or reduce reporting system changes; (14) Could improve the requirements determination process for selected DLRs; and (15) Enhance cost concsiousness. It should again be noted that procedural changes will also improve the system but this applies equally to all alternatives as they are the same in all cases.

DISADVANTAGES: The adoption of Alternative #3 appears to have seven clear disadvantages: the preparation of authorization documents will (1) Encompass some initial preparation workload and cost; (2) Will require some ADP system changes; (3) Require a separate accounting system for high dollar, selected items; (4) Could impact readiness if authorizations are computed wrong and are too restrictive; (5) Eliminates any cost concious incentive inherent in Alternatives #1 and #2; (6) Continues requirement to submit reprogramming actions to Congress for program transfers within procurement appropriations; and (7) Provides no wholesale level financial reporting advantage over the current system.

ALTERNATIVE FOUR

General: This alternative would encompass no implementation of the OSD proposal. Under this alternative only the procedural changes identified and outlined in Chapter #2 would be made. It should be noted that these identical procedural changes are included in the previous three alternatives.

DISCUSSION: This alternative would depend entirely on procedural changes to correct the unserviceable return rate problem. It proposes no funding transfers and thus has no financial impact on the system as does Alternatives #1 and #2. It provides for no intensive management as did Alternatives #2 and #3.

Budget Preparation. It has no impact on consumer, wholesale or Army level budgets, thus does not alter any current preparation methodology.

Cost Consciouness. It provides no cost consciousness incentive beyond that currently in force by readiness monitors, supply inspectors, or wholesale managers to examine reasons for failure and efficiency of PAA secondary item management.

Maintenance Considerations. No impact or change is anticipated because the current system would not be altered.

Control Considerations. No change from current system except as effected by procedural changes. However, supporters of this option maintain that procedural changes to the current system are all that is needed to correct the return problem. Furthermore, the proposal to stock

fund DLRs is an overreaction to a problem that can be controlled by fine-tuning the current system. The same contention is used to point out that current procedures should be improved to also preclude the use of intensive management as proposed in Alternatives #2 and #3. The basic contention is that both proposals to stock fund and/or intensely manage DLRs is an extreme alternative to simply improving current procedures and thus avoiding drastic change and turmoil within the supply system.

Credit Return System. While the problems discussed in Chapter #2, pertaining to this system exist, implementation of this option is independent of that problem resolution.

Manpower Impact. No manpower increase is invisioned in conjunction with this option. This option has less manpower implications than any other alternative.

Army Stock Fund and Industrial Fund Cash Balances. No impact.

Consumer Fund Close-Out. No impact.

PROCEDURAL CHANGES: A list of the actions identified by this study to implement Alternative #4 appear at Appendix G.

ADVANTAGES: This alternative has ten clear advanges. The first eight are associated with the financial implications and uncertainties associated with transfer of funds within the budget to consumer accounts. (1) It involves no fund transfer, (2) no increases in consummer manpower/workload, (3) no impact on financial management system, (4) no consumer fund close-out problems, (5) no consumer fund competition ("quality of life" versus "readiness"), (6) no impact from lack of expertise, (7) can be implemented independent *from* credit return problem, and (8) no AIF or ASF impact. (9) This option does not alter the current budget preparation and defense methodology; and (10) It minimizes the impact and turbulence of changes to the current system. It should be noted that procedural changes outlined in Chapter #2 apply equally to all alternatives and will improve return rate statistics to an equal degree.

DISADVANTAGES: This alternative has four clear disadvantages. (1) The most significant is that it relies entirely on procedural changes to improve unserviceable return rates. (2) It also provides no financial incentive for cost consciousness and (3) continues the total requirement for reprogramming action submissions. (4) Last it effects no wholesale financial reporting simplification from that of the current system.

SUMMARY

GENERAL. The final selection of an alternative cannot be made by adding the advantages and disadvantages previously outlined. Nor can the number of "best" or "worst" factors be computed. Each factor must be individually considered and one "best" may outweigh all other disadvantages or vice versa.

CHAPTER 5

SUMMARY OF COMMENTS ON THE STOCK FUNDING OF DEPOT LEVEL REPARABLE COMPONENTS STUDY

Ten major commands, the Surgeon General and the National Guard Bureau commented on proposed alternatives in the study of Depot Level Reparables (DLRs). DARCOM included the individual comments from its five Materiel Readiness Commands. Considerable differences in viewpoint exist between the respondents concerning the merits and disadvantages of each of the four alternative approaches posed in the study. However, certain beliefs and concerns were repeatedly expressed in the responses.

Many negative comments were received concerning Alternative I. Many positive comments were received concerning Alternative IV. The other two alternatives received fewer comments which varied depending on the perception of what these other alternatives entailed. Also USARJ, INSCOM, and MTMC indicated that the impact of the proposed changes were minimal to them.

These commonly held views and other comments are summarized as follows:

1. Transfer of all DLRs to the Army Stock Fund (Alternative 1):

   a. The twelve respondents rated the alternatives as follows:

Position	Number of Respondents	
Most desirable approach	1	
Second most desirable approach	0	
Third most desirable approach	0	
Least desirable approach	5	(4 want to consider only after other steps are taken)
Opposed	5	
No position	1	

DARCOM is the only respondent who wants to implement this approach at this time. Within DARCOM, MICOM and CERCOM rank this approach second to improving the existing system because of reservations about the impact and overall effectiveness of this approach. ARRCOM ranks it second believing a combination of MRC management and stock funding responsibility (Alternative 2) to be preferable. TSARCOM ranks this approach first but believes that it needs more study. A matrix of the individual rankings of the alternatives is at the end of this chapter.

   b. Positive comments:

DARCOM, MICOM, and ARRCOM believe that this approach should increase user financial responsibility. DARCOM and ARRCOM indicated that this approach would improve financial flexibility.

c. Negative comments:

The overwhelming majority of the respondents do not want this proposed major policy change to be implemented for the following reasons:

REASON	NO. OF RESPONDENTS
Concern about workload and management problems with consumer funds	7
Doubts whether this approach will improve DLR return rates	6
Concern about negative impact on readiness	5
Concern about end of year credit problems	3
Concern about unauthorized cannibalization	2

The respondents generally were not able to gauge the overall cost to implement this approach. Attempts were made by the respondents to identify costs and personnel requirements, but the accuracy of these estimates is uncertain.

d. Significantly, when describing the adverse impact of transferring PAA secondary DLRs to the Army Stock Fund, none of the respondents discussed the fact that many DLRs are already being funded by the Army Stock Fund. This current stock funding arrangement lessens the impact of Alternatives 1 and 2.

2. Transfer most DLRs to Army Stock Fund but retain and manage selected items as major items (Alternative 2):

a. The respondents rated the alternatives as follows:

Position	No. of Respondents
Most desirable approach	0
Second most desirable approach	0
Third most desirable approach	6
Least desirable approach	0
Opposed	5
No position	1

Those five respondents who are opposed to Alternative I are opposed to Alternative II also because they are concerned about the potential adverse impact of transferring funding of a large number of DLRs from PAA secondary to Army Stock Fund.

b. Positive comments:

Within DARCOM, ARRCOM believes that this approach is best because it combines intensive management of selected items with increased user financial responsbility. CERCOM stresses that this intensive management will reduce the RO. ARRCOM and TARCOM believe that this approach should improve the return rate.

c. Negative comments:

Basically the same negative comments are made for Alternative II as are made for Alternative I:

Position	No. of Respondents
Concern about workload and management problems with consumer funds	8
Question whether approach will improve DLRs return rates	6
Concern about negative impact on readiness	4
Concern about cannibalization	2

3. Administer selected secondary items as major items and keep DLRs as PAA secondary items (Alternative III):

a. The respondents rated the alternatives as follows:

Position	No. of Respondents
Most desirable approach	2
Second most desirable approach	7
Third most desirable approach	0
Least desirable approach	1
Opposed	1
No position	1

DARCOM is the one respondent who considers this approach to be least desirable.

b. Positive comments:

Four respondents (USAEIGHT, INSCOM, DASG and NGB) expressed the need to more intensively manage selected high dollar PAA secondary items.

c. Negative comments:

Negative comments were expressed by most respondents and by each MRC. However, only one point was stated by more than one respondent or MRC. Three respondents (USAREUR, FORSCOM, and NGB) and three MRCs (MICOM, CERCOM and ARRCOM) stated that this approach would increase their workload and require more personnel. MICOM considered this potential increase to be a serious problem.

4. Improve system through procedural changes (Alternative IV)

a. The respondents rated the alternatives as follows:

Position	No. of Respondents
Most desirable approach	9
Second most desirable approach	2
Third most desirable approach	0
Least most desirable approach	0
Opposed	0
No position	1

b. Positive comments:

Position	No. of Respondents
Minimal disruption to system	6
Improved information system	3
No additional personel required	5

5. Several respondents made additional comments and recommendations that should be considered:

a. TRADOC, INSCOM, and MICOM indicated that an important aspect of the DLR return rate involves packing and crating and transportation. They recommend that this aspect of the process be considered when procedures are improved.

b. USAEIGHT and CERCOM discussed the importance of establishing a procedure to tie the DLR requisition to a subsequent turn-in document in order to increase visibility of the turn-ins. USAEIGHT indicated it is developing a procedure to establish this visibility. Their efforts should be considered when developing this improvement.

c. MICOM and NGB suggested that return of DLRs be made an item for IG interest.

d. MICOM expressed concern about the impact that Alternative III management would have on non-Army customer requirements.

e. TRADOC recommended that DLR coding be evaluated to reduce the number of low dollar items from DLRs.

f. MICOM recommended that the MRCs be given the authority to negotiate ROs with major commands as part of intensive management of selected high dollar DLRs items.

g. DASG-HCL expressed the belief that the DLRs return rates were computed to be lower than they actually are because the calculations include transactions that are not appropriate to count when computing return rates. They believe that these inappropriate transactions should not be counted when computing future return rates.

COMMAND POSITIONS ON THE FOUR STUDY ALTERNATIVES

COMMAND	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
DARCOM	1	3	4	2
MICOM	2	4	3	1
TARCOM	1	2	3	4
CERCOM	2	3	4	1
ARRCOM	2	1	4	3
TSARCOM	1**	Not feasible**	Not feasible**	Not feasible**
USAREUR	4	3	2	1
FORSCOM	Opposed	Opposed	Opposed	1
TRADOC	4*	3*	2*	1
USAEIGHT	Opposed	Opposed	2	1
WESTCOM	4*	3	2	1
USARJ	4	3	2	1
INSCOM	Opposed	Opposed	2	1
MTMC	NO IMPACT -- NO POSITION			
USACC	Opposed	Opposed	1	1
NGB	Opposed	Opposed	2*	1
DASG-HCL	4*	3*	1	2

* Do not implement at this time.

** Insufficient data for indepth evaluating; consider alternatives 2-4 to be not feasible due to DA directed realignment program.

CHAPTER 6

CONCLUSIONS

1. Consideration of MACOM and DA Staff Comments

a. Ten of the twelve respondents do not want a major transfer of PAA secondary DLR items to Army Stock Funds. MTMC did not take a position on any alternative. Only DARCOM supports this approach. Within DARCOM, MICOM and CERCOM prefer to improve existing procedures first.

b. Nine respondents indicated that improving exising procedures was the preferred approach and the other two respondents ranked it second. They all stressed that the approach would minimize turmoil and added personnel requirements.

c. CERCOM and USAEIGHT stressed the importance of increasing the visibility of DLRs turn-ins by tying turn-ins to the requisition document.

d. USAEIGHT, INSCOM, DASG, and NGB each specifically supported the concept of intensively managing selected high dollar PAA secondary DLRs. ARRCOM supported this approach when they indicated that Alternative 2 was best because it combined intensive management of selected DLRs with transfer of other DLRs to the Army Stock Fund.

e. DARCOM, including all MRCs, supported transfer of DLRs to the Army Stock Fund to simplify wholesale financial management. DARCOM and ARRCOM stressed the benefits of providing more financial flexibility through the stock fund approach. The possible argument from commands that the transfer of low dollar items would significantly increase workloads and personnel is negated by the fact that many DLRs are in the stock fund now, but would be removed under the realignment program. Importantly, none of the commands addressed the fact that many DLRs are in the stock fund now.

2. There is no conclusive evidence that stock funding of depot level reparable components would have any significant effect on the rate of return. More intensive management of all reparable items rather than a change in the method of funding is needed. Of the various alternatives explored in the study the most promising course of action is a combination of all.

a. All items would be considered for classification as expense or investment using a cost decision diagram. This cost decision may be readily automated in the Commodity Command Standard System. A copy of the proposed cost decision diagram is at fig 6-1.

b. Key to the intensive management of central management recoverable items is the inclusion of the item in an allowance document when there is an annual issue value of more than $900,000. The $900,000 was selected since it is compatable with the management philosophy for PAA principal items. These items would be classified as a investment cost (PAA secondary) as outlined in fig. 6-1. Using 1979 data, 391 items would qualify for inclusion.

Management visibility would be gained by Stock Record Accounts for Authorized Stockage List items and requiring that these items be reported under the Selected Item Management Systems - Expanded (SIMS-X) as prescribed AR 710-3.

c. Those items that are below the $900,000 annual issue value, but the individual item costs $3000 or more, would continue to be classified as an investment cost (PAA secondary items). The $3,000 floor was selected since it is compatable with management philosophy for end items other than major end items. Inclusion in an allowance document would not be necessary and such asset visibility as might be needed would be through the Selected Item Management System - Expanded (SIMS-X). There are two reasons for maintaining these PAA secondary items. (1) The difficulty in forecasting requirements on the part of the user would make his budgeting less accurate than if done centrally. In this area are many relatively costly items that if inaccurately forecast tend to overstate/understate funding needs, and would probably create safety floats of cash, leading to unnecessarily difficult financial and materiel management. This burden should remain at the Materiel Readiness Commands rather than be placed on the various using activities. Further, (2) no new expertise would be required at the using activities and intermedicate headquarters. Using 1979 data we find that about 998 items would be in this category.

d. Remaining items would be classified as expense (Army Stock Fund). These relatively low dollar value items, when placed in the ASF will be more rapidly available when needed. Programming and budgeting for procurement and repair of low dollar value items is significantly easier when not subject to the POM/PAA budgeting cycle. It was noted that at present about two-thirds of depot level reparable components are in fact managed in the Army Stock Fund. Reasons for the current classification appear to be the result of improper assignment of the recoverability codes by the MRCs. The realignment of low dollar value items to ASF should not increase the personnel or dollar requirements at the user or intermediate levels. Flexibility in funding the procurement and repair of the items is a significant advantage.

3. In support of this combined alternative, there are two specific improvements needed to the current Army military materiel management system.

a. Establish a system to insure that all washouts are reported to the National Inventory Control Points (NICPs).

b. Modify the Logistics Intelligence File (LIF) to provide transaction information by DODAAC and NSN to indicate pipeline performance.

4. ADVANTAGES

a. Present financial and supply systems retained with some modifications.

b. Visibility of item status improved.

c. If return rate does not improve and Navy study determines stock fund approach solves the problem, system can be further modified to make all or most items stock funded.

d. Does not increase workload at user level.

e. Intensifies management of high dollar value items at central level while providing increased flexibility for purchase of other items by the stock fund.

f. Controls become available at all levels, thru SIMS-X.

5. DISADVANTAGES

a. Does not provide total fund control at user level.

b. Requires procedural changes.

INVESTMENT COST DECISION DIAGRAM

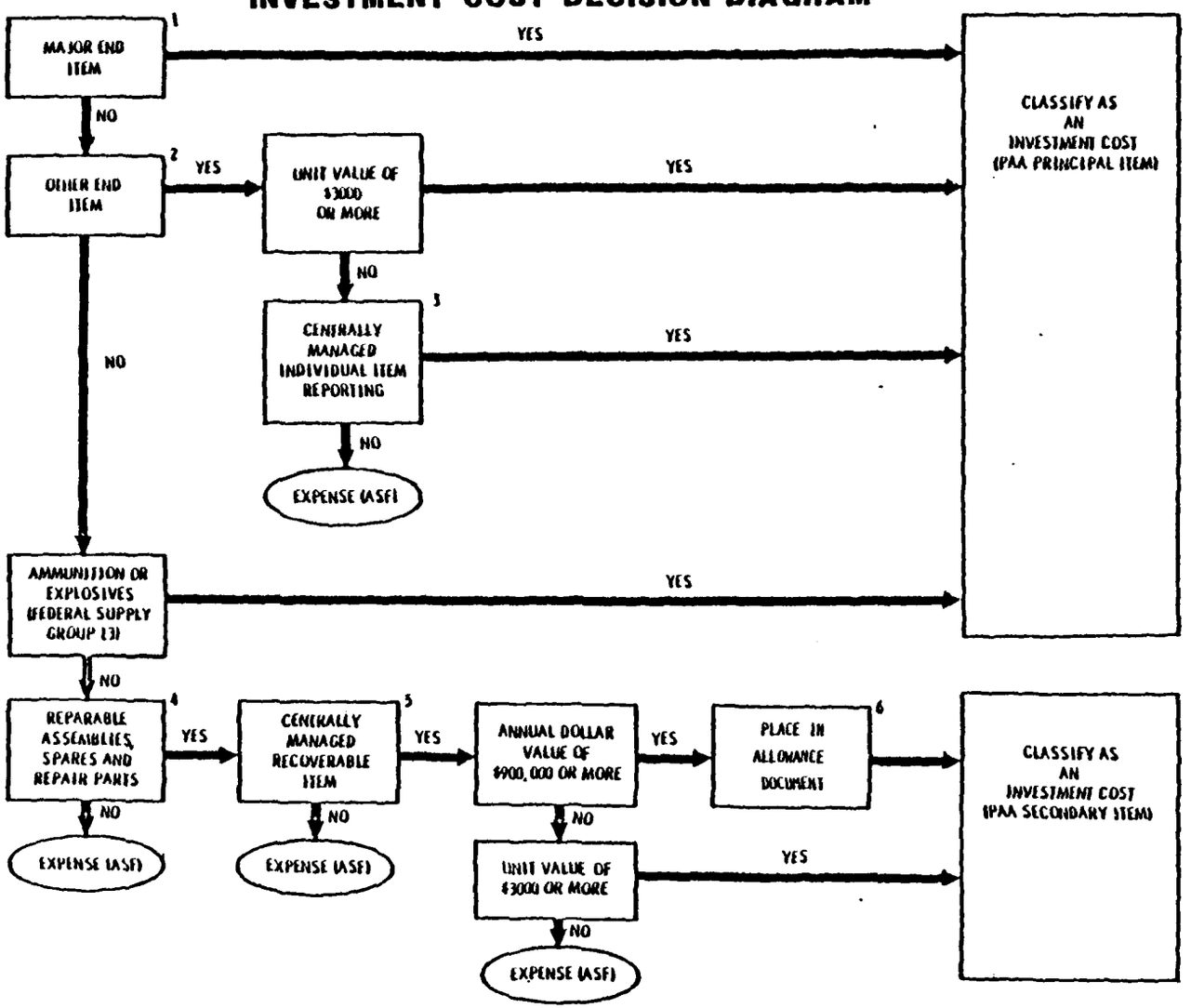

Fig. 6-1

1. CLASS OF SUPPLY IS VII
2. LINE ITEM NUMBER (LIN) ASSIGNED. CLASS OF SUPPLY IS NOT IX.
3. REPORTABLE ITEM CONTROL CODE (RICC) IS 1, 2, OR 3.
4. CLASS OF SUPPLY IS II OR IX.
5. RECOVERABILITY CODE IS D OR L; OR IF THE RECOVERABILITY CODE IS A, [illegible]EPAIR CODE IS D OR L.
6. CHANGE WHEN ANNUAL DOLLAR VALUE HAS EXCEEDED OR DROPPED BELOW [illegible] IN TWO OF THE LAST THREE YEARS.

CHAPTER 7

RECOMMENDATIONS

1. That the Army adopt the stock funding concept for low unit price/low annual issue value depot level reparable components.

2. That the Army continue the procurement appropriation funding concept for all other depot level reparable components.

3. That the Army develop authorization documents for, and intensively manage, high annual issue value depot level reparable components.

4. That current materiel management procedures and data processing systems be continued and enhanced as appropriate.

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D. C. 20301

MANPOWER, SR
RESERVE AFFAIRS
AND LOGISTICS

OCT 3 1978

MEMORANDUM FOR THE ASSISTANT SECRETARY OF THE ARMY (IL&FM)
ASSISTANT SECRETARY OF THE NAVY (MRA&L)
ASSISTANT SECRETARY OF THE AIR FORCE (RD&L)

SUBJECT: Stock Funding of Depot Level Reparable Components

By memorandum, subject as above, dated 9 May 1978, a DoD Steering Group was established for the purpose of monitoring study efforts to determine the feasibility of extending the stock fund concept to depot level reparable components.

The Steering Group, composed of Service and Office of the Secretary of Defense representatives, has developed the enclosed set of basic evaluation criteria, assumptions and study group tasking guidelines to be followed in analyzing the feasibility of stock funding of reparable components. It is requested that each addressee initiate necessary action to insure that ongoing or planned reviews of the proposed reparables stock funding concept incorporate the Steering Group products as an integral part of the analysis of this proposal.

It is the consensus of the Steering Group that each Service should independently review the feasibility of stock funding of reparables. The Navy has already begun an extensive study effort which should establish the Navy position on this subject and may be beneficial in resolving some broader aspects of the reparables stock funding review.

It is requested that the Navy provide the results of their effort to the Steering Group upon completion. The Army and Air Force should initiate preliminary analyses of the stock funding of reparables concept based on the working group tasking guidelines. Completion of these initial efforts should be planned to coincide with the anticipated completion of the Navy study in approximately 60 to 90 days.

APPENDIX A

Additional meetings of the DoD Steering Group will be convened upon completion of the Services' efforts to review these studies and to develop recommendations for future actions.

Enclosures
As stated

cc: ASD(Comptroller)

Paul H. Riley

PAUL H. RILEY
Deputy Assistant Secretary of Defense
(Supply, Maintenance & Services)

Stock Funding of Depot Reparables

Basic Assumptions

I. Existing Stock Fund Directions and Regulations Will Remain in Effect

II. Nonconsumable Item Integrated Materiel Management Assignments Will Remain in Effect

III. Significant Revisions to Current Supply Management Concepts, Policies, Systems and Procedures Would not be Required by Implementation of a Stock Fund Approach to Depot Reparables Management

Encl 1

Criteria for Evaluation of

Stock Funding of Depot Reparables

I. Provide Improved Financial Management

II. Improve Supply Management and Control

III. Better Identify Funding to Missions and Weapons Systems

Encl 2

Stock Funding of Reparables

Working Group Tasking

Feasibility

I. Legal Aspects

Describe any legal restrictions to the stock funding of reparables. Identify what must be done (proposed legislation) to overcome these.

II. Financial/Resource Considerations

A. Determine the approximate dollar impact on individual appropriations.

B. Determine the alternative methods of reimbursement for new procurement (initial issue and replenishment) and overhaul costs.

C. Explore the relationship between the stock fund and the industrial fund.

D. Identify appropriate pricing and credit return policies.

E. Identify the financial benefit and costs of stock funding of reparables.

F. Determine how the fund will be initially financed.

G. Determine the manpower impact of stock funding of reparables.

H. Identify any reparable type items which should be excluded from the stock fund.

I. Identify potential improvements in relating funding to missions and weapons systems as a result of stock funding of reparables.

III. Supply Management Aspects

A. Determine whether the stock funding of reparables will result in improved management, control and supply discipline. Include:

1. Impact on management and visibility.

2. Review of slow moving items in the stock fund.

3. Comparison with current management systems.

Encl 3

B. Identify the impact on field (intermediate) level supply management.

C. Identify the impact on present reparables wholesale management systems and computational techniques, including Automatic Data Processing systems and new weapon systems.

D. Determine impact of stock funding on organizational fragmentation and duplication.

E. Identify significant implementation problems and possible solutions.

F. Describe new interfaces with other functional areas--maintenance, transportation, etc.

IV. Customer Impact

A. Determine whether customer level managers can accomplish a greater role in reparables management under a stock funding approach without significantly greater personnel and financial resources.

B. Determine probable impacts on Not Mission Capable--Supply rates and other supply performance measures.

V. Maintenance Impact

Determine the impact on intermediate and depot maintenance of stock funding of reparables.

DEPARTMENT OF THE ARMY
OFFICE OF THE DEPUTY CHIEF OF STAFF FOR LOGISTICS
WASHINGTON, D.C. 20310

1 DEC 1978

DALO-SMZ-D

MEMORANDUM FOR: SEE DISTRIBUTION

SUBJECT: Stock Funding of Depot Level Reparable Components

1. OSD has directed each Service to perform an analysis to determine the feasibility of extending the stock fund concept to depot level reparable components. Director of the Army Staff in turn directed the Army effort be headed by ODCSLOG and that the product be submitted by 23 April 1979.

2. This memorandum establishes an analysis group nucleus in ODCSLOG to get action underway.

3. The analysis will be conducted in four phases:

a. Phase 1: group full time.

(1) Develop plan of action.

(2) Task constituents.

b. Phase 2: group on call.

(1) Collect data.

(2) TDY.

c. Phase 3: group full time.

(1) Analyze data base.

(2) Prepare draft final report.

APPENDIX B

d. Phase 4: group on call.

(1) Staff draft final report.

(2) Brief to offices concerned.

(3) Prepare final report and submit.

4. Offices listed below will provide representatives to group as indicated.

a. DALO-SMZ-D, team chief

b. DALO-SMS, one member

c. DALO-SMM, one member

d. DALO-RMI, one member.

5. An interim advisory group will consist of the Director (SM) and the Director (RM) with the Director (SM) as chairman.

6. The analysis group will begin operation upon notification by the team chief and will meet in an area to be determined.

7. Addressees are requested to submit names and telephone numbers of individuals selected to Mr. B. L. Ridall, Ext. 76718, by 5 December 1978.

FOR THE DEPUTY CHIEF OF STAFF FOR LOGISTICS:

EMIL E. KONOPNICKI
Major General, GS
Assistant Deputy Chief of Staff
for Logistics

DISTRIBUTION:

DALO-SMZ-A
RMZ-A
SMZ-D
SMS
SMM
RMI

CF: DALO-SMZ-B
SMZ-C
RMZ-B

DISPOSITION FORM

For use of this form, see AR 340-15; the proponent agency is TAGCEN.

DALO-SMZ-D	SUBJECT: Analysis Advisory Group (AAG) - Feasibility of Stock Funding Depot Level Reparable Components

TO	FROM	DATE
DACA-ZA DAMA-ZA DAMO-ZA	DALO-SM	2 JAN 1979 CMT 1 Mr. Ridall/76718

1. Reference DALO-ZA message 261742Z Dec 78, subject: Feasibility of Stock Funding Depot Level Reparable Components.

2. Each Service has been directed by OSD to conduct an analysis to determine the feasibility of stock funding depot level reparable components. ODCSLOG has responsibility for producing the Army analysis.

3. Reference announced formation of an ad hoc analysis group in ODCSLOG to determine the feasibility of stock funding depot level reparable components and solicited command/agency POC's.

4. The DCSLOG has designated the Director for Supply and Maintenance chairman of the AAG which will guide actions of the ad hoc analysis group. The Director for Resources and Management, ODCSLOG, was named a member of the AAG and the OASA (IL&FM) will be represented on the AAG.

5. Any action to stock fund depot level reparable components will have an impact on the Procurement appropriation and OMA appropriation budgets for secondary items. To insure proper consideration of your agency's interests in this matter, request designation of a general officer, or civilian equivalent, to serve as a member on the AAG. Name, rank, telephone number, and office symbol of the individual selected should be submitted to Mr. Benjamin Ridall, DALO-SMZ-D, x 76718, by 5 January 1979.

FOR THE DEPUTY CHIEF OF STAFF FOR LOGISTICS:

Alan A. Nord

ALAN A. NORD
Maj General, GS
Director of Supply
and Maintenance

CF:
OASA(IL&FM)
DALO-RMZ-A

DA FORM 2496 REPLACES DD FORM 96, WHICH IS OBSOLETE. ☆ GPO-1975-665-422/1063

METHODOLOGY

1. The methodology developed to support the analysis effort recognized the interdependency of the various issues being considered and the short timeframe constraining the analysis. Accordingly, these factors led to a phased analysis approach.

2. Phase I of the effort was concerned with developing the methodology for the conduct of the analysis, researching the available documentation on the subject and developing a detailed plan of visits to Army activities. The documentation included the MACOM responses to a previous effort conducted by the Logistics Evaluation Agency in August 1977.

3. Phase II resulted in the development of the essential elements of information, preparation of working summaries of the Army's baseline logistics system, preparation of a working data base and visits to various Army activities.

a. The essential elements of information were designed to solicit data needed to answer OSD's questions and fulfill the special needs of the analysis group.

b. A data base identifying the return rates for each of the Army's depot reparables was extracted from the ICPs data base. The data base contained the stock number (NSN), unit price, nomenclature, return rate and dollar value of recurring demands for each depot reparable managed by the Army; however, it did not include substitute items as the data for substitute items are reflected in the data for the prime NSN. Return rates and dollar value data reflect transactions in CY 78. CY 78 was selected as the base year as it was compatible with the data available at the retail supply activities.

c. The analysis group made TDY visits to US Army Europe (USAREUR), US Army Forces Command (FORSCOM), US Army Training and Doctrine Command (TRADOC), and US Army Materiel Development and Readiness Command (DARCOM). A complete list of activities visited is attached as Incl #1. The purpose of these visits was to obtain background data and to evaluate unique impacts to the Army at different levels and in different areas and missions.

4. In Phase III, detailed descriptions of the current logistics system and the logistics system under various funding alternatives were developed and compared and the results used as a basis for the development of the first draft report. The draft report was sent to the MACOMS for their comments, information, corrections, missing data elements, and omissions of fact. Conclusions and recommendations were purposely not included pending receipt and evaluation of MACOM impact statements, cost/manpower assessments and associated data.

5. In Phase IV MACOM comments were analyzed and incorporated into the final report and conclusions and recommendations prepared as appropriate.

ACTIVITIES VISITED

1. US Army, Europe (USAREUR)
   - HQ, USAREUR
   - HQ, V Corps
   - HQ, VII Corps
   - 3rd Support Command
   - 2nd Support Command
   - 21st Support Command
   - 200th Theater Army Materiel Management Center (TAMMC)
   - HQ, 3rd Armored Division
   - HQ, 3rd Armored Division Support Command
   - 122nd Maintenance Battalion
   - Mainz Army Depot
   - 4th Ordnance Battalion
   - Pirmasens Electronic Maintenance Facility
   - Pirmasens Missile Maintenance Activity

2. US Army Materiel Development and Readiness Command (DARCOM)
   - HQ, DARCOM
   - HQ, USA Missile Command
   - HQ, USA Tank-Automotive Materiel Readiness Command
   - HQ, USA Depot Systems Command
   - Letterkenny Army Depot
   - Tobyhana Army Depot

3. US Army Training and Doctrine Command (TRADOC)
   - HQ, TRADOC
   - Fort Benning, GA
   - Fort Sill, OK

4. US Army Forces Command (FORSCOM)
   - HQ, FORSCOM
   - Ft. Lewis, WA
   - Ft. Carson, CO

Incl 1

APPENDIX D

DEPOT LEVEL REPARABLE (DLR) ITEM STRATIFICATION

1. The primary reason that an item is selected as a reparable item is that by its nature the item is not consumed in use. It is a type of item which after use may become unserviceable, but is not lost to the system through consumption. Repairing and/or rebuilding the unserviceable item permits its continued use in lieu of replacement by new procurement. Basic to the rebuild/repair of unserviceables is their return to the wholesale or intermediate system. The unserviceables that are repaired at the retail and intermediate level, while they do satisfy retail issue requirements, do not surface to the point where they become visible to the wholesale echelon.

2. The Army has approximately 41,000 DLRs of which approximately 27,000 are funded by the ASF and 14,000 are procured with PAA funds. The dollar value of recurring demands for the 41,000 DLRs in CY 78 was approximately $1.26 billion ($0.18 billion for ASF items and $1.08 billion for PAA items). (See Figure D-1.) The ASF DLRs account for 66% of the DLRs but only 14% of the dollar value of recurring demands. The PAA DLRs account for 34% of the items and 86% of the dollar value of recurring demands.

	NUMBER OF PRIME STOCK NUMBERS (NSNs)			DOLLAR VALUE OF RECURRING DEMANDS FOR CY 78 (MILLIONS)		
NICP	ASF	PAA	TOTAL	ASF	PAA	TOTAL
TARCOM	295	657	952	$26.6	$281.2	$307.8
TSARCOM(1)	380	569	949	5.5	7.1	12.6
ARRCOM	1,571	918	2,489	48.8	31.8	80.6
CERCOM	23,088	7,695	30,783	25.6	70.3	95.9
TSARCOM(2)	1,480	582	2,062	75.6	518.7	594.3
MICOM	175	3,731	3,906	1.2	168.7	169.9
TOTALS	26,989	14,152	41,141	$183.3	$1,077.8	$1,261.1

(1) Troop Support Only (2) Aircraft Only

Figure D-1: Number of Prime NSNs and Dollar Value of Recurring Demands for CY 78 ($ million).

3. For the purpose of this review, only the DLRs which had recurring demands during CY 78 were considered. This reduced the total number of

DLRs from approximately 41,000 to approximately 9,500 (3,900 ASF DLRs and 5,600 PAA DLRs). Since the 9,500 (or 23% of the total 41,000 DLRs) accounted for the total dollar value of recurring demands for CY 78 ($1.26 billion), only the return rates for the 9,500 DLRs with recurring demands are discussed in this report. (See Figure D-2.)

MRC	TOTAL NSNs			NSNs W/ RECURRING DEMANDS		
	ASF	PAA	TOTAL	ASF	PAA	TOTAL
TARCOM	295	657	952	172	296	468
TSARCOM(1)	380	569	949	134	147	281
ARRCOM	1,571	918	2,489	622	387	1,009
CERCOM	23,088	7,695	30,783	2,281	2,648	4,929
TSARCOM(2)	1,480	582	2,062	660	356	1,016
MICOM	175	3,731	3,906	48	1,791	1,839
TOTALS	26,989	14,152	41,141	3,917	5,625	9,542

(1) Troop Support Only (2) Aircraft Only

Figure D-2: Number of NSNs with Recurring Demands (CY 78)

4. An analysis of the 9,500 DLRs which had recurring demands in CY 78 indicates that 38% had return rates equal to or greater than 50%. The return rates for the PAA funded DLRs is approximately double that of ASF DLRs (47% versus 24%). (See Figure D-3.)

PERCENT RETURN RATE	ASF ITEMS		PAA ITEMS		TOTAL	
	LINES	CUM %	LINES	CUM %	LINES	CUM %
100	523	(13%)	1,410	(25%)	1,933	(20%)
90	555	(14%)	1,559	(28%)	2,114	(22%)
80	627	(16%)	1,812	(32%)	2,439	(26%)
70	702	(18%)	2,034	(36%)	2,736	(29%)
60	817	(21%)	2,284	(41%)	3,101	(32%)
50	1,005	(26%)	2,651	(47%)	3,656	(38%)
Below 50	2,912		2,974		5,886	
TOTALS	3,917		5,625		9,542	

Figure D-3: Return Rates for Prime NSNs with Recurring Demands in CY 78.

5. A sample of 408 items was selected for in-depth analysis. This sample represented approximately one percent of the total 41,000 DLRs (or 4.3 percent of the 9,500 DLRs with recurring demands). The sample represented 66% of the dollar value of recurring demands for the DLRs in CY 78.

6. The unserviceable return rates for the 408 DLRs was better than those for the 9,500 DLRs. Approximately 66% of the 408 DLRs sampled had return rates of 50% or better. The return rates for the PAA funded items was 2½ times better than those for ASF DLRs (80% versus 33%). (See Figure 2-3.)

7. There is sufficient evidence to support the contention that the actual return rates are perhaps better than are portrayed in the return rate calculations. To arrive at the unserviceable return rate, a comparison of the dollar value of the unserviceable returns is made with the dollar value of the recurring demands. In this regard, the initial issues (or non-recurring demands) made at the outset of a particular mission or special program which are not expected to be repetitive in nature are separated from this comparison. This is discussed in detail in Chapter 2 under Procedural Changes.

DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF STAFF
WASHINGTON, D.C. 20310

DALO-SMZ-J

30 JUL 1979

SUBJECT: Stock Funding of Depot Level Reparable Components

Acting Auditor General
US Army Audit Agency
5611 Columbia Pike
Nassif Building, Room 436
Falls Church, Virginia 22041

1. References:

a. Memorandum, Deputy Assistant Secretary of Defense, subject as above, dated 3 October 1978 (Incl 1).*

b. Memorandum, Assistant Secretary of the Army (Installations, Logistics, and Financial Management), subject as above, dated 23 October 1978 (Incl 2).*

2. Reference 1a is a formal OSD tasking requesting the completion of a study analyzing the feasibility of stock funding reparable components. These items are currently funded in the five procurement appropriations and are "free issue" items to units, installations, and activities in the field. Reference 1b acknowledges a DAS memorandum dated 12 October 1978 which appointed the Office of the Deputy Chief of Staff for Logistics as the head of an ad hoc Army Staff team to analyze the problem and formulate recommendations as to feasibility and desirability of changes to the current system.

3. Any action to stock fund depot level reparable components will have an impact on the Procurement Army (PA), Operation and Maintenance, Army (OMA), Operation and Maintenance, Army Reserve (OMAR), Operation and Maintenance, Army National Guard (OMARNG) Appropriations as well as the Army Industrial and Stock Fund budgets for secondary items. It becomes essential to carefully assess any proposed changes to insure financial management/systems impacts are identified at all command levels should a decision be made to place all secondary items in the stock fund.

(* NOTE: Ref 1a is attached as APP A. Ref 1b is not included in this report.)

DALO-SMZ-J

30 JUL 1979

SUBJECT: Stock Funding of Depot Level Reparable Components

While ongoing study group efforts conducted this assessment from a supply/ maintenance management and procedural view, it has been more difficult to identify and assess potential impacts on the financial system and monetary flow through the structure of accounts. It is the staff's view that your agency has extensive experience and expertise in this area as a result of your audits and reviews and would be of significant value in assessing potential benefits or problems resulting from this initiative. Some specific Army Staff concerns appear at Incl 3.

4. Request your agency conduct an assessment per paragraph 3 above for inclusion in the Army Study. This assessment would address the concerns identified in the inclosure but would not be limited to these, instead drawing on your broader experience with the current system. The Army Staff POC is Colonel J.F. Biemeck, Study Group Chairman, DALO-SMZ-J, extension 697-6718. Direct coordination with the Chairman is encouraged to expedite work on this project. Ideally, your assessment would be completed by 24 August 1979 to facilitate the completion of the study effort. The Army has indicated to OSD that it will respond to their tasking (Incl 1) by the end of August 1979.

3 Incls
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JOHN R. McGIFFERT
Lieutenant General, GS
Director of the Army Staff

SUBJECT: Stock Funding of Depot Level Reparable Components

The following questions exist in regard to the impact of transferring secondary items currently funded in the Procurement Army Appropriation to the Stock Fund.

1. Would this action increase the cash flow requirements of Army Industrial Funds and necessitate an increase in their cash accounts? What would be the magnitude of the increase, source of the increase, and impact on Army TOA, if any?

2. Would this action increase the cash flow requirements of Army Stock Funds and necessitate an increase in their cash accounts? What would be the magnitude of the increase, source, and impact on Army TOA, if any?

3. Users would pay for secondary items with operating funds but would receive a credit for serviceable and unserviceable turn-in to the Stock Fund in accordance with current porcedures.

a. Is the credit return system adequate to insure that operating funds would be reimbursed in a timely manner to sustain daily operations?

b. Would the loss of funds at the end of fiscal year adversely effect a user's ability to obtain secondary items? Would this impact on the Army's TOA or real purchasing power as compared to the current free issue and carryover on secondary items?

c. Would the flow of credits through accounts reduce a user's purchasing power and increase operating fund requirements as compared to the current "free issue" system?

d. Would the loss of credits on items that were in long supply tend to transfer Army TOA to the Stock Fund? Assuming Stock Fund profits would eventually be transferred back to the customer would some of these monies benefit foreign sales and other service customers as opposed to just the Army?

4. Would the Army's structure of accounts tend to trap monies because of reimbursement or other delays thus tending to reduce Army purchasing power as compared to the direct procurement of secondary items as currently structured.

5. Is it feasible for users at unit or installation level to accurately forecast secondary item requirements, estimate the value of returns, and prepare realistic OMA, OMAR or OMARNG budgets? Could funds currently programed for secondary items be spent for other requirements thus impacting on readiness and maintenance programs? Would it be feasible to designate a special Army Management System code and element of expense

Incl 3

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for management of secondary items, and establish funding floors/fences to insure that funds programed for secondary items could not be reprogramed for other requirements without prior approval by a designated review authority (MACOM, HQDA, etc)? Under a climate of ever-decreasing OMA resources, would stock funding of reparable components inhibit or restrict a commander's operating resource flexibility? With regard to budget execution, what are the implications particularly during the last quarter of the fiscal year?

6. Would a price change on an expensive secondary item (i.e. M60A3 tank engine) based on a subsequent procurement increase the value of the outstanding inventory to a degree that it would impact on user funds (assume high density, high dollar, high turnover item, that is being replaced by a new item, XM1 vice M60A3 tank, etc.)?

7. Would unit activation/inactivation cause situations where Army TOA was impacted because of initial stockage/provisioning requirements as compared to the current "free issue" system?

8. Assuming the Stock Fund would capitalize all secondary items not in the hands of users and due in from procurement (prior year PAA funds), would a free issue system from the Stock Fund be required for those outstanding items in procurement to preclude double funding (paid for by PAA at the time of procurement - paid for again at the time of issue to the user with his operating funds)? How would this be accomplished? Would TOA (real Army purchasing power) be effected if free issue was not made?

9. The procurement of secondary items is characterized by long production lead times. It is not uncommon to experience a three year delay between the placement of an order and the receipt of final deliveries. High interest rates have cause contractors to request by-monthly progress payments because they are unwilling to tie up their capital for long periods in work in progress and inventories. Under this scenario, the stock fund would experience large cash outlays for years prior to the collection of reimbursement from consumer funds. How would this impact on the stock fund's cash position and would it necessitate an increase in its cash accounts? What would be the magnitude of the increase, source, and impact on Army TOA, if any?

10. Would a credit return system cause supplies to be shipped for possible credit when property disposal action might be more appropriate?

11. If monies for secondary items currently in the five Procurement Appropriations were transferred to OMA, OMAR, OMANG, etc. could the Army expect to procure the same dollar value of secondary items/level of maintenance, etc., as the current system or would inefficiencies or peculiarities in the structure of accounts/financial management system reduce purchasing power?

12. Are there any other aspects of this proposal that should be examined or any other impacts visualized?

DEPARTMENT OF THE ARMY
HEADQUARTERS, U.S. ARMY AUDIT AGENCY
FALLS CHURCH, VA 22041

24 AUG 1979

CSAA-CIZ

SUBJECT: Stock Funding of Depot Level Reparable Components

HQDA (DALO-SMZ-J)
PENTAGON
WASH DC 20310

1. Reference letter, DALO-SMZ-J, 30 Jul 79, subject as above.

2. As requested by referenced letter, USAAA made an assessment of the areas of concern. The assessment is based, in part, on the results of prior audits and in part on general knowledge and experiences in the areas of concern. Our assessments keyed to the specific questions addressed in referenced letter are contained in the following paragraphs.

a. Question. Would this action increase the cash flow requirements of Army Industrial Funds and necessitate an increase in their cash accounts? What would be the magnitude of the increase, source of the increase and impact on Army TOA, if any?

Assessment. The cash flow requirements would be increased but the cash could be self-generated within the Army Industrial Fund (AIF) provided the procurement funded inventory items were capitalized at no cost to the AIF. The cost of overhauled items not billed would have to be increased by the cost of the parts formerly procurement funded. As long as there was no accelerated increase in physical production of the AIF operations, sufficient cash could probably be self-generated. Of course there would be an impact at the OMA level because of the higher cost of depot overhaul. Some provision would have to be made at the consumer level for additional funds. We would envision a special one-time requirement for additional OMA funds when the changeover from unfunded to funded status was made. Afterwards, budgeting for OMA funds would have to take into consideration the changeover from unfunded to funded status of some items. Theoretically, the increased requirement for OMA funds should be offset by the decreased requirement for procurement funds. Logically, any changeover should become effective at the beginning of a fiscal year.

b. Question. Would this action increase the cash flow requirements of Army Stock Funds and necessitate an increase in their cash accounts? What would be the magnitude of the increase, source, and impact on Army TOA, if any?

Assessment. This action should not increase cash requirements of Army stock funds or total obligation authority. It is assumed that transfer of items to the stock fund would be planned in advance and items transferred would be in a balanced stockage position. Any expenditures for stocks on order at time of transfer would be paid for by the Procurement appropriation. Sale of assets transferred would generate the cash needed for replacement of assets sold by the stock fund. The consumer fund budgets would have to be adjusted in advance to provide funds necessary to reimburse the stock fund. Stock fund obligation authority would have to be increased in order to accomodate the increase in sales generated by the additional items.

c. Users would pay for secondary items with operating funds, but would receive a credit for serviceable and unserviceable turn-in to the Stock Fund in accordance with current procedures.

(1) Question. Is the credit return system adequate to insure that operating funds would be reimbursed in a timely manner to sustain daily operations?

Assessment. Prior audits disclosed delays in the creditable return process which precluded timely reimbursement of operating funds. These delays resulted from procedural deficiencies at the wholesale level as well as lack of effective follow-up at the retail level to obtain credits earned. Procedural deficiencies at the wholesale level should have been largely corrected through implementation of the Commodity Command Standard System. However, lack of effective follow-up at the retail level and other related problems may continue to prevent timely granting of credits. Problems noted at the retail level included the write-off of uncollected credits without adequate research to establish valid amounts due. At one activity, $2.3 million in returns for credit were outstanding for over 180 days. Audit research of $2 million in uncollected credits at another activity showed that CONUS supply sources should have granted at least $660,000 in credits. Underlying causes for uncollected credits included loss, mutilation or incorrect coding of documentation, and delays in shipment of returned items.

(2) Question. Would the loss of funds at the end of fiscal year adversely effect a user's ability to obtain secondary items? Would this impact on the Army's TOA or real purchasing power as compared to the current free issue and carryover on secondary items?

CSAA-CIZ
SUBJECT: Stock Funding of Depot Level Reparable Components

Assessment. There is always a potential for loss of funds at year-end. Material must be requisitioned sufficiently in advance to permit receipt/obligation of funds in the current fiscal year. Prior audits disclosed delays in recording receipts and obligations and various methods have been proposed to expedite the recording of receipts/obligations. However, this does not appear to be a major overall problem - historically, 99 percent of estimated obligations for supplies and materials are incurred.

(3) Question. Would the flow of credits through accounts reduce a user's purchasing power and increase operating fund requirements as compared to the current "free issue" system?

Assessment. Under a stock fund/consumer fund system, the user has a monetary incentive through the credit system. If the historical timing of credits was considered in developing the consumer fund budget, the delays would have already been discounted. While the credit system helps the user live within the monetary constraints, any delays in granting credits would tend to diminish the purchasing power (value) of the credits. What effect this would have on operating fund requirements would appear to depend on the extent to which the receipt of credits had been considered in developing the consumer fund budgets. Since "purchasing power" is not a problem for the user in a free issue system, the two systems cannot be compared.

(4) Question. Would the loss of credits on items that were in long supply tend to transfer Army TOA to the Stock Fund? Assuming Stock Fund profits would eventually be transferred back to the customer would some of these monies benefit foreign sales and other service customers as opposed to just the Army?

Assessment. Loss of credits on long-supply assets would tend to increase the need for operating funds. However, stock fund obligational authority is based primarily on the stratification system. Items in long supply would not generate a need for stock fund obligation authority. Sale of long supply assets would increase the stock fund cash position, but would not increase obligation authority. The increased cash would be available for unanticipated increases in requirements for other items or withdrawal. The value of material received without charge would also offset inventory losses in the calculation of the inventory loss surcharge which becomes a part of the standard price of an item. This has the effect of reducing the standard prices for all items (through reduction of surcharge percentage) which would benefit all stock fund customers. Sale of long supply assets would provide additional cash which would then be available for withdrawal or reprogramming to satisfy any shortfalls on other items.

d. Question. Would the Army's structure of accounts tend to trap monies because of reimbursement or other delays thus tending to reduce Army purchasing power as compared to the direct procurement of secondary items as currently structured?

Assessment. Delays in billings/credits can restrict the availability of stock fund cash to purchase items on a timely basis. However, in our recent audit of the wholesale stock fund, we found that billings were processed on a timely basis. Other factors which could limit the stock funds purchasing power are loss of obligation authority at year-end and overstated commitment balances. Commitments should be reduced when requirements are cancelled or contracts are awarded. Failure to do this can result in unnecessary reservation of funds and preclude use of these funds to acquire needed items. We found this to be a problem at the commodity commands and recommended more definitive procedures for review and reconciliation of open commitments.

e. Question. Is it feasible for users at unit or installation level to accurately forecast secondary item requirements, estimate the value of returns, and prepare realistic OMA, OMAR or OMARNG budgets? Could funds currently programmed for secondary items be spent for other requirements thus impacting on readiness and maintenance programs? Would it be feasible to designate a special Army Management System code and element of expense for management of secondary items, and establish funding floors/fences to ensure that funds programmed for secondary items could not be reprogrammed for other requirements without prior approval by a designated review authority (MACOM, HQDA, etc)? Under a climate of ever-decreasing OMA resources, would stock funding of reparable components inhibit or restrict a commander's operating resource flexibility? With regard to budget execution, what are the implications particularly during the last quarter of the fiscal year?

Assessment. The ability of users to accurately forecast and budget for requirements is dependent on many factors; e.g., accuracy of demand data, automated system support, compliance with prescribed stockage guidance, quality of personnel. Prior audits have shown deficiencies in many areas which impact on accuracy of computed requirements. Given these deficiencies, it is generally feasible to develop reasonable forecasts of secondary item requirements. It is believed that management analysis and floors/fences could be used to a greater extent within the existing system to monitor program execution. However, enforcement of floors/ceilings could diminish one of the advantages of the stock fund - the flexibility to divert resources to the area of greatest need. (The items used to support the budget may not be the items needed during budget execution). Stock funding of reparable components would require the commander to more closely weigh the need for these items as opposed to other items which he may also need. Ordering of high dollar value items would have to be monitored closely to evaluate impact on funds

available for other requirements. However, the commander should have the flexibility within the overall funding constraint to choose which items to buy. Under the "free issue" concept, there would be no need to make these choices. The constraints would be at the wholesale level where the amount of funds appropriated by materiel category would determine the availability of these items at all levels.

f. Question. Would a price change on an expensive secondary item (i.e. M60A3 tank engine) based on a subsequent procurement increase the value of the outstanding inventory to a degree that it would impact on user funds (assume high density, high dollar, high turnover item, that is being replaced by a new item, XM1 vice M60A3 tank, etc)?

Assessment. Under current procedures, standard prices are updated prior to the beginning of a fiscal year and remain in effect throughout the year. A subsequent procurement would not affect inventory valuation or stock fund selling prices and would therefore not affect user funds. The subsequent procurement would be included in the next price update which would form the basis for the following year's budget. The standard price includes a surcharge to provide for estimated price growth. The OMA budget is also inflated by a fixed percent to cover price growth during the year.

g. Question. Would unit activation/inactivation cause situations where Army TOA was impacted because of initial stockage/provisioning requirements as compared to the current "free issue" system?

Assessment. Unit activation/inactivation is generally planned in advance to allow for accommodation of initial stockage/provisioning requirements in stock fund and consumer budgets. Unprogrammed requirements would create a problem under either system.

h. Question. Assuming the Stock Fund would capitalize all secondary items not in the hands of users and due in from procurement (prior year PAA funds), would a free issue system from the stock fund be required for those outstanding items in procurement to preclude double funding (paid for by PAA at the time of procurement - paid for again at the time of issue to the user with his operating funds)? How would this be accomplished? Would TOA (real Army purchasing power) be effected if free issue was not made?

Assessment. Free issue would not be appropriate, since it would not result in the generation of funds needed for replacement of the capitalized items issued from the stock fund. Items capitalized by the stock fund will have been paid for by the procurement appropriation. Appropriation of consumer funds will be necessary to provide for replacement of these items (by the stock fund) in a subsequent period. This would not constitute "double funding" as the appropriation of consumer

funds is in lieu of appropriation of additional procurement funds or stock fund cash in the subsequent period. Total obligational authority would not be affected.

i. Question. The procurement of secondary items is characterized by long production lead times. It is not uncommon to experience a three year delay between the placement of an order and the receipt of final deliveries. High interest rates have caused contractors to request bi-monthly progress payments because they are unwilling to tie up their capital for long periods in work in progress and inventories. Under this scenario, the stock fund would experience large cash outlays for years prior to the collection of reimbursement from consumer funds. How would this impact on the stock fund's cash position and would it necessitate an increase in its cash accounts? What would be the magnitude of the increase, source, and impact on Army TOA, if any?

Assessment. Again, the assumption is that items transferred to the stock fund would be in a balanced stockage position. Any progress payments required for stocks due-in would be paid for by the procurement appropriation. Cash generated by sale of stocks on-hand would finance the progress payments. No increase in the stock fund cash account should be required as long as sales to customers keep pace with forecasts.

j. Question. Would a credit return system cause supplies to be shipped for possible credit when property disposal action might be more appropriate?

Assessment. Under the current system, supplies shipped to CONUS supply sources are sometimes found to be uneconomically reparable. This would probably continue to occur. We don't know the extent to which this is caused by the credit return system or other factors, e.g., differences in standards/procedures for inspection at shipping and receiving activities. Any incentive to obtain credits through return of uneconomically reparable items would be offset somewhat by the risk of incurring transportation/packaging costs with no reward. However, the high dollar value of the items proposed for transfer could encourage this practice.

k. Question. If monies for secondary items currently in the five Procurement Appropriations were transferred to OMA, OMAR, OMANG, etc., could the Army expect to procure the same dollar value of secondary items/level of maintenance, etc., as the current system or would inefficiencies or pecularities in the structure of accounts/financial management system reduce purchasing power?

Assessment. Most of the inefficiencies which limit purchasing power would appear to be present under either method of funding. An

exception might be the full use of stock fund obligational authority. Our prior audit of the Army Stock Fund - Wholesale Division, disclosed a need for better controls to ensure full and orderly use of available obligation authority. In FY 77 crash efforts were made at year-end to use available obligation authority. Despite these efforts, $32 million in obligation authority was lost because it was not obligated by year-end, even though all sub-home offices had substantial materiel deficits. This could deplete wholesale stocks and prevent users from obtaining needed items even when they have the funds. We recommended closer monitoring of obligation performance and reprogramming actions to place the authority where it is most needed.

1. Question. Are there any other aspects of this proposal that should be examined or any other impacts visualized?

Assessment. Aside from the financial impacts, other problem areas could impact the return of reparable items.

(1) Recoverability Coding. Decisions on reporting or disposition of unserviceable assets are based on the recoverability code assigned to the item. A review at one commodity command showed incompatible coding for 9 percent of the procurement appropriation items and 30 percent of the Army stock fund items. While almost all of the items were reparable, recoverability codes were either missing or indicated the items were non-reparable. Thus users would normally not report improperly coded items to the commodity command for disposition. This almost assures a low return rate.

(2) Automatic Return Items List (ARIL). Maximum use has not been made of automatic return procedures to expedite return of unserviceable reparable items. Qualifying items can be shipped immediately to a predesignated repair facility without requesting disposition instructions. Prior audits have shown that many items which qualify for automatic return and have ongoing repair programs are not included on the ARIL. At one commodity command, we found that 70 percent of the reparable items that were at or below the reorder point were not coded for automatic return (including both stock funded and procurement funded items).

(3) Although there is a financial incentive for users to return reparable stock funded items, we have seen no conclusive evidence that stock funding of depot level reparable components would have any significant effect on the rate of return. Aviation items have a relatively high return rate without regard to method of funding. Many of these are intensively managed down to the user level. Experience with aviation items appears to support a need for more intensive management of all reparable items rather than a change in method of funding.

FOR THE AUDITOR GENERAL:

RICHARD E. MAY
Acting Director
Command & Installation Audits

APPENDIX F

Cost/Manpower Implications

1. There will be both costs and savings associated with each alternative. A consolidation of the total manpower requirements and the associated dollar costs is at figure F-1. These requirements and costs were submitted by the major commands.

2. Total reported additional requirements are:

	Personnel	Dollars (Millions)
Alternative 1-	495	11.710
Alternative 2-	530	13.120
Alternative 3-	90	2.280
Alternative 4-	0	0

Cost/Manpower Implications
($ in Mil)

FORSCOM		TRADOC		USAREUR		EUSA		HAWAII		NG		MICOM		TARCOM		ARCOM		CERCOM		TSARCOM		TOTAL	
#	$	#	$	#	$	#	$	#	$	#	$	#	$	#	$	#	$	#	$	#	$	#	$
ALTERNATIVE 1																							
136	1.60	8	.30	159	5.93	9	.06	7	.14	175	(E)3.50	1	.02	-5	.16	-4	-	-	-	-	-	495	11.71
ALTERNATIVE 2																							
111	1.40	8	.30	144	5.45	5	.04	6	.11	174	(E)3.48	49	1.05	-5	.16	31	.93	7	.02	-	-	530	13.12
ALTERNATIVE 3																							
												49	1.05	-	-	31	.93	10	.3	-	-	90	2.28
ALTERNATIVE 4																							
NO ADDED REQUIREMENTS																							

(E) Estimated- No cost data furnished
\# Additional personnel required
$ Additional dollars required, in millions

Figure F-1

APPENDIX G

REQUIRED CHANGES

The study effort identified procedural changes and implementing actions that would be required by the various alternatives. The following table identifies those changes and actions required by placing an X in the appropriate spaces for each alternative, representing the study conclusions, has been added as number 5.

Procedural Changes	Alternatives				
	1	2	3	4	5
1. Improve responsiveness of credit return system and determine appropriate credit percentages.	X	X		X	X
2. Revise unserviceable return rate stratification	X	X	X	X	X
3. Revise ADP system (SAILS) to indicate non-recurring demands.	X	X	X	X	X
4. Improve Direct Exchange procedures	X	X	X	X	X
5. Improve visibility of depot level reparable assets through use of SIMS-X	X	X	X	X	X
6. Revise unserviceable return rate processes to recognize washouts and demands at special repair activities and overseas depots.	X	X	X	X	X
7. Revise regulations and other official documents to indicate changes.	X	X	X	X	X

Implementing Actions

Implementing Actions	ALTERNATIVES				
	1	2	3	4	5
1. Revise Pertinent OSD directives	X	X			X
2. Revise Pertinent HQDA/MACOM directives and procedures	X	X	X	X	X
3. Realign items from PAA to ASF	X	X		X	X
4. Realign items from ASF to PAA				X	X
5. Classify new items IAW figure 6-1, based on forecast of demands and Unit price.					X
6. Realign funds from PAA and 7M to Consumer Accounts in POM/budget	X	X			X
7. Develop authorization Documents as appropriate		X	X		X
8. Capitalize PAA assets realigned to ASF, into ASF and AIF	X	X			X
9. Decapitalize ASF assets realigned to PAA from ASF and AIF				X	X
10. Consider "free issue" of on order with prior year PAA funds	X	X			X
11. Adjust Personnel Resources commensurate with changing work load	X	X	X		
12. Revise outstanding AIF PRONS as required	X	X		X	X
13. NOTIFY Congress of proposed budget changes	X	X			X
14. Develop appropriate credit return rates	X	X		X	X