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policy for centrally managed items in the Air  
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Chigwida, Simba A.; Rodriguez, Edna

Monterey, California: Naval Postgraduate School

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# NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

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## MBA PROFESSIONAL REPORT

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**Examination of Expense and Investment  
Policy for Centrally Managed Items  
in the Air Force and Navy**

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**By: Simba A. Chigwida, and  
Edna Rodriguez  
December 2009**

**Advisors: Philip Candreva,  
Lawrence Jones**

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<b>REPORT DOCUMENTATION PAGE</b>			<i>Form Approved OMB No. 0704-0188</i>
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188) Washington DC 20503.			
<b>1. AGENCY USE ONLY (Leave blank)</b>	<b>2. REPORT DATE</b> December 2009	<b>3. REPORT TYPE AND DATES COVERED</b> MBA Professional Report	
<b>4. TITLE AND SUBTITLE</b> Examination of Expense and Investment Policy for Centrally Managed Items in the Air Force and Navy		<b>5. FUNDING NUMBERS</b>	
<b>6. AUTHOR(S)</b> Simba A. Chigwida and Edna Rodriguez		<b>8. PERFORMING ORGANIZATION REPORT NUMBER</b>	
<b>7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)</b> Naval Postgraduate School Monterey, CA 93943-5000		<b>10. SPONSORING/MONITORING AGENCY REPORT NUMBER</b>	
<b>9. SPONSORING /MONITORING AGENCY NAME(S) AND ADDRESS(ES)</b> N/A		<b>11. SUPPLEMENTARY NOTES</b> The views expressed in this thesis are those of the author and do not reflect the official policy or position of the Department of Defense or the U.S. Government.	
<b>12a. DISTRIBUTION / AVAILABILITY STATEMENT</b> Approved for public release; distribution is unlimited		<b>12b. DISTRIBUTION CODE</b>	
<b>13. ABSTRACT (maximum 200 words)</b> A basic principle of fiscal law is the identification of an object of expenditure as either an investment or expense; the identification then determines the proper appropriation and means through which the item is acquired. Part of the decision logic for an investment/expense determination is whether the items are centrally managed. The policies and practices surrounding central management of items varies across military departments and sometimes varies within a military department. This report documents various processes, as they exist today, and chronicles changes that occurred recently in the U.S. Air Force. Analyzing those processes indicates unclear policy direction, which leads to nonstandard implementation and problems with compliance. The presence of centralized information technology seems to lessen confusion and aid standardization of practices. Recommendations are offered for policy makers who may be considering changing policies.			
<b>14. SUBJECT TERMS</b> Decentralization, Centrally Managed, Expense, Investment, Anti-Deficiency Act, Policy		<b>15. NUMBER OF PAGES</b> 97	<b>16. PRICE CODE</b>
<b>17. SECURITY CLASSIFICATION OF REPORT</b> Unclassified	<b>18. SECURITY CLASSIFICATION OF THIS PAGE</b> Unclassified	<b>19. SECURITY CLASSIFICATION OF ABSTRACT</b> Unclassified	<b>20. LIMITATION OF ABSTRACT</b> UU

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**EXAMINATION OF EXPENSE AND INVESTMENT POLICY FOR  
CENTRALLY MANAGED ITEMS IN THE AIR FORCE AND NAVY**

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Submitted in partial fulfillment of the requirements for the degree of

**MASTER OF BUSINESS ADMINISTRATION**

from the

**NAVAL POSTGRADUATE SCHOOL  
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# **EXAMINATION OF EXPENSE AND INVESTMENT POLICY FOR CENTRALLY MANAGED ITEMS IN THE AIR FORCE AND NAVY**

## **ABSTRACT**

A basic principle of fiscal law is the identification of an object of expenditure as either an investment or expense; the identification then determines the proper appropriation and means through which the item is acquired. Part of the decision logic for an investment/expense determination is whether the items are centrally managed. The policies and practices surrounding central management of items varies across military departments and sometimes varies within a military department. This report documents various processes, as they exist today, and chronicles changes that occurred recently in the U.S. Air Force. Analyzing those processes indicates unclear policy direction, which leads to nonstandard implementation and problems with compliance. The presence of centralized information technology seems to lessen confusion and aid standardization of practices. Recommendations are offered for policy makers who may be considering changing policies.

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## LIST OF ACRONYMS AND ABBREVIATIONS

### **A, B**

ACC	Air Combat Command
ADA	Anti-Deficiency Act
AFEEIC	Air Force Element of Expense Identification Code
AFEMS	Air Force Equipment Management System
AFI	Air Force Instruction
AFMC	Air Force Materiel Command
AFSO 21	Air Force Smart Operations for the 21st Century
ALC	Air Logistics Centers
AMC	Air Mobility Command
ATLASS	Asset Tracking, Logistics, and Supply System
BSO	Budget Submitting Office

### **C**

C-4	Command and Control, Communications, and Computers
CAC	Combined Access Card
CAM	Central Asset Management
CAMP	Consolidated Asset Management Program
CASEMIS	Construction Automotive and Specialized Equipment Management Information System
Cog	Cognizance symbol code
CSAF	Chief of Staff, Air Force
CESE	Civil Engineering Support Equipment
COTS	Commercial Off The Shelf

### **D**

DoD	Department of Defense
DoN	Department of the Navy
DLIS	Defense Logistics Information Service
DWCF	Defense Working Capital Fund

**E, F**

EEIC	Element of Expense/Investment Code
eLog21	Air Force Expeditionary Logistics for the 21st Century
ERRC	Expendability, Reparability, Recoverability Category
ETI	Equipment Transformation Initiative
FOD	Foreign Object Damage
FM	Financial Management
FMB	Director, Office of Budget
FMB5	Budget Policy and Procedures Division
FMPM	Financial Management Policy Manual
FMR	Financial Management Regulations
FY	Fiscal Year

**G, H**

GAO	Government Accountability Office
HAF	Headquarters Air Force
HMMWV	High Mobility Multi-Wheeled Vehicle

**I**

I&L	Installations and Logistics
IG	Inspector General
IPE	Information Processing Equipment
IT	Information Technology

**J, K, L**

LAN	Local Area Network
LG	Logistics

**M**

MAJCOMs	Major Commands
MARCORSYSCOM	Marine Corps Systems Command
MCO	Marine Corps Order
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MIMMS	Marine Corps Integrated Maintenance Management System

**N**

NAS	Naval Air Station
NAVICP	Navy Inventory Control Point
NAVICP MECH	Navy Inventory Control Point Mechanicsburg
NAVFAC	Naval Facilities Engineering Command
NAVSUP	Naval Supply Systems Command
NSN	National Stock Number
NAVAIR	Naval Air Systems Command
NAVSEA	Naval Sea Systems Command
NWCF	Navy Working Capital Fund

**O**

O&M	Operation and Maintenance
OCO	Other Contingency Operations
OEF	Operation Enduring Freedom
OIF	Operation Iraqi Freedom
OPN	Other Procurement Navy
OPTAR	Operational Target
OSD	Office of the Secretary of Defense

**P**

P-485	Naval Supply Procedures Publication 485
PBD	Program Budget Decision
PBIS	Program/Budget Information System
PC	Personal Computer
PE	Program Element
PP&O	Plans Policy and Operations
PPBE	Planning, Programming, Budgeting and Execution
PMC	Procurement Marine Corps
POM	Program Objective Memorandum

**Q, R, S**

SABRS -	Standard Accounting, Budgeting, and Reporting System
SAC	Stores Account Code

SASSY	Supported Activities Supply System
SBSS	Standard Base Supply System
SE	Support Equipment
SET	Support Equipment Transformation
STU	Secure Telephone Unit
<b>T</b>	
TAMCN	Table of Authorized Materiel Control Number
TECOM	Training and Education Command
TFSMS	Total Force Structure Management System
TW-1	Training Wing One
<b>U, V, W, X, Y, Z</b>	
WCF	Working Capital Fund
XP	Plans and Programs

## **ACKNOWLEDGMENTS**

We would like to thank all of our professors who supported us during our 18 months at the Naval Postgraduate School. We would especially like to thank our thesis advisors, Philip Candreva and Dr. Larry Jones, for all of their effort and guidance throughout this process. We would also like to thank our families for the support and love they provided us during our time here in Monterey. Lastly, we thank God for the blessings he has provided and continues to provide to us.

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## **I. INTRODUCTION**

### **A. PURPOSE**

The Department of the Navy (DoN) suffered four Anti-Deficiency Act (ADA) violations in the last five years related to the procurement of centrally managed items and is considering options for adjusting their policies. This research project assesses Navy and other military departments' policies concerning central management of items. Centrally managed items below the Department of Defense (DoD) Financial Management Regulations (FMR) expense/investment threshold is the focus of this project.

The primary purpose of this research project is to examine and identify policies, practices, and problems with centrally managed items in the Department of the Navy, United States Marine Corps, and the United States Air Force, to answer the research question: can the DoN improve the way assets are centrally managed based on lessons learned from the Air Force decentralization model?

The benefits of this research come from the application of lessons learned from the Air Force decentralization model, if the DoN decides to change its policy on centrally managed items. DoN can then avoid mistakes made by the Air Force and reduce the learning curve of transitioning to new policies and practices based on these lessons learned from the Air Force.

### **B. SCOPE**

The scope of this project is limited to the DoD only, and more specifically, the DoN, the United States Marine Corps, and the United States Air Force. This research focuses on, but is not limited to, financial and supply policies concerning expense, investment, and centrally managed items in these three services. Interviews with officials in these three services were conducted to solicit opinions and determine day-to-day practice and problems associated with centrally managed items. The intent of this project was not to craft a new Navy policy on centrally managed items, but rather to document and identify the existing processes in the Navy, Marine Corps, and Air Force to make

recommendations to DoN. The research is limited to the information found through exhaustive research and opinions and information provided by the officials interviewed.

### **C. METHODOLOGY**

The primary source of data collection for this study was through personal interviews with various Navy, Marine Corps, and Air Force officials assigned to acquisition, budget, financial management, operations, and material command positions in the DoD. All persons interviewed were assured anonymity, and therefore, the project does not cite them specifically. The remainder of data was collected through the review of numerous DoD and service specific publications, historical documents, scholarly articles, government reports and other related research papers and articles.

Once the data were collected, the authors discovered common systemic problems in each of the services. The data were analyzed by focusing on problems associated with centrally managed items to make recommendations to FMB-5 based on lessons learned from these organizations reviewed; specifically, what lessons can be learned from the Air Force transition from a centralized model, to a decentralized model, and back to a new and improved centralized model.

### **D. ORGANIZATION**

Chapter II provides a background and examination of the DoD FMR expense and investment cost determination. If expenses and investments are incorrectly identified, one of the most severe consequences is an Anti-Deficiency Act Violation (ADA). The history, definition, and trends associated with ADA violations are examined, and why these are important to the research question. Then, the definition and differences between policy and law are studied and what controls are in place concerning them. Chapter II concludes with methodology for data collection and analysis.

Chapter III is a presentation and discussion of the data collected from revision of policies, orders, and interviews with officials from service components. Data from the United States Navy, United States Marine Corps, and the United States Air Force were

collected. Data are presented and analyzed in terms of policy, guidance, areas of concern, and effective and ineffective practices. The analysis discusses advantages and disadvantages of how some services have attempted to address these issues.

Chapter IV provides the overview of general policy in relation to the DoD and shows how this research is an example. This chapter concludes with the research findings and recommendations to answer the research question posed in Chapter I. The lessons learned from Chapter III are also summarized and the limitations for this type of thesis research are explained. Finally, suggestions are presented for further study, which are useful to help resolve problems associated with centrally managed items.

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## **II. BACKGROUND AND METHODOLOGY**

The DoD FMR defines whether equipment requires the use of expense funding or investment funding. Chapter II gives a background on the DoD FMR and on expense and investment funding determination. If expenses and investments are incorrectly identified, one of the most severe consequences is an Anti-Deficiency Act Violation (ADA). The history, definition, and trends associated with ADA violations are examined, and why this is important to the research question. Then, the definition and differences between policy and law are studied and what controls are in place concerning them. The chapter concludes with methodology for data collection and analysis.

### **A. BACKGROUND**

Expense costs are defined in general terms as those that are “incurred to operate and maintain the organization, such as personal services, supplies, and utilities” (DoD FMR, Vol. 2A, p. 1-13). Investment costs are defined as those “that result in the acquisition of, or an addition to, end items” and “benefit future periods and generally are of a long-term character, such as real property and personal property” (DoD FMR, Vol. 2A, p. 1-13). The DoD FMR also provides guidelines for both expense and investment costs by listing specific costs under each category. For example, it lists civilian labor, food, clothing, and fuel as expense type items, and ammunition and explosives as investment type items. While costs budgeted under the Operation and Maintenance (O&M) and Military Personnel appropriations are considered expenses, costs budgeted under the Procurement and Military Construction appropriations are considered investments (DoD FMR, Vol. 2A, p. 1-13).

The DoD FMR also provides a visual guide, in the form of a decision tree, to aid users in distinguishing an expense item from an investment item, shown in Table 1. The first block of the figure introduces another category called a “centrally managed/asset controlled item” as the first criteria of whether an item can be categorized as an expense or investment.

<b>Expense/Investment Cost Determination</b>						
<b>Is the item a</b>	<b>If</b>	<b>Then</b>	<b>If</b>	<b>Then</b>	<b>If</b>	<b>Then</b>
Centrally Managed/ Asset Controlled Item?	Yes	Is the item purchased from DWCF?	Yes	Is the item part of a full funding effort? *	Yes	Classify as Investment
			No	Classify as Investment	No	Classify as Expense
	No	Is the unit cost more than \$250,000?	Yes	Classify as Investment		
			No	Classify as Expense		
* When intended for use in weapon system outfitting, government furnished material on new procurement contracts or for installation as part of a weapon as part of a weapon system modification, major reactivation or major service life extension.						

Table 1. Expense/Investment Cost Determination (From: DoD FMR, Vol. 2A, Chapter 1, October 2008, p. 1-18)

Trying to follow the decision tree can be confusing. For example, if the answer to the first question of whether an item is centrally managed is “no,” then the next question is, is the unit cost greater than \$250,000? If the answer to this second question is “yes,” then the item can be classified as an investment item. If the answer to the “greater than \$250,000” is “no,” then the item is classified as an expense item. On the other hand, if the answer to the first question of whether or not the item is centrally managed is “yes,” the next question is whether the item is to be purchased from the Defense Working Capital Fund (DWCF). If the answer to this is “no,” the investment classification is then selected, but if the answer is “yes,” one last question needs to be asked, is the funding part of a full funding effort? If “yes,” then select investment. If “no,” then select expense.

Several opportunities exist for when a user can go wrong. If the user chooses “yes” when it really should be “no,” at any point in the figure, the user could classify an item as an “expense” when it should be an “investment.” The greater the number of contingencies, which exist, the greater the potential mistakes made when classifying items as expense or investment items. The FMR does not explain the terms used in the questions very well. The answers to the questions may seem easy, but they are not intuitive to a novice user who is uninformed or unclear about the DoD or the component

services' financial policies and terms. Terms, such as "centrally managed," "controlled item," "DWCF," and "full funding effort" must be understood, otherwise, the figure does not assist users in the manner it was intended. A misunderstanding of any of these key terms can also lead to mistakes of funding, when the wrong appropriation is used based on the classification of an expense as an investment, or vice versa. This project focuses on the term "centrally managed" theme, the issues and pitfalls related to this term, and provides recommendations to prevent mistakes when dealing with centrally managed items.

The DoD FMR does not indicate which items should be centrally managed by each service. It leaves that discretion to each individual service. The Navy and Marine Corps choose to manage and procure certain items centrally to take advantage of economies of scale, ensure interoperability, and prevent fraud, waste and abuse. Examples of centrally managed items include items, such as ships, aircraft, military vehicles, commercial vehicles, and weapons. Most investment items are durable major end items, which have a long service life. In the Navy, centrally managed items are funded with procurement dollars regardless of dollar value. Most expense items are consumables, which are less durable, and have a short service life, so they are funded with O&M dollars.

Certain items, such as forklifts and computers, are investment items, which cost less than \$250,000, but are centrally managed, must be funded with procurement dollars. Not funding these items with procurement dollars can lead to fiscal law violations. In the past, the Navy has had Anti-Deficiency Act (ADA) violations due to lower echelon commands purchasing centrally managed items with O&M funds when the items should have been purchased with procurement dollars. While most commands clearly understand that certain items, such as major weapon systems are centrally managed, this is not clear when it comes to other items, such as generators and runway sweepers, which are centrally managed and cost less than \$250,000.

Six years ago, the Air Force decentralized the management of certain items and moved funding of these items from procurement to O&M funds. This action shifted authority and responsibility over previously centralized items to lower echelon

commands, making lower echelon commands responsible for the formulation and execution of these funds. This change may have resolved some issues the Air Force was facing to include the prevention of more ADA violations since the lower echelon units affected no longer had to determine whether an item was centrally managed or not. Yet, it also created unintended consequences due to the increased flexibility and much less control over the funding, execution, and tracking of the previously centrally managed items. Therefore, the research question posed is the following. Can the Department of the Navy improve the way assets are centrally managed based on lessons learned from the Air Force decentralization model?

It is important to the Navy to minimize problems associated with centrally managed items, reduce the potential for ADA violations, and to clarify the current policy on centrally managed items.

## **B. ANTI-DEFICIENCY ACT VIOLATIONS**

### **1. Defining the Anti-Deficiency Act**

“The Anti-Deficiency Act is actually a series of laws whose objective is to bind the executive branch of government to the limits on expenditures of appropriated funds” (Cheney, 2002, p. 2). The Anti-Deficiency Act is composed of three sections of Title 31 of the U.S. Code: Sections 1341, 1342, and 1517. In general, Section 1341 forbids against over obligations, obligating before an appropriation is made or available (Cheney, 2002). Section 1342 forbids against the acceptance of voluntary services in exchange for personal services that exceed those authorized by law (Cheney, 2002). Section 1517 prohibits over obligations and expenditures of an apportionment or an amount permitted by a regulation (Cheney, 2002).

Three additional laws relate to the Anti-Deficiency Act because a violation of any of these three laws usually leads to an anti-deficiency act violation. These are Sections 1301 (a), 1502, and 2805 of the Title 10 of the U.S. Code. Section 1301(a) is the “color of money” law and says that appropriations should be applied only for the items for which the appropriations were intended (Cheney, 2002). Section 1502, known as the “bona fide needs” rule, says that only those expenses properly incurred during the period

of availability should be applied to the funds, which had been set aside for that definite period (Cheney, 2002). Finally, Section 2805 states that the Secretary concerned may execute an unspecified minor military construction project, equal to or less than \$1,500,000, not authorized by law (Cheney, 2002).

## **2. Anti-Deficiency Act History and Trends**

The consequence of misinterpreting expense and investment criteria is a potential ADA violation. Anti-Deficiency Act history goes as far back as the early 1800s, but it was not until the year 1870 that the current law's predecessor appeared. The law stated that it was "not lawful for any department of the government to expend in any one fiscal year any sum in excess of appropriations made by Congress for that fiscal year, or to involve the government in any contract for the future payment of money in excess of such appropriations" (Hedlund, 1984, p. 8). Later, in the years 1905, 1906, and 1950, the act was revised. The purpose of these revisions was to make the act more stringent. For example, the 1905 revision added the threat of criminal punishment to those who violated the act, and the 1906 revision added the prohibition of waivers to the "apportionment by monthly allotments" rule except under emergencies or bizarre circumstances (Hedlund, 1984, p. 8). Then, in 1950, criminal penalties for those who knowingly and willfully violated the act were ratcheted up, allowing either a maximum fine of \$5,000 or a 2-year imprisonment sentence, or both (Hedlund, 1984).

In spite of the ever-tightening tendency of the act, violations of the act have persisted over time. In fact, a 1955 study by House Appropriations showed that the DoD committed the most serious violations. Also, from 1963 to 1973, another report showed that the Pentagon alone committed 216 out of 278 overall violations that totaled \$168 million. One of the largest violations committed within DoD was one committed by the Navy in 1972 totaling \$110 million. However, violations do encompass amounts as small as ten dollars or less (Hedlund, 1984).

A more recent study analyzed 62 anti-deficiency act violations in the Department of the Navy during the period between 1987 and 1997. The study showed that for violations of statute, 87% of violations were Section 1517 violations, 13% were Section 1341 violations, and not one 1342 violation was reported.

The following results were reported for violations by availability of appropriations, an assessment as to whether funds were “legally available” for a given obligation or expenditure.

- 53% occurred as a result of the purpose not being authorized (Section 1301)
- 31% occurred due to obligations or expenditures being outside of the amounts allowed by the appropriation
- 16% occurred due to obligations or expenditures being outside of the time limits approved by the appropriation (Cheney, 2002, pp. 22–23)

The study concluded that 16% of the violations occurred due to obligations or expenditures being outside of the time limits approved, were due when “commands unknowingly created liabilities in advance of appropriations by letting complex contracts, or because of communication errors between a command and claimant” (Cheney, 2002, p. 24). The 31% of total violations that occurred outside of the amounts authorized, were mainly due to poor accounting practices, such as “the failure to post obligations or expenditures in a timely manner,” which led to the incorrect assumption that more money was available to spend than what was truly available (Cheney, 2002, p. 24).

As stated previously, a Section 1301 violation or purpose violation is not in itself an anti-deficiency act violation, but it usually leads to one. A typical scenario is: (1) a Section 1301 violation is discovered; (2) adjustments are made in the accounting system to charge the proper account(s); and (3) charging the proper account results in an over-obligation or an over-expenditure in that account (Section 1341 or 1517 of the Anti-Deficiency Act) (Cheney, 2002).

A specific example that clearly depicts the confusion that leads to a purpose violation occurred in the Navy in fiscal year 2003 when Naval Air Station (NAS) and Training Wing One (TW-1) Meridian, Mississippi had a requirement for two street sweepers because NAS and TW-1 were responsible for maintaining airfield runways and

ensuring aircraft were protected from foreign object damage (FOD). The unit cost of each street sweeper was below the investment threshold of \$250,000, so NAS and TW-1 obligated O&M funds for two sweeper trucks. NAS and TW-1 officials did not know that street sweepers are considered capital assets, are centrally managed by the Naval Facilities Engineering Command (NAVFAC) and are properly funded with Other Procurement Navy (OPN) appropriations.

The Government Accountability Office (GAO) reported the street sweeper case as an ADA violation; more specifically, as a 31 U.S. C. 1517 violation in fiscal year 2005. The remedial action required NAVFAC provide the necessary Other Procurement, Navy funds of \$313,786 to cover the purchase cost of the street sweepers (GAO No. ADA-05-15). This amount was in excess of their available balance.

ADA violations are infrequent, but are the serious consequences of, for example, incorrectly identifying an investment as an expense. These violations continue to occur for reasons of negligence, misinformation, and lack of knowledge. They are a source of embarrassment to the top leadership in the services where these violations occur because they are reported to the House of Representatives, the Senate, and the President of the United States. How then does leadership deal with this problem? What controls are in place to ensure that these occurrences are rare? The answer lies in the implementation of policies and laws.

### **3. Policy, Law, and Controls**

Laws are implemented through policy. For example, the law (1994 Defense Authorization Act) says, “homosexual conduct is incompatible with military service.” From this law, the policy implemented is, “don’t ask, don’t tell.” A given law could be implemented through different policies. In each year’s Defense Appropriation Act, Congress has permitted the DoD to utilize its O&M appropriations to purchase investment items having a unit cost less than a certain threshold. In the 2007 DoD Appropriations Act, the 109<sup>th</sup> Congress issued Public Law 109-289 (120 Stat. 1280), which stated:

SEC. 8031. During the current fiscal year, appropriations which are available to the Department of Defense for operation and maintenance may be used to purchase items having an investment item unit cost of not more than \$250,000.

This law only addresses the \$250,000 threshold and is implemented through policy in the DoD FMR regarding expense and investment criteria, and then, each service can in turn implement their own policies interpreting the FMR, which is based on the law.

Webster's on-line dictionary gives the following definitions for policy; specifically, as it pertains to the economics domain.

- A definite course or method of action from among alternatives and in the light of given conditions to guide and determine present and future decisions
- A specific decision or set of decisions designed to execute such a chosen course of action
- A projected program consisting of desired objectives and the means to achieve them

The first three definitions of law as defined by the Merriam-Webster on-line dictionary are as follows.

- A binding custom or practice of a community: a rule of conduct or action prescribed or formally recognized as binding or enforced by a controlling authority
- The whole body of such customs, practices, or rules
- (Common law): the control brought about by the existence or enforcement of such law

From the definitions given, law can be considered policy, but policy cannot be considered law. Policy "guides" according to the first definition and arguably, law can also be seen as a type of guide, albeit, a more stringent type of "guide," one that must be followed. Laws denote strictness and control; they are "binding" and are "enforced by a controlling authority." Given these definitions, breaking a law tends to carry heavier punishment than breaking with a policy. Punishment for breaking the law often means paying a fine or serving a jail sentence while breaking with policy can translate to a formal reprimand or a bad fitness report from the boss.

No official punishment for potential ADA violations exists; punishment for actual ADA violations can be formidable. Conviction of a violation could mean suspension of duty without pay or removal from office, as well as criminal penalties when personnel knowingly and willfully commit such violations. Punishment can also result in a reduction in grade or a debarment from Federal employment for up to five years, suspension, reprimand, or a penalty of up to \$1,000 (Inspector General (IG) DoD, 2004, p. 1).

Almost anybody in a leadership role in an organization can make policies, while Congress is the only branch of government authorized to make federal laws. Currently, controls exist that discourage anti-deficiency act violations at several levels of government ranging from the top, at the Congressional level to the bottom, at the execution levels.

In accordance with the Constitution, Congress holds the “power of the purse” (Hedlund, 1984, p. 8), while the executive branch executes legislation passed by Congress. The ADA was created to give Congress more power and control over those in charge of executing the budget. Since Congress is responsible for authorizing and appropriating government funds, it needs control mechanisms to ensure that funding is spent according to their directions.

Control points used by Congress include specific language inserted into the appropriations act that details exactly how funds should be spent. This is deemed “statutory language,” meaning that this type of language is binding by law. Conference committee reports also contain exact language that provides direction as to how the money should be spent and, although this language is not legally binding, it does carry a lot of weight. Failure to adhere to Congressional report language likely results in the “wrath” of Congress by way of “lengthy interrogations at hearings, requests for reports detailing how money was or is to be spent, and, sometimes a tightening of thresholds for reprogramming dollars in budget execution if Congress loses faith in DoD stewardship” (Jones, 2008, p. 208).

Those who execute the budget at the top echelons of the federal government, such as at the department level, also exert some control over the levels below them. Departmental level officials are authorized discretion as to the level at which to set the responsibility for anti-deficiency violations. For example, if departmental officials perceive that a unit is going to have a particularly difficult year in execution, they can set anti-deficiency responsibility at one level higher. This tactic allows the departmental official the flexibility to shift funding into the unit's account from other accounts in the event of a shortfall, and effectively, excludes that unit from violating the law for overspending (Jones, 2008).

At the execution level, internal controls can be defined as, "a system of checks and balances that are used within an organization to ensure that the rules and regulations that establish process boundaries are being followed" (Cheney, 2002, p. 16). Internal control standard procedures are spelled out in the GAO approved "Standards for Internal Control in the Federal Government" publication. Cheney (2002) suggests that:

to keep Anti-Deficiency Act violations to a minimum, federal managers and leaders need to continually assess and evaluate their internal control structure to assure that it is well designed and operated. Specifically, managers and leaders need to examine internal control to determine how well it is performing, how it may be improved, and how it corresponds to the five standards for internal control: control environment, risk assessment, control activities, information and communications, and monitoring. (Cheney, 2002, p. 17)

Internal controls are "first line of defense" tools that managers at the execution level should use to ensure that correct procedures are applied in all activities. When this first line of defense breaks down at any area, trouble can rear its head in the form of anti-deficiency violations and other problems. What tools should leadership implement to ensure that subordinates are doing the right thing when it comes to dealing with centrally managed items? Should the Department of the Navy emulate policy changes adopted by the Air Force concerning centrally managed items, where the Air Force decentralized certain centrally managed items? Can the Department of the Navy improve the way its assets are centrally managed based on the experience of the Air Force to prevent ADA violations? This research attempts to answer these questions.

## **C. METHODOLOGY**

To gauge what lessons can be gleaned from the Air Force decentralization model, it was first necessary to understand the current Navy and Marine Corps policies and practices concerning centrally managed items. The Navy Financial Management Policy Manual (FMPM) was examined to understand the Navy's criteria for investment and expense items. Next, how Naval Facilities Engineering Command (NAVFAC) centrally manages vehicles, railway, construction and material handling equipment and what systems are used to do so were studied. The publications and tools Naval Supply Systems Command uses to define and describe centrally managed items were also researched. The final step for the Navy was reviewing Budget Submitting Office (BSO) echelon II policies and interviewing budget and financial management officials at the FMB and BSO level to ascertain how they manage centrally managed items, the challenges they face, how they deal with those challenges, and their recommendations to improve the current practices.

For the United States Marine Corps, the policies and central management guidance used for centrally managed items were analyzed. From a recent draft order and interviews with Marine Corps officials, the authors addressed and explained specific areas of concern for the Marine Corps. Also discovered was what the Marine Corps has done to address the issues concerning centrally managed items, what worked, what didn't work, and where they currently are on addressing the issue.

For the Air Force, their instructions on centrally managed items were reviewed, and the process of decentralizing certain previously centrally managed items by changing the funding from procurement dollars to O&M dollars with Program Budget Decision 703 (PBD-703) explained. The authors interviewed Air Force officials involved with the transition, as well as officials who currently work with centrally managed items, described what has worked and what did not work with the transition, and what changes they would like to make to the current policy. The Air Force policy prior to decentralization, the transition phase, and the current Air Force policy were compared and contrasted.

The interviews with the service official and experts focused on retrieving information concerning issues, such as centrally managed items and flexibility and control, defining centrally managed items, funding, technical solutions, decision making criteria, listing and categorizing centrally managed items, and ADA violations. From this data, what actual or potential problems were faced in each service with their respective policies on centrally managed items were ascertained. It was possible to establish a baseline of how differently the Navy, Marine Corps, and Air Force classify centrally managed items, which helped identify problems related to how each service interprets and categorizes centrally managed items. Common problems systemic for each of the services were discovered. The data were analyzed to make recommendations to FMB-5 based on lessons learned from the organizations reviewed; specifically, what lessons can be learned from the Air Force transition from a centralized model to a decentralized model, and back to a new and improved centralized model.

### **III. DATA COLLECTION, PRESENTATION AND ANALYSIS**

#### **A. DEPARTMENT OF THE NAVY**

##### **1. Policy and Guidance**

The Navy has multiple, overlapping, and uncoordinated policies stemming from sources, such as the Navy's Financial Management Policy Manual, Civil Engineer Support Equipment policy, and Navy Supply policy. This section summarizes the policies and guidance with respect to expense, investment, and centrally managed items. The data show how different communities and functional organizations in the Navy make and use their own policies and guidance.

##### *a. Financial Management Policy Manual*

Chapter 3 of the Department of the Navy Financial Management Policy Manual (FMPM) defines expense and investment criteria, and gives some examples of items within each category. Expenses are defined as, "costs budgeted in and financed by Operation and Maintenance" (NAVSO P-1000 2002, p. 3-1). Examples of consumable expenses are classified and listed in nine categories. These include: "labor, rental payments on leases, food, clothing, and petroleum oil, and lubricant items; expendable supplies and materials; facilities sustainment; O&M funded restoration and modernization projects; and items not designated as Appropriation Purchases Account or Marine Corps Appropriation Stores Account;" and, "all other equipment items not in the preceding categories that have a unit value of less than \$250,000 and which are not designated for centralized item management and asset control" (NAVSO P-1000 p. 3-2, 2002).

Investments are defined as, "cost of capital assets of the Department of Defense, such as real property and equipment that provide new or additional military capabilities or maintain existing capabilities" (NAVSO P-1000, 2002, p. 3-2). Examples of investment items are classified as "all items of equipment, including assemblies, spares and repair parts, which are subject to centralized item management and asset control by an inventory manager or an inventory control point in the central supply system,

including items designated as Appropriation Purchases Account or Marine Corps Appropriation Stores Account,” excluding items under NWCF management and, “other items of equipment, except for those designated as expense under subparagraph 2, having a system unit cost of \$100,000 or more are investment items,” costs associated with construction and ship conversion, and other investment costs, specifically, “any cost designated as expense under subparagraph 2 when included in the production or construction of an investment item is considered an investment cost, except for costs associated with military personnel” (NAVSO P-1000, 2002, p. 3-3).

The FMPM lists conditional cases that take precedence over the expense and investment criteria listed above. This includes initial outfitting, ammunition, explosives, modification, maintenance, technology refresh, and installation of equipment. The FMPM also specifies that specialized equipment, such as test equipment and trainers is centrally managed and financed by major commands, which have technical responsibility for the requirement (NAVSO P-1000, 2002).

***b. Civil Engineer Support Equipment Policy***

Naval Facilities Engineering Command (NAVFAC) centrally manages Budget Activity 5 Civil Engineering Support Equipment (CESE). NAVFAC is the single manager within the Navy for automotive vehicles, construction and weight handling equipment, and railway equipment. NAVFAC determines the requirements determination, programming and budgeting for acquisition, utilization, maintenance and operation for this equipment. BSOs are instructed to comply with management, reporting, and other requirements specified by NAVFAC concerning CESE items (OPNAVINST 11240.8H, 2008). The NAVFAC P-300 Management of Civil Engineering Support Equipment contains specific guidance for ground maintenance equipment and leases. The Construction Automotive and Specialized Equipment Management Information System (CASEMIS) descriptive reference table provides the information and lists of specific CESE equipment (NAVFAC P-300, 2003).

*c. Navy Supply Policy*

The Naval Supply Procedures Publication 485 (P-485), Volume II Appendix 18, lists cognizance symbols (commonly referred to as cog), which are two-digit alphanumeric codes prefixed to identify national stock numbers (NSNs) and the cognizant inventory manager, the stores account, and the type of material (NAVSUP P-485, 1997). Most Navy logisticians and supply officials are familiar with cog codes, while most comptroller and financial staff are not. Generally, if an item bears an even-numbered cog, such as 0, 2, 4, 6, and 8 (except 2A and 8A), this denotes that the item is carried in the Appropriation Purchases Account (APA) and funded with procurement dollars, which are centrally managed. For example, NAVFAC is the inventory manager for 2C (major construction and civil engineering equipment), NAVSEA is the inventory manager for 2F (major shipboard and electronic equipment), NAVAIR is the inventory manager for 4V (aircraft engines), and Navy Inventory Control Point Mechanicsburg (NAVICP MECH) is the inventory manager for 6L (Surface/Subsurface Training Devices). Odd number cogs, 1, 3, 5, 7, and 9 denote items carried in the NWCF, which are mostly consumable, funded with expense or O&M funds, and not centrally managed. These items, however, do have an inventory manager and a unit assigned for technical responsibility.

Another source used by logisticians and supply personnel is DoD EMALL, which shows whether an item is centrally managed. DoD EMALL is an Internet based Electronic Mall. It allows military customers and other authorized government customers to search for and order items from government and commercial sources. DoD EMALL is a DoD program operated by the Defense Logistics Information Service (DLIS) and provides a secure location to shop and order NSN's and commercial items. DoD EMALL is used by DoD, military services, Federal government and Civil Agency personnel, budget and finance offices, and contractors with government contracts. DoD EMALL is a powerful search engine, which allows access to product information from a wide variety of government, and supplier managed catalogs, including over 1,450 commercial catalogs with over 32 million items available to registered users (DoD EMALL, 2009). In the product information for items with NSNs, DoD EMALL lists an

Acquisition Advice Code. All items in DoD EMALL coded “J” are identified and defined as, “not stocked, centrally procured # (non-stocked items) IMM/service centrally managed but not stocked item, procurement will be initiated only after receipt of a requisition.” Navy budget officials use DoD EMALL for NSN items to determine whether they are centrally procured. If centrally procured, they are centrally managed, but DoD EMALL does not tell the inquirer who centrally procures the item (Anonymous, personal communication, August 25, 2009).

## **2. Practices and Areas of Concern**

In the Navy, each Budget Submitting Office (BSO) and functional organization has its own practices and areas of concern regarding centrally managed items. This section discusses how each organization deals with centrally managed items by establishing and operating with different practices. The BSOs operate in a stove piped structure because practice guidelines are not standardized, but delegated to the organizational level. Best practices are not normally shared between BSOs. It becomes evident that central management is not central at all. It is dispersed among various commands that centrally manage subsets of equipment.

Navy echelon III Budget Submitting Offices (BSOs) and below contact echelon II or FMB budget analysts to ascertain whether items are centrally managed. A Navy FMB official stated that when determining whether an item is centrally managed, they refer to the FMPM budget activity and determine which echelon II BSO owns the preponderance of that equipment. Once the BSO that owns the majority of that equipment is identified, FMB contacts a budget analyst at the echelon II BSO to discover if the item is centrally managed. Each echelon II BSO has their own policy on centrally managed items, but no list or database exists or has been published to identify which items are centrally managed.

Organizations at the echelon II BSO level, such as NAVAIR and NAVSEA, are authorized to make their own policies concerning centrally managed items. The policies made at this level can be more stringent than the DoN and DoD policies on expense and investment items, as long as they comply with the DoN and DoD policies. At the FMB

level, an official stated that policies are not only changed when issues or problems arise, but also when trying to determine whether or not more efficient policies exist to adopt based on lessons learned from trends or other service components. Generally, issues are addressed at the lowest level by the echelon II comptroller with a less formal email policy clarification, a more formal financial note, or a FMB financial management policy determination for systemic issues (Anonymous, personal communication, August 25, 2009).

An echelon II budget official believes that trying to compile a list of items by nomenclature would be obsolete once published and would be difficult to compile given the number of items managed in the Navy. The official believes that it would be better to list general categories of items as listed in the P-485, and if these had been available previously, they could have helped to prevent previous ADA violations. Based on their experience, the Navy echelon II official believes that most units base purchase authorization on whether the unit cost is above or below \$250,000. If an item is below the expense and investment threshold, some lower echelon units think they can purchase the equipment with O&M funds. Most units know that vehicles and forklifts are centrally managed by NAVFAC and NAVSUP, but historically some units have actually attempted to purchase these items. The Supply Corps is familiar with the information in the P-485, but most financial managers are not familiar with the P-485, and in which volume and appendix the information is contained. To inform and educate personnel, the Navy official offers and conducts cross training for financial managers, engineers, logisticians, and contract personnel at both of the echelon II BSOs interviewed.

NAVSUP provides some of this information on its website, but the layout of the website changes. As a result, the echelon II budget official had a difficult time accessing the information, and also, had issues with accessing the site because of CAC certificate identification problems to access the unclassified P-485. The official suggested providing a “do not buy with O&M funds list” of items purchased with procurement dollars, similar to the list given to government purchase cardholders. With the proliferation of government purchase cardholders, unit members with purchase cards do not know what is and is not centrally managed, since the cardholders are generally in administrative jobs.

For example, they may not know that they cannot buy a forklift, vehicle, or a Secure Telephone Unit (STU) phone. The purchase cardholder is only concerned with following the purchase card rules. At the echelon II level, the official stated that they are able to catch, preclude, or stop these types of purchases before they develop into a more serious problem.

NAVICP can also search for cog codes, so the echelon II official often verifies with NAVICP to ascertain the cog code for an item. Sometimes, COG codes have not yet been assigned for Commercial off the Shelf (COTS) items, but items are easily purchased on the Internet with a unit government purchase card. Towards the end of the fiscal year, if units receive additional O&M funds, units typically check with the echelon II budget office to discover whether they can purchase the equipment. For example, if the unit does not know the cog code, the echelon II comptroller can do the research to find the cog code, with the assistance of NAVICP, or check with the Business Financial Manager (BFM) in the Program Office to determine how they should be funded, and whether an upgrade or modernization is already scheduled. If an upgrade or modernization is scheduled, a fleet unit cannot use O&M funds, because the FMR states that all upgrades are funded with procurement dollars. No centralized database exists that informs who centrally manages specific items, such as weapons. The Navy official knew that a machine gun was centrally managed, but did not know who the central manager was for a specific machine gun. By networking, making numerous phone calls, and through emails, which prove to be time consuming, the official was able to learn that NAVSEA was the Navy's central manager for the specific type of machine gun.

An echelon II Navy official was concerned that if certain items are decentralized, those items need to be treated like consumables and do not receive allowances or spare parts stocked for them. A program office might still be required to re-outfit and issue spares, as needed. The official cited an example where the program office for a particular type of machine gun was able to have NAVICP designate the gun with an odd cog code without any spares allotted. Meanwhile, the machine guns were initially issued as a "free issue" item. The fleet units were happy until the machine guns started breaking and required maintenance because no replacements could be provided as "ready for issue"

since replacements had not been allotted. Additionally, with the odd cog designation, the gun was not free issue. Thus, the unit either had to purchase a new gun or pay for repairs out of their Operational Target (OPTAR) or O&M funds, while the platform to which the gun belonged, remained non-operational without the gun. When the fleet realized this, they looked to the program office, which had designated the odd cog code, to resolve the dilemma. Normally, the machine guns have an even cog code and the program office allots for replacements and spares for free issue to the fleet for damaged, lost, or stolen items (Anonymous, personal communication, September 15, 2009).

According to another Navy echelon II budget official, centrally managed items are purchased outside the stock fund, and the echelon II unit provides the full gambit of asset management. This includes buying a warehouse services contract, storing those items in the warehouse, tracking the distribution, tracking carcass returns, and establishing a repair contract to place the carcass returns on and then put them back into inventory as ready for issue. In the DoD FMR expense and investment decision table, the second question asks, “is the item purchased from the DWCF?” According to a Navy Echelon II budget official, most financial managers do not understand what items are purchased from revolving funds. The official believes most financial managers think WCF purchases are purchased with O&M funds instead of procurement funds planned and budgeted for by a surface warfare center, undersea warfare center, or an echelon II BSO, such as NAVAIR.

The official believes that when the DoD established the DWCF, stock funds were incorporated into the DWCF, as part of the revolving fund construct. “Stock fund” is now an antiquated term, which is synonymous with WCF. The FMR uses DWCF in the question, but the FMR does not clarify whether or not this includes component WCFs, such as the Navy Working Capital Fund. According to the Navy official, the FMR’s question should be changed to, “is the item purchased from the stock fund?” If the answer is yes, then ask, “if the item is part of a full funding effort?” If yes, then classify it as an investment. Full funding efforts are budgeted for in Other Procurement Navy (OPN) funding, if the item is outside the new construction time frame. If the item is not purchased from the stock fund, then it should be classified as an investment because the

unit who purchased the item is controlling it themselves with the full gambit of asset management. According to the official, this explanation is not provided in the FMR, and the FMPM (NAVSO P-1000) does not adequately describe the term “centrally managed.” Consequently, most Navy personnel do not understand how central management works.

The official also believes that the interpretation of central management differs between organizations, such as NAVSEA and NAVAIR, because the Navy policy officials have not come to a consensus on the definition of central management. The official believes a problem exists because neither the FMR nor FMPM contain a list of centrally managed items. An example provided was a new requirement for afloat body armor for riverine craft, which have a unit cost between \$1,500 and \$2,000. NAVSEA bought warehouse space and the initial cadre of afloat body armor and established a distribution system, a carcass return system, and a repair contract to return carcasses to ready for issue condition. NAVSEA worked with FMB-5 to establish NAVSEA’s central management of all afloat body armor; NAVSEA became the central manager for the entire Navy. The problem was that not everyone in the Navy was aware of that. The NAVSEA comptroller wrote a financial note stating that afloat body armor was centrally managed, and had the Navy Comptroller concur with the financial note to define how body armor is centrally managed and paid for with OPN funding. The Navy official said this process does not always happen, because personnel misinterpret the FMR, and purchase items, which are actually centrally managed. In the official’s opinion, it is essential to agree upon a consensus on the definition of centrally managed. Also, a database of centrally managed items should exist so the funds can be budgeted for or transferred to the central management agency to purchase the items required for the entire Navy, not just NAVSEA (Anonymous, personal communication, September 22, 2009).

In summary, central management is delegated to BSOs, but not aggregated by one command, and different BSOs have different opinions and interpretations of central management. In practice, pockets or subsets of central management exist, which allow flexibility, but can create areas of concern if information is not shared and communicated about which items are centrally managed and by whom.

## **B. UNITED STATES MARINE CORPS**

### **1. Policy and Guidance**

The United States Marine Corps purchases centrally managed items with procurement dollars. If items are not centrally managed, but have a system unit cost that is equal to or greater than the expense/investment threshold of \$250,000, investment appropriations are also used. Items not centrally managed and possessing a system unit cost less than \$250,000 are financed using operations and maintenance funding or expense appropriations. In addition to the DOD FMR, the Marine Corps also relies on other guidance established by the Navy, such as the NAVSO P-1000 “Financial Management Policy Manual.”

The Marine Corps currently uses the DoD FMR criteria to identify how an item should be funded (whether with procurement or O&M) for only a portion of items that fall within the Combat Development or Acquisition/Life Cycle Management framework. A Table of Authorized Materiel Control Number (TAMCN), within a system called the Total Force Structure Management System (TFSMS), identifies them. This system provides data on each piece of equipment, such as the responsible Program manager and the Stores Account Code (SAC). The SAC can aid in identifying if an item should be bought with procurement funds or O&M. For example, an item identified as a SAC-3 item is a centrally managed item to be funded with procurement dollars, while an item identified as a SAC-1 item is funded with O&M dollars, except for initial issues.

While Marine Corps Combat Development Command primarily uses TFSMS, other functional areas use systems, such as Supported Activities Supply System (SASSY), Marine Corps Integrated Maintenance Management System (MIMMS), PC MIMMS, Asset Tracking, Logistics, and Supply System (ATLASS), which are used at all levels of command for logistics, maintenance, and supply management; and Standard Accounting, Budgeting, and Reporting System (SABRS), which is used by financial managers. These systems do identify some centrally managed items, and only some of the systems interface with each other.

## **2. Practices and Areas of Concern**

Similar to Navy practices, Marine Corps practices concerning centrally managed items exist in multiple forms and are uncoordinated. Currently, Marine Corps central management guidance exists only for those items that fall within the Combat Development framework. Financial administrators have recently identified the need for guidance, which identifies appropriate funding for all equipment items. Marine Corps officials have noticed that many officials are unsure of exactly what constitutes “centrally managed items.” An official stated that it seems to be very clear when it comes to large end items and items procured and distributed by the Marine Corps Systems Command (MARCORSYSCOM), but not so clear when it comes to items, such as computers, security systems, and base support equipment. Much of this confusion was brought about because of supplemental funding for operations, such as Operation Iraqi Freedom (OIF), Operation Enduring Freedom (OEF), and other Overseas Contingency Operations (OCO). Additionally, special items, such as physical security, garrison equipment, and IT equipment and audiovisual and telecommunication equipment, have created areas of concern when trying to determine whether specific items are centrally managed or not.

Marine Corps officials feel clearer policy is needed to address authority, roles and responsibilities, and procedures for procurement of PMC-funded items not executed in the normal Combat Development or Acquisition/Life Cycle Management framework, and which, are not already accounted for in TFSMS for the types of items previously listed. Marine Corps officials were so concerned about this issue, that a Marine Corps Order (MCO) has been drafted to define centrally managed programs. Specifically, Table 2 lists the centrally managed programs.

<u>Budget Line Item</u>	<u>Program</u>
510109	Audiovisual and Telecommunication
505098	Command Support Equipment
430298	Commercial Cargo Vehicles
430398	Commercial Passenger Vehicles
262198	Garrison Mobile Engineer Equipment
261998	Material Handling Equipment (I&L)
505198	Warehouse Modernization
500198	Base Telecommunications
508698	Physical Security
110898	Marine Common Hardware Suite

Table 2. Marine Corps Centrally Managed Functional Areas of Concern (From: MCO 7100.XX Draft, 2009, p. 2).

According to Marine Corps officials, different organizations within the Marine Corps centrally manage different types of items; in essence, aligning functional expertise and management responsibility within these organizations to specific types of items at the echelon II level. The Plans Policy and Operations (PP&O) organization is mainly responsible for physical security. Installations and Logistics (I&L) is responsible for various types of items, such as command support equipment, commercial cargo and passenger vehicles, warehouse modernization, etc. Command and Control, Communications, and Computers (C-4) is responsible audiovisual and telecommunication, base telecommunication, and common hardware suite items. Finally, Training and Education (TECOM) and MARCORSYSCOM are each responsible for other types of equipment.

Officials were concerned that the terminology used in categorizing items can be confusing, and that terms, such as “centrally managed program,” “centrally managed items,” “centrally procured items,” and “program of record” need clarification. For example, a centrally procured item is an item initially purchased via a central agency. It can be either an expense or an investment item. While a centrally controlled item can be purchased locally using O&M funds, it must be registered at a central location.

Another area of concern, which often arises, occurs when the Marine Corps needs to purchase a new item. No central authority exists that decides whether a new item is to be centrally managed, what is and is not centrally managed is determined at the echelon II level. Instead, administrators at the functional organization that deals with the general category of items related to the new item decide whether the item should be centrally managed. In the meantime, confusion prevails as the information of what organization manages the item is not yet available (MCO 7100.XX Draft, 2009).

Furthermore, officials are concerned that no single requirements process similar to the Combat Development process exists, which defines, validates, and documents requirements. A lack of uniformity also exists concerning how these items are managed, with each organization having its own policies and procedures. These policies and procedures are not widely known, and as an official recently stated, no central location exists to go and find this information.

When Marine Corps administrators first began looking at these issues with centrally managed programs a few years ago, they thought several of these issues could be addressed by compiling a list of centrally managed items and placing it in a database for all to see. They hired a contractor to create a comprehensive list of all centrally managed items. The contractor discovered that TFSMS was already a repository for the majority of items purchased in the Marine Corps; however, TFSMS is only used by Development Command and focuses on combat equipment. Administrators had to decide whether they could use this technology to include those items not already resident within TFSMS. Sample data was pulled from TFSMS, but administrators discovered overlap in systems used by other echelon II commands and numerous items to list. Once a list was created, it would soon be obsolete with the addition of new centrally managed equipment to the Marine Corps inventory. They needed a simpler tool. Not wanting to duplicate efforts and create yet another database for those items left out of TFSMS, administrators began looking at other options.

The notion of drafting a Marine Corps-wide order surfaced as a possible solution. As one administrator put it, no consistent way of applying terms existed, such as “centrally managed,” the order would attempt to clarify terms that led to confusion.

General categories of items and the functional representative responsible for managing such items would be posted. These items would only include centrally managed items. In the end, the order would be published in the hopes of clearing up any misconceptions on centrally managed programs and providing a central “location” for everyone in the Marine Corps to go to for guidance (Anonymous, personal communication, August 6, 2009).

In summary, lack of uniformity concerning the meaning of terminology associated with central item management terminology, is experienced by personnel at all levels. This is a critical area of concern since personnel without adequate knowledge are not be able to make correct decisions if they do not possess or cannot attain the requisite knowledge. Finally, different functional organizations and communities manage different sets of centrally managed items, with each having its own guidelines and practices. To add to the confusion, information on which organization manages what items is not shared.

## **C. DEPARTMENT OF THE AIR FORCE**

### **1. Policy and Guidance**

Air Force Instruction (AFI) 65-601 Volume 1 Budget Guidance and Procedures explains how the Air Force distinguishes between expense and investment costs. The Air Force provides Figure 1 in the instruction manual.

The Air Force diagram is mainly based on the DOD FMR policy. While it is a simpler version of the DOD FMR expense/investment diagram since it excludes the Working Capital Fund (WCF) and full funding effort criteria, it does not add value. It also does not actually clarify what a “centrally managed/asset controlled item” is.

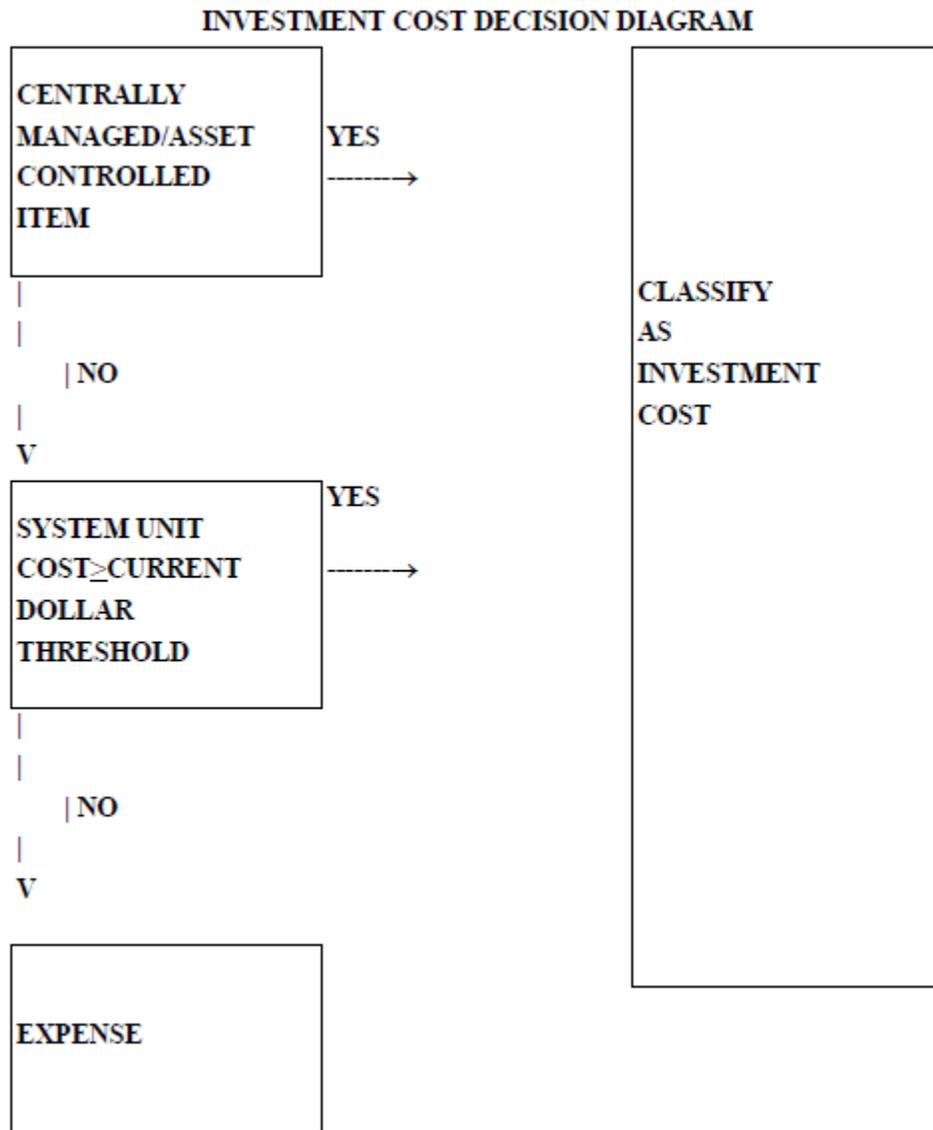


Figure 1. Investment Cost Decision Diagram (From: AFI 65-601, Vol. 1, 2005, p. 67)

More specifically, AFI 65-601 provides entire sections on whether certain items should be appropriated with expense or investment funds. One of the items, discussed in section 4B, is Information Processing Equipment (IPE), such as local area network (LAN) acquisition, ancillary IPE (personal computers (PC), printers, etc.), embedded computers, and PC application software loaded on network file servers. This section has detailed information and criteria, which spans five and a half pages. Other sections, such as section 4E, discuss technical data and the different contingencies involved with this.

For example, discussed are the acquisitions, modifications, and post acquisitions and modifications pertaining to technical data, which functions should be funded with O&M funds, and which should be funded with investment funds (AFI 65-601, Vol. 1, 2005).

*a. Air Force Decentralization and Program Budget Decision 703*

In 2001 and 2003, the Air Force attempted to decentralize support equipment funding, but concerns delayed the effort. Air Combat Command (ACC) provided non-concurrence with the idea because the Information Technology (IT) system in place was inadequate to support this effort. ACC was also concerned that this shift would overburden MAJCOM staff due to increased workloads. The Headquarters Air Force (HAF) delayed the initiative pending IT Tool development.

The Air Force wanted to move towards a decentralized model because the HAF was having difficulty defending the Program Objective Memorandum (POM) due to the corporate structure of the Air Force; the HAF was too far removed from the processes at the Major Command (MAJCOM) level. POMs were being built with straight-line inflation methodology versus real computations. Also, these estimates did not reflect MAJCOM's operational needs and did not take into account project service life.

Another issue was support equipment buys not directly linked to current warfighter prioritized needs. According to HAF, the process was fragmented, with no direct link between requisitions, buys, and deliveries. Air Force administrators hoped that decentralization would place MAJCOMs in direct control of requisitions, buys, and deliveries. This direct control would lead to (1) decreased bureaucracy and provide MAJCOMs with increased flexibility to make changes readily throughout the PPBE process; (2) quicker deliveries of items to the warfighter; and (3) results would provide a better representation of MAJCOM priorities (HAF, 2005).

This initiative was important to the Air Force because it would, (1) provide “the warfighter with the equipment items in minimal time and at a reasonable cost,” and (2) support the “warfighter priorities during execution,” giving him “the ability to react to emerging requirements” (U.S. Air Force, n.d.).

As in prior years, the MAJCOMs had several concerns with the decentralization initiative. The MAJCOM staffs were initially flustered with the decentralization of vehicles. They had grown accustomed to the current processes and liked how these functioned. They were also afraid that once they had gone through all the trouble of decentralizing, they might end up back at a centralized model if the decentralized model did not work. As far as the decentralization of the support equipment, the ACC, as before, was still concerned about the increased workload with no additional manpower approved. Also, they still felt that the IT tools in place were inadequate to deal with this new change. Yet, when it came to the overall initiative, deemed the Equipment Transformation Initiative, initial hesitations were finally overcome. The MAJCOMs got on board with a 3-star commitment and coordinated approval with the Financial Management (FM), Logistics (LG) and Plans, and Programs (XP) branches (HAF, 2005).

The Air Force 2006 budget estimates submitted to Congress in February 2005 included a \$3.2 billion transfer from Other Procurement to O&M appropriation (Active, Air National Guard and Air Force Reserves) because of the increased threshold and the Equipment Transformation Initiative (ETI).

After the budget estimate was submitted, Program Budget Decision (PBD) 703, was issued by DoD, which realigned equipment with a system or item cost below the threshold of \$250,000 from the procurement to the O&M portfolio. In effect, this action decentralized items previously centralized under the procurement appropriation. The “Items Less Than \$5M” lines were consolidated, where appropriate, and are listed in Appendix A from the FY2006 Air Force Investment Reduction Request (Department of the Air Force, 2005).

Program Budget Decision 703 approved the creation of six new program elements that would directly “map back” to the investment items reprogrammed from procurement to O&M. Table 3 presents a list of the codes created to track the realigned support equipment items, with the Air Force Element of Expense Code (AFEEIC) 638 (Lean Equipment Management Support Equipment), especially created for this initiative to ensure funding accountability.

63812	Aircraft Support Equipment
63883	Electrical Support Equipment
63817	War Consumables
63884	Other Base Maintenance Support Equipment
63882	Vehicle Support Equipment
63886	Replenishment Spares

Table 3. Air Force Lean Equipment Management Support Equipment Element of Expense Code (From: Program Budget Decision No. 703, 2005).

The PBD disapproved the realignment of resources for the following categories of equipment, due to congressional interest, another service being the Executive Agent, or economy of scale reasons: (1) Passenger Carrying Vehicles, (2) Night Vision Goggles, (3) Medium Tactical Vehicle, (4) High Mobility Vehicle, (5) Civil Air Patrol Vehicles, (6 and 7) HMMWV (Armored and Up-Armored), (8) Firefighting/Crash Rescue Vehicles, and (9) Runway Snow Removal and Cleanup Equipment (PBD 703, 2005).

## **2. Practices and Areas of Concern**

This section discusses how the Air Force practices concerning centrally managed items evolved over time to create a new organization called Central Asset Management (CAM). It also describes how CAM now centrally manages all Air Force support equipment.

### ***a. Central Asset Management***

During the same time period as the decentralization effort, HAF developed the Central Asset Management (CAM) concept, originally known as Future Financials, which falls under Air Force Material Command (AFMC). CAM was developed as part of the Air Forces Expeditionary Logistics for the 21<sup>st</sup> Century (eLog21), which is the Air Force wide transformation campaign implemented in phases between 2001 and 2012 to allow time for process development, integration, and training. The eLog21 Campaign plan is designed to transition Air Force logistic processes from the current reactionary,

functionally stove-piped processes to an anticipatory (planning based), cross-functional (highly trained), integrated (fully visibility by all parties), high performance (new metrics) operation to better support the warfighter. The eLog21 plan is more than a technology implementation; it is a fundamental business process redesign, designed to have a major impact across the entire logistics enterprise. Technology is not the focus of the campaign but the enabler (Air Force Material Command, 2009).

The Air Force does not view CAM as an eLog21 initiative, but rather a capability, which contributes manpower savings by centralizing various administrative functions. Centrally programming, budgeting, executing, accounting for, and reporting financial resources enables the Air Force logistics community to overhaul maintenance processes at bases and depots and contract strategies significantly for spare parts support. It also facilitates the process that applies engineering efforts to sustain aging fleets without being hindered by rigid, excessively detailed financial processes. The overarching intent of CAM is to streamline and simplify the following processes for all weapon system sustainment accounts: (1) requirements determination, (2) resource prioritization, (3) budgeting, and (4) execution. Requirements are determined and prioritized in light of overarching Air Force needs with input from the Commands executing the mission. In effect, the operators express their needs, and then CAM, as an executive agent for the Air Staff, exercises all the appropriate processes to accommodate those needs, leaving the operators to focus on their war and peacetime missions. Meanwhile, AFMC uses financial flexibilities, possible under the CAM construct, to react and respond to real world events requiring adjustments to planned capability deliveries. In this construct, AFMC is responsible for all PPBE activities to meet statutory reporting requirements and provide Air Force leadership with adequate information for decision-making (Air Force Material Command, 2009).

According to AFMC, prior to CAM, the Air Force PPBE process generated extraordinary amounts of data at the item level. The using command had “exactly” the right amount of funds for each part required during a given fiscal year. The complex web of Major Command (MAJCOM) headquarters level, base level, and sustainment center financial processes, was aimed at achieving resource allocation

perfection in an imperfect (variable) support environment, which focused Air Force attention on the means rather than the end. The major roadblock of funding, rigidly compartmentalized by MAJCOM, by weapon system and sustainment element or Element of Expense/Investment Code (EEIC), meant the financial processes in place could not enable transformed logistics processes without significant overhaul (Air Force Material Command, 2009).

In September 2003, planning started to enable eLog21 to be successful. Budgeting, accounting and reporting had to be streamlined so that Air Force costs would be captured at points where value was added in a process, rather than at every point of transfer within the Air Force. Centralization became the cornerstone of this effort for both the Air Force financial management and logistics communities. In May 2005, a plan had been developed to centralize programming, budgeting, and execution with one Air Force executive agent. However, because no clear mandate had ever been given, there was little impetus for change. As a result, the Future Financials proposal devolved to become little more than status quo with a different governance structure and a greater role for higher commands. By December 2005, realizing that the latest Future Financials proposal fell short of the intended mark to truly change, and believing that full centralization could indeed fulfill that intention, Air Force logistics leadership invited AFMC to be involved in the new proposal. The Air Force realized the benefits of centralization, but knew this situation called for process change. The CSAF approved the centralization concept for Future Financials in December 2005 and Future Financials was renamed Consolidated Asset Management (CAM) (Air Force Material Command, 2009).

After CAM stood up, the governance structure evolved as the AFMC was still developing the needed processes as they began executing them. The CAM concept represented a tremendous paradigm shift, which required collaboration, trust building, and hard work to gain stakeholder support. The CAM was not only focused on centralized asset management, it involved much more. The goal of CAM transformation involved four pillars: (1) centralized funding, (2) centralized requirements determination, (3) performance-based logistics (capability versus end items), and (4) integrated wholesale supply and depot maintenance operations. Enterprise requirement

determination entailed a fundamental shift in how the Air Force looked at sustaining its resources from a MAJCOM centric view to a common Air Force View. For example, prior to CAM, the maintenance, engineering, data, spare parts, and equipment needs of the F-15 fleet are determined in a piecemeal fashion by the six MAJCOMs that fly F-15s. Each entity sets a level of support for its portion of the fleet, but no one entity controls the resources to support the entire fleet from a holistic perspective. This applied across all Air Force platforms and equipment (Air Force Material Command, 2009).

CAM radically streamlined and simplified the requirements determination process, the resource prioritization process, the budgeting process and the execution process for all sustainment accounts. Requirements are currently determined and prioritized in light of overarching Air Force needs with input from the commands executing the mission. The operators express their needs and an executive agent, CAM exercises all the appropriate processes to accommodate those needs, while the operators focus on their missions, not administrative tasks. Given that AFMC currently “owns” all the factors of production with respect to sustainment, AFMC assumes responsibility for bringing together the customers’ needs with the full range of provider services to meet those needs. AFMC is responsible for all PPBE activities (Air Force Material Command, 2009).

Figure 2 shows the requirements, programming/budgeting, and execution processes prior to CAM. The MAJCOMS developed their individual requirements with technical/engineering input from AFMC Product and Logistics Centers. The MAJCOMs then build their POM and Budget inputs based on those requirements. AFMC’s Air Logistics Centers, Depot Maintenance, and Supply Management budgets were developed considering the funded requirements of the MAJCOMs. All POM and Budget inputs flowed through, and were approved by the Air Staff. Upon enactment, funds flowed back through the Air Staff to the MAJCOMs for execution. Each MAJCOM provided funds to the applicable AFMC product or logistic center, on a program-by-program and expense-by-expense basis, for execution (Air Force Material Command, 2009).



## “Pre-CAM” Process

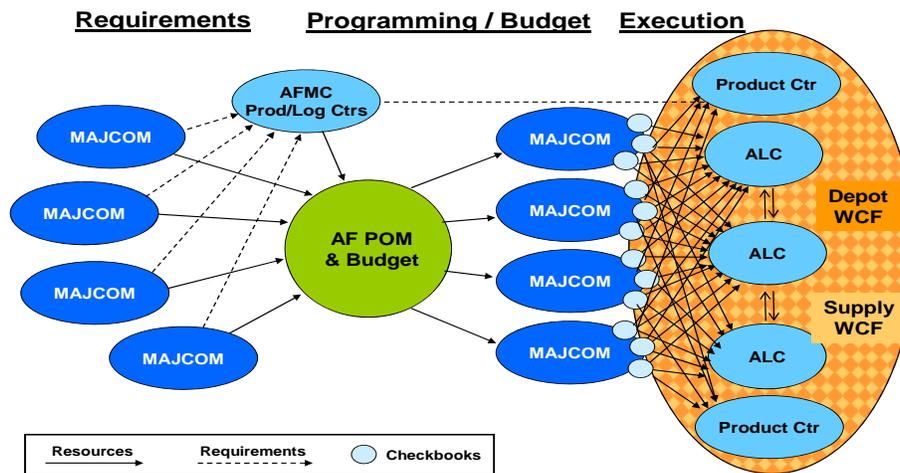


Figure 2. Process prior to CAM (From: Air Force Material Command CAM Program Overview, Slide 10, 2009).

Figure 3 shows the requirements, programming/budgeting, and execution process currently under CAM. MAJCOMs work directly with AFMC to develop requirements and prioritize those requirements within an Air Force enterprise construct. Both Product and Logistic Center personnel participate from both a technical/engineering and a pricing perspective in this process. Once prioritized, AFMC submits a POM and Budget request to the Air Staff and is the proponent for that request (along with Air Force logistics leadership) through the Air Force corporate process. Support from the MAJCOMs may be necessary, particularly for adequately explaining the operational impacts of any adjustments to the collaboratively approved submission. Once funds are enacted, AFMC directs funds to the applicable Product and Logistic Centers for execution. Throughout the year, the CAM office is responsible for maintaining oversight on the latest operational needs of the Air Force, as well as any pending outyear decisions, which affect current year direction. AFMC manages sustainment, by considering both individual MAJCOM needs and higher-level AF priorities. The intent is to present one face to the warfighting customer vice the multiple faces in the pre-cam process to have their assets supported, through collaboration and Air Force wide visibility (Air Force Material Command, 2009).



## CAM Current State

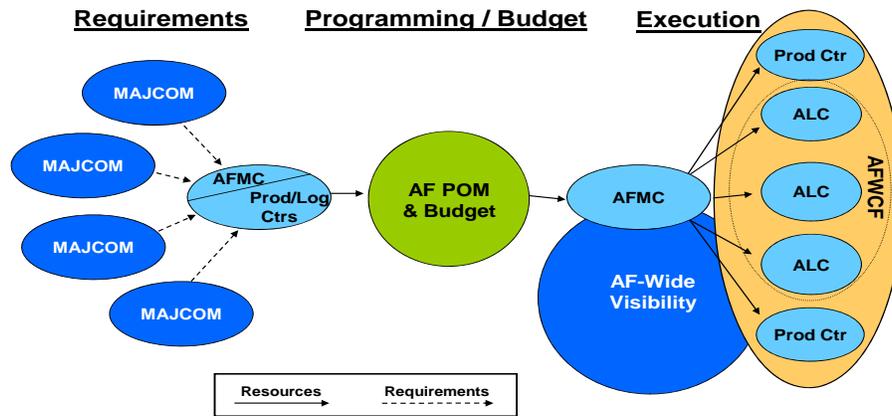


Figure 3. Process with CAM (From: Air Force Material Command CAM Program Overview, Slide 11, 2009).

To summarize, CAM provides an enterprise approach, which gives the Air Force more flexibility, not more funds, by giving the Air Force the ability to move funding from one program to another; however, one program is still impacted by reduced funding. There was a zero sum gain during the transition to the CAM program, which meant collaboration, communication, and information sharing with MAJCOMs was the key to determining tradeoffs. CAM was not designed for and is not used for Air Force Reserve Command and Air National Guard units (Air Force Material Command, 2009).

### *b. Support Equipment Transformation*

Support Equipment Transformation (SET) preceded the decentralization of funding for Support Equipment (SE), introduced in PBD 703 under the Equipment Transformation Initiative. During the decentralization, the MAJCOMs transferred their O&M funds for SE to AFMC to purchase SE. The decentralization of SE only lasted one year, and recentralized under CAM. In 2006, with the CAM and through SET, the Air Force intended for each MAJCOM to have improved visibility and control over their requirements determination, prioritization, and funding processes. Assets with a unit cost less than \$250,000 were moved from the Investment portfolio to O&M funding portfolio;

thereby, providing the MAJCOMs the flexibility to buy required items with O&M funds. The goal of the program was to improve the war-fighter's control of their SE assets and funding, while, at the same time, improve SE asset visibility for both MAJCOMs and the Air Force (AMC Instruction 20-101, 2005).

Support equipment is defined as centrally procured equipment items that are not consumed in use, or do not lose the original identity when incorporated into, or attached to, another assembly. Virtually every Air Force organization has support equipment. Support equipment runs from large items, such as generators, compressors, mobile field kitchens, and air conditioners, to smaller items, such as maintenance stands, water carts, fire extinguishers, light kits, and certain specialized tools. For each category of support equipment, a MAJCOM is designated as a lead MAJCOM for that category of SE. Support equipment is identified by Expendability, Reparability, Recoverability Category (ERRC) codes of NF\* (non-expendable, field level repair) or ND\*, (non-expendable, depot level repair). The third digit of the ERRC is the Equipment Management Code, which designates the level of accountability (AMC Instruction 20-101, 2005).

Unit equipment custodians identify their requirements when submitting requisitions through the Standard Base Supply System (SBSS) by the Military Standard Requisitioning and Issue Procedures (MILSTRIP) number. These requisitions feed into the Equipment Requirements System (ERS), a web-based, automated tool used by the Air Force to provide Air Force wide visibility of wing requirements. The Air Force ERS uses the prioritization logic and links the user's requisitions to the computed requirement to provide a suggested buy list for the MAJCOM review. The MAJCOMs can then modify the priority list and identify critical items. ERS then consolidates the MAJCOM lists for Air Force Materiel Command buy execution (AMC Instruction 20-101, 2005). Despite historical underfunding for Air Force SE, MAJCOMs initially feared CAM would not support their requirements, but so far, the MAJCOMs have been happy with the support received, according to a CAM official. For items that cost more than \$250,000, ERS also prioritizes centralized support (that is, non-O&M funded) equipment for MAJCOM review. The MAJCOMs are able to view the prioritization lists, the buy lists, execution

data (commitments and obligations), and unfunded priority lists. CAM applies any cost savings from bulk buys and strategic contracts for purchases towards the purchase of the next item on the prioritization list with collaboration with the lead MAJCOM, which has helped build the trust between the CAM purchasing unit and the MAJCOMs. Central management ensures standardization, interoperability, configuration control for safety and engineering, and better maintenance support. New items, which are critical to operations or have high visibility, can be funded in the current execution year with cost savings or through reprioritization. Any new or modified requirements must first be approved by the GS-15 or O-6 at the MAJCOM, before being purchased by the CAM, to avoid working level requirement changes and the possibility of starting a new acquisition process. To be considered for funding, a valid requisition must exist in SBSS (Anonymous, personal communication, October 15, 2009).

With SBSS, the units can access a list of centrally managed support equipment. To accommodate the movement from Investment to O&M, Budget Code “Y” is used for O&M-purchased support equipment. Budget Code “Y” funds are centrally managed by the CAM, but SE can still be purchased using a lower echelon units’ O&M funds to purchase such items. This was the initial worry of moving from investment to O&M funding, but Air Force officials know and have seen that units do not want to use their sparse O&M funds to purchase SE items, for which CAM had already planned and budgeted. The units are very cognizant of which items are budget code “Y” items because they do not want to use their own O&M funds for support equipment if it is not necessary (Anonymous, personal communication, October 15, 2009).

Annually, the Air Logistics Centers (ALCs) consolidate MAJCOM requirements by NSN to maximize economy-of-scale acquisitions. The ALC procurement process maintains audit integrity by tracking procurement via MAJCOM, Program Element (PE), Element of Expense/Investment Code (EEIC), Unit/Organization, and final delivery destination throughout the acquisition cycle. Allowance standards provide unit authorizations for quantities of SE maintained on hand. The Air Force Equipment Management System (AFEMS) provides visibility and accountability via the Custodian Authorization, Custody Receipt Listing (CA/CRL). AFMC maintains configuration

control and engineering support for all centrally procured SE items. The MAJCOMs have overall responsibility for SET to include developing policies and procedures, establishing and managing SE prioritization efforts, PPBE responsibilities, and resolving contracting issues involving the ALCs and the item managers (AMC Instruction 20-101, 2005).

For vehicles, MAJCOMs budget for their funding. Then, the O&M funds are transferred from the lower echelon units to the CAM for centralized purchasing. This arrangement does not include vehicle leasing, which is done at the unit level. CAM officials would like to see the funding and management of vehicles be centrally managed like support equipment. In addition to SE, CAM centrally manages the following categories of equipment: aerospace ground equipment, aircraft tools, aircrew flight, back shop repair, crypto logical, generators, material handling, missiles, night vision, propulsion, safety and rescue, telecommunications, test equipment, trainer, vehicles, and weapons (Anonymous, personal communication, October 15, 2009).

Other than the guidance provided under PBD 703, CAM policy officials did not know whether any written policy had been given concerning support equipment management for the Air Force. The SET initiative was the foundation, followed by MAJCOM policies, such as the AMC Instruction 20-101 previously referenced. A CAM official stated the transition to CAM and change in funding was difficult because everyone's mindset had to transform to a new way of conducting business, essentially changing the tone of the organization. The change of going from procurement dollars, which they had three years to spend, to O&M dollars with a one year life, changed spending plans, which affected the item managers, program managers, engineers, and even contractors. It was a steep learning curve; it took a long time for those using the new process to learn how to use the new business processes effectively. The impact on support organizations, such as contracting and financial management was not planned for either. To dampen the impact, Air Force Smart Operations for the 21<sup>st</sup> Century (AFSO 21) or lean events and training, were conducted to increase efficiency and adjust to the annual cycle time. The benefits of the shorter cycle time included greater responsiveness and getting the equipment required to the warfighter in a timelier manner by contracting the equipment while the funds were available, but before they expired. The first year was

“painful” and manually intensive with many questions and explaining between CAM and the MAJCOMs. The MAJCOMs have learned to trust the CAM and learn lessons on the new processes from the bottom up to the general officer level. A CAM official felt that changes have been beneficial, and that CAM greatly improved how support equipment requirements and funding are managed (Anonymous, personal communication, October 15, 2009).

#### **D. SUMMARY**

This section analyzed the data previously presented by focusing on issues that affected the Navy, Marine Corps, or Air Force. The issues are placed in two general categories, concerns about policy and guidance, and effective and ineffective practices. The former include concerns about centralization versus decentralization, definition clarity, decision making criteria, and funding; and the latter include centralized information technology and information flows. This analysis discusses how some services have attempted to address these problems.

##### **1. Concerns about Policy and Guidance**

This section discusses the concerns about policy and guidance in terms of centralization versus decentralization, definition clarity, decision-making criteria, and funding to discuss and address establishing goals of central management policies and avoiding confusion by clarifying definitions and decision-making tools.

###### ***a. Centralization Versus Decentralization***

Central management is a form of control. Having control has its advantages and disadvantages to all parties involved. In general terms, some of the advantages of a centralized procurement system are better asset management, ensured quality and standards, and better accountability (Anonymous, 2009). Another advantage is “centralization of physical location capitalizes on economies of scale and preserves organizational integrity in operations” (King, 1983). Advantages of central management seem to benefit mostly the higher echelon or controlling unit, since it gives them control,

while the disadvantages seem to affect mostly the user unit or the lower echelon unit by reducing flexibility. The more control exerted at a higher level; the less flexibility available to those elements at the lower levels.

Disadvantages could be longer procurement cycles, longer support cycles, and inefficiencies from central storage. For example, if the system is backed-up, requests and support cycles take longer than usual. Also, having a central location as the only place to go to procure a specific item could prove time consuming, especially if the requesting unit has to go through several layers of red tape to request that purchase. On the other hand, if the unit was allowed to make the purchase itself, it might be able to obtain a faster response with the result of obtaining the item needed even quicker. King (1983) states that, “In special cases, such as military deployment or location of fire stations, the need for rapid response to unexpected situations also dictates the need for physical decentralization.”

Offsetting those advantages to the unit is the fact that they would not have the experience to facilitate the process of procuring such an item. The expertise might take some time to develop. When the Air Force implemented its Equipment Transformation Initiative, it encountered this problem; the MAJCOM staff encountered a significant learning curve as they familiarized themselves with the new processes of managing the funding of a set of equipment that they had not managed before.

Centralization can also be a problem when it “separates the making of decisions from their environment” (King, 1983). This is similar to the example of afloat body armor, managed by NAVSEA, but the users of the body armor in theater may or may not know that NAVSEA should be contacted for spares and replacements. Thus, “if decisions are misguided owing to poor top-level understanding of the problem...centralization can be disadvantageous” (King, 1983). In fact, for these reasons, the Air Force chose to decentralize equipment. Recall that in the Air Force, the higher echelon command, HAF, felt that it was difficult to defend the POM because it did not project the MAJCOM’s operational needs and that the equipment purchases were not directly linked to the current warfighter prioritized needs.

Decentralization also has disadvantages, especially when it increases costs to the unit that has to perform the additional functions. The MAJCOMs were expected to process more funds, and in a shorter time frame, without additional manpower. At the time of transition, an adequate IT solution did not exist to help with the management of the new accounts. An Air Force official had stated that, in his opinion, the change was made too rapidly without enough planning, manpower, support, and procedures. Rapid changes and lack of sufficient planning and risk assessment often leads to unintended consequences. Thus, when considering policy changes, it is essential that the policy maker consider whether the benefits of control outweigh the costs to flexibility and responsiveness.

*b. Definition Clarity*

The FMR does not adequately describe or define the term “centrally managed.” In fact, Figure 4 shows the only definition that the FMR provides concerning centrally managed items.

Centralized Item Management and Asset Control	The management in the central supply system or a DoD-wide or Service-wide acquisition and control system in which the manager has the authority for management and procurement of items of equipment. This includes such functions as requirement determination, distribution management, procurement direction, configuration control and disposal direction. Asset control includes the authority to monitor equipment availability and take such actions as necessary to restock to approved stockage levels.
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Figure 4. Definition of Centralized Item Management and Asset Control (From DoD FMR 7000.14-R, Volume 2A, Chapter 1, 2008, p. 1–51).

In essence, the definition states that an item is considered centrally managed if one manager has authority to manage and procure an item. The authority to manage is often delegated to lower level commands. This definition does not really state much; it is too general. The use of terms, such as “central supply system” and “DoD-wide or Service-wide acquisition and control system,” are supposed to be all-inclusive. Many of the items in question are exceptions or new items, which are often COTS or may not have already been designated as centrally managed. In addition, the FMR’s definition seems to say more about what the responsibilities of personnel who manage centralized

items are than what centralized items actually are. For instance, the second sentence elaborates on the functions of personnel, while the final sentence expounds on “asset control.”

At least two of the services interviewed stated that central management is ill defined, and units at the lower echelons do not always understand what is meant by “centrally managed item” and “centrally managed program.” When different interpretations exist or there is a lack of information, confusion can result in problems.

At the Navy BSO level, the term “central management” is defined differently depending on to which BSO activity personnel belong; central management is interpreted differently at NAVSEA versus NAVAIR.

Part of the problem is that concept and definition of revolving funds is misunderstood and needs to be clarified, according to one administrator. Recall that the determination of whether an item can be categorized under DWCF is a second step in the DoD FMR decision tree that leads to the determination of whether an item is investment or expense. In the end, the question of whether an item is expense or investment is ultimately the question that needs to be answered.

Similarly, in the Marine Corps, administrators felt it was necessary to define several terms that deal with centrally managed programs, such as “central item management,” “centrally procured items,” “centrally controlled items,” “system unit cost,” and “program of record.” According to Marine Corps officials, these terms often lead to confusion. By providing a standard definition of these problematic terms on a Marine Corps-wide order, administrators hope to clear up that confusion.

Clearly, a consensus is needed on what key terminology means. Without a clear understanding of what constitutes centrally managed items and related terms, personnel continue to be confounded. Mistakes, such as potential ADA violations, could continue to pose problems. Time continues to be wasted as personnel correct errors, and conduct research in an attempt to discover how to go about making a purchase for items, which are required by the warfighter. Thus, when considering policy changes,

the policy maker should ensure terms are clearly defined and consistently applied throughout the organization; otherwise, written policy may impede accurate decision making.

*c. Decision-making Criteria*

The Navy, Marine Corps, and Air Force classify expense and investment items based on the DoD FMR criteria. One Navy official does not believe that the first question asked in the DoD FMR decision table (Chapter II, Table 1) is appropriate because most individuals do not understand the term “centrally managed/asset controlled item.” Due to definition and funding issues associated with centrally managed items, previously addressed in this chapter, the question of central management should not be the first question asked. Figure 5 is a variation of the DoD FMR decision table, previously shown in Table 1. This is a better way of classifying expense and investment items because the first decision is based on whether the item is a capital asset or related to the operation and maintenance of DoD without first confronting the misunderstood central management question. The layout and manner in which the questions are presented are easier to follow and determine which items are expenses and which are investments.

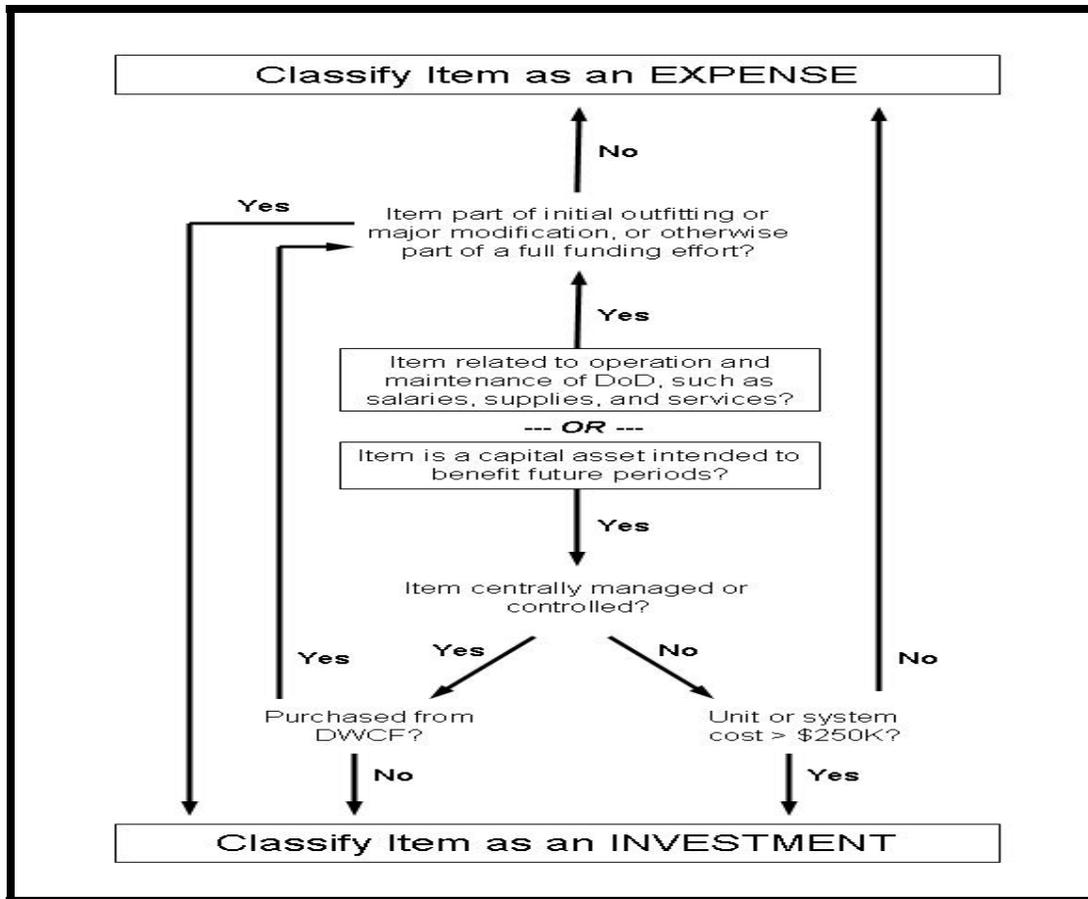


Figure 5. Expense/Investment Classification (From: Candreva, Slide 18, 2009).

Figure 6 shows another approach to deciding expense and investment items. This decision table was created by Robert Anthony, who served as DoD Comptroller in the mid 1960s. Anthony published the table in a *Public Administration Review* journal article in 1971 in which he defined investments as the acquisition of equipment and real property, such as ships, aircraft, and other capital equipment and construction of buildings or other facilities. He defined expenses as resources consumed in a given period of time (a month or a year) in operating an activity, including labor costs, materials consumed in use, and services received. Distinguishing between investment and expense items was difficult, even in 1971. Back then, operating managers preferred items to be classified as investments because they would not be related to current performance, which was associated with consumption. For a novice uninformed user, this decision diagram is easy to use. It begins with the question of whether the item

is a major end item. Of course, like the current DoD FMR decision table, if major end items are not defined, this could cause problems. As Figure 6 showed, the question of central management is not introduced until later. Additionally, Anthony's decision diagram addresses the question of reparable assemblies and repair parts, which is important today when dealing with depot maintenance and DWCF. Even though the expense/investment threshold was only \$1,000 per unit in 1971, the figure can easily be updated to the current threshold of \$250,000.

These two diagrams show alternatives to the current DoD FMR decision criteria for investment and expense items. In all three decision trees discussed here, the end result is the classification of an item as an expense or an investment item. When units have a requirement and either O&M or procurement funds available, these diagrams do not indicate which type of funds should be used to purchase their requirements. The main problem still remains the lack of a clear answer as to whether an item is centrally managed, which is not addressed by merely re-arranging the FMR's decision tree.

### INVESTMENT COST DECISION DIAGRAM

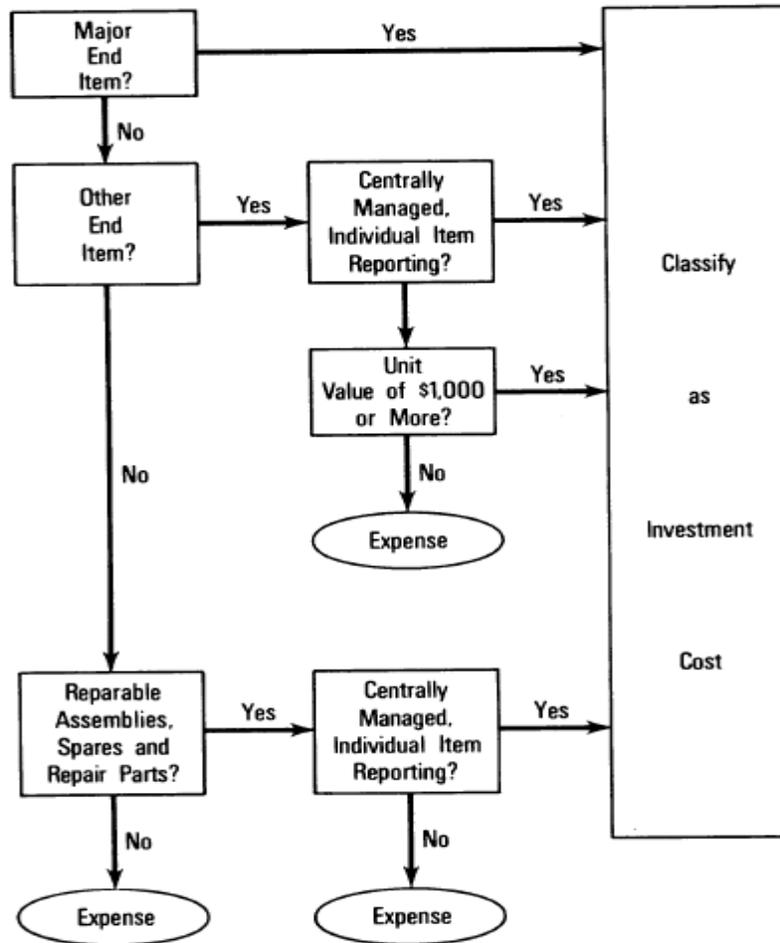


Figure 6. Investment Cost Decision Diagram (From: Anthony, 1971, p. 391).

As far as determining which items should be centrally managed, the Navy, Marine Corps, and Air Force use different methods. In the Navy, NAVSUP, a program office, or FMB decides which items are centrally managed. In the Marine Corps, centrally managed items are determined by echelon II commands, such as Marine Corps Combat Development Command. In the Air Force, it is determined by AFMC. The key is communication and accessibility to service members, so that they can ascertain which items their respective service has designated as centrally managed. Thus, when considering policy changes, the policy maker should consider whether current decision-making tools and criteria are adequate to enable accurate decision making.

*d. Funding*

Major differences exist in dealing with procurement money versus dealing with O&M money. Procurement funds are available for obligation for three years while O&M funds must be obligated within one year. These are rules that pertain to fiscal law and must be followed (31 U.S.C. § 1502(a) and 31 U.S.C. § 1102). With O&M funds, a rush occurs at the end of the year to obligate all remaining funds. Sometimes funds are not wisely obligated because units must “get rid” of the balance. In essence, they seek to be 100% obligated by September 30 of that fiscal year. If a unit does not spend all the money allotted them that fiscal year, a belief exists that their budget will be cut by that amount the following year, the “use it or lose it” mentality. The three-year window for procurement is not as rushed. Further, procurement funds are tightly controlled because Congress appropriates these funds by specific line item. O&M funds are less tightly controlled because they are appropriated by broad mission areas.

O&M funds are more flexible with respect to their purpose since they are appropriated by broad mission areas; procurement funds are more tightly controlled since they are appropriated by specific line item. On the other hand, the one-year obligation period for O&M makes it less flexible; the three-year obligation period for procurement is more flexible. If the policy objective is flexibility with respect to purpose, use O&M funds by choosing not to centrally manage the item. If the policy objective is control with respect to purpose, use procurement funds by centrally managing the item. The converse is true with respect to flexibility and control with respect to time; O&M is more tightly controlled and procurement is more flexible.

**2. Effective and Ineffective Practices**

This section discusses effective and ineffective practices regarding centralized information technology and information flow. It also shows the lack of interoperability between the numerous IT systems used and lack of a single source of information regarding centrally managed items in the Navy and Marine Corps in comparison with the enterprise IT solution and source of information used in the Air Force.

*a. Centralized Information Technology*

The Navy and Marine Corps do not have an enterprise information technology solution to view, verify, update, and check which items are centrally managed. Some Navy financial managers use DoD EMALL, which is accessible to all DoD military and civilian employees. DoD EMALL identifies centrally managed items, but only for items with an assigned NSN. For new requirements and COTS items, DoD EMALL is not useful. Additionally, each user must apply and have a justification to gain access to DoD EMALL. Most Navy financial managers ascertain which items are centrally managed by networking with officials at NAVICP, but Navy financial managers do not use a standardized method or procedure.

The Marine Corps has many IT programs to manage information about equipment; in the Marine Corps' current logistics IT portfolio over 240 systems exist, which are not entirely interoperable either with each other or with other services and agencies. At the echelon II level, important systems, such as TFSMS, are used by Marine Corps Combat Development Command; Supported Activities Supply System (SASSY), Marine Corps Integrated Maintenance Management System (MIMMS), PC MIMMS, Asset Tracking, Logistics, and Supply System (ATLASS), which are used at all levels of command for logistics, maintenance, and supply management; and Standard Accounting, Budgeting, and Reporting System (SABRS), which is used by financial managers. Centrally managed items are identified by Stores Account Code (SAC) and financial information is shown in these systems. However, these systems do not all interface, often duplicate information, and do not include items that most frequently lead to confusion.

The Marine Corps is developing an incremental implementation of COTS software called Global Combat Support System Marine Corps (GCSS-MC) to replace the logistics, supply, and maintenance systems and better interface in a shared data environment with other existing systems. GCSS-MC will be a portfolio of IT systems that supports the logistics elements of Command and Control (C2), Joint logistics interoperability, and secure access to and visibility of logistics and financial data (USMC

Concepts and Programs, 2008). The Army (GCSS-AR) and Air Force (GCSS-AF) are already using service specific versions of GCSS. GCSS-AF interfaces with the Air Force's Standard Base Supply System (SBSS).

Before the Air Force decentralized, the concern was that an IT solution was needed for the change to a decentralized model to be effective, which ultimately delayed decentralization. SBSS was modified so that logisticians, supply personnel, and financial managers who use it could easily identify centrally managed items, which are purchased with O&M as items with a budget code of "Y." With SBSS, the personnel who need to ascertain which items are centrally managed can do so with one enterprise system, which caters to personnel from different occupational specialties. Thus, when considering policy changes, the policy maker should consider whether current technology facilitates or impedes access to required information necessary for effective management and legal compliance.

***b. Information Flow***

In the Marine Corps, different organizations within the Marine Corps centrally manage different types of items, in essence, aligning functional expertise and management responsibility within these organizations to specific types of items at the echelon II level. In the Navy, each echelon II BSO has its own policy on centrally managed items, but no list or database exists or has been published to identify which items are centrally managed. These practices create information gaps at all levels, which lead to personnel making erroneous decisions on what type of funding to use to buy a centrally managed item. Other times, lack of proper information flow results in unnecessary man hours spent researching, networking, making numerous phone calls, and sending emails to ascertain what organization or person is the central manager for a specific item.

Both Navy and Marine Corps budget officials have proposed compiling a database or list of centrally managed items and making the database accessible to those who need to know the information. The list would have to include which organization centrally manages the items. Both the Navy and Marine Corps have even considered

publishing the individual item manager's name, yet this is problematic due to frequent job rotations and turnover, and the infrequency of updates to publications and databases. NAVICP has a list of who manages which COG codes, but the list is not accessible to budget officials or other organizations at the echelon II, outside of NAVICP.

Another Navy budget official suggested hiring a contractor or having an intern compile a list of APA or MC APA items from P-485 COG codes and make a database or spreadsheet available on Program/Budget Information System (PBIS). Currently, the echelon II Navy budget official has been using the P-485 or finding answers by networking and by using the aid of officials at NAVSUP. When the Marine Corps hired a contractor to compile a list of centrally managed items, the task proved to be more laborious than initially thought. Some of the barriers were the overlap of information, the abundance of equipment used, and the various IT systems used at each echelon II command.

Even if a list had been compiled, the problem was, once compiled, it would soon be obsolete with the addition of new centrally managed items and disposal of older items. Thus, when considering policy changes, the policy maker should consider how information should be shared and kept accurate.

### **3. Conclusion**

This chapter identified and analyzed trends and common problems associated with centrally managed items based on the author's research. Specifically, these are associated with centralization, defining "centrally managed," decision-making criteria, funding, technical solutions, and information flows.

These problems are usually present in combination. The options encountered in centralization vs. decentralization and procurement vs. O&M funding both deal with issues of control vs. flexibility and responsiveness; the shift to a more centralized model means more control at the top level and denotes the use of a particular color of funding, procurement. Problems encountered with inadequately written or lack of policy concerning definitions to key terminology and decision-making criteria impede accurate

decision-making. Finally, problems encountered with a lack of a proper technical solution and improper information flow also impede access to the required information, which is used to identify centrally managed items.

## **IV. POLICY, FINDINGS, AND RECOMMENDATIONS**

### **A. POLICY MAKING IN GENERAL**

Government does not make a policy for a particular issue in society until the public or the agency's leadership deems the problem worthy of the attention and action of policymakers. Many issues are not addressed because too many problems exist for government to solve, a solution does not exist, or the solution is more costly than the problem. However, once an issue is on the agenda, it tends to remain on the agenda for long periods. For example, poverty in the United States has remained an important public issue, even though different administrations have differed in the amount of attention given to the problem. Most recently, the attacks of September 11, 2001 and Hurricane Katrina in 2005 brought the public's focus to the American government's preparedness for disasters. These events highlighted problems in the government's response to such crises that needed to be addressed and resolved (Peters, 2007).

An issue is placed on the public agenda when a perception arises that something is wrong, and the problem can be resolved through public action. For example, when the Navy recently experienced a few ADA violations, the issue concerning the policy of centrally managed items was introduced to the agenda because of a problem: ADA violations. The Navy wants to be more proactive in examining the policy on centrally managed items to prevent problems associated with centrally managed items and future potential ADA violations. Without these occurring, the issue of centrally managed items may not have gained the attention of Navy leadership to investigate whether or not these infractions occurred because of policy.

Many actions and issues must be considered in determining whether a problem becomes a part of an active, systemic, or institutional agenda. Problems do not move on or off an agenda by themselves; they must first be defined and constructed in a manner agreeable for political action. This requires an active policy entrepreneur to do the necessary labeling and political packaging to make an issue appear on the agenda.

First, the decision makers must consider whom the problem affects and to what extent. The more extreme the effects, the greater the likelihood the problem makes the agenda. After the September 11 attacks, the range of people affected by terrorism increased significantly and the extent of the problem changed dramatically. Additionally, an incident, such as a terrorist attack, which has high visibility, affects its placement on the agenda as an active issue (Peters, 2007). The same seems to have happened in the Navy after a few ADA violations associated with centrally managed items occurred; high visibility and problematic trends brought centrally managed items to the active agenda.

Once an agenda is set, policy can be formulated. Policy formulation is examined on a situational basis. The first situation involves cases with sufficient information available and a generally accepted “theory of causation” (Peters, 2007, p. 69). In such cases, policy changes are mostly incremental in nature (Peters, 2007). Small or gradual changes occur from a known starting point. A prime example is the way that the budgetary process generally works. For existing programs, the starting point is assumed to be a base budget, and from that point, incremental additions, subtractions, or both are enacted on the program. Individual human behavior could also lead to a preference to an incremental approach. Not wanting to lose a strategic foothold on an issue, decision makers might shy away from large policy departures for fear of a lack of support or for fear of losing face (Kingdon, 2003). Bigger changes could potentially incur bigger risks, and for the most part, decision makers may be more willing just to play it safe. The Air Force’s decentralization effort under PBD 703 is a good example in which only a portion of centrally managed items were decentralized and converted to O&M. Recall that this effort would also serve as a test to see if it could possibly be applied to the rest of the services. Moreover, the decentralization of items, such as night vision goggles and HMWVV armored vehicles, was denied, since Congress was not willing to take the risk of losing control in those areas.

Most policies have flaws and unintended consequences, but once discovered, the policy can be updated or measures can be taken to address these issues. Even though the current policy may not be perfect, people know how to work with it and its limitations. A drastic change from an existing policy involves significant risk. In this research, the Air

Force was initially willing to accept significant risk by completely changing business processes under eLog21. Once other issues surfaced, they changed the policy again to mitigate the risk associated with the new decentralized policy. Not all organizations may be in a position to accept the risk of drastically changing a policy. Within DoD, policies exist which could ultimately lead to the loss of human lives, such as a policy decision not to provide up-armored vehicles to all units going into a war zone. The risks of a high number of casualties because of this decision would be unacceptable to those who hold DoD accountable; a possibility always exists that the end result may not be worth this risk. In the end, any change should weigh the benefit of the improved end state against the cost of change. Doing nothing may be an acceptable solution if the problems associated with the policies are not significant.

Another model, which explains policy formulation, is the policy regime model (Wilson, 2000). Regimes are characterized by “mutually accepted decision-making procedures and agreed upon rules of action” (Wilson, 2000, p. 256). In addition, they tend to share principles, norms, and beliefs and are organized around specific issues (Wilson, 2000, p. 256). As such, they share a common vision of the way ahead, which serves in providing a basis for common policy formulation. The service components within the DoD seem to fit the regime model in the area of common principles. Each of the organizations within the DoD has its own subset of principles, but many of these are quite similar and differences are minimal. The Navy and Marine Corps team profess honor, courage, and commitment as their core values. The Army lives by the seven core values of loyalty, duty, respect, selfless service, honor, integrity, and personal courage. Finally, the Air Force espouses “integrity first,” “service before self,” and “excellence in all we do.”

Despite similarities in common principles, each service has taken a different policy approach in dealing with centrally managed items to fill its own needs. The Air Force’s objective in its decentralization effort was mainly to increase the responsiveness to the warfighter by establishing an effective and efficient process that provided the necessary equipment in minimal time. The Navy is concerned with ADA violations and

sees the decentralization of accounts as a possible solution to this problem. The Marine Corps, in turn, is concerned with filling the knowledge gap by drafting an order to deal with centrally managed items.

## **B. POLICY CHOICES WITH RESPECT TO CENTRALLY MANAGED ITEMS**

This next section summarizes the findings and provides recommendations to address the problems encountered by the Navy, Marine Corps, and Air Force in their handling of centrally managed items. All services experienced various forms of unintended consequences, resulting from actions each of the services took to deal with issues relating to centralized management.

### **1. Centralization Versus Decentralization**

#### ***a. Finding***

The Air Force believed that decentralizing accounts under the Equipment Transformation Initiative would ultimately favor the warfighter. HAF was willing to change drastically by giving control to MAJCOMs to be more flexible and responsive to the warfighter. In spite of good intentions, MAJCOM units experienced a significant learning curve, and as a result, items were taking longer than usual to put on contract. Due to unintended consequences from the dramatic shift of procurement funding to O&M, the Air Force changed their initial decentralized model to a more centralized model with the CAM.

In the Navy and Marine Corps, central management designation authority has been delegated to lower echelons, which creates problems when central management designation is not communicated throughout the component.

#### ***b. Recommendation***

For decentralization of procurement to work, it must be supported by education, information technology, and information flow. Adequate turnover and proper training needs to be conducted with personnel assuming the new accounts to reduce the steepness of the learning curve. If responsiveness is a goal and cycle time is shorter,

additional personnel to handle increased workloads should also be a serious consideration. The intent (flexibility and responsiveness versus control) of how a component centrally manages items should determine the level to which central management designation is delegated.

## **2. Definition of Centrally Managed Items and Decision-making Criteria**

### ***a. Finding***

The Navy and Marine Corps have experienced some confusion in dealing with the terminology associated with centrally managed items. Part of the problem is different interpretations exist of key terminology. A lack of information also exists within these services and within the DoD FMR concerning what a centrally managed item actually encompasses. Within the services, no central location exists, with different organizations within both services having their own systems, policies, and practices.

Moreover, the DoD FMR expense and investment decision table can be used to identify an expense incorrectly as an investment, and vice versa, if the person using it does not understand the correct definition of the terms used in the table. Since confusion exists in the Navy and Marine Corps about which items are centrally managed, expense and investment items can easily be misidentified if the first question about the items is whether the item is centrally managed, which is how the current FMR decision table addresses this issue.

The Navy uses the FMPM to determine expense versus investment criteria, but the FMPM does not have a decision table associated with it. The Air Force uses an investment cost decision diagram in AFI 65-601 to determine expense and investment items, which is much simpler than the FMR's decision table.

### ***b. Recommendation***

Consensus needs to be reached within each service, if not at the DoD level, to define terminology associated with centrally managed items. Possible definitions of confusing terminology should be vetted through all functional stakeholder

organizations to reach a consensus. Once a consensus is reached, results should be published and disseminated to all organizations and personnel within each service dealing with centrally managed items to establish standardized policies and practices.

The DoD FMR decision table should be clarified, or left as is, so that it can be left open to interpretation by each service. In either case, a decision table should be used by all organizations to identify expense, investment, and centrally managed items. An example of how the decision trees can be modified was presented, where the question regarding central management or control is asked in the second or third leg of the table or decision tree instead of the first leg.

### **3. Funding**

#### ***a. Finding***

When the Air Force's Equipment Transformation Initiative transferred \$3.2B worth of individual assets from procurement to O&M, MAJCOMs had a difficult time adjusting to the reduced obligation cycle of one year. Units ended up with increased O&M budgets, but now had to spend it in one year instead of the three-year timeline for procurement funds. Manpower was not increased and contracting times to obligate funds took much longer than expected.

From the interviews with Navy and Marine Corps officials, it was discovered that the problem is not about what is and is not centrally managed; instead, it concerns an item, and trying to determine how the item should be funded (procurement, modernization, or O&M).

#### ***b. Recommendation***

Recommendations given under "Centralization vs. Decentralization" can be applied here. Additionally, the authors recommend an incremental phased decentralization process when changing funding. For example, a third to half of the accounts could be initially transferred, and then within a year, another third to half of the accounts can also be transferred, etc. This would make the transition less difficult and give personnel more time to learn, and more time to develop procedures and capacities.

#### **4. Centralized Information Technology**

##### ***a. Finding***

Both the Navy and Marine Corps use many different IT systems to manage and find information about centrally managed items. No standardized enterprise technological tool or system is used. Therefore, access to information and visibility of assets is not equitable for all supply, logistics, and financial management personnel. A variety of systems and tools are used in both services. The systems used depend on the specialty area in which the user works.

##### ***b. Recommendation***

The Marine Corps plans to stream line and consolidate supply and logistics functions with the development and implementation of GCSS-MC. Part of the GCSS-MC plan should address policies and practices concerning centrally managed items. The Navy should consider a technical solution to provide fleet-wide visibility of, and information concerning, centrally managed items, which should be linked to the existing supply IT, architecture. The technical solution should ideally have similar capabilities to the Air Force's SBSS with regard to the management of centrally managed items. Thus, policy can be interpreted in different ways, but centrally managed items can be communicated and reported to higher echelons in a uniform way through a database or program. At the local level, units can manage items in their own way, but all report information in a standardized format.

#### **5. Information Flow**

##### ***a. Finding***

Within both the Navy and Marine Corps, each occupational specialty area and functional organization has its own practices and methods for managing and researching centrally managed items. Both services have various listings or databases of centrally managed items, which are not linked, resulting in inadequate lateral nor vertical sharing and dissemination of this information. Information with respect to centralized item management consists of various "pools" of information within organizations that

handle subsets of centrally managed items, or within each functional community, such as supply, logistics, and finance. Procedures for accessing the pools of information are non-standard and not well known outside those limited communities, which has caused a great deal of frustration both in the higher and lower echelon levels of Navy and Marine Corps commands since it equates to significant amounts of effort expended in researching whether a certain item is centrally managed. Moreover, lack of proper information flow could lead to potential ADA violations when lower echelon units incorrectly apply their O&M funds to buy a centrally managed item that should be bought with procurement funds.

***b. Recommendation***

The Navy and Marine Corps should develop a system/database similar to the capabilities in SBSS concerning centrally managed items so that information is readily available to those who want to know what is centrally managed or ascertain who centrally manages specific groups or categories of items.

In the interim before developing a system, an abridged version of the P-485 listing can be used. Appendix B contains an example of the modified P-485 cog code listing, which could aid financial managers in identifying categories of centrally managed items and the organization, which manages the items. In this manner, if a new item is being reviewed, the user can pull up a listing like the one in Appendix B, find a category of similar items, and call the item manager to discover whether a particular item is centrally managed. The listing would have to be readily available to users on PBIS for easy access.

Even though this information is in the P-485, financial managers do not commonly use the NAVSUP publications, and the P-485 contains several volumes. Cog codes are listed in Volume II of the P-485, which is a voluminous document (626 pages), with numerous cog codes in the 58 pages of Appendix 18 of the P-485. Thus, on the down side, a novice or undetermined user could easily be discouraged from finding the correct cog code without knowing where to look.

The solution to centrally managed items seems as simple as compiling a list; however, the Marine Corps hired a contractor who found it virtually impossible to compile a list because of the lack of information flow and numerous organizations that centrally manage items. If a list is compiled, a note or disclaimer should be added to communicate that the list is not all-inclusive. A schedule should also be set to update the database or list periodically. When this database or list is maintained within an enterprise IT solution, such as SBSS, it should include the majority of all the centrally managed items.

### **C. LIMITATIONS OF STUDY**

In conducting the research for this project, interview data were limited in scope due to time constraints. The complexity of the DoD and its components' financial management systems rendered a comprehensive study impractical. Some key officials deeply involved in the Air Force change process have retired or moved to new positions in other organizations. Those officials involved in Navy budget and financial management operations, Marine Corps official budget and property management, and Air Force officials who currently work with centrally managed items were selected for interviews. Publications, instructions, orders, and government reports related to expense, investment, and centrally managed items were selected to provide better understanding of current policies.

This study began with the Air Force and the policy decision it made in 2005, under PBD 703, to decentralize \$3.2B worth of equipment. PBD 703 stated that an audit would be conducted by the end of FY2006 to assess if funds were being used correctly and for the appropriate items and that, the Air Force would brief OSD-Comptroller on its findings. It also said that based on the audit results, DoD would evaluate the continuation of the program and implementation by all services for FY2007. In this research, it was not possible to find a copy of the audit report. Thus, the authors are unsure if it actually occurred. Nonetheless, the program has not been implemented by any other service thus far.

In the analysis of the expense and investment decision-making trees, the focus was on decision making in terms of centrally managed items, and not decision making for expense and investment items. The pockets of organizations that centrally manage different items in the Navy and Marine Corps were identified but not mapped. The data used from these sources are not comprehensive. Analysis and findings were thus formed with a limited sample size of data. While these interviews aimed at those involved with budget, financial management, and centrally managed items at higher echelons, further interviews with a larger random sample size may produce broader results.

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## **D. SUGGESTIONS FOR FUTURE RESEARCH**

### **1. Information Technology Solution**

This project focused on the policies and practices concerning centrally managed items. A technical solution is vital for implementing and executing policies and practices successfully and avoiding problems related to centrally managed items. The Air Force uses SBSS, which works well by giving supply, logistics, and financial management personnel access to the same information in one enterprise system. The Army technical solution is Standard Study Number-Line Item Number Automated Management and Integrating System (SLAMIS), which provides a central location for nonstandard items where these could be accounted for in the same way as standard items from acquisition to disposal of items (Everard, 2006). The Marine Corps is developing Global Combat Supply Support Marine Corps (GCSS-MC) to deliver integrated functionality across various functions including supply, maintenance, transportation, finance, engineering, health, and manpower systems through maximum use of COTS/GOTS (Commercial off-

the-Shelf/Government off-the-Shelf) products and web technology (Love, 2004). The DoN may be able to learn and adopt lessons learned from these existing systems and determine what capabilities from the best system can be adopted by DoN in enterprise business architecture for centrally managed items.

## **2. Broader Study of on Expense Versus Investment Criteria**

This research focused on decision-making criteria and definition clarity in terms of centrally managed items. A broader study on expense versus investment criteria, policies, guidance, and practices could be beneficial to see if the same problems and areas of concern arise regarding expense and investment items, or if the problems associated with centrally managed items can be mitigated.

## **3. Map Central Management Organizations**

This research identified numerous organizations in the Navy and Marine Corps, which centrally managed certain items, but these organizations were not mapped. It may be beneficial to map these organizations to determine if an aggregate command should provide oversight for these pockets of centrally managed items to provide clarity on policy and guidance, promote best practices, and ensure information flow throughout the component.

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## APPENDIX A. SUMMARY OF AIR FORCE INVESTMENT REDUCTION REQUEST

Summary of FY2006 Air Force Investment Reduction Request (From: USAF  
FY2006 Budget Estimate, 2005, pp. viii–ix).

<b>BA 02 – Vehicle Equipment</b>	<b>P-1 # Line Item Description</b>	<b>BA 02 – Vehicle Equipment</b>	<b>P-1 # Line Item Description</b>
	3 Truck, Stake/Platform		20 Truck, Hydrant Fuel
	4 Truck, Cargo-Utility 4X4		21 Items Less Than \$5M (Special Purpose)
	5 Truck, Cargo-Utility 4X2		23 Items Less Than \$5M (Fire Fighting)
	6 Truck, Maintenance/Utility/Delivery Van		24 Truck, F/L 6,000 LB
	7 Truck, Carryall		25 Truck, F/L 10,000 LB
	10 Truck, Tractor over 5T		27 Items Less Than \$5M (Material Handling Equipment)
	12 Items Less Than \$5M (Cargo-Utility)		28 Loader, Scoop
	13 Truck, Tank 1,200 Gal		29 Loader, Scoop – w/Backhoe
	14 Truck, Tank Fuel R-11		30 Truck, Dump 5CY
	18 Tractor, A/C Tow MB-4		32 Crane 7-50 Ton
	19 Tractor, Tow, Flightline		33 Modifications
			34 Items Less Than \$5M (Base Maintenance & Support)
<b>03 - Comm and Elec Equipemnt</b>	<b>P-1 # Line Item Description</b>	<b>04 - Base Maint and Spt Equipment</b>	<b>P-1 # Line Item Description</b>
	39 Intellicenge Comm Equipment		76 Base/ALC Calibration Package
	46 TAC Signit Spt		77 Primary standards Laboratory Package
	48 General Information Technology		78 Items Less Than \$5M (Test Equipment)
	54 C3 Countermeasures		80 Items Less Than \$5M (Personal Safety & Rescue)
	55 CGCSS-AF-FOS		82 Items Less Than \$5M (Base Industrial Spt Equipment)
	59 USCENTCOM		83 Floodlights Set Type NF2D
	60 Automated Telecommunication Program		84 Items Less Than \$5M (Electrical Equipment)
	70 Radio Equipment		89 Photographic Equipment
	74 Items Less Than \$5M (Organization & Base)		91 Mobility Equipment
			92 Air Conditioners
			93 Items Less Than \$5M (Base Support Equipment)
			95 Tech Surv Countermeasures Equipment
			101 Modifications

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## APPENDIX B. CENTRALLY MANAGED EQUIPMENT

Centrally Managed Equipment (Even numbers 2, 4, 6, and 8 denote material is carried in Appropriation Purchase Account (APA))		
Material Cognizance Code	Inventory Manager/Technical Responsibility	Description
2B Material Handling Equipment	NAVICP MECH is the inventory manager. NAVSUP maintains technical responsibility.	<p>Material consists of equipment normally used in storage and handling operations in and around warehouses, shipyards, industrial plants, airfields, magazines, depots, docks, terminals and aboard ships as follows:</p> <ul style="list-style-type: none"> <li>• Warehouse tractors, forklift trucks, platform trucks, pallet trucks, straddle-carrying trucks, mobile cranes, trailers, hand trucks, handcarts and pallet-type handlift trucks;</li> <li>• FSC 3930 items, FSC 3920 (manual hydraulic pallet trucks - MHE trailers only) and FSC 3950 (warehouse cranes only).</li> </ul>
2C - Major Construction and Civil Engineering Equipment	The Civil Engineering Support Office is the inventory manager. NAVFAC maintains technical responsibility	<p>Material consists of equipment, components and supporting items that are in a research and development stage; or these equipment and components for which budget and procurement requirements, quality control or assignment to use require continuing logistics, engineering, or fiscal administration and control at the department level. Equipment includes:</p> <ul style="list-style-type: none"> <li>• All automotive equipment including general and special purpose vehicles (commercial or tactical) designed and used on and off highways for the transportation of personnel, cargo, tools, equipment and for firefighting purposes</li> <li>• All construction equipment which is defined as mechanical equipment used in the construction and maintenance of roads, bridges, buildings, or other kinds of real property including cranes, both truck and crawler-mounted, road rollers, graders, tractors, scrapers, street sweepers, pumps, air compressors, rock crushing plants, concrete mixing plants, asphalt plants and all like equipment</li> <li>• All weight-handling equipment used ashore in lifting large units of material and in some instances transporting or loading such material (exclusive of material handling equipment) including such equipment as hoists (except those of the elevator type); cranes of the overhead, wall, pillow and jig type; cranes of the portal, tower and locomotive type; also cranes of gantry, semigrantry, or cantilever gantry type and derricks</li> <li>• All railroad equipment, such as locomotives and other rolling stock designed for use on rails</li> </ul>

Centrally Managed Equipment (Even numbers 2, 4, 6, and 8 denote material is carried in Appropriation Purchase Account (APA))		
Material Cognizance Code	Inventory Manager/Technical Responsibility	Description
		<ul style="list-style-type: none"> <li>• Chemical agent detector kits and refills afloat and ashore; material and appliances for defense ashore against chemical, biological and radiological warfare except instruments for detection and measurement of radioactivity</li> <li>• Public works and public utility type equipment and material, such as prefabricated structures; pontoons; accessories and propulsion units, floating dry-docks; mooring equipment and navigational marker buoys; knockdown fuel oil and water storage tanks; package boilers and generator sets; switchgear; transformers; commercial type refrigerator equipment; air conditioning units; elevators; escalators; field telephone systems; distillation and purification units and other water treatment systems; water-fuel separators; and petroleum production equipment</li> </ul> <p>Equipment does NOT include:</p> <ul style="list-style-type: none"> <li>• Automotive, construction, weight-handling railroad equipment of a special type that are designed, developed and constructed for any bureau, command or office to perform a service peculiar to the requiring agency, which is the sole user</li> <li>• Equipment which uses standard chassis and motor and are modified in minor particulars are not considered excluded</li> </ul>
2D - TOMAHAWK Sea Launched Cruise Missile And Associated Equipment	The Cruise Missiles Project Office is the inventory manager and maintains technical responsibility. Source of identification is FEDLOG.	<ul style="list-style-type: none"> <li>• Surface and Submarine launched Tactical All-Up-Rounds</li> <li>• Surface and Submarine launched non-Tactical All-Up-Rounds</li> <li>• Capsules and canisters for cognizance symbol 2D items</li> <li>• Shipping containers for cognizance symbol 2D items</li> <li>• Miscellaneous trainers, fuses and warheads</li> </ul>
2E Conventional Air Ammunition	NAVICP MECH is the inventory manager. NAVAIR maintains technical responsibility.	<p>Material consists of those items of expendable ordnance, generally classified as conventional ammunition, over which NAVAIR exercises technical control. Cog 2E items are primarily those items of conventional ammunition used on or launched by aircraft. Material included is as follows:</p> <ul style="list-style-type: none"> <li>• Bombs (all types except nuclear bombs), bomb components including fin assemblies, fuses, primer detonators, etc., and bomb details including lugs, plugs, tools, etc.;</li> <li>• Chaff for countermeasure systems and chaff dispensers;</li> <li>• 20 mm, 25 mm and 30 mm aircraft gun ammunition including cartridges and links;</li> </ul>

Centrally Managed Equipment (Even numbers 2, 4, 6, and 8 denote material is carried in Appropriation Purchase Account (APA))		
Material Cognizance Code	Inventory Manager/Technical Responsibility	Description
		<ul style="list-style-type: none"> <li>Rockets and components (air launched) including launchers, rocket motor clusters, fuses, warheads, propellant grain, igniters, inhibitors, fairings, cable assemblies and rocket motors Jet Assisted Take-Off (JATO);</li> <li>Pyrotechnics under NAVAIR technical cognizance including aircraft parachute flares, decoy flares, aircraft illuminating signals, aircraft smoke signals, photo flash cartridges and location markers;</li> <li>Military chemicals under NAVAIR technical cognizance including incendiary oil thickener, irritant agent dispensers, smoke tank aluminum spheres and filling units;</li> <li>Cartridges and cartridge actuated devices, aircrew Escape Propulsion Systems including aircraft ejection seat catapults, ignition elements, impulse cartridges, and cartridges for fire extinguishers, parachute delays, safety belts and cutters;</li> <li>Miscellaneous ammunition components and ammunition details including pallets, pallet adapters, pallet crates and shipping and storage containers specifically designed for air ammunition items;</li> </ul>
2F Major Shipboard Electronic Equipment.	NAVSEA is the inventory manager and maintains technical responsibility.	<p>Material consists of equipment, components, and supporting items in support of new construction or conversion, fleet modernization (FMP), fleet maintenance, Defense Security Assistance and other services and government agencies, as well as:</p> <ul style="list-style-type: none"> <li>Items in a research and development stage;</li> <li>Items of such technical complexity that engineering control decisions are required during production or prior to issue;</li> <li>Items unstable in design; or</li> <li>Items specifically assigned to the Naval Sea Systems Command.</li> </ul> <p>Excluded from cog 2F material are SPAWAR cog 2Z electronic equipment. Material included is as follows:</p> <ul style="list-style-type: none"> <li>All shipboard radar equipment including air search, surface search, height finding,</li> <li>three coordinate, radar displays, radar antennas, submarine radar;</li> <li>Submarine periscopes including complete systems, major components and</li> <li>containers;</li> <li>All Navy sonar equipment including complete systems, major components, domes,</li> </ul>

Centrally Managed Equipment (Even numbers 2, 4, 6, and 8 denote material is carried in Appropriation Purchase Account (APA))		
Material Cognizance Code	Inventory Manager/Technical Responsibility	Description
		<ul style="list-style-type: none"> <li>• hydrophones and transducers;</li> <li>• Naval Tactical Data Systems (NTDS);</li> <li>• Shipboard navigational systems including ship's inertial navigation systems,</li> <li>• gyrocompasses, Position Location and Reporting System (PLRS), NAVSAT,</li> <li>• OMEGA and LORAN Receivers;</li> <li>• Interior communication equipment, such as AN/SRC-47, AN/SRC-48, AN/WIC,</li> <li>• amplifiers and recorder/reproducers;</li> <li>• Exterior communications, such as LAMPS Receivers, AN/SKR-4, AN/SRQ-4;</li> <li>• Electronic Warfare (EW) equipment and Electronic Countermeasures (ECM)</li> <li>• equipment;</li> <li>• Radiac;</li> <li>• Tritium air monitors</li> </ul>

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