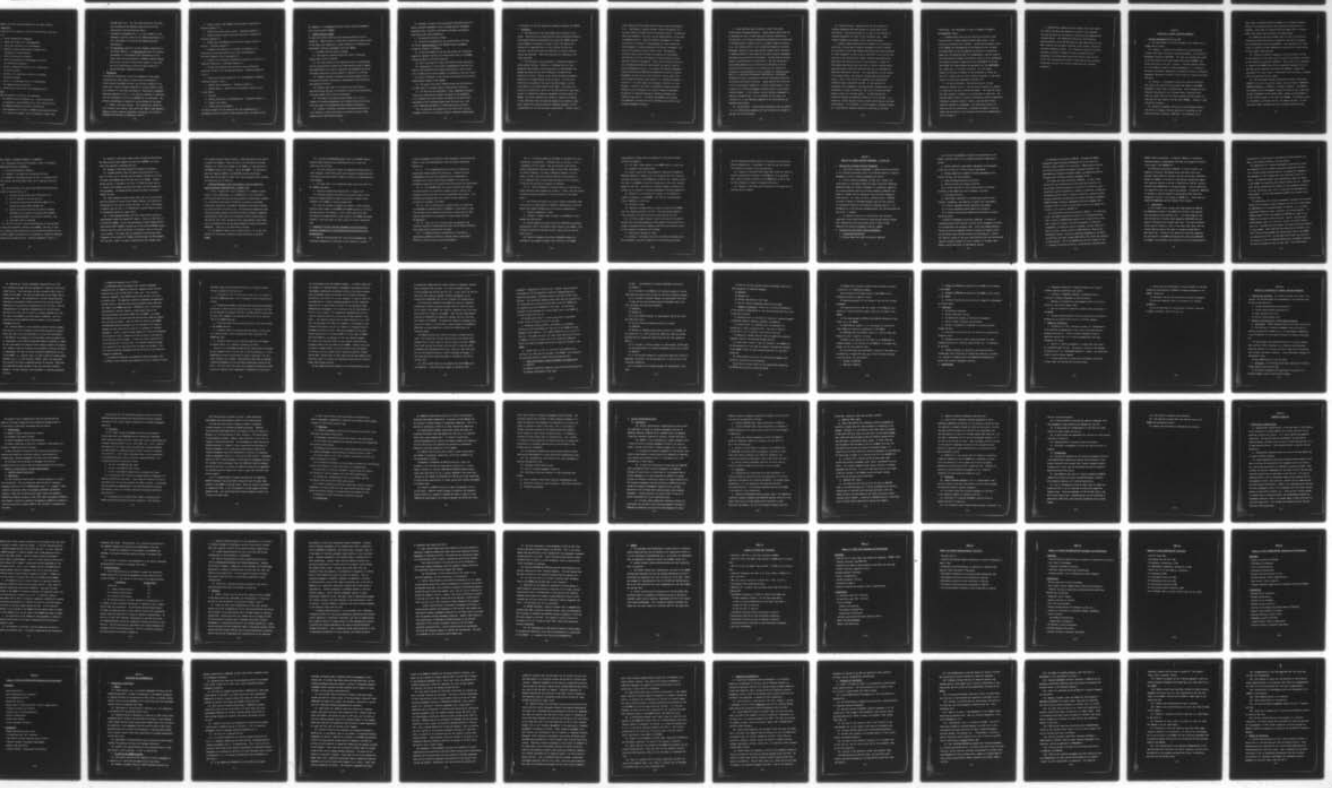
AD-A060 308 ARMY ARMAMENT MATERIEL READINESS COMMAND ROCK ISLAND IL F/G 15/5
TASK FORCE STUDY ON CENTRALIZED VERSUS DECENTRALIZED ITEM MANAG--ETC(U).
JUL 78 D L BIXBY

UNCLASSIFIED NL

1 OF 2
ADA
060308



TASK FORCE STUDY ON CENTRALIZED VERSUS DECENTRALIZED ITEM MANAGEMENT WITHIN HQ, ARRCOM

LEVEL II

VOLUME 1 (OF 2)
EXECUTIVE SUMMARY AND STUDY REPORT

COMPLETED STUDY REPORT
JULY 1978

HQ, ARRCOM
ROCK ISLAND, IL

(2)

(6) Task Force Study on Centralized Versus Decentralized Item Management Within HQ, ARRCOM, Volume I.

(9) Completed Study Report,

Submitted: Donald L. Bixby

DONALD L. BIXBY
Chairman -- Primary Working Group

(10) Donald L. Bixby

Recommend Approval: Isabelle Hansen

ISABELLE HANSEN
Chairman -- Study Advisory Group

(12) 116 p.

(11) Jul 78

Approved:

HENRY H. HARPER
Brigadier General, USA
Deputy Commanding General

TASK FORCE STUDY ON CENTRALIZED VERSUS DECENTRALIZED ITEM MANAGEMENT WITHIN HQ, ARRCOM

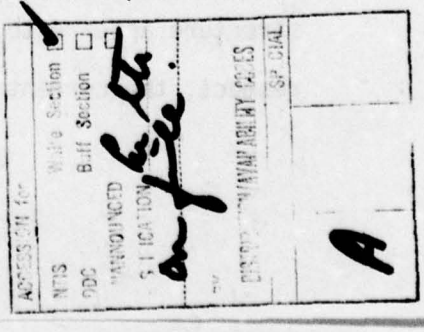
EXECUTIVE SUMMARY

Subject Matter: The study researched and analyzed the alternatives of centralization and decentralization of organizations for item/inventory management within HQ, ARRCOM. Emphasis was on the qualitative aspects of the organizational alignment of Item/Inventory Managers for the performance of supply (NICP) functions.

Background: A prior study on unbilled shipments of material identified the existing decentralized alignment of item managers as a possible detrimental factor in billing/system deficiencies. Current study was directed by CG, ARRCOM to be performed as an in-house Task Force effort. Study began July 1977 with study completion in April 1978, and command approval in June 1978.

Purpose/Objectives: The study was to identify the alternatives of centralized and decentralized Item/Materiel management within HQ, ARRCOM, to perform an objective analysis of the alternatives, and make recommendations as to the preferred alternative, functional alignments, and other actions as determined by the study findings.

Methodology: The Task Force was established with a Primary Working Group (PWG) as the principal performer. The PWG conducted a questionnaire survey, a series of discussion meetings with representatives



of key (directly involved) functional organizations, and an extensive research into available literature (prior studies, academic texts, regulations, etc.) and reference documents. All data collected was compiled, summarized, and analyzed by the PWG. The study analyzed and compared four alternatives for organizational alignment of inventory management. The alternatives analyzed are: Continuation of Current Alignment; Further Decentralization; Partial Centralization; and Total Centralization. Continuation of current alignment was considered to be the basic situation against which the other three alternatives were compared. The current alignment, referred to as "Status Quo" in the study text, was defined as being subsequent to October 1977, and assumed implementation of several "in-process" changes, i.e., fully operational establishment of DRSAR-DA as the NICP for Conventional Ammunition under the SM concept; the ABC system for assigning MCN's and loading DRSAR-PD industrial components into the NSNMDR; full implementation of the Customer Order Control Point (COCP) in DRSAR-CP; and full implementation of all approved recommendations of the prior study on "Delivered-Unbilled System Deficiencies." Formal report was prepared by the PWG using comparative and judgemental analyses.

Summary/Abstract: The study findings indicate that neither extreme; i.e., total centralization or total decentralization, is practical or desirable. The preferred and most often utilized organizational structure appears to be a combination of both concepts. In that respect, the current inventory management alignment within HQ, ARRCOM

is a combination of centralization and decentralization, and its continuation was highly rated in the study analysis and conclusions. A high potential alternative for the longer term involves a partial centralization; i.e., an increase in centralization over that of the current alignment by consolidating the inventory management of quality assurance equipment (FATE) and depot ammunition maintenance equipment (APE) into the existing NICP organizational elements, while leaving industrial production material outside of the NICP management unless the items are sold or issued.

The study also found that not only is there no clear cut "best" answer in the question of centralization versus decentralization, there is a definite lack of agreement as to the definition, application, advantages, and disadvantages of either option. This general lack of agreement, or disparity, in definition and use of terms was also found to apply to subject related terms such as: Item Manager, Inventory Manager, and Inventory Management. This lack of common terminology was found not only in colloquial usage, but surfaced in the research of regulations and academic texts.

The study also found that the location (centralized or decentralized) of personnel performing inventory management was not as significant as the establishment of, training in, and adherence to standardized procedures, both off-line and CCSS automated.

Summary of Conclusions.

a. Further decentralization is not a viable alternative because it would result in increased personnel costs and reduced controls. Also, decentralization of responsibility was a root problem addressed by the "Delivered-Unbilled" Task Force study. Thus, to advocate for the decentralization is akin to advocating exacerbation of the basic problem, and conflicts with regulatory requirements for integrated inventory management of logistics supply items (AR 710-1).

b. Full centralization would result in maximum turmoil in organization, personnel and cost, and is contrary to current DOD concepts which resulted in establishment of DRSAR-DA to support SM requirements. Total Centralization is not considered to be a viable alternative.

c. It appears that the present organization benefits from both centralized inventory management of those standard items which require central NICP control and from the decentralization (physical dispersion into functional areas) of some personnel performing some inventory management functions for the management of industrial materiels, tools-of-the-trade used in production, and related support items.

d. As indicated in Chapter 5, continuation of the current ARRCOM organization for inventory management is the most viable near-term alternative. It is noted that the concept of this alternative assumes total implementation of the approved recommendations of the "Delivered-Unbilled Shipment Deficiencies" study. This has not occurred as yet. The concept also assumes full implementation of the COCP, the ABC

system, and SM (DRSAR-DA). When fully implemented, the Current Alignment will provide an estimated 95% of demand fill-and-bill through the CCSS. It will not provide for centralized accountability or a centralized data base of all items assigned this Command to inventory manage through the NICP's.

e. Partial Centralized Inventory Management, as described in Chapter 4 paragraph 3b(1)(e) and required by AR 710-1 (with approved deviations), has high potential for the long term. Although Partial Centralization may be our goal, we should continue under the current alignment until inventory managers could be properly trained or replaced to perform the requirements. At the present there should be a continuous exerted effort to get all "demand" items assigned an MCN and recorded in the NSNMDR. This would minimize subsequent transition efforts for moving all supply/issuance items under the control of the NICP's.

Impacts.

a. Facilities requirements will not significantly change under any alternative and, therefore, are not an impact factor.

b. Overall HQ, ARRCOM personnel requirements and average grade will not significantly change as a result of any alternative.

c. Personnel actions (transfers) associated with either of the preferred alternatives, i.e., continuation of current alignment or partial centralization, are not significant (estimated at approximately 5 spaces).

d. Training requirements associated with either of the preferred alternatives, i.e., Current Alignment and Partial Centralization, are commensurate with those required under implementation of the recommendations of the "Delivered-Unbilled" Task Force.

e. Although cost impacts were indeterminate, the two preferred alternatives should be approximately equal to each other and significantly less than either of the extremes, i.e., Total Centralization or Total Decentralization. Loading and maintaining additional items in the NSNMDR and training in CCSS procedures will be the two most significant cost impacts.

Recommendations: The preliminary recommendations as proposed by the Primary Working Group and accepted by the Study Advisory Group are set forth in Chapter 6 of the study report. These preliminary recommendations were presented to command and staffed for comments. The correspondence, comments, and results of the staffing actions are included in Addendum I to the study report. The preliminary recommendations were revised in keeping with the staffing action and command direction and approved by the DCG, ARRCOM on 29 June 1978. The final, approved recommendations are set forth in Chapter 6 of the study report. The approved recommendations are provided in this Executive Summary, as follows:

Recommendation a.

Retain present HQ, ARRCOM organizational structure overall, specifically continuing current alignment for materiel management.

Recommendation b.

Retain in DRSAR-PD the inventory control and accountability for industrial components. DRSAR-PD to work with DRSAR-MM and DRSAR-DA to develop a system to transfer industrial stocks to DRSAR-MM or DRSAR-DA, as appropriate, on a case-by-case basis for external demands or as required for renovation. Clarification of AR 710-1 will be obtained in the question of application of formal Integrated Inventory Management (NICP) to industrial items.

Recommendation c.

DRSAR-PD to retain accountability and perform NICP functions for industrial components--to procure requirements, retain accountability, and ship upon demand. The NICP functions to be performed include cataloging direction, requirements computation, procurement direction, maintenance direction, and materiel utilization direction.

Recommendation d.

DRSAR-IL will not be recorded or act as Inventory Manager for any item (no MCN/NSN actions by DRSAR-IL). DRSAR-IL will clear all previously loaded item responsibility, transferring these items to the appropriate NICP (e.g., DRSAR-DA, DRSAR-MM, DRSAR-PD, DLA/GSA). DRSAR-IL will offer and process FMS, Grant Aid, and MAP cases containing only items assigned to this command unless specifically directed by higher headquarters.

Recommendation e.

Procedures will be established for all item managers regardless of location throughout the command, and that these procedures will be reviewed and approved by the directors thereof. CCSS procedures, when applicable, must be adhered to.

Recommendation f.

Specific procedures will be established for all off-line (manual and non-CCSS) transactions, and non-standard items which are being sold through DRSAR-IL and MIPR's. Process all non-standard items off-line unless the item has been assigned an MCN/NSN and properly loaded to the NSNMDR.

Recommendation g.

Provide guidance, procedures and training of all item managers for processing sales transactions, especially for managers of non-standard items.

Recommendation h.

All formal item cataloging will be accomplished by DRSAR-MM (until such time as DRSAR-DA assumes this function for Ammunition items), in coordination with DRSAR-MA for initiation and approval of DRSAR Form 19's when required. All MCN assignments will be cleared through DRSAR-MM, and all new NSN's requested by DRSAR-MM in coordination with DRSAR-MA.

Recommendation i.

Customer orders for items not assigned to ARRCOM will be directed to the appropriate NICP, unless we are directed to process by higher headquarters or where disagreement as to PICA has not been resolved. A thorough screening through DLSC will be accomplished on all items for FMS cases and MIPR's to ensure that this command is not buying, for resale, items which are managed (as PICA) by another command or agency. Demands may be processed for items on which the PICA assignment is in dispute by this headquarters or action is being taken to transfer the item assignment to ARRCOM from another PICA, on the condition that formal notification is provided to DARCOM that procurement is proceeding.

Recommendation j.

Fully implement the approved recommendations of the study on Delivered-Unbilled Shipments Deficiencies, including full implementation of the COCP.

Task Force Study on Centralized Versus Decentralized

Item Management within HQ, ARRCOM

VOLUME 1 — TABLE OF CONTENTS

VOLUME 2 TABLE OF CONTENTS Page

Contains Errata, Correspondence, Review Comments, and other Information subsequent to preparation of completed Draft Study Report.

CHAPTER 1

INTRODUCTION

1. Requirement for Study.

This study, formally titled "Study of Centralized versus Decentralized Item Management within HQ, ARRCOM", has been performed at the direction of the CG, ARRCOM as recommended in Para 5.g, Annex F of a prior study effort, the "Review, Evaluation and Resolution of Delivered-Unbilled System Deficiencies" (Reference Appendices C and H). The specific recommendation was---

> "That a task force be formed to accomplish a study relative to centralized or decentralized management and item management within the command and that the group be tasked to recommend adjustments to organization, mission functions, and personnel in accordance with determinations and findings." (Reference Appendices C and H.)

Conduct of the study was tasked by 14 Jun 77 DF from the Chief of Staff; and Initial Study Plan approved 5 Jul 77 by the Commanding General, ARRCOM (Reference Appendix C).

The apparent problem, as indicated in the prior study, was that the decentralized alignment of Item Manager functions within HQ, ARRCOM may be a detrimental factor in the performance of ARRCOM's materiel management mission.

2. Purpose of Study.

The purpose of this study was to examine the alternatives of centralized and decentralized Item/Materiel Management within HQ, ARRCOM, to perform an objective analysis of the alternatives, and make recommendations as to the preferred alternative, functional

alignments, and other actions determined by the study findings.

3. Objectives.

The objectives of the study, as cited in the definitized study plan, were to:

a. Define item/materiel management.

b. Define the criteria for "Item Management".

c. Define the functions of an "Item Manager".

d. Determine current organizational alignments and performance of these functions.

e. Identify alternative alignments.

f. Identify advantages and disadvantages of current and alternative alignments.

g. Perform a comparative analysis of all alternatives (including current).

h. Identify, with supporting rationale, the optimum/preferred alignment.

i. Result in a recommended action or recommendation for Command review and decision.

j. Provide impact analysis for the recommended action.

4. Scope.

The study was generally limited to, and addressed:

a. HQ, ARRCOM internal alignments only. External interfaces, as appropriate, were considered as to their impact upon the HQ, ARRCOM organization, mission, and functions.

b. Item management of all types of ARRCOM assigned materiel/items i.e.--ammunition, weapons, tools and equipment, gauges, APE,

DLA/GSA items, etc.. IPE, TDP items and Service line items were excluded per the approved study plan and with the concurrence of the Study Advisory Group.

c. Item/materiel management only, i.e.--the alignment of item management functions within the HQ, ARRCOM organization, and not a realignment of the overall HQ, ARRCOM functional organizations.

d. The qualitative aspects of various alignment alternatives as the primary emphasis. The quantitative aspects (of personnel realignments or reassignments) were considered as to the impact upon cost and performance of ARRCOM's materiel management mission, but were of much lesser emphasis in the study due to an insufficiency of definitive data necessary to perform meaningful comparative analyses.

5. Methodology.

The study was conducted by a Task Force composed of three groups: A Study Advisory Group (SAG) to provide advice and guidance; a Primary Working Group(PWG) which was the principal conductor of the study; and a Technical Support Group(TSG) to provide technical input and information on functional performance of item/materiel management. (Reference Appendices A and C.) The study was conducted in compliance with the requirements of AR 5-5 and DARCOMR 10-1 as applicable. The following methodology was employed in the performance of the study:

a. Conduct literature research. This included such sources as prior internal staff studies, TASS, DLSIE, DDC, AMETA, other Readiness Commands, private industry, educational institutions and libraries. (Reference Bibliography and Appendices B and H.)

b. Conduct internal (HQ, ARRCOM) survey through a questionnaire. (Reference Appendix E.)

c. Compile and analyze survey results. (Reference Appendix E.)

d. Contact resident experts and Army consultants as appropriate. (Reference Appendix H.)

e. Gather data from ARRCOM functional areas through discussion meetings. (Reference Appendix F.)

f. Categorize and analyze, as to methods of management, the items which are and those which are not under Item Management. (Reference Chapters 2 and 3 and Appendix G.)

g. Develop list of potential performance indicators as criteria for comparing alternatives. (Reference Appendix G.)

h. Analyze data gathered from functional areas and determine significant factors which influence performance. (Reference Appendices F and G.)

i. Develop and analyze alternatives for item management alignments. (Reference Chapters 3 and 4.)

j. Compare those alternatives. (Reference Chapter 5.)

k. Develop impacts. Quantify cost and personnel impacts as much as practicable.

l. Not used.

m. Develop conclusions and recommendations. (Reference Chapter 6.)

n. Prepare final report.

o. Present results to Command.

The basic assumption of the study was that the recommendations, if implemented, would not require a major organizational realignment within

HQ, ARRCOM (i.e.--recommendations would involve inventory management only, and not overall ARRCOM).

6. Factors Bearing on Study.

The facts and factors bearing on the study were primarily of two categories: Administrative, or those which impacted the actual conduct of the study, and; Subjective, or those integral to or impacting the performance of materiel management within HQ, ARRCOM.

a. The Administrative factors included:

(1) The study was conducted within the limits of available regular hours, with no overtime.

(2) The study objectivity and impartiality was to be maintained. This was accomplished by forming the Primary Working Group of members from organizations not directly performing item management functions. This then necessitated a certain amount of "education" of the PWG.

(3) Somewhat parochial orientations and understandable bias of the various functional organizations representatives made definitive data gathering difficult.

(4) Research time, both in the location and acquisition of applicable source data and in the physical review of that data proved to be much greater than initially anticipated.

(5) The scope of the study was much broader (e.g., all six elements of inventory management) than indicated by the prior study, which was keyed to "Delivered/Unbilled Shipments Deficiencies".

(6) External limitations, workloads and organizational priorities resulted in severe restrictions on availability both of team members and of administrative support.

(7) Personnel involved in this study and/or contacted during its conduct evidenced competence in their assigned materiel management responsibilities, displayed a concientious attitude, and except as noted above, were highly cooperative.

b. The Subjective factors included:

(1) Current SM implementations and reorganizations including the further decentralization of HQ, ARRCOM inventory management through the formation of DRSAR-DA.

(2) Current development of the new "ABC System" for integrating ammunition component reporting and loading those items in the NSNMDR through the PMDR to allow CCSS processing.

(3) Basic requirements to comply with ASPR and other regulations.

(4) Implementation of the various recommendations from the prior study on "Delivered/Unbilled Shipments Deficiencies", some of which are in process and the others assumed to be effected in the near futrue.

(5) Basic differences in the missions and functions of the various organizational elements of HQ, ARRCOM.

(6) The scope of the overall ARRCOM missions and the diversity of items result in extremely complex organizational interfaces.

(7) The evolution and development of many independent procedures unique to an organizational element and geared to the management of its assigned items and missions, including the utilization and development of ADP processes/systems other than CCSS (e.g.,--the current DRSAR-MA development of a stand-alone process for APE).

(8) The magnitude and complexity of the CCSS itself, and the attendent difficulty in achieving universal integrated understanding

or utilization of the full system and processes throughout HQ, ARRCOM.

7. Discussion.

a. The complexity of the study subject was recognized at the outset. There was also a strong suspicion that considerable ambiguity and misunderstandings existed among the various HQ, ARRCOM organizational elements in reference to usage of terms, delineation and separation of responsibilities for the different missions and functions, and the utilization and adherence to available standard systems and processes. These suspicions were all supported as the study progressed.

b. The preliminary survey questionnaire (Reference Appendix E) served several purposes. Primarily, it gathered data for later comparison and analyses, covering such areas as items managed, who manages the items and how, and differences in procedures and definitions of terms. Results of the survey indicated considerable disparity in the understanding and use of terms. A set of clear definitions, as applied to the study, therefore became a crucial early effort of the Primary Working Group (PWG). The survey also served as an "educational" device for the PWG, providing a good cross-section of information on materiel management activities within HQ, ARRCOM. The survey responses also served as a guide to the PWG as to what additional areas and questions needed to be covered in subsequent research and discussion meetings (Reference Appendix F) with representatives of the key functional organizations. The most crucial

terms requiring definition were those related to materiel management (e.g.: Item Manager, Inventory Manager, Materiel Management, etc.) and clarification of Centralization and Decentralization. Considerable effort was expended in this area, and the backup material can be found in Appendices D and E. Basically, Materiel Management is a broad term covering all aspects of the management of items and material. Item Management is roughly synonomous with Materiel Management, and should be considered a broad or generic term. Unfortunately, colloquial usage varies and there are numerous and simultaneous applications of the term Item Manager to those performing various functions of Materiel Management. These varying functions should be more accurately described by terms denoting the specific areas of materiel management involved. For example, the materiel management functions performed by DRSAR-MM and DRSAR-DA are actually inventory management, and the official (job description, Series 2010) title for the people performing these functions is "Inventory Management Specialist." But these people are frequently referred to as Item Managers. Similarly, the people from DRSAR-PD, though also often referred to as Item Managers, are actually Production Management Specialists or "Production Managers" (generally engineers and industrial specialists). The people from DRSAR-IL are actually "Case Managers" and should really be performing very little of the inventory management functions.

c. A more difficult area to resolve is that of the terms Centralization and Decentralization. Though singular definitions may be developed for each, in application any condition identified as "centralized" in one frame of reference may paradoxically be identified as "decentralized" at another level or in another frame of reference (e.g., the "centralization" of all conventional ammunition inventory management functions in one organizational element may be considered a "decentralization" of both materiel and overall materiel management functions; with corallaries ad infinitum). The PWG found no singular answer to the definition of centralization. The only resolution to the problem appeared to be in arbitrarily establishing an ad hoc definition of centralization as it pertains to this study and in reference to the performance of the six elements of inventory management (i.e., Cataloging, Requirements Determination, Procurement/ Production Direction, Distribution Direction, Maintenance Direction, Utilization and Disposal Direction). Backup material and discussion on this can be found in Appendix D. Briefly, centralization is the grouping of all similar management functions within a single organizational element. In this context, current inventory management is basically "decentralized." For the purposes of this study, the following definitions (Reference Appendix D) of centralization and decentralization apply:

(1) Centralization. Item/inventory management under one control, i.e., all item/inventory managers and their functions are located in and work for one directorate.

(2) Decentralization. Responsibility for the functions of inventory management and items managed are spread among several directorates. Directorates perform all or most of the functions of inventory management for items in their functional area. Item/ inventory managers are located in two or more directorates.

d. Another problem encountered by the PWG was in the complexity, variations, and magnitude of materiel management within HQ, ARRCOM. The variations in both items managed and uniquely applicable procedures for their management, as well as basic differences in the missions and functions of the organizational element involved, made quantitative comparisons and analysis difficult if not impossible. Though the PWG expended considerable time and effort in trying to develop useful quantitative data, sufficient comparable data was not available for meaningful quantitative analysis. The study emphasis, by the dictates of the subject matter, was primarily centered upon the qualitative aspects. Even in this regard the complexity and organizational interfaces posed a problem for the PWG. If each variation in procedures, item assignments, and organizational alignment were to be considered as a study "alternative", the list of alternatives would become so long as to preclude analysis. The PWG resolved this problem by reducing the potential alternatives to the minimum - i.e., status quo, further decentralization, further centralization, and total centralization. All variations in item assignments, procedural changes, etc., could then be treated as options or conditions of the basic

alternatives. This development is shown in Chapters 3 through 5 and Appendices G and H.

e. Assuming status quo to be the condition from which either centralization or further decentralization might evolve, it was necessary to delineate that condition. Considering the dynamic nature of HQ, ARRCOM, the implementation of SM responsibilities including the establishment of the new DRSAR-DA Directorate for conventional ammunition, the assumption that the recommendations from the study on "Delivered Unbilled Shipments Deficiencies" would be fully implemented, the constant procedural changes such as the development of the new "ABC System" for loading ammunition components into the PMDR/NSNMDR, even status quo is a non-static condition. The next chapter (Chapter 2) provides a statement of the development of status quo from prior to March 1977 to current condition subsequent to the above actions, or effectively subsequent to October 1977.

f. The four alternatives, including status quo, are then analyzed in Chapters 3 and 4. This was done by analyzing, in Chapter 3, status quo as the basic condition/alignment. The remaining options were then analyzed, in Chapter 4, as alternatives to status quo. The analyses address aspects of mission, organization, control, regulations, procedures, personnel, materiel (items), costs and other factors impacting item/materiel management. The comparative analysis of status quo and the alternatives is presented in Chapter 5, with the summary and conclusions of the findings and the study recommendations given in Chapter 6.

g. Though direct references are not always cited in the body of this report, the data and information available in the appendices served as the basis for the analysis, conclusions and recommendations presented herein. The information relative to "centralization/ decentralization" and to the definition of terms came mainly from the PWG's research into available literature, prior studies, regulations and other documentary sources. The information relative to missions, functions, procedures, "systems" utilized, personnel and item assignments, and problem areas came mainly from the inputs of the various TSG representatives (primarily those from the key functional directorates involved in or directly interfacing with inventory management).

CHAPTER 2

DISCUSSION OF CURRENT INVENTORY MANAGEMENT

1. Inventory Management Prior to FY 1978.

a. The items managed or partially managed by this Command can be categorized as follows:

(1) Category 1 - Standard stock-numbered Army issuable and/or saleable items under centralized inventory management, in the Materiel Management Directorate (DRSAR-MM). The items are cataloged and loaded to the CCSS National Stock Number Master Data Record (NSNMDR), the primary data base of the CCSS. Category 1 inventory managers perform all six elements of materiel inventory management, i.e., cataloging direction, requirements computation, procurement direction, distribution management, maintenance direction, and utilization or disposal direction (AR 710-1).

(2) Category 2 - Nonstandard mission type items and industrial type stocks, that have not been cataloged and loaded to the NSNMDR. Management of these items is decentralized. They are managed by four different directorates in four different ways as indicated below. Orders for these items will not process through the CCSS because the items have not been loaded to the data base (NSNMDR). Category 2 items include the following:

(a) Gages/Test Equipment utilized for Final Acceptance Testing (FAT) which are managed, with the exception of cataloging, by the Product Assurance Directorate (DRSAR-QA). The accountability of

these stocks is decentralized and assigned to an accountable property officer at the storage location, with supervisory responsibility at DRSAR-QA. These items are controlled by Part Number (PN) or a Drawing Number (DN) rather than by National Stock Number (NSN).

(b) Ammunition Peculiar Equipment (APE) utilized in surveillance, renovation and demilitarization of ammunition items which is managed by the Maintenance Directorate (DRSAR-MA). The accountability of these stocks is centralized within DRSAR-MA and controlled by in-house assigned stock number rather than NSN.

(c) Industrial production components and bulk materials utilized in the production of end items, which are partially managed or controlled by the Production Directorate (DRSAR-PD). These items are not cataloged or loaded to the NSNMDR unless they are ammunition components that are end items within themselves and issuable by DRSAR-MM. Normally the accountability of these items is transferred to the contractor or assembly plant, and controlled by part number.

(d) Any item ordered through International Logistics Directorate (DRSAR-IL), for which an existing manager can not be found in DRSAR-MM, DRSAR-MA, DRSAR-QA, or DRSAR-PD, is managed in DRSAR-IL. The DRSAR-IL case manager directs procurement, manages distribution and in some cases assigns a Management Control Number (MCN), thereby recording DRSAR-IL as the inventory manager of the item in the NSNMDR. If no MCN is assigned, the demand is processed off-line, not through the CCSS. In most cases when a MCN is assigned the item is procured through the CCSS

utilizing the "G" override. The "G" override is a code entered in the Procurement Work Directive (PWD) which inhibits interface with the NSNMDR, thus precluding any computer generated customer billing action. In either case the customer is not billed through the CCSS.

(3) Category 3 - Normally includes two types of items; i.e., items managed by another agency, and those utilized by only one Service with that Service recorded as the Primary Inventory Control Activity (PICA).

(a) This Command buys, for resale, items managed by other agencies; e.g., DLA/GSA. ARRCOM is not the PICA for these items and therefore cannot legally buy the item (AMCR 700-99). If the item is loaded to the NSNMDR we can only be recorded as a user or Secondary Inventory Control Agency (SICA). SICA designation permits a command to stock and issue, but not procure or resell an item.

(b) Customer Peculiar Items are the items that are utilized by only one Service, and the utilizing Service is recorded as the PICA. Even though by regulation (AMCR 700-99) only the PICA can legally procure an item, ARRCOM accepts reimbursable MIPR's and FMS cases, and either procures or produces these items for the requester. These items cannot be loaded to the NSNMDR, because ARRCOM is neither the PICA nor a user of these items.

b. Procurement direction is provided as follows:

(1) Procurement direction is provided by DRSAR-MM for Category 1 items.

(2) Procurement direction for Category 2 is provided by DRSAR-MM

(MIPR), DRSAR-IL, DRSAR-MA, DRSAR-PD, and DRSAR-QA.

(3) Procurement direction for Category 3 items is provided by DRSAR-MM (MIPR Branch) and DRSAR-IL.

c. Processing Reimbursable Demands:

(1) Category 1 item orders are processed as follows:

(a) Demands are processed through the CCSS, to include billing, if the item has the correct NSN or MCN, and is supplied from stock on-hand.

(b) Direct delivery of the above type demand processes through the CCSS, to include billing, if:

1. The item has the correct NSN or MCN and PN, and
2. the "G" override is not utilized, and
3. the Materiel Acquisition and Delivery (MAD) File is properly generated and/or amended, and
4. the Military Standard Contract Accounting Procedure (MILSCAP) File is properly generated and/or amended so the MAD and MILSCAP Files properly interface, and
5. the proper input is submitted.

(c) The "G" override is being indiscriminately utilized on PWD's for items with good NSN's recorded in the NSNMDR. When the "G" override is applied, CCSS processing will post the PWD to the MAD file, but no further computer processing will be generated to accomplish automated accounting and customer billing. (Reference Appendix H, Annex 3.)

(2) Category 2 item orders cannot process through the CCSS because the items have not been loaded to the data base (NSNMDR), and these orders are, therefore, processed off-line.

(3) Category 3 item order processing includes the following:

(a) Customer Peculiar Items utilized by one Service only (i.e., Navy, Air Force, etc.), and that Service normally recorded as the PICA. This means that ARRCOM cannot load the item to its NSNMDR. Although another Service is recorded as the PICA, if a MIPR from that Service is issued to this command, we procure and supply the item through off-line procedures. The Demand/Shipping Directive cannot be processed through the CCSS.

(b) Items managed by another agency (DLA, GSA, etc.) which should never be procured for resale by this agency; however, such demands are honored but will not process through the CCSS. In fact, if the demand is entered into the CCSS, it is automatically (system internal) passed to the managing agency for supply action.

(4) In the September/October 1977 time frame we had a backlog of approximately 10,000 CCSS demand "AD" rejects. These are items that do not match our NSNMDR. We also had approximately 18,000 Shipment Performance Notice (SPN) documents rejected out of the CCSS MILSCAP/MAD process. Normally these are direct deliveries, to customers, that will not post to our records. This means that the customer has received the items requested, but we cannot bill through the CCSS because the SPN documents will not post. There is no way of identifying in what category they

fall without extensive manual research. These SPN rejects could pertain to orders for Category 1 items for which a "G" override was utilized; Category 2 or 3 items not recorded in the NSNMDR; or items recorded in the NSNMDR without a PN in Sector - Ø3 of the NSNMDR. The SPN rejects were also caused by DRSAR-IL and DRSAR-MM directing procurement (MIPR, POR, SSA and FMS) for known "AD" rejected demands, which required utilization of the "G" override.

2. Inventory Management After Establishment of Defense Ammunition Supply Directorate (DRSAR-DA) NICP, 1 October 1977:

a. After 1 October 1977, the realignment of HQ, ARRCOM in effect results in the establishment of two ARRCOM NICP's, with both NICP's utilizing the same CCSS data base and supporting organizational elements, e.g., Maintenance Directorate, Production Directorate, Procurement Directorate, Comptroller, and Materiel Management Directorate (Cataloging and Distribution Divisions), etc., The Conventional Ammunition (CA) items and packaging materiel (FCS 8140) originally managed by DRSAR-MM (approximately 3,500 items) and the Customer Peculiar Items picked up from the Air Force, Navy, and Marine Corps (approximately 4,000 items) are to be transferred to the new Defense Ammunition Supply Directorate (DRSAR-DA). Items are to be identified as follows:

(1) The DRSAR-DA items are to be identified by a "D" in the first position of the Financial Inventory Account (FIA) Code in the CCSS NSNMDR.

(2) The remaining DRSAR-MM managed items in the NSNMDR (approximately 41,000) continue to be identified by an "M" in the first position of the FIA Code.

b. This will take care of orders for ammunition Customer Peculiar items (Category 3 items) that could not be processed through CCSS prior to assigning the other Service's ammunition items to the DOD Ammunition Single Manager.

c. All other items in all categories remain status quo after the HQ, ARRCOM realignment.

d. Processing Reimbursable Demands After 1 October 1977:

(1) Required changes to the CCSS are now being tested to allow orders for Defense Ammunition Supply Directorate's standard items, recorded in the NSNMDR, to process through CCSS.

(2) With the exception of ammunition Category 3 items (Customer Peculiar items) loaded to the NSNMDR with ARRCOM assigned as the PICA, processing orders for Category 1, 2, and 3 items remains the same. The ammunition Customer Peculiar items loaded to the NSNMDR now become Category 1 items and orders for these items will process through the CCSS.

3. Statement of Current Inventory Management and CCSS Processing Including Implementation of Approved "Delivered-Unbilled" Task Force Recommendations:

a. Approved "Delivered-Unbilled" Task Force Recommendations. The following recommendations, applicable to the condition of current

inventory management as discussed in this paragraph, are extracted from Annex F of the "Delivered-Unbilled" Task Force Report (Reference Appendix H):

(1) "a. It is recommended that all billing for hardware be accomplished through normal CCSS processing. Exceptions to this recommendation must have prior approval and be accomplished in accordance with controls established by DRSAR-CP to insure that subsequent processing of all required CCSS transactions are accomplished."

(2) "b. That ARRCOMR 708-1 be revised to specify the responsibilities/processes for cataloging screening actions, both on-line (standard) provisioning and off-line (nonstandard) provisioning. That procedures be developed which will assure the most expeditious processing of assignment of an MCN."

(3) "d. That all processing of customer orders not identified to an NSN/MCN be suppressed until an NSN/MCN is established for that item and that strict compliance be enforced to insure that all PWD/contract modifications are processed to reflect proper shipping documentation."

(4) "e. That use of "G" override codes and shipments from industrial accounts be discontinued and that current orders reflecting these conditions be cancelled and reissued."

(5) "h. DRSAR-CP complete implementation of the COCP as prescribed by DARCOM and provide a complete control system which maintains visibility into all unbilled shipments."

(6) "n. A training program be developed in accordance with the conclusions in paragraph 4h. (Reference para 5g, Section I, Part II in Appendix H of this study.) That the functional directorates conduct comprehensive training programs to cover those requirements set forth in Appendix 7 of Annex C.(Reference Appendix H of this study.) Further, that such training continue to be conducted on an "as required" basis to assure that personnel are fully cognizant of the CCSS applications as releases are affected."

(7) "o. That all pseudo or fictitious entries be withdrawn by manual processing and validated for re-entry. Further, that the process of making or entering pseudo or fictitious entries to the system cease."

b. The following discussion of current inventory management takes into account the establishment of DRSAR-DA, implementation of the ABC System, and assumed implementation of the above recommendations.

c. Inventory management of items:

(1) Category 1 standard items recorded in the NSNMDR are split between two directorates:

(a) Defense Ammunition Supply Directorate (DRSAR-DA) now manages approximately 7,500 of the managed items recorded in the NSNMDR. This includes the Ammunition Customer Peculiar items picked up from the other Services.

(b) Materiel Management Directorate (DRSAR-MM) manages the remainder of the command's managed items recorded in the NSNMDR

(approximately 41,000), with the exception of a few items recorded with MCN's by DRSAR-IL.

(c) All "user" items recorded in the NSNMDR remain in status quo.

(2) Category 2 non-standard items:

(a) Orders received for items managed or controlled by DRSAR-OA, DRSAR-MA, DRSAR-PD, or DRSAR-IL will be suppressed until the items are cataloged and entered in the NSNMDR with an MCN or NSN. Whomever enters the item in the NSNMDR is cited in the data base as the total inventory manager of the item. The "official" inventory manager is required to perform all six elements of inventory management (reference Appendix D).

(b) DRSAR-PD is in the process of loading all the ammunition industrial components to the NSNMDR. This does not include weapons items in DRSAR-PD, at this time.

(3) Category 3 items:

(a) Ammunition Customer Peculiar items are loaded to the NSNMDR, with this command recorded as the PICA. They then become Category 1 items and orders for these items will process through the CCSS.

(b) All other Customer Peculiar items (items peculiar to another Service only), and items managed by other agencies (DLA, and GSA, etc.) cannot be recorded with this command as the PICA, and therefore should not be procured or produced by this command.

d. Processing of demands for items:

(1) Category 1 item orders are to be processed in accordance with CCSS procedures, and strict compliance is to be enforced to ensure

that all PWD/contract modifications are processed to reflect proper shipping documentation. Procurement "G" override code and shipment from industrial accounts is to be discontinued.

(2) Category 2 item orders (POR, MIPR, FMS or SSA) for items not properly cataloged and recorded in the NSNMDR are to be suspended until items are properly recorded in the NSNMDR with an MCN or NSN, and then processed as stated in paragraph 3d(1) above.

(3) Category 3 item orders could continue to, but should not, be processed by this command.

CHAPTER 3

ANALYSIS OF CURRENT INVENTORY MANAGEMENT - "STATUS QUO"

1. Description of Current Inventory Management.

a. The current inventory management is decentralized and performed in six different directorates under five different methods of inventory management or partial inventory management and control.

b. Current inventory management includes the 1 October 1977 establishment of the Defense Ammunition Supply Directorate (DRSAR-DA). DRSAR-DA assumed the inventory management of conventional ammunition and related packaging materiel previously managed by DRSAR-MM, and a number of Customer Peculiar ammunition items previously managed by other Services, i.e., Navy, Air Force, and Marine Corps. DRSAR-MM continues to manage all previously managed items with the exception of conventional ammunition and ammunition packaging materiel. Full implementation of the approved recommendations of the "Delivered-Unbilled" Task Force is assumed.

c. It should be noted that at the time this task force was organized to study centralized versus decentralized inventory management, DRSAR-DA was being established, which in effect further decentralized inventory management within HQ, ARRCOM.

2. Discussion of the Current Inventory Management.

a. Organization and Mission:

(1) Defense Ammunition Supply Directorate, DRSAR-DA.

(a) To direct the management, operation and maintenance of the defense inventory (NICP) of all assigned conventional ammunition to include:

1. Defense ammunition requirements aggregation and procurement direction to satisfy all military service requirements.

2. Defense ammunition management including management of the receipt, storage, and issue processes.

3. Depot maintenance/renovation direction.

4. Demilitarization and disposal direction.

(b) To direct execution of the following logistical missions pertinent to Army ammunition retail inventory, including:

1. Cataloging direction.

2. Requirements computation to include participation in the planning, programming, and budgeting to support Army requirements.

(c) To direct aggregated defense ammunition procurement.

(d) To direct aggregated defense ammunition renovation.

(e) To operate the World-Wide Ammunition Requirements and Asset Reporting System.

(2) Materiel Management Directorate, DRSAR-MM. To direct all integrated materiel and financial inventory (NICP) management activities for assigned major and secondary items. Direct the Command Readiness Program and provide integrated logistics planning and support during the operational phase through disposal and item phase-out. Provide this materiel support to the Army, other DOD activities and International Logistics Program customers and other customers for assigned items. Manage a world-wide center for DOD weapons registry.

(3) Maintenance Directorate, DRSAR-MA. To manage the ARRCOM maintenance program (National Maintenance Point) and insure the effective combat readiness of field forces. Manage demilitarization activities (with related environmental protection control), Test Measurement and Diagnostic Equipment (TMDE), and Ammunition Peculiar Equipment (APE) including inventory management of APE.

(4) Product Assurance Directorate, DRSAR-QA. To plan, direct, and exercise staff supervision over the world-wide logistics life cycle product assurance program as it pertains to reliability, maintainability, quality engineering in support of production, storage and maintenance quality control, stockpile reliability, product assurance testing, calibration and metrology and systems performance assessment. DRSAR-QA manages (inventory management) the Final Acceptance Test Equipment (FATE) utilized to perform their mission, even though this function is not stated in ARRCOMR 10-1.

(5) International Logistics Directorate, DRSAR-IL. To direct and control the ARRCOM International Logistics (IL) Program world-wide with a variety of ARRCOM managed materiel for Foreign Military Sales (FMS), Grant Aid programs, Civilian Aid programs, Co-Production arrangements, Co-Operative Logistics programs, and loans under the America, Britain, Canada, Australia (ABCA) Materiel, Research and Development Program. Ensure the integrated management of the World-wide Military Assistance Program (MAP)/(Grant Aid) assets and stockpile of such materiel. Act as the ARRCOM focal point for support of the IL Programs and related activities, including major items MAP excess

(MIMEX) offers and programs. In addition, DRSAR-IL is recorded as inventory manager of approximately 300 items even though this function is not stated in the ARRCOMR 10-1.

(6) Production Directorate, DRSAR-PD. To direct, control, and manage all production, APA appropriations and direct fund cited programs; Defense Materials Systems, and Cost and Economic Information Systems for ARRCOM, to include the Single Manager conventional ammunition production mission as defined in DOD Directive 5160.65. Maintain interface with ARRADCOM on all assigned programs. Exercise administrative supervision over value engineering programs. In addition, DRSAR-PDM is recorded as inventory manager of approximately 1000 items even through this function is not stated in ARRCOMR 10-1. These items are industrial components, but not normally field issuable.

b. Item Control:

(1) The standard field issuable type items managed by DRSAR-DA and DRSAR-MM are loaded in the NSNMDR and included in the approved CCSS accountable record and audit trail. The items managed by the other directorates (including those managed by DRSAR-PDM) were not normally considered field issuable type items. They were considered mission type or industrial "tools of the trade" type items, until we started supplying some of the items to customers through MIPR's, MAP, and/or FMS. A portion of the ammunition industrial components are now loaded to the NSNMDR (through the ABC system with DRSAR-PDM as manager), but available stock quantities are not contained therein.

Accountability of these stocks is maintained by GOCO contractors and GOGO's, and reported to PDM by a non-CCSS system.

(2) DRSAR-DA has full inventory management responsibility (reference Appendix D) of all standard conventional ammunition end items. This includes related packaging materiel, and ammunition components if the component is field issuable and an end item within itself (e.g., fuzes). All DRSAR-DA managed items (approximately 7600) are loaded to the NSNMDR, and controlled and processed through the CCSS. DRSAR-DA items include customer peculiar ammunition items managed by the Navy, Air Force, and Marine Corps prior to organizing the DOD Ammunition Single Manger. All the items managed by DRSAR-DA are standard field issuable items.

(3) DRSAR-MM has full inventory management responsibility (reference Appendix D) for weapons, weapon components, and all other items managed by DRSAR-MM prior to the establishment of DRSAR-DA, i.e., excluding conventional ammunition items, components, and related materiel. All ARRCOM assigned (PICA) items managed by DRSAR-MM are loaded to the NSNMDR and can process through the CCSS. However, some previously ARRCOM managed items, e.g., M14 Rifle, pistols, 50 caliber machine guns, etc., (customer peculiar weapons) are being procured and supplied by this command. These items have the using service recorded as the PICA. This precludes ARRCOM from loading these items in the NSNMDR and processing via CCSS. In accordance with AR 708-1 only the PICA can procure an item; but DRSAR-MM (MIPR Branch) and DRSAR-IL continue to direct procurement actions on these items. This necessitates

utilization of the "G" override and off-line (manual) processing. This situation should be resolved if ARRCOM is to continue supplying these customer peculiar items.

(4) DRSAR-MA has the inventory management responsibility for Ammunition Peculiar Equipment (APE) items. Approximately 99% of the APE items are utilized in the depots for ammunition surveillance, renovation and demilitarization. ARRCOM is now supplying some of these items through Foreign Military Sales (FMS), Military Assistance Program (MAP) and Military Interdepartmental Purchase Request (MIPR) requirements. These items are neither assigned an MCN/NSN nor loaded to the NSNMDR. The items have an in-house control number and the accountability is an in-house manual system. With the implementation of the approved recommendations of the "Delivered-Unbilled" Task Force, and on receipt of a demand, the items will be assigned an MCN/NSN if it has not been previously loaded to the NSNMDR. When the item is loaded to the NSNMDR, DRSAR-MA will be recorded as the item manager (Inventory Manager). This will allow the demand to process through the CCSS and bill the customer. If DRSAR-MA items are loaded to the NSNMDR, the CCSS would provide an accountable record and audit trail. After an item has been loaded to the NSNMDR, items to satisfy a demand will have to be transferred from the DRSAR-MA record to the CCSS accountable record. After the items have been posted to the CCSS record, DRSAR-MA is responsible for supplying the customer from the CCSS account. This will require training DRSAR-MA inventory managers in both inventory management and the CCSS.

(5) DRSAR-QA has inventory management responsibility for FATE. This includes both gages and test equipment for industrial and proving ground testing. These items have not been assigned an MCN or NSN, or loaded in the NSNMDR. The items are controlled by Part Number (PN) or Drawing Number (DN). The accountability is further decentralized by appointing an Accountable Property Officer at each storage location. DRSAR-QA has only supervisory accountability over the items. With the implementation of the approved recommendations of the "Delivered-Unbilled" Task Force, and on receipt of a demand, DRSAR-QA will load the items to the NSNMDR in the same manner as DRSAR-MA. This will necessitate training DRSAR-QA inventory managers in both inventory management and CCSS.

(6) Although DRSAR-IL is not intended to perform inventory management they are, in fact, recorded as the inventory manager for approximately 300 items involving procurements to satisfy FMS requirements. If the DRSAR-IL case managers can find assigned inventory managers for IL requirements within DRSAR-DA, DRSAR-MM, DRSAR-PD, DRSAR-MA, or DRSAR-QA, the requirements are placed on those inventory managers for processing. However, there are instances in which DRSAR-IL receives and honors IL requirements for items in classes assigned to ARRCOM which are not in the NSNMDR, i.e., obsolete items, or items assigned to another agency (DLA/GSA, etc.). In some instances, DRSAR-IL enters the requirement into the CCSS utilizing a pseudo MCN and the "G" override. (More than one pseudo MCN has been assigned to the same item under different demands.) In other instances, the requirement is processed completely off-line.

(7) DRSAR-PD procedures are as follows:

(a) DRSAR-PDM production managers have inventory management responsibilities for ammunition industrial component stocks for both production and issue for FMS, MIPR's, POR's, etc. This includes industrial component items ARRCOM acquired from the Navy, Air Force, and Marine Corps. The ammunition industrial components and ammunition customer peculiar items have been causing problems because they were not loaded in the NSNMDR data base. DRSAR-PDM is now in the process (approximately 1,000 now loaded) of loading these items to the Provisioning Master Data Record (PMDR) and the NSNMDR. At present DRSAR-PDM utilizes the stand-alone 603 application to make and compute the provisioning breakout. When the items are loaded to the NSNMDR, the DRSAR-PDM production managers will be recorded as the inventory managers and thus required to perform all six elements of inventory management. Stocks to supply customer demand will either be transferred from industrial stocks, shipped from stocks on hand, or procured for direct delivery to the customer. In each case record processing will be through the NICP, utilizing CCSS. The recorded inventory manager will perform all CCSS required actions to supply the customer. This will require inventory management and CCSS training for the production managers in DRSAR-PDM.

(b) DRSAR-PDA, DRSAR-PDS, and DRSAR-PDV production managers have a different situation because they normally do not sell industrial stocks.

Therefore, they do not perform the duties of an inventory manager. The basic problems in this area are:

1. Utilization of the "G" override on items that are recorded in the CCSS, NSNMDR data base. This circumvents the CCSS processing and billing.

2. Accepting procurement directives and/or generating procurement directives on items for which another Service is recorded as the PICA. We are forbidden by regulation (AR 708-1 and AMCR 700-99) to buy items for which this command is not recorded as PICA; nor can we load the item in the NSNMDR data base.

3. Accepting orders for and procuring obsolete items not recorded in the NSNMDR data base.

4. Accepting orders for and procuring new items or unique items, e.g., white holsters, prior to getting the items recorded in the NSNMDR data base.

5. Accepting orders for and procuring items which are managed by another agency, e.g., DLA/GSA, recorded as the PICA.

(8) Not all of the ARRCOM issuable and/or salable items are managed by this command's NICP's, nor are they in the CCSS data base. In fact, ARRCOM does not have a consolidated listing or data base of all the items managed by this command. Approximately 9,000 items are managed (inventory management) by four different directorates outside of the NICP's. AR 710-1 states that each item of materiel required for either military or industrial use, regardless of the manner of acquisition,

will be assigned to but one commodity manager. It further states that the elements of integrated materiel management (cataloging direction, requirements computation, procurement direction, distribution management, maintenance direction, and materiel utilization directions) pertaining to the control of an item, category, or group of items will be established as a single integrated operation and that integrated operation will be identified as the NICP for the designated items. ARRCOM materiel management is not consistent with the requirements of AR 710-1 in this regard. This command has segregated the military from the industrial materiels and only has military materiel in the NICP's. The industrial and/or mission support materiels, e.g., FATE, APE, and some ammunition industrial components, are managed by three different directorates; but not all elements of integrated materiel management are being utilized. Materiel management has also been further decentralized by allowing DRSAR-IL to load items to NSNMDR and record DRSAR-IL case managers as the item inventory manager. Very few of the industrial and/or mission support items have been assigned an MCN or NSN and loaded to the NSNMDR. Normally this would not affect a command (NICP); but we have entered into the business of selling our mission support and/or industrial materiels through FMS and MIPR. Because most of these items have not been loaded to the data base, there is no way we can completely process and bill sales of these items through the CCSS.

(9) Our immediate control problem is in delivered-unbilled issues

of conventional ammunition and related industrial components, Customer Peculiar weapons, FATE, and APE. This control problem includes billing through both the CCSS and off-line. In most cases the unbilled items are those items not managed (inventory management) by the original NICP (DRSAR-MM) prior to the 1 October 1977 reorganization.

(a) Conventional ammunition and ammunition industrial component problems were normally caused by Customer Peculiar items that could not be loaded to the NSNMDR, and industrial components that could have been but were not loaded to the NSNMDR. Under the new Single Manager organization (DRSAR-DA) the ammunition Customer Peculiar items have been loaded to the NSNMDR. The ammunition industrial components that we sell are loaded or in the process of being loaded to the NSNMDR by DRSAR-PDM, recording DRSAR-DA as the NICP but DRSAR-PDM as the inventory manager.

(b) Weapons problems were normally related to Customer Peculiar items. This problem has not been resolved and at the present time Customer Peculiar items cannot be legally loaded to the CCSS, NSNMDR. These items can only be procured utilizing the "G" override, which circumvents CCSS processing and billing. These are items that we do not use, but normally belong to a family of weapons we manage. In most cases the Service using the weapon is recorded as the PICA in the DLSC file.

(c) FATE and APE items are not loaded to the CCSS NSNMDR, with few exceptions. These are mission support or industrial type

equipment or components not normally sold. However, when we entered the business of selling ammunition industrial components/material, ammunition and weapons, we became involved in the FATE and APE sales business. The directorates managing these items have the responsibility for cataloging these items and loading them to the CCSS NSNMDR prior to processing any sales (FMS/MIPR) of the items. The training of personnel in the procedures for loading these items to the NSNMDR has not been accomplished thus far.

(d) Another major factor in current processing of procurement actions is the utilization of the "G" override:

1. Personnel processing MIPR's, and DRSAR-IL case managers, continue to direct procurement for items not in the NSNMDR and items managed by other agencies. This requires DRSAR-PD to utilize the "G" override. Procurement direction for these items should not be placed on DRSAR-PD in the first place, and in the second place DRSAR-PD should not accept procurement directions on items not recorded in the NSNMDR.

2. Another factor in the "G" override is that DRSAR-PD also utilizes it on items that are recorded in the NSNMDR. This by-passes the system and prevents customer billing through the CCSS.

c. Items and Personnel (Inventory Managers), by Organization:

(1) DRSAR-DA:

(a) Manages conventional ammunition and related packaging materiel.

(b) Manages approximately 7,600 items.

(c) Has approximately 82 Inventory Management Specialists.

(2) DRSAR-IL:

(a) Is recorded in the NSNMDR as the inventory manager of various type items; but they are not assigned to individual inventory managers.

(b) Is recorded as inventory manager for approximately 300 items.

(c) Does not have any assigned Inventory Management Specialists. Their personnel are Country/Case Managers.

(3) DRSAR-MA:

(a) Manages APE.

(b) Is the inventory manager for approximately 600 APE end items and 6,000 repair parts.

(c) Has one Inventory Management Specialist assigned.

(4) DRSAR-MM:

(a) Manages all ARRCOM assigned items recorded in the NSNMDR with the exception of the 7,600 conventional ammunition items and related packaging materiel managed by DRSAR-DA and the 300 items managed by DRSAR-IL.

(b) Is recorded as inventory manager for approximately 43,000 items.

(c) Has approximately 143 Inventory Management Specialists assigned.

(5) DRSAR-PD:

(a) Is the inventory manager for conventional ammunition industrial components, explosives, and related materials, if they are not an end item within themselves.

(b) Is recorded as the inventory manager for approximately 1,000 items.

(c) Does not have any assigned Inventory Management Specialists. Their personnel are Production Managers.

(6) DRSAR-QA:

(a) Manages FATE.

(b) Manages approximately 5,160 items.

(c) Has two Inventory Management Specialists assigned.

d. Summary of Discussion. Status quo, including implementation of the approved recommendations of the "delivered-unbilled" task force, assumes the following:

(1) Decentralization of the physical location of inventory managers in DRSAR-MM, DRSAR-DA, DRSAR-QA, DRSAR-MA, and DRSAR-PD.

(2) Centralization, or standardization, of procedures for processing all orders through the CCSS. Provision is made for utilization of the "G" override in particular situations.

(3) Ammunition Customer Peculiar items and ammunition industrial component items will be processed through the CCSS.

(4) Sales and/or issues of items not recorded in the NSNMDR will not be processed until the items are properly cataloged and recorded in the NSNMDR, except for those instances when the "G" override is authorized.

(5) Indiscriminate use of the "G" override and shipments from industrial accounts will be discontinued.

(6) Billing of service orders will be accomplished through the HQ, ARRCOM Cost and Fiscal Accounting System.

(7) DRSAR-CP will provide a complete control system to maintain visibility of all reimbursable demands.

(8) All pseudo or fictitious entries in the NSNMDR will be withdrawn and entry of same will cease.

(9) Required personnel will be trained in the CCSS and inventory management.

(10) Standard Military items are loaded in the NSNMDR but only portions of industrial/mission support items will be loaded in the NSNMDR:

(a) The items managed by DRSAR-DA and DRSAR-MM (Standard Military items) are in the NSNMDR.

(b) DRSAR-PDM has loaded or is in the process of loading their items (ammunition industrial components) to the NSNMDR.

(c) DRSAR-MA (APE) and DRSAR-QA (FATE) will load the items they manage only after a demand is received.

(d) DRSAR-IL may continue to load items to the NSNMDR when an inventory manager is not recorded in the NSNMDR or an assigned item manager for the item cannot be found.

(e) This could mean that when DRSAR-IL receives a requirement for an ammunition or weapon FATE item, any of the following situations could take place; the item could be:

1. Managed by DRSAR-MM.

2. Managed by DRSAR-DA.

3. Managed by DRSAR-QA and entered in the NSNMDR, or not entered in the NSNMDR.

4. Managed by DRSAR-MA and entered in the NSNMDR, or not entered in the NSNMDR.

5. Screened through DLSC and found to be a commercial item/managed by another agency.

3. Advantages:

a. No personnel turbulence.

b. Minimal additional training.

c. No organization changes or functional realignments.

d. Minimal changes to methods and procedures.

e. One basic system/set of procedures for processing orders through the CCSS.

f. Controlled utilization of the "G" override on an authorized, exception, basis.

g. Automated control of orders processed (except for orders processed using the "G" override, where billing, etc., is monitored by the COCP).

h. Inventory managers are physically and organizationally located where their prime area of interest and expertise is located, i.e., managers in elements other than DRSAR-MM and DRSAR-DA also perform non-inventory management functions.

4. Disadvantages:

a. Geographic dispersion of inventory managers could present problems regarding coordination and control.

b. Personnel in DRSAR-MA, DRSAR-QA, and DRSAR-PD require training in inventory management and CCSS processing.

c. Methods of accountability and management differ for military, industrial, and mission support items.

d. Not all issuable or potentially issuable items are entered in the NSNMDR.

e. Increased rejects/document control processing and distribution problems due to decentralized location of inventory managers.

5. Summary of Alternative.

a. Consideration of this alternative assumes full implementation of the approved recommendations of the study on delivered-unbilled shipments deficiencies. Current inventory management cannot be completely analyzed until all of these recommendations have been implemented and tested.

b. Control of inventory management is accomplished since orders are funneled through the CCSS. The physical location of item managers is decentralized (i.e., DRSAR-MM/DA/QA/MA/PD). However, one centralized system is used to process demands.

c. Training necessary to provide off-line managers the ability to enter items into the CCSS has not materialized.

d. Status quo must be regarded as a prime candidate for the most appropriate organizational alignment of inventory management at HQ, ARRCOM. Status quo:

(1) Represents the long term evolution of inventory management.

(2) Provides automated control of the majority of inventory management.

(3) Has minimum impact on organizational structure, functional alignment, personnel, costs, policies, etc.

CHAPTER 4

ANALYSIS OF ALTERNATIVES TO CURRENT INVENTORY MANAGEMENT

1. Alternatives Considered. This chapter provides descriptions, discussions, and the advantages and disadvantages of the following alternatives to the status quo:

a. Further decentralization (Alternative A).

b. Further centralization (Alternative B).

(1) Total centralization (B-1).

(2) Partial centralization (B-2).

2. Analysis of Alternative A - Further Decentralization.

a. Description. Further decentralization could take various forms:

(1) The functions of inventory management could be assigned to separate organizational elements; e.g., all requirements computations in one directorate, all distribution direction in another directorate, etc.

(2) Items managed, and associated functions of inventory management, could be further dispersed; e.g., establish new directorates aligned by function or by classes or type of items (such as artillery, small caliber, and armor); establish a new directorate to manage all "nonstandard" items.

(3) Any combination of (1) and (2) above.

b. Discussion. The following points apply regardless of the form further decentralization would take.

(1) The mission statements and organization structures of all affected elements could be significantly changed.

(2) Management control would be lessened; i.e., the wider the responsibility for item management is spread, the more difficult control becomes.

(3) This alternative would require movement of personnel. The degree of personnel turbulence would depend upon the degree and type of decentralization involved.

(4) Procedures and regulations would require revision to describe changed responsibilities and methods of operation.

(5) Uniformity and utilization of standard systems and procedures would tend to decrease, e.g., the more autonomous and fragmented the organization becomes, the greater the tendency for each element of the organization to develop unique and separate procedures geared to its particular mission responsibilities.

(6) Costs are very difficult to calculate. The primary permanent costs would be for additional personnel. Further decentralization, with the attendant duplication of functions, would require additional people by its nature. However, the exact number of additional personnel required cannot be readily estimated.

c. Advantages.

(1) Item management procedures could be customized for each organizational element which has a need for an inventory management service.

(2) Would allow a high degree of specialization in one element of inventory management and/or class of supply.

(3) Individual responsibilities would be more clear-cut and visible.

(4) Internal lines of communication could be shortened and the number of interfaces reduced for those inventories managed primarily as a service to a particular directorate and its mission.

d. Disadvantages.

(1) Number of people required would increase.

(2) Personnel costs would increase.

(3) Overall management control would decrease.

(4) Overall complexity of operation, interfaces, relationships, and channels of communication would increase.

(5) Many functions and responsibilities would be duplicated; e.g., planning and scheduling; collection, analysis, and evaluation of inventory data; inventory management functions; and record keeping.

(6) Uniformity and consistency of management policies and procedures would be diluted as decision making responsibility is spread.

3. Analysis of Alternative B - Further Centralization.

a. Complete Centralization (B-1).

(1) Description.

(a) This alternative would place all inventory managers in a single NICP directorate. This one directorate would perform all inventory management functions for all ARRCOM managed items; i.e., Category 1 items (standard issue/supply items) now managed by DRSAR-MM and DRSAR-DA, Category 2 items (APE and FATE mission support items) now managed by DRSAR-MA and DRSAR-QA, Category 2 items (FMS items) now managed by DRSAR-IL, and Category 2 industrial components now managed by DRSAR-PD as production items but occasionally supplied (MIPR's, FMS, and POR) to customers thru the NICP's.

(b) The basis for this directorate logically would be the present DRSAR-MM organization because this would minimize personnel movement and center on the current largest concentration of inventory management expertise.

(2) Discussion.

(a) All formal inventory management functions now performed in directorates other than DRSAR-MM would be transferred to DRSAR-MM. These functions presently utilize a direct work force of approximately 86 assigned Inventory Mangers (series 2010, 2005, etc). Also, a requirement would exist for approximately two additional Inventory Managers to manage industrial components supplied (MIPR's and FMS) to customers thru the NICP's. (This latter requirement might also be accomplished by assigning additional items to existing Inventory Managers.) The transferred positions would be as follows:

1. Two IM's from DRSAR-MA (APE items).

2. Two IM's from DRSAR-QA (FATE items).

3. 82 IM's from DRSAR-DA (Ammunition and component end items).

4. Two additional IM's required to manage industrial components and material supplied thru the NICP's. These items are normally utilized in production only; but some are supplied thru MIPR's and FMS. In accordance with the approved recommendations of the "Delivered-Unbilled Systems Deficiencies" study, all of these items must be processed and billed thru the CCSS.

5. An appropriate, but unidentified, number of supporting and administrative positions would also be transferred. The receiving

NICP should be able to absorb a portion of these supporting requirements thru consolidations inherent in the centralization.

(b) Some functions similar in nature to those of integrated inventory managers are performed by DRSAR-PD personnel. DRSAR-PD indicated that approximately 28% of the efforts of their 92 Production Managers are in the performance of these functions. This would equate to approximately 26 spaces. However, these positions are not valid for transfer to the centralized NICP. The performance of these functions by DRSAR-PD personnel is integral to their responsibilites and duties as Production Managers, and not separately identifiable as those of an Inventory Management Specialist performing all functions of integrated inventory management related to a field service NICP mission. Furthermore, whereas the NICP Inventory Managers perform materiel management functions for standard field issue/supply items, the DRSAR-PD Production Managers perform the functions in relation to industrial materials and components for production and not normally for issue or supply thru the NICP field service account.

(c) It is noteworthy that for ammunition materials and components, DRSAR-PD personnel now process PWD's through the CCSS for those items entered in the NSNMDR via the ABC system. When this system is perfected for ammunition items, it will be expanded to include weapons and other DRSAR-PD items. This should materially reduce problems of control and follow-up for these items.

(d) Total centralization would consolidate and standardize all material management responsibility, practices and inventory record keeping systems for field service account items.

(3) Advantages.

(a) Inventory management functions and accountability would be in one NICP where the expertise would exist.

(b) Management responsibility would be focused in one organization.

(c) All records and procedures for managing items would be standardized and uniformly administered.

(d) Complete centralization would provide maximum and efficient control of inventory management systems through increased utilization of ADP.

(e) Status reports on all items (standard, nonstandard, and off-line) could be obtained more rapidly.

(f) Procurement and production actions might be reduced thru consolidation, control and elimination of order duplications or fragmentations.

(g) Duplication of inventory management functions would be reduced and training of Inventory Managers more efficiently administered.

(h) Training for implementation of off-line procedures and CCSS utilization could be more efficiently administered.

(i) A central organization could more effectively acquire a working knowledge of the CCSS system and, thus, would better know which items should be processed through it and which should be handled off-line.

(j) Reduction of inter-directorate coordination required.

(4) Disadvantages.

(a) Complete centralization would be in conflict with approved directives from higher headquarters, to perform as Single Manager for all services in certain classes of conventional ammunition. This is in addition to performing as NICP for all Army conventional ammunition.

(b) Single Manager customer requirements (other than Army) are processed differently than Army demands thru the CCSS, e.g., Referral Orders (A4_) versus Demands (AO_). To convert to centralized inventory management would require even greater changes and bridging to the CCSS than we have just completed to decentralize conventional ammunition from other commodities of the command.

(c) Complete centralization would require a major reorganization and changes in procedures, regulations, and mission statements for the directorates involved.

(d) Movement of DRSAR-MM and DRSAR-DA functions, items, and personnel is not desirable for many obvious reasons; e.g., a large number of people are involved, DRSAR-MM and DRSAR-DA manage standard items (thru CCSS) which are not a problem, DRSAR-MM is the formal NICP proponent at HQ, ARRCOM, and DRSAR-MM and DRSAR-DA are already established as the principal organizations for formal centralized inventory management of standard items.

(e) Transfer of DRSAR-PD functions, items, and personnel is also not desirable. DRSAR-PD normally manages raw material and components during production as opposed to standard end items of supply or issue. DRSAR-PD has approximately 90 production managers who devote only about

30% of their efforts of inventory management related functions. The principal concern (70% of effort) of these production managers is to supply raw materials and components for production of end items, not supply or resupply of items to the field. That is, any supply or resupply functions performed by the DRSAR-PD production managers, albiet integral to their overall responsibilities, is incidental or secondary to their primary areas of responsibility. Thus, transfer of a portion of these personnel and functions would be to enhance the performance of a secondary responsibility to the detriment of the primary missions of DRSAR-PD.

(f) The complete reorganization would require extensive further study and the development of a highly definitized implementation plan.

(g) Full implementation could require up to a year subsequent to approved implementation plan.

(h) Personnel turmoil would be high.

(i) Tends to increase management "layering".

(j) Significant costs would develop if a new directorate were formed:

a. Cost to conduct a definitized study and implementation plan.

b. Physically setting up a new directorate. (Facilities costs,etc.)

c. Transferring personnel.

b. Partial Centralization (B-2)

(1) Description.

(a) Partial centralization (consolidations) could involve any combination or merger of inventory management functions of DRSAR-MA, DRSAR-DA, DRSAR-QA (FATE), DRSAR-MA (APE), and DRSAR-PD (industrial components supplied to customers, through the NICP's).

(b) DRSAR-IL is not considered as a merger candidate since it does not perform inventory management functions, but seeks to locate, in other directorates, inventory managers for IL case items.

(c) Although the inventory management of FATE and APE items could be consolidated by locating both within DRSAR-MA (or DRSAR-QA), such a merger would provide little or no improvement and is not considered as a viable option.

(d) It would also be possible to consolidate the DRSAR-MA (APE) and DRSAR-QA (FATE) inventory management into DRSAR-PD. Although this would serve to consolidate all non-standard item inventory management in a single organization, DRSAR-PD is neither trained nor oriented to effectively absorb this added responsibility. The inventory management functions performed in DRSAR-PD are intertwined with production management responsibilities, and their personnel are not oriented toward supply/resupply type inventory management. Although feasible, this option offers little or no overall improvement and is not considered viable.

(e) The most viable combination, therefore, would be to consolidate into the NICP's the inventory management functions of DRSAR-QA and DRSAR-MA, and provide for NICP management of those

DRSAR-PD Industrial Components supplied to customer's thru the NICP's. This would be accomplished as follows:

1. Transfer DRSAR-MA (APE) items and personnel to DRSAR-DA.

2. Transfer DRSAR-QA (FATE) items and personnel to DRSAR-DA or DRSAR-MM depending on for what the FATE items are utilized (weapons or ammunition).

3. Assign the inventory management function for DRSAR-PD industrial components supplied to customers thru the NICP's by one of the following ways:

a. Assign a minimum number of personnel (1 for DRSA-DA and 1 for DRSAR-MM) to perform inventory management functions for those stocks now normally referred to as industrial components, but occasionally supplied through MIPR's, FMS or POR through the NICP's.

b. Assign inventory management functions for these items to existing inventory managers by end item or class of supply.

(2) Discussion.

(a) Although partial centralization as described above is a logical alternative, and would bring the command more in line with regulatory requirements for inventory management (of assigned supply commodities), it is not necessarily the preferred near-term solution/alternative. The following considerations must be weighed in the analysis of this alternative:

1. DRSAR-DA and DRSAR-MM (standard supply items): The commodities inventories managed by DRSAR-DA and DRSAR-MM represent the bulk of the supply items and are already managed within the NICP's, within regulatory requirements, and utilizing standard procedure and CCSS

processing. Generally, they have not been a problem.

2. DRSAR-QA (FATE items):

a. These items qualify for integrated inventory management by the NICP's, because they are items assigned as a commodity to this Command. Although it is not necessary that these items be assigned an NSN within the DLCS unless the items enter the DOD Supply System, they could have been assigned an MCN and inventory managed within the NICP under an accountable supply system. If these items had been assigned an MCN and added to the CCSS (NSNMDR) data base, the CCSS would have provided the necessary accountable system. At present we do not have centralized inventory management or accountability of these items, although it is required by AR 710-1 and DARCOMR 10-1.

b. To correct this situation and bring these items under centralized inventory management would require considerable time and effort. The inventory managers would require training in inventory management and the CCSS. All of the items would have to be assigned an MCN and recorded in the NSNMDR; along with proper storage facilities and accounts being established.

3. DRSAR-MA (APE items):

a. The transition would basically be the same for DRSAR-MA items as for DRSAR-QA above; but it would be somewhat more difficult because most of these APE items have been published in TM's and supply bulletins and distributed to the field, utilizing in-house assigned control numbers. Conversion to MCN/NSN would be a significant task, and would impact organizations outside this Command.

4. DRSAR-PD (industrial components and materiels):

a. Formal (NICP) integrated inventory management of these production components and materials is not necessary unless the items are supplied to customers through the field service account, in which case they should be picked up by the NICP as an accountable item. This may happen as a result of a customer demand (FMS, MIPR, etc.) for the item, a requirement for the item for maintenance purposes, or if the item is an end item in itself. Under the above criteria, the bulk of the industrial components and materials for production do not qualify as logistical supply demands and are not picked up on the NICP accountable records.

b. DRSAR-PD is in the process (ABC) of loading all production industrial components into the NSNMDR with an MCN/NSN to provide unity and uniformity of stock numbers and to permit automated generation and processing of PWD's through the CCSS. DRSAR-PD will continue to provide production management for all industrial components utilized through the production cycle.

(3) Advantages.

(a) Formal Inventory Management for all issuable/supply items would be located in the NICP organizations, which are best equipped to effectively perform inventory management.

(b) This would centralize inventory management at the NICP's of the commodity command, as required by AR 710-1.

(c) Duplication of inventory management functions would be reduced from that of status quo.

(d) This alternative would create minimal personnel turbulence; i.e.,

does not involve many people.

(e) It would provide an efficient and complete integrated inventory management system controlled and managed thru the CCSS.

(f) It would place all "reimbursables" in the CCSS with formal controls to assure proper billing, etc.

(g) It would reduce the requirement for, and cost of, CCSS training from that of status quo.

(h) Standardization of procedures would be increased.

(i) Uniformity of management, policies and control would be increased.

(4) Disadvantages.

(a) The physical separation of the inventory management functions from DRSAR-MA and/or DRSAR-QA may degrade the performance of their primary responsibilities because their inventory managers normally interface very closely with the maintenance and quality assurance people performing other duties.

(b) Some DRSAR-QA items would be inventory managed by DRSAR-DA (ammunition oriented) and others by DRSAR-MM (weapons oriented), with attendant complexity of interfaces/coordination.

(c) Cost of implementation would be higher than for status quo because the NICP's are not organized to effectively manage non-standard items. Effective management of FATE and APE items in the NICP's would require their "standardization" and the cataloging of approximately 6800 items, with attendant programming and/or system changes.

(d) Time required to properly train personnel.

(e) Time required to assign MCN's and load the items to the NSNMDR with accountable records.

(f) Reduces specialization and item/functional expertise.

CHAPTER 5

COMPARATIVE ANALYSIS

1. Centralized vs Decentralized

a. Organizational centralization, in the pure sense, is the location of all functions in a single element with a single, vertical line of authority, direction and control. It is rarely applied and generally impractical. Any deviation must be considered to be some form of decentralization, although it may be closer to centralization than it is to total decentralization. Total decentralization is equally rare and impractical.

b. Organizational decentralization can occur in varying degrees and in several different contexts:

(1) Large organizations may require decentralization merely for the sake of dividing the organization into manageable parts or divisions; e.g., most large corporations are organized into major divisions. Each division can function independently of the others since all services and functional specialties are duplicated in each division. This type of decentralization allows for management authority and responsibility to be delegated to lower levels and, thus, shorten lines of communications and help eliminate bottlenecks. However, if an organization has too many divisions, management control will be degraded, and inefficiency results because of duplication of effort, etc.. When carried to either extreme of centralization or decentralization, the disadvantages outweigh the advantages; therefore, there is an optimum number of major divisions for any given organization. This optimum point depends upon the size and function of the organization.

(2) Organizations may be decentralized to provide physical dispersion of facilities and/or services into different geographical or functional areas. Decentralization through dispersion of facilities and/or personnel may provide the same advantages and disadvantages discussed in 1b(1) above. Additionally, this type of decentralization can shorten supply and/or communication lines to the customers.

(3) Organizational decentralization may divide the organization into functional elements. This type of decentralization provides the same advantages and disadvantages discussed in paragraph 1b(1) above. Additionally, since all like functions would be performed in one element, division or directorate, a high degree of specialization can develop in the functional areas or in the expertise related to items/products.

c. A "mix" or combination of centralization and decentralization is conceded to be the most practical and generally preferred alignment.

2. HQ, ARRCOM Organization

a. Current inventory management of all items normally refered to as standard items is decentralized, and is performed in two separate NICP's, DRSAR-DA (Conventional Ammunition) and DRSAR-MM (Weapons). This decentralization, which is a deviation from required centralized integrated inventory management (AR-710-1), was authorized by The Department of The Army. Basically this was required because the Commodity Command was directed by DOD to provide Single Management for most classes of conventional ammunition, for all armed services (e.g. Army, Air Force, Navy, and Marine Corp). This requires a different type of inventory management than Centralized Integrated Inventory Management directed by AR710-1 for the Commodity Commands. Inventory Management of DRSAR-MA (APE) and

DRSAR-QA (FATE) items, normally referred to as non-standard items (yet they are procured, stocked, stored and issued), is not only decentralized but is manually managed outside of the NICP's and CCSS. This was authorized by ARMCOM Supplement 1, dated 16 October 1975, to AMC Regulation 702-2, dated 27 May 1966, Subject: Quality Assurance Inspection equipment Design, Supply, and Maintenance. This is in direct conflict with AR 710-1, dated 29 August 1975, Subject: Centralized Inventory Management of The Army Supply System. Also, it was a command decision that DRSAR-PD will inventory manage industrial components that are not end-items within themselves and/or already inventory managed by the NICP's. DRSAR-PD is now in the process of loading these items to the PMDR and the NSNMDR.

b. The command also has a unique situation in supplying industrial components through the field service account (NICP's). These items are production managed and controlled by DRSAR-PD. They have also been recorded in the NSNMDR for production purposes, but production assets will not be recorded data in Sectors 5, 6 or 8. If the NICP's receive a demand (MIPR, FMS or POR) for industrial components, DRSAR-PD will provide the necessary documentation to transfer the stock into the NICP account, and process the customer demand through the CCSS. If the industrial component is not recorded in the NSNMDR, and the command elects to supply the items, DRSAR-PD will add the items to the NSNMDR and process as above.

c. The organization of HQ, ARRCOM for item management is basically decentralized through all the types of decentralization discussed in paragraph 1 above:

(1) The formation of two NICP's, one for ammunition and one for weapons and secondary items, is the type of decentralization discussed in

paragraph 1b(1) above. This deviation, i.e., establishing two NICP's in one Commodity Command, was approved by the Department of the Army.

(2) The physical dispersion of item managers into DRSAR-MA and DRSAR-QA is the type of decentralization discussed in paragraph 1b(2) above.

(3) The basic structure of the headquarters is the type of functional decentralization discussed in paragraph 1b(3) above.

3. Attribute Analysis

a. An attribute analysis was performed to compare the present HQ, ARRCOM organization for inventory management and the alternatives discussed in Chapter 4. The results of this analysis are summarized below.

Alternative	Weighted Score
Status Quo	+24
A. Further Decentralization	-28
B-1. Complete Centralization	+18
B-2. Partial Centralization	+23

b. An attribute analysis is highly subjective and especially so if an attempt is made to quantify the analysis in seeking to rate or comparatively rank the alternatives. The attributes and performance factors utilized, the weighting given to each, and the rating of the alternatives against these attributes are all subject to personal interpretations. So much so, in fact, that individual interpretations could not only alter, but indeed completely reverse the comparative rankings and results of the analysis. The attribute analysis performed in this study represents the consensus of the Primary Working Group. The full listing of attributes and rating value are provided in Appendix G.

c. Though an attribute analysis is only appropriate as an indicator of relative strength of alternatives and not as the prime or singular basis for a decision, results of the analysis strongly suggest that:

(1) Further decentralization has such a low score that further consideration of the alternative is unwarranted.

(2) Partial centralization and total centralization have very similar advantages/disadvantages and strengths/weaknesses. However, the relative strengths or weaknesses of the advantages and disadvantages depend upon the degree of centralization and upon the size, type, and mission of the organization. In this regard the analysis indicates that partial centralization is significantly preferrable to total centralization.

(3) Status quo is the most desirable alternative, with partial centralization being nearly as desirable as status quo.

4. Rationale

a. Tables 1 through 4 at the end of this chapter provide a summary of the major conditions, advantages, and disadvantages, of status quo and each of the alternatives as discussed in Chapters 3 and 4.

b. Status quo after total implementation (of SM, COCP, the ABC System, and of the recommendations of the "Delivered-Unbilled" Task Force) would provide us with approximately 95% of customer demand fill-and-bill through CCSS. Although we could fill demands and bill through the CCSS, status quo would not provide total integrated centralized inventory management or a centralized data base of all assigned commodities. Status quo was obviously the most expeditious means of generating customer billing through the CCSS without affecting the existing organizational structure, and/or resolving the disagreement and interpretations of the regulatory

requirements of Centralized Integrated Inventory Management. Although current inventory management of all standard supply items is decentralized (in DRSAR-MM and DRSAR-DA), the organizational alignment allows for a high degree of inventory management specialization in these functional areas. Inventory management of non-standard items is decentralized in other directorates. However, these items are generally peculiar to a particular organization or function and are not normally issued through the standard supply system. Instead, these items (APE, FATE, and industrial items and components of production) are managed on an internal basis by the directorate to which the items are peculiar. That is, inventory management in DRSAR-PD, DRSAR-MA, and DRSAR-QA is primarily an interdivisional service within these directorates and, in the case of DRSAR-PD, not a separately identifiable function which could be easily separated out. Inventory management in DRSAR-QA and MA is a distinct function, however. Having inventory management internal to these directorates (DRSAR-PD, QA and MA) keeps lines of communication between the inventory managers and other personnel in the directorates as short as possible. External demands or interfaces with these inventory managers is the exception rather than the rule.

c. Increased decentralization is not considered to be a reasonable alternative because this would cause unnecessary duplications and increase overall complexity of operations, interfaces, and lines of communications. Also, decentralization of responsibility for item management was cited as a possible root problem addressed by the study on Delivered-Unbilled Shipment Deficiencies. Thus, to advocate further decentralization is akin to advocating exacerbation of a basic problem, and further deviation

of regulatory requirements (AR 710-1).

d. Total centralization would cause numerous conflicting problems in operating a Commodity Command NICP under Centralized Integrated Inventory Management as directed by AR 710-1, and operating the Conventional Ammunition Single Manager (NICP) Concept as directed by DOD Directive 5160.65.

Total centralization is not practical due to the difference in Centralized Inventory Management under the Commodity Command concept and the Conventional Ammunition Single Manager DOD concept.

The disadvantages of total centralization (see Chapter 4) outweigh the advantages, and the alternative is not preferred.

e. Partial centralization as described in paragraph 3b (1) (e) Chapter 4 would provide centralized inventory management in accordance with AR 710-1 and approved deviations, while providing a standard centralized accountable system that would provide the command with a tool to view all materials to perform the command's mission. However, this would be difficult to achieve in the near term time frame, because we do not now have a centralized or total data base of all items assigned to and/or managed by this command.

Partial centralization as described in paragraph 3b of Chapter 4 should provide improved item management of FATE and APE items because this would place inventory management responsibility for these items in the areas with the greatest materiel management expertise. However, there would be some inconvenience in DRSAR-MA and DRSAR-QA because of the physical separation of the inventory management functions from the primary functional responsibilities. Partial centralization has considerable merit and the advantages appear to outweigh the disadvantages. The overall advantage of this alternative would depend upon:

(1) How much improvement in item management of FATE and APE items could be obtained by centralization into the NICP. This in turn would depend upon the efficiency of the standard NICP item management procedures/ systems applied to the items. Simply transferring the functions and/or personnel with no change in current procedures, clearly, would provide little improvement or advantage.

(2) How much DRSAR-MA and DRSAR-QA would be inconvenienced by the physical separation of their inventory managers. This would depend upon how much coordination with the NICP personnel would be required, etc..

(3) How much cost would be involved in entering these low-demand items in the NSNMDR and carrying them in the "inventory".

f. Regardless of the comparative advantages and disadvantages of centralization or decentralization as discussed in this study, consideration must be given to the Department of Army decision that Commodity Commands would organize and manage assigned commodities within an NICP structure and utilizing centralized integrated inventory management (AR 710-1). The following must also be considered:

(1) ARRCOM Supplement 1 (dated 16 October 1975) to DARCOMR 702-2 (dated 27 May 1966), Inspection Equipment Design, Supply and Maintenance; which provides for DRSAR-QA and DRSAR-MA inventory management of FATE and APE items external to the NICP. This appears to conflict with the requirements of AR 710-1 (dated 29 August 1975), Centralized Integrated Inventory Management.

(2) The implementation of DOD Directive 5160.65, Single Manager for Conventional Ammunition, which established DRSAR-DA as a second NICP at HQ, ARRCOM; i.e., separate from the existing DRSAR-MM NICP.

5. Summary

a. The advantages and disadvantages of centralization vs decentralization depend upon the size and function of an organization and how it is to be centralized or decentralized (e.g., by function, by item/product line, by geographic or physical location, by customer served, etc.).

b. Neither extreme, further decentralization nor total centralization, is practical.

c. The present (Status Quo) organizational structure of HQ, ARRCOM provides many advantages over the two extreme alternatives (A and B-1) considered, and apparantly works well the majority of the time. Status quo assumes full implementation of SM, of the COCP and the ABC system, and of the "Delivered-Unbilled" study recommendations; and rates highest for the near term.

d. Partial centralization (alternative B-2) involving FATE, APE, and those industrial components of production which are supplied to customers, would satisfy regulatory requirements (AR 710-1) for Centralized Inventory Management. This alternative compares favorably with status quo, and rates highest as a potential goal for the longer term.

TABLE 1a

Summary of "STATUS QUO" Conditions

- Two NICP's (MM & DA), with items recorded in NSNMDR.
- FATE IM's in QA, with demand items entered in NSNMDR prior to procurement.
- APE IM's in MA, with demand items entered in NSNMDR prior to procurement.
- Industrial components and items in PD, being loaded in NSNMDR by PD. (PM's, not IM's)
- FMS in IL, but no assigned or trained IM's, (CM's, not IM's).
- Non-Standard items processed Off-Line.
- MM/DA/PD (IL?) standard item catalogued through MMC (with forms reviewed by MA).
- Requirements Computation in MM/DA for supply/issue items, but:
  - PD does components breakout (for end item requirments).
  - IL does by case (but MM/DA does for individual line items).
  - QA does for FATE, as required.
  - MA does for APE, as required.
- Procurement Direction by each Directorate as required.
- Maintainance Direction by each Directorate as Required.
- Distribution Direction by each Directorate as Required.
- Utilization/Disposal Direction by each Directorate as Required.
- COCP fully implemented.

TABLE 1b

Summary of "STATUS QUO" Advantages and Disadvantages

ADVANTAGES

- CCSS for bulk of issue items, and standard PD components. (NSNMDR Items)
- Promotes individual item expertise.
- Responsibility keyed to specialization by functional use and items.
- Minimal retraining required in NICP's.
- Minimum personnel turbulence.
- Minimum reorganization.
- Minimum procedural revisions.
- Minimum cost impacts.
- Balance of internal and external lines of communications.

DISADVANTAGES

- IL performing some "IM's" functions.
- PD performing some "IM's" functions.
- Control problems:
  - Internal coordinations.
  - Non-standard accountability.
  - System-reject distribution.
- Training required for CCSS users outside of NICP's.
- Multi off-line procedures.
- Retains some duplication.

TABLE 2a

Summary of "Further Decentralization" Conditions

- Multiple "NICP's"
- Establish Non-Standard Supply Directorate, or several Directorates by type of item.
- Cataloging by each Directorate, as required (or, establish new, separate "Super Cataloging" Directorate).
- Requirements Computation by Directorate which manages the item.
- Procurement Direction by each Directorate as required.
- Maintenance Direction by each Directorate as required.
- Distribution Direction by each Directorate as required.
- Utilization/Disposal Direction by each Directorate as required.

TABLE 2b

Summary of "FURTHER DECENTRALIZATION" Advantages and Disadvantages

ADVANTAGES

- Maximum functional specialization by category of items (micro efficiency).
- Less levels of management.
- Procedures customized to missions.
- Individual responsibilities most identifiable.
- Shortest external lives of communication (with customers).

DISADVANTAGES

- Maximum continuing training requirment.
- Most complex internal communications (within HQ organization).
- Potential increase in duplication (administration & supervision; MCN/NSN item assignments).
- Management control reduced.
- Reduces uniformity of policies.
- Multi off-line procedures.
- Minimum standardization (of procedures, system, etc.).
- Contrary to regulations on integrated commodity management.
- Control problems:
  - Non-standard accountability.
  - System-reject distribution.
- IM functions in many Directorates.
- Minimum automated item control.
- Possible increase in personnel requirments.

TABLE 3a

Summary of "TOTAL CENTRALIZATION" Conditions

- One NICP (Super MM)*
- Consolidate FATE and APE in MM*.
- PD components, w/break-out, to MM*.
- All Requirements Computation, w/break-out, to MM*.
- PD PM's stay in PD, but manage no inventories.
- All Cataloging by MM*.
- All Procurement Direction by MM*.
- All Maintenance Direction by MM*.
- All Distribution Direction by MM*.
- All Utilization/Disposal Direction by MM*.
- Fully implement COCP, as central clearing house for all orders.

TABLE 3b

Summary of "TOTAL CENTRALIZATION" Advantages and Disadvantages

ADVANTAGES

- Maximum utilization of CCSS/ADP
- Consistency of procedures.
- Unity of control/policies.
- Elimination of duplication.
- Maximum cross-fertilization for IM's.
- Shortest internal lines of communications.
- Least overall training required.
- Inproves regulatory compliance for integrated inventory management.

DISADVANTAGES

- Maximum turmoil (personnel).
- Maximum reorganization.
- Maximum cost to implement.
- Maximum retraining (NICP's).
- Contrary to SM concept (with establishment of DRSAR-DA).
- Reduces "specialization" (re:items).
- Magnitude unwieldly, blocks control.
- Management "Layering"/Increase.
- Longest external lines of communication.
- Possible increase in personnel requirments.

Table 4a

Summary of "PARTIAL CENTRALIZATION" Conditions

- Two NICP's (MM and DA)

  Consolidate FATE in MM and DA (items and IM's).

  Consolidate APE in DA (items and IM's).

- Fully implement COCP.
- PD AMMO Components to DA, w/breakout (Requirements Computation), for "demands."
- PD other items to MM, w/breakout (Requirements Determination), for "demands."
- PD PM's stay in PD, continue to manage production components/ materials.
- All Cataloging by MM/DA, in coordination with MA (or, single Cataloging Division in MM to perform all Cataloging for the Command).
- Procurement Direction by MM/DA and PD only.
- Maintenance Direction by MM/DA and PD only.
- Distribution Direction by MM/DA and PD only.
- Utilization/Disposal Direction by MM/DA and PD only.

TABLE 4b

Summary of "PARTIAL CENTRALIZATION" Advantages and Disadvantages

ADVANTAGES

- Reduce duplication.
- More standardization of procedures.
- Less fragmentation of IM's.
- Reduce CCSS training.
- Reduce overall (internal/external) lines of communications.
- Increase utilization of CCSS/ADP.
- Improve unity of control/procedures.
- Minimal reorganization.
- Minimal cost impacts.
- Minimal personnel turbulance.

DISADVANTAGES

- Reduce specialization (Re: items).
- PD performing some "IM's" functions.
- Some CCSS/IM training required outside of NICP's.
- Possible increase in personnel requirements.
- Retains some duplication.
- Control problems: System-reject distribution.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

1. Discussion of Conclusions.

a. General

(1) Centralization (e.g., of inventory management functions, and the performing personnel) provides the opportunity to standardize procedures, to improve efficiency by increased use of ADP systems, to maintain central control, and to provide management with a centralized asset and requirement posture within an acceptable time frame.

(2) Some degree of centralization is required; e.g., for inventories to be controlled at the national (NICP) level.

(3) Decentralization by delegation of authority to lower levels allows procedures and/or systems to be customized to the needs of each organizational element and may shorten supply and/or communication lines for day-to-day operations, since management decisions would be made at lower levels. Decentralization also fosters the maintenance of organizationally unique, local inventory records within each organization for maximum accessability at the lower levels.

(4) Some degree of decentralization may be required to prevent organizations from becoming too large to be managed effectively.

(5) Neither total centralization nor total decentralization is workable except in rare situations. A "mix" is usually best.

b. In Terms of HQ, ARRCOM Structure.

(1) The current structure of HQ, ARRCOM for inventory management is a combination of centralized and decentralized organization.

(a) Weapons, secondary items and related packaging materiels are

managed (centralized) in DRSAR-MM, an NICP, under formal integrated inventory management procedures.

(b) Ammunition end items and related packaging materiels are managed (centralized) in DRSAR-DA, an NICP, under formal integrated inventory management procedures.

(c) APE items are managed (centralized) in DRSAR-MA by a stand-alone system outside of the NICP's; but under Status Quo (fully implemented) DRSAR-MA will formally inventory manage those items for which customer demands are received, and process the demands through the CCSS.

(d) FATE items are managed (centralized) in DRSAR-QA by another stand-alone system outside of the NICP's; but under Status Quo (fully implemented) DRSAR-QA will formally inventory manage those items for which customer demands are received, and process the demands through the CCSS.

(e) Industrial materials and components for production are managed (centralized) in DRSAR-PD outside of the NICP's. This is production management, and not integrated inventory management per se.

(f) The composite is decentralization.

(2) If assigned commodities are inventory managed outside of the NICP, or a commodity command has more than one NICP, integrated materiel inventory management, per se, is decentralized. (This is not to be confused with centralized versus decentralized methods of Integrated Inventory Management to be employed by the NICP's for each individual item of assigned commodities, i.e., the option of authorizing local procurements on NICP items.)

(3) In HQ, ARRCOM only DRSAR-MM, DA, QA, and MA have assigned

personnel performing formal integrated inventory management as their primary job. All others have other primary missions/functions, and any functions performed which are related or similar to integrated inventory management (NICP) functions are only secondary and in support of accomplishment of their primary responsibilities.

(a) APE and FATE items are procured, stocked, stored and issued, through the logistics supply system, to Proving Grounds, Industrial Plants (GOGO,GOCO and Commercial), Depots, FMS and MIPR's; though not in accordance with Integrated Inventory Management/CCSS procedures.

(b) Under Status Quo, DRSAR-IL might also continue to "inventory manage" some items and process them through the CCSS. Normally these are items that DRSAR-IL had agreed to supply on FMS cases, but for which an existing inventory manager could not be located elsewhere in the Command. Under some conditions the Command has been directed by higher headquarters to supply FMS case items not managed by this Command.

(c) Industrial materials and components are production managed by DRSAR-PD and, to some degree, some of the elements of integrated inventory management are applied. DRSAR-PD has recorded in the NSNMDR approximately 1,000 of the approximately 10,000 industrial components and materials utilized in the production of commodities (ammunition and weapons) assigned to this Command. These items are not normally issuable items or assigned an MSN or MCN, and are managed through production. The assets are not picked up in the NICP's accounts. These items are not to be confused with weapon repair parts, ammunition maintenance items or ammunition industrial components that are end items within themself (i.e., fuzes). These later items are managed by the NICP's. The industrial components now being

loaded in the NSNMDR by DRSAR-PD are not being loaded for inventory purposes; but are required to properly generate PWD's from the CCSS in support of the production management cycle. Also, under status quo, DRSAR-PD will inventory manage those industrial components for which customer demands are received, and process the demands through the CCSS.

(4) Such drastic measures as abolishing directorates and creating new ones is neither necessary nor desirable. The positive effects (advantages) of total centralization could be approximated simply by moving all formal inventory management functions to DRSAR-MM and DRSAR-DA. Total centralization (i.e., merging all inventory management into a single NICP) is impractical due to differences in accounting and processing for centralized inventory management under the commodity command concept (AR 710-1), and for Single Manager conventional ammunition under the DOD concept (DOD Dir. 5160.65). DRSAR-DA need not be re-merged with DRSAR-MM, and the continued separation provides a means of effectively implementing DOD Dir. 5160.65 (SM). Also, although DRSAR-PD has "Production Managers", they are performing only a portion of the inventory management functions on a part-time basis, in support of the production mission, and integral to their other responsibilities. These personnel should not transfer to the NICP's, and production industrial materials should not be managed in the NICP unless the item is sold or supply issued.

(5) Movement of item management functions from DRSAR-PD to an NICP organization would provide no significant benefit because other organizations generally do not require access to their production inventory management data, and the production components and materials are not normally sold outside the command. Additionally, this would physically separate the

production inventory data from the people who are normally the only ones who need access to it, and would increase the workload in the NICP organizations. Industrial components are not procured, stocked and stored for issue through the logistical supply system, although DRSAR-PD does procure and issue for FMS and MIPR's on request. Industrial components are normally procured for the production of end items, and are picked-up on the Production Industrial Accounting System and not stocked for issues through the logistical supply system.

(6) DRSAR-PD manages the procurement execution and production of end items; and this involves components breakout (requirements determination for production), procurement execution/production direction for components and industrial supplies, and some form of stock control or scheduling to insure that these components and supplies are available at the right place, at the right time, and in the right quantities for LAP or final assembly. However, this is not "inventory management" in the same sense as inventory management is performed in an NICP. Formal inventory management in an NICP involves full performance of the six elements of integrated inventory management within regulatory requirements, and includes worldwide assets knowledge and accountability of field-issuable items from the field issue account. Production inventory management or stock control in DRSAR-PD, on the other hand, involves procurement execution to provide industrial materials and components needed to meet authorized production schedules. The inventory accountability of production stocks is at and by the production facility. That is, DRSAR-PD primarily provides a production/procurement execution function, not a stock, store and supply operation. Once items are assembled and accepted into the field service inventory,

then an NICP inventory manager becomes responsible, and DRSAR-PD is no longer directly involved. Thus, moving the inventory management of industrial components and supplies to an NICP would serve no useful purpose and, in fact, would be a hinderance.

(7) Under either Status Quo or Partial Centralization, if the Command makes a decision to supply industrial components to customers (through the NICP's), it should be the responsibility of the NICP to inventory manage the item in the NICP account, including cataloging and recording the item in the NSNMDR if it has not been previously recorded. If it has been recorded, it should be the NICP's responsibility for recording the proper NICP inventory manager in the NSNMDR analyst code (ANAL-CD) sector.

(8) To differentiate between normal supply items and industrial components in the NSNMDR/CCSS, there should be a method/procedure provided to identify industrial components; and whether it is production managed only or if it is also being inventory managed by the NICP's. This could be accomplished by utilizing a one (1) position code in the AFLU portion (last 5 positions) of Sector-ØØ of the NSNMDR.

(9) Orders for non-standard, non-NICP items through FMS and MIPR are not efficiently processed. The cause of this problem is basically:

(a) These items are not recorded in the NSNMDR and therefore will not process through the CCSS. Thus, they must first be loaded to the data base with an MCN (causing a delay of up to two weeks), or processed off-line.

(b) There is a general lack of training, experience, and SOP's for sales of non-standard items. Also, there is a general lack of knowledge in interface areas; e.g., CCSS, cataloging, etc.

c. Regulatory Considerations.

(1) Centralized Integrated Inventory Management is the approved method by the Department of The Army, and the Commodity Commands are required by regulation (AR 710-1) to inventory manage assigned commodities (supply and industrial items) through Centralized Integrated Inventory Management, within an NICP of the Command; unless approved deviations are obtained or the regulation is changed by higher headquarters.

(2) There should be a clarification of AR 710-1, Chapter 1, section 1, paragraph 1-4d as to which industrial items will be inventory managed under centralized Integrated Inventory Management within the NICP:

(a) Should Ammunition Peculiar Equipment (APE) end items and repair parts, utilized in the command's mission of production, rennovation, surveillance, etc., be inventory managed by the NICP? The items are procured or produced, stocked, stored and issued to depots (95% to DESCOM Depots) and FMS or MIPR customers.

(b) Should Final Acceptance Test Equipment (FATE) end items and repair parts, utilized in the command's quality assurance mission of produced and/or procured items, be inventory managed by the NICP? These items are procured or produced, stocked, stored, and issued or loaned to proving grounds, contractors, arsenals, plants, etc., or supplied to other customers through MIPR's and FMS.

(c) Should industrial components, utilized in the command's production mission to produce an end item, be inventory managed within the NICP? The majority of these items are not stocked, stored or issued to other than plants or contractors. Some of these items, e.g., those that are end items in themself, are inventory managed by the NICP. Some of the industrial

components not managed by the NICP are supplied to other countries and other services through MIPR's and FMS cases.

d. Statements of Conclusions.

(1) There is no clear-cut "Best" in the question of centralization versus decentralization. The choice depends on the situation, and a mix of both is usually better than either extreme.

(2) Current ARRCOM materiel management is a mix, but primarily is decentralized.

(3) The establishment of DRSAR-DA was effectively a decentralization of integrated inventory management.

(4) One basic problem in ARRCOM's materiel management is in the processing of "non-standard" (non-NICP/Whsle) items from any source--and most particularly "SALES" of these "non-standard" items through MIPR, FMS, etc..

(5) The cause of this problem is NOT in the "location" of the "item manager" per se--but rather in the (lack of) procedures used.

(6) No known uniform standard off-line procedures/processing.

(7) Another basic problem is the misapplication, or lack of application, of systems/procedures.

(8) The cause of this problem is basically in (1) systems training (or lack of), and (2) lack of clear SOP for "non-standard" items or off-line processing.

(9) The CCSS is not designed to handle "non-standard" items.

(10) Organizationally peculiar items, not requiring central control, may best be managed by the organization to which the items are peculiar.

(11) The implementation of the ABC system will greatly alleviate many accounting and control problems for industrial compoents.

(12) Problems arising from sales of industrial material and customer peculiar items appear to be a result of inexperience in such transactions and not a result of the organizational structure of HQ, ARRCOM.

(13) We procure/sell/manage items which "belong" to other PICA's (DLA, GSA, etc.), even though we are regulatorily forbidden to do so.

(14) Personnel in all divisions are conscientious and trying to do a good job, but lack knowledge in interface areas (as: CCSS, cataloging, etc.).

(15) There is no overall "Item Management" in HQ, ARRCOM--either centralized or decentralized. There is "Inventory Management", "Production Management", etc.

(16) "Item Manager" term is a colloquial misnomer! The term is often used to denote an Inventory Manager in an NICP, but is also colloquially used when specifically we mean a Production Manager, Inventory Manager, Case Manager, etc.. "Item Manager" is actually a general term which could be applied to all, but if used as a specific term it should denote a Product Manager type.

(17) Only DRSAR-MM/DA/MA/QA have people with inventory management as a primary job/responsibility. All others have other primary missions/functions, and any functions performed related/similar to formal Inventory Management are only secondary and in support of accomplishment of their primary responsibility, albiet integral to the overall responsibility.

(18) The number of Inventory Managers, other than those in DRSAR-MM/DA, is not significant (5 or less).

(19) Inventory management functions performed in DRSAR-PD are not separately identifiable functions which could easily be separated from the other duties of the Production Managers.

(20) There is no advantage to moving DRSAR-PD's Production Managers into the NICP's.

(21) Weapons, secondary items, and ammunition items managed in DRSAR-MM and DRSAR-DA are standard supply items which by regulation (AR 710-1) must be centrally managed at a national level, in an NICP.

(22) All other items are peculiar to a particular organization or function, tools-of-the-trade, raw materials, or support items. There is no necessity that these items be managed at a national level unless they are repetitively procured, nor would there be any significant benefit if they were.

(23) FATE and APE items have historically been treated/managed similar to IPE, and 95% of this effort is still in this context, with only 5% involved with sales or wholesale.

(24) Certain separately identifiable functions performed in DRSAR-QA/MA for FATE/APE items are formal Inventory Management (and, therefore, could be accomplished in DRSAR-MM/DA).

(25) The CCSS system is not being fully utilized, particularly in DRSAR-QA, and DRSAR-MA.

(26) FATE and APE inventory management and order processing could be accommodated by the CCSS, and the establishment of any separate "system" (as, MA's System 2000) is unnecessary. This should be

separately studied, with the study to include all "non-standard" items, and all "separate" systems.

(27) DRSAR-IL personnel are not "Inventory Managers", and do not perform inventory management even though they have loaded some items in the NSNMDR.

(28) DRSAR-IL should never have been involved in formal Inventory Management and should clear the items (approximately 300) they have loaded to the NSNMDR, transferring all DRSAR-IL loaded items to the appropriate NICP.

(29) DRSAR-IL has handled/accepted items it shouldn't.

(30) DRSAR-IL should handle/accept, for cases, only items assigned to this command.

(31) DRSAR-IL's problems with FMS billings may, to a large degree, be the result of:

(a) Acceptance of cases, and/or line items on a case, for items that ARRCOM is not the item manager.

(b) Acceptance of cases for industrial type items (APE, gages, industrial components or raw material), for which we are the manager, but are not recorded in the NSNMDR; and then directing procurement and/or processing demands through CCSS prior to getting the item cataloged (added to the NSNMDR).

(32) Full implementation of the approved recommendations of the "Delivered-Unbilled" Task Force are correct, essential, and will solve the majority of the problems associated with "Sales" of industrial materials and non-standard items.

(33) Recommendations of the "Delivered-Unbilled" Task Force have not been fully implemented.

(34) Full analysis of status quo, and therefore of centralization versus decentralization, is not possible until after full implementation and "test" of the "Delivered-Unbilled" Task Force recommendations.

(35) Centralization of item managers within one directorate of the Command is not necessary.

(36) Total decentralization is not practical.

(37) Total centralization is not practical.

(38) The existing materiel management system will work, if properly utilized.

(39) Status quo is adequate and is the preferred alternative overall, at least for near term.

(40) Partial centralization has high potential as a long term alternative. This would include the consolidation of items and personnel for the management of FATE and APE inventories, but would exclude the DRSAR-PD industrial components for production and the DRSAR-PD Production Managers.

2. Summary of Conclusions.

a. Further decentralization is not a viable alternative because it would result in increased personnel costs and reduced controls. Also, decentralization of responsibility was a root problem addressed by the "Delivered-Unbilled" Task Force study. Thus, to advocate for the decentralization is akin to advocating exacerbation of the basic problem, and conflicts with regulatory requirements for integrated inventory management of logistics supply items (AR 710-1).

AD-A060 308 ARMY ARMAMENT MATERIEL READINESS COMMAND ROCK ISLAND IL F/G 15/5
TASK FORCE STUDY ON CENTRALIZED VERSUS DECENTRALIZED ITEM MANAG--ETC(U)
JUL 78 D L BIXBY

UNCLASSIFIED NL

2 OF 2
ADA
060308

END
DATE
FILMED
12-78
DDC

b. Full centralization would result in maximum turmoil in organization, personnel and cost, and is contrary to current DOD concepts which resulted in establishment of DRSAR-DA to support SM requirements. Total Centralization is not considered to be a viable alternative.

c. It appears that the present organization benefits from both centralized inventory management of those standard items which require central NICP control and from the decentralization (physical dispersion into functional areas) of some personnel performing some inventory management functions for the management of industrial materiels, tools-of-the-trade used in production, and related support items.

d. As indicated in Chapter 5, continuation of the current (Status Quo) ARRCOM organization for inventory management is the most viable near-term alternative. It is noted that the "Status Quo" concept assumes total implementation of the approved recommendations of the "Delivered-Unbilled Shipments Deficiencies" study. This has not occurred as yet. Status Quo also assumes full functional implementation of COCP, the ABC system, and SM (DRSAR-DA). Status quo, when fully implemented, will provide an estimated 95% of demand fill-and-bill through the CCSS. It will not provide for centralized accountability or a centralized data base of all items assigned this Command to inventory manage through the NICP's.

e. Partial Centralized Inventory Management, as described in paragraph 3b(1)(e) Chapter 4 and required by AR 710-1 (with approved deviations), has high potential for the long term. Although Partial Centralization may be our goal, we should continue under status quo (the current alignment) until inventory managers could be properly

trained or replaced to perform the requirements. At the present there should be a continuous exerted effort to get all "demand" items assigned an MCN and recorded in the NSNMDR. This would minimize subsequent transition efforts for moving all supply/issuance items under the control of the NICP's.

3. Impacts.

a. Facilities requirements will not significantly change under any alternative and, therefore, are not an impact factor.

b. Overall HQ, ARRCOM personnel requirements and average grade will not significantly change as a result of any alternative.

c. Personnel actions (transfers) associated with either of the preferred alternatives, i.e., status quo or partial centralization, are not significant (estimated at approximately five spaces).

d. Training requirements associated with either of the preferred alternatives, i.e., status quo or partial centralization, are commensurate with those required under implementation of the recommendations of the "Delivered-Unbilled" Task Force.

e. Although cost impacts were indeterminate, the two preferred alternatives should be approximately equal to each other and significantly less than either of the extremes, i.e., Total Centralization or Total Decentralization. Loading and maintaining additional items in the NSNMDR and training in CCSS procedures will the the two most significant cost impacts.

4. Preliminary Recommendations.

a. Retain present HQ, ARRCOM organizational structure overall, specifically continuing current alignment for materiel management.

b. Transfer DRSAR-PD industrial components to DRSAR-MM and DRSAR-DA, as appropriate, only for management of sales/demands or as required for Renovation.

c. Retain management of DRSAR-PD industrial components in DRSAR-PD for all "Production" inventories.

d. Assign NICP inventory managers to manage any FATE or APE items and industrial components supplied through the NICP's.

e. Record, with MCN/NSN, FATE and APE items into the NSNMDR, including appropriate storage locations data, as "demands" are received.

(1) Initiate action to correct, with the assigned MCN/NSN, any records outside of the Command, (e.g., TM's supply bulletins, etc.).

(2) Establish regulatory loan procedures for FATE and APE items on loan and returnable, with accountability through CCSS.

f. DRSAR-IL should under no circumstances be recorded or act as Inventory Manager for any item (no MCN/NSN actions by DRSAR-IL).

(1) DRSAR-IL should "clear" themselves of all previously "loaded" (approximately 300) item responsibility, transferring all items to DRSAR-MM and DRSAR-DA as appropriate.

(2) DRSAR-IL should henceforth offer/accept and handle, in Cases, only items assigned to this command; unless specifically directed by higher HQ, and then process these "non-ARRCOM-assigned" items manually off-line.

g. Standard procedures should be developed for all item managers regardless of location throughout the Command.

(1) CCSS procedures, when applicable, must be adhered to.

(2) Very specific standard procedures should be developed for

non-standard items, especially those which do not have MCN's or NSN's, which are being sold through DRSAR-IL and MIPR's.

(3) Establish and enforce standard procedures for all "off-line" (manual and non-CCSS) transactions.

(4) Process all "non-standard" items off-line unless the item has been assigned an MCN/NSN and properly loaded to the NSNMDR.

(5) Provide guidance, procedures, and training of all item managers for processing sales transactions, especially for managers of non-standard items.

(6) All formal item cataloging should be accomplished by either DRSAR-MM or DRSAR-DA, as appropriate, in coordination with DRSAR-MA (for initiation and approval of DRSAR Form 19's when required).

(7) All MCN assignments should be cleared through, and all new NSN's should be requested by, DRSAR-MM in coordination with DRSAR-MA.

h. Cease customer order acceptance, procurement, and sales of items not assigned to ARRCOM, unless specifically directed by higher authority. No customer demand (Army external) orders will be processed for items for which ARRCOM is not or cannot be assigned as PICA, specifically ceasing sales/management of other PICA's items, subject to the following conditions and exceptions:

(1) A thorough screening through DLSC should be accomplished on all items for FMS cases and MIPR's to ensure that this command is not buying, for resale, items which are managed (as PICA) by another command or agency.

(2) Demands may be processed for items for which ARRCOM is the SICA and has received formal procuring authority.

(3) Demands may be processed for items on which the PICA assignment is in disbute by this headquarters or action is being taken to transfer the item assignment to ARRCOM from another PICA.

(4) In situations 2 and 3 above, item demands should normally be processed manually off-line.

i. Clarification of AR 710-1 should be obtained in the question of the application of formal Integrated Inventory Management (NICP) to "industrial" items.

j. Fully implement the approved recommendations of the study on "Delivered-Unbilled Shipments Deficiencies", including full implementation of the COCP.

k. Partial centralization, as described in paragraph 3b(1)(e) Chapter 4 should be considered for separate future study subsequent to "fully implemented" actions under the Current Alignment. This future study, if performed, should specifically address:

(1) Transfer of personnel and items into the appropriate NICP to bring all formal inventory management into the CCSS and NICP Centralized Inventory Management environment.

(a) Transfer DRSAR-MA's APE Inventory Management (items and personnel) to DRSAR-DA.

(b) Transfer DRSAR-QA's FATE Inventory Management (items and personnel) to DRSAR-MM and DRSAR-DA as appropriate.

(2) Definitive evaluation of staffing requirements for DRSAR-MM and DRSAR-DA.

5. Approved Recommendations. The preliminary recommendations as proposed by the Primary Working Group and accepted by the Study Advisory Group are set forth in paragraph 4 above. These preliminary recommendations were presented to command and staffed for comments. The correspondence, comments, and results of the staffing actions are included in Addendum I to this report. The preliminary recommendations were revised in keeping with the staffing actions and command direction and approved by the DCG, ARRCOM on 29 June 1978. The final approved recommendations are as follows:

a. Recommendation a. Retain present HQ,ARRCOM organizational structure overall, specifically continuing current alignment for materiel management.

b. Recommendation b. Retain in DRSAR-PD the inventory control and accountability for industrial components. DRSAR-PD is to work with DRSAR-MM and DRSAR-DA to develop a system to transfer industrial stocks to DRSAR-MM or DRSAR-DA, as appropriate, on a case-by-case basis for external demands or as required for renovation. Clarification of AR 710-1 will be obtained in the question of application of formal Integrated Inventory Management (NICP) to industrial items.

c. Recommendation c. DRSAR-PD is to retain accountability and perform NICP functions for industrial components--to procure requirements, retain accountability, and ship upon demand. The NICP functions to be performed include cataloging direction, requirements computation, procurement direction, maintenance direction, and materiel utilization direction.

d. Recommendation d. DRSAR-IL will not be recorded or act as Inventory Manager for any item (no MCN/NSN actions by DRSAR-IL). DRSAR-IL

will clear all previously loaded item responsibility, transferring these items to the appropriate NICP (e.g., DRSAR-DA, DRSAR-MM, DRSAR-PD, DLA/GSA). DRSAR-IL will offer and process FMS, Grant Aid, and MAP cases containing only items assigned to this command unless specifically directed by higher headquarters.

e. Recommendation e. Procedures will be established for all item managers regardless of location throughout the command, and these procedures will be reviewed and approved by the directors thereof. CCSS procedures, when applicable, must be adhered to.

f. Recommendation f. Specific procedures will be established for all off-line (manual and non-CCSS) transactions, and non-standard items which are being sold through DRSAR-IL and MIPR's. Process all non-standard items off-line unless the item has been assigned an MCN/NSN and properly loaded to the NSNMDR.

g. Recommendation g. Provide guidance, procedures, and training of all item managers for processing sales transactions, especially for managers of non-standard items.

h. Recommendation h. All formal item cataloging will be accomplished by DRSAR-MM (until such time as DRSAR-DA assumes this function for ammunition items), in coordination with DRSAR-MA for initiation and approval of DRSAR Form 19's when required. All MCN assignments will be cleared through DRSAR-MM, and all new NSN's requested by DRSAR-MM in coordination with DRSAR-MA.

i. Recommendation i. Customer orders for items not assigned to ARRCOM will be directed to the appropriate NICP, unless we are directed to process by higher headquarters or where disagreement as to PICA has

not been resolved. A thorough screening through DLSC will be accomplished on all items for FMS cases and MIPR's to insure that this command is not buying, for resale, items which are managed (as PICA) by another command or agency. Demands may be processed for items on which the PICA assignment is in dispute by this headquarters or action is being taken to transfer the item assignment to ARRCOM from another PICA, on the condition that formal notification is provided to DARCOM that procurement is proceeding.

j. Recommendation j. Fully implement the approved recommendations of the study on Delivered-Unbilled Shipments Deficiencies, including full implementation of the COCP.

BIBLIOGRAPHY

BOOKS

1. Caruth, D. L. and F. M. Rachel, Business Systems, San Francisco, CA., Canfield Press, 1972.

2. Bethel, L. L., F. S. Atwater, G. H. E. Smith, and H. A. Stackman, Industrial Organization and Management, New York, McGraw-Hill Book Co., Inc., 1950.

3. Defense Management-Joint Course, Organization Planning, Course Book, Rock Island, Illinois, US Army Management Engineering Training Activity (AMETA), undated.

4. Gore, W. J. and J. W. Dyson (eds.), The Making of Decisions, London, The Free Press of Glencoe, 1964.

5. Kuhlman, N. H. C., Supply Management, Industrial College of the Armed Forces, Washington, D. C., 1969.

6. LI, D. H., Design and Management of Information Systems, Chicago, Science Research Associates, Inc., 1972.

7. McKeerer, J. M. and B. Kruse, Management Reporting Systems, New York, Wiley-Interscience, 1971.

8. Murdick, R. G. and J. E. Ross, Information Systems for Modern Management, Englewood Cliffs, New Jersey, Prentice-Hall, Inc., 1971.

9. Newman, W. H. and J. P. Logan, Strategy, Policy and Central Management, 6th Edition, Cincinnati, South-Western Publishing Co., 1971.

10. Schellenberger, R. E., Managerial Analysis, Homewood, IL., Richard D. Irwin, Inc., 1969.

11. Shubin, J. A., Business Management, New York, Barnes and Noble, Inc., 1957.

12. Skeen, H. G. and W. C. Frank, "Logistic Management System", Army Command and Management: Theory and Practice, Volume II, pp 501-544, US Army War College, Carlisle Barracks, PA, 1976-1977.

13. US Army Management Engineering Training Activity (AMETA), Organization Planning, Course Book for Course Number 7A-F8, Rock Island, IL., October-November, 1977.

14. US Army Armament Materiel Readiness Command, Commanding General's Policy Book, DRSAR-PT, October, 1975.

PERIODICAL

1. Staff News Report, "Emphasis, Air Force Manages Foreign Sales", Army Logistician 9 (2), 1 (Mar-Apr, 1977).

ARMY STUDIES

1. Army Materiel Command (AMC, now DARCOM) "Management of Materiel Systems" Study by Army Materiel Command Board. AMCB-3-66. 30 Jun 67, LD 76533A.

2. US Army Materiel Command Board, "Management of Quartermaster-Type Items" Project Study No. AMCB 1-67, Aberdeen Proving Ground, MD., 15 November 1967, LD 17145.

3. US Army Materiel Command Board, "Interrelationships of AMC Major Subordinate Commands", Project AMCB 2-69 Draft Report, Aberdeen Proving Ground, MD, 30 Jun 69. LD 24864.

4. Crane, A. M., "Decentralized Materiel Management of Commercially Available Items", Management Survey Report, US Army Tank and Automotive Command, Warren, MI, 1973, LD 29323.

5. Toler, J. M., Ron Hartoebben, Ruth Lilley, "Systems Oriented Command Study" TSARCOM (the TROSCOM), St. Louis, MO, 31 July 1968, LD 16590A.

6. R. L. Sokol, "Supply Management by Systems" Study No. 47-67, US Army Mobility Equipment Command, St. Louis, MO, 31 July 1968, LD 16590A.

7. Cromwell, G. F., Jr., "National Inventory Control Point 'Item Management' within US Army Armament Materiel Readiness Command," Report No. DRSAR/SA/71, Systems Analysis Directorate US Army Armament Materiel Readiness Command, Rock Island, IL 61299, September 1977.

OTHER SERVICE STUDIES

1. Ames, D. L., "Centralization: A Review and Analysis" Research Report to the Faculty, Air University, Maxwell Air Force Base, AL, April 1975, LD 33221D.

2. Anderson, G. M. "Guidelines for Materiel Management" Research Study, Air University, Maxwell Air Force Base, AL, 1977, LD 39140A.

3. Fields, Samuel E., "Organization for Humanization", Research Paper, submitted to the faculty, Auburn University and Air University, Maxwell Air Force Base, AL, 1971, LD 27801.

4. Haukeli, Karsten, "The Logistic System Concept and Foreign Military Sales" Thesis, Naval Postgraduate School, Monterey, CA, December 1976, LD 38924A.

5. Morrell, Jimmy R., "An Analysis of New Cash Payment Plan for Foreign Military Sales to Iran", Research Study, Maxwell Air Force Base, AL, May 1977, LD 39115A.

6. Scappa, J., Jr., "Forward Realistic Centralization", Research Report to the faculties of Auburn University and Air War College, Maxwell Air Force Base, AL, 1972, LD 27901.

DoD STUDY

1. Defense Logistic Agency (Defense Supply Agency), "Materiel Management Optimization (MATMOP)", Volumes I and II "Analysis", Volume III, "Statistical Appendices" LD Nos. 25043, 25043A, 25043B, (AD Nos. 886788, 886789, 886790), Cameron Station, VA, May 1970.

REGULATIONS

DEPARTMENT OF THE ARMY

1. AR 5-5 The Army Study System, 30 August 1976.
2. AR 10-34 Rescinded: CIR 310-70.
3. AR 15-2 Department of the Army Allocation Committee, Ammunition (DAAC), 12 August 1968.
4. AR 37-200 Management Control Systems for use in the Acquisition Process, 14 August 1968, Ch. 4.
5. AR 70-17 System/Program/Project/Product Management, 11 Nov 76.
6. AR 70-37 Configuration Management, 1 July 1974.
7. AR 75-1 Malfunctions Involving Ammunition and Explosives, 2 July 1975.
8. AR 310-25 Dictionary of US Army Terms, 15 September 1975.
9. AR 310-34 Equipment Authorization Policies and Criteria and Common Tables of Allowances, 24 February 1975, Change 1.
10. AR 458-1 No reference found.
11. AR 700-22 World Wide Ammunition Reporting System (WARS), 18 Aug 76.
12. AR 700-120 Materiel Distribution Management, 14 March 1974.
13. AR 700-126 Basic Function Structure, 3 March 1975.
14. AR 700-127 Integrated Logistic Support, 11 April 1975.
15. AR 700-127 ARRCOM Suppl 1.
16. AR 708-1 Cataloging and Supply Management Data, 31 December 1970, Change 17.
17. AR 708-1 ARRCOM Suppl 1.
18. AR 708-3 Recording of User Interest, 29 April 1975.
19. AR 708-7 Procedures for use when Requesting Supply Support and Catalog Action: Excluding the Provisioning Process, 16 October 1974.
20. AR 710-1 Centralized Inventory Management of the Army Supply System, 30 December 1970, Changes 1-15.
21. AR 710-1 DARCOM Suppl 1.
22. AR 710-2 Materiel Management for Using Units, Support Units, and Installations, 1 August 1971.
23. AR 710-25 Commodity Integrated Materiel Managers Provisioning Responsibilities, 30 January 1973.
24. AR 710-60 Standard Study Number System and Replacement Factors.
25. AR 715-1 Procurement of Air Force Assigned Items under the DoD Coordinated Procurement Plan, 9 February 1972.
26. AR 715-8 Implementing Procedures for Purchase of Supplies Assigned DSA under the DoD Coordinated Procurement Program. (RCS DD-DSA (AR) 599 (P)), 17 September 1970.
27. AR 715-15 Implementing Procedures for Coordinated Procurement Assignments, 5 December 1968, Change 6, 29 May 1974.
28. AR 715-18 Implementing Procedures for Single Department Procurement of Commodities Assigned to the Department of the Navy, 29 October 1969.

29. AR 725-1 Chapter 8 Special Authorization and Procedures for Issues, Sales, and Loans, 22 Sep 70, Changes 1-7.
30. AR 725-50 Requisitioning, Receipt, and Issue System, 28 June 1974, Change 1.
31. AR 735-50 No reference found.
32. AR 755-1 Reporting, Utilization, and Redistribution of Installation, US Army Materiel Command, and Overseas Command Excess Personal Property, 7 Mar 67, Changes 1-9.
33. AR 780-1 No reference found.

U.S. ARMY ARMAMENT MATERIEL READINESS COMMAND

1. ARRCOMR 10-1 Mission and Major Functions of the HQ, United States Army Armament Materiel Readiness Command, 1 Jan 77, Changes 1-6.
2. ARRCOMR 15-9 ARRCOM OPSEC/SIGSEC Board, 17 December 1976.
3. ARRCOMR 235-1 Make or Buy Determinations for Mission Materiel and Research Development and Engineering Effort, 24 Sep 74.
4. ARRCOMR 700-1 Production vs Schedule Report.
5. ARRCOMR 700-5 ARRCOM Materiel Utilization Program, 24 Jan 1974.
6. ARRCOMR 700-8 PEMA Production Support Program, 27 September 1974.
7. ARRCOMR 702-8 Processing of Request for Deviation/Waiver, 26 May 77.
8. ARRCOMR 708-1 National Stock Number Master Data Record (NSNMDR) Initial Data Input,
9. ARRCOMR 715-1 Joint Conventional Ammunition Policies and Procedures, 1 August 1977.

ARMED SERVICE PROCUREMENT REGULATION

ASPR

U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND

1. DARCOMR 10-1 Organization Control, Concepts, Policies, Responsibilities, and Documentation, 22 June 1974.
2. DARCOMR 70-1 Transition of Management Responsibility from a Research and Development Command Manager to a Materiel Readiness Command Manager, 28 June 1976.
3. DARCOMR 570-4 Manpower, Staffing Standards, Patterns and Policies 30 April 1974.
4. DARCOMR 614-13 Development/Readiness Project Officers, 12 August 1976.
5. DARCOMR 700-34 Release of Materiel for Issue, 26 May 1977.
6. DARCOMR 700-78 Production Materiel Performance Review (Problem Hardware Report RCSAMCOA-119), 16 August 1971.
7. DARCOMR 700-99 Elimination of Duplication in the Management and Logistics Support of Multiused Nonconsumable Items, 14 November 1975.
8. DARCOMR 702-2 Inspection Equipment Design, Supply and Maintenance 27 May 1966.
9. DARCOMR 702-9 System Assessment Program 14 September 1976.
10. DARCOMR 715-1 Cast Realism in Proposal Evaluations, 1 October 1970.
11. DARCOMR 735-5 Mechanization and Installation Property Books, 7 Mar 69.
12. DARCOMR 740-1 Storage Space Management Program Reporting (RCS AMCSU-202), 28 June 1972.

U.S. ARMY MATERIEL DEVELOPMENT AND READINESS COMMAND CONT'D

13. DARCOMR 740-5 Ammunition Operation Reports (RCS AMCSU-203), 25 Mar 75.
14. DARCOMR 750-20 Ammunition Peculiar Equipment (APE), 30 September 1976.
15. DARCOMR 750-27 AMC (DARCOM) Life Cycle Management and use of Logistic Technical Data, 12 February 1975.
16. DARCOMR 750-28 Depot Maintenance Program Scheduling, Workloading, and Reporting System, 3 August 1973.
17. DARCOMR 750-3 Control of Equipment and Maintenance Improvement: Preparation of Equipment Improvement Report and Maintenance Digest, 22 January 1975.
18. DARCOMR 755-1 Rescinded or Superceded Prior to June 1974.
19. DARCOMR 755-8 Authorizing and Reporting of Demilitarization of Class V Materiel, 27 August 1973, Change 2, 13 Nov 74.

MISCELLANEOUS U.S. ARMY PUBLICATIONS

CIRCULAR - U.S. ARMY ARMANENT MATERIEL READINESS COMMAND

ARRCOMC	715-2	Cost/Schedule Control Systems (C/SCS) Surveillance Report (RCS SARPP-123), 24 Aug 76, Change 1, 24 Aug 77.

MEMORANDA - U.S. ARMY ARMAMENT MATERIEL READINESS COMMAND

ARRCOMM	15-12	ARRCOM Component Breakout Committee, 23 February 1977.
ARRCOMM	15-13	HQ, ARRCOM, Data Requirements Review Board, 21 March 77.
ARRCOMM	18-4	Control of Management Systems, 31 January 1977.
ARRCOMM	37-7	Selected Acquisition Reports, 31 January 1977.

PAMPHLET - U.S. ARMY

DAPAM	11-25	Life Cycle Management Model for Army Systems, 1975.

FIELD MANUAL - U.S. ARMY

FM	38-1	Logistics Management, 15 march 1974, Changes 1-3.
FM	38-2	Logistic Inventory Management, 29 March 1976.

HANDBOOKS - U.S. ARMY

HNDBK	2-3	(SB 708-23 Cataloging Handbook, Federal Supply Classification, Part 3 Alphabitical Index January 77 (GSA FSS-H2-3)
HNDBK	6	(SB 708-6C Federal Name Directory for Supply Cataloging Abbreviations and Symbols May 1973 (GSA-FSS-H6)

SUPPLY BULLETIN - U.S. ARMY

SB	700-20	Army Adopted/Other Items Selected for Authorizations/List of Reportable Items, Jan 1977.

TECHNICAL MANUALS - U.S. ARMY

TM	38-75	Army Maintenance Management System (TAMMS), 21 Nov 72.
TM	43-0001-47	Army Equipment Data Sheets, Ammunition Peculiar Equipment, 31 July 1975.

STANDARD OPERATING PROCEDURES, PRODUCTION DIRECTORATE
US ARMY ARMAMENT MATERIEL READINESS COMMAND

SOP-PD 5-7.1	Delinquent Deliveries Production Schedules (AMCRP-109)
SOP-PD 11-1	Processing of Secondary Items
SOP-PD 37-120.2	Maintenance and Use of Management Tools
SOP-PD 700-25	Flow and Control of PAA Program
SOP-PD 700-3	AMP F/Wpns and Other Support Equipment
SOP-PD 700-32	Computation of Raw Material Requirements to Support Mob Metal Parts Production/Schedule
SOP-PD 700-34	Preparation and Maintenance of Detailed Bills of Material
SOP-PD 700-35	Priority Assistance f/Delivery of Material to Contractors
SOP-PD 700-37	Internal Analysis and Procedures and Processing DD Form 691 Appl
SOP-PD 700-39	Requirement Report
SOP-PD 700-4	Program Execution Documents Requirements F/Program Changes Increase/Decrease
SOP-PD 700-47	Central Control Point (Excluding ASF)
SOP-PD 700-49	**
SOP-PD 700-50	Document Control Production Schedules (Central Control Point)
SOP-PD 700-71	Actual Forecast Prod. Accept. and Progress Report of Prod. Scd. and Accept. (RCS 1370)
SOP-PD 700-9	**
SOP-PD 735-1	Recovery of Unfunded Costs Involved with Sales to Non-Army Customers
SOP-PD 735-2	Processing FMS (Price Availability Documentation)
SOP-PD 735-26	**

STANDARD OPERATING PROCEDURES, PRODUCTION DIRECTORATE CONT'D

SOP-PD 735-3	Updating Procurement Programs Prices for ARRCOM Procured Materiel
SOP-PD 735-6	**

** Title not furnished

FORMS

1.	AMC	1006	Program Directive/Program Change Request.
2.	AMC	1006-C	Program Directive/Change Request.
3.	AMC	1538	Status Report of Delinquent Deliveries Etc Series 71-73.
4.	AMSAR	478	
5.	ARMCOM	134-R	Production Information for Obsolete, Replaced by DRSAR903.
6	CSGLD	1322	WARSS Report DRSAR MMD Distributes World Wide -- AR 700-22.
7.	CSGLD	1369	PEMA Progress Report on PEMA Contracts, DRSAR-PD-- AR 37-120.
8.	DA	1323	Funding Authorization Document.
9.	DARCOM	1095	Procurement/Work Directive.
10.	DARCOM	1277	Ammunition Operations Report -- Part 1 (Authorized).
11.	DARCOM	1322	See WARS Report.
12.	DARCOM	1397-R	Ammunition Demilitarization Authorization and Prog Stat Rept.
13.	DARCOM	1570	SAMPAM Systems Series Dated 74-76.
14.	DD	250	Material Inspection and Receiving Report.
15.	DD	375	Production Progress Report.
16.	DD	448	Military Interdepartment Purchase Request (MIPR).
17.	DD	448-2	MIPR Acceptance.
18.	DD	1149	Requisition and Invoice/Shipping Document.
19.	DD	1348	DOD Single Line Item Requisition System Document (Manual).
20.	DD	1375	DARCOM Obsolete?
21.	DD	1498	Research and Technology Work Unit Summary Report.
22.	DD	1513	Offer and Acceptance.
23.	DDCOMP	1092	DOD Budget Guidance.
24.	DRSAR	19	NSNMDR Data Transcript Sheet (80CT76).
25.	DRSAR	187	Program Adjustment Document.
26.	DRSAR	208	Industrial Preparedness Plan.
27.	DRSAR	358	Status of Other DOD Customer MIPR/Purchase Request.
28.	DRSAR	478	Requirement.
29.	DRSAR	488	Shipment Register.
30.	DRSAR	501	Production Acceptance Schedule.
31.	DRSAR	609	APE Account Control Register.
32.	DRSAR	825-1	PWD Input.
33.	DRSAR	900	FMS Price and Availability Documentation.
34.	DRSAR	901	Amendment of Solicitation/Identification of Contract Source.
35.	DRSAR	3147	Series for CSGLD-1369 Report -- AR 37-120, ARRCOMR 700-10.
36.	DRSAR	4252	President's Budget/Apportionment (One Time Use) Don't Reference.
37.	DRSAR	4255	Program Cost Breakdown (One Time Use) Don't Reference.
38.	DRSARP	310-7	Military Publications, Index of Blank Forms.
39.	P	21	DOD Budget Guidance -- Production Schedule (DODM 7110-1-M).
40.	P	22	DOD Budget Guidance -- Cost Program Breakdown (DODM 7110-1-M).