

DTIC FILE COPY

(2)

AD-A229 238



DTIC
ELECTE
DEC 11 1990
S D

DEVELOPMENT OF AN EXECUTIVE LEVEL
STOCK FUND HANDBOOK

THESIS

RAYMOND T. DALY JR., Captain, USAF

AFIT/GLM/LSR/90S-13

EXEMPTION STATEMENT A

Approved for public release
Distribution Unlimited

DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY

AIR FORCE INSTITUTE OF TECHNOLOGY

Wright-Patterson Air Force Base, Ohio

90 12 10 109

The opinions and conclusions in this paper are those of the author and are not intended to represent the official position of the DOD, USAF, or any other government agency.



Accession For	
NTIS CRA&I	<input checked="" type="checkbox"/>
DTIC TAB	<input type="checkbox"/>
Unannounced	<input type="checkbox"/>
Justification	
By	
Distribution/	
Availability Codes	
Dist	Avail and/or Special
A-1	

AFIT/GLM/LSR/90S-13

DEVELOPMENT OF AN EXECUTIVE LEVEL STOCK FUND HANDBOOK

THESIS

Presented to the Faculty of the School of Systems and
Logistics of the Air Force Institute of Technology
Air University

In Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Logistics Management

Raymond T. Daly Jr. B.A.

Captain, USAF

September 1990

Approved for public release; distribution unlimited

Acknowledgements

I want to extend my heartfelt appreciation to the many individuals who helped me with this research project. In particular, Major Jeff Bailey and Lt Col Edward C. Matthews from the Logistics Management Center for technical advice and invaluable guidance. I also need to thank Hazel Hyde, Art Farver, Joe Draudt, and Marie Mobely for sacrificing their time to educate me on the stock fund process. There are many others: Vicky Triplett, Jack O'Clarien, Jim Overby, Roger Thorogood, and Col Simmons. To all of those not listed here, I am also grateful for assistance rendered. Special thanks go to Professor Ralph F. Liebhaber who, as a reader, provided outstanding support and guidance. I extend to Major John A. Stibravy, my thesis advisor, my undying gratitude for bearing with me, for motivating, encouraging, advising, and helping me accomplish what at times appeared an insurmountable task. Without his faith in me, his leadership, and encouragement, this thesis would not have been possible. I also wish to thank Dale and Sheila Schneider for graphics assistance, thorough proof-reading of countless rewrites, and prayer support. I want to thank Heike, my wife to be, for her tremendous patience, unfailing love, and precious prayers which sustained me. Above all, I wish to thank the Lord Jesus for blessing me immeasurably and giving me the victory!

Raymond T. Daly Jr.

Table of Contents

	Page
Acknowledgements.....	ii
Abstract.....	vi
I. Introduction.....	1
General Issue.....	1
Background.....	4
Stock Fund Defined.....	4
Stock Fund Issues.....	8
Statement of The Problem.....	8
Research Objective.....	9
Limitations.....	9
Audience.....	9
Research Questions.....	9
Handbook.....	10
Stock Fund.....	10
Scope of Study.....	10
Expected Benefits of Research.....	12
Thesis Overview.....	12
II. Background and Review of Literature.....	14
Overview.....	14
The Air Force Stock Fund (AFSF).....	14
Review of Stock Fund Process.....	16
General Support Division.....	18
GSD Procedures.....	19
GSD Responsibilities.....	20
Systems Support Division.....	21
SSD Responsibilities.....	22
Management Indicators.....	23
Requirements-To-Demand Ratios..	24
Inventory-To-Sales Ratios.....	25
Performance Indicators.....	25
Net Demands-To-Obligations	
Ratio.....	26
Stock Fund Analysis.....	27
General Ledger Accounts.....	30
Stock Fund Material Pricing.....	33
Factors Driving Stock Fund Changes.	35
DMRD 901.....	35
DMRD 904.....	37
Handbook Development Process.....	38
Technical Writing.....	38

	Audience Selection.....	40
	Readability.....	42
	Usability.....	46
	Format Design.....	50
III.	Methodology.....	52
	Overall Approach.....	52
	Procedure.....	53
	Library Research.....	54
	Interviews.....	54
	Panel of Experts.....	57
	Interview Instrument.....	57
	Handbook Format Design.....	58
	Handbook Usability.....	60
	Content Validity.....	61
	Handbook Readability.....	61
	Field Testing.....	61
	Chapter Summary.....	62
IV.	Findings and Analysis.....	63
	Overview.....	63
	Panel Recommendations.....	63
	Summary of Interviews.....	63
	Application of Data To Handbook	
	Design.....	73
	Usability	73
	Validity.....	74
	Readability.....	74
	Field Testing.....	75
	Summary.....	75
V.	Conclusions and Recommendations.....	76
	Research Summary.....	76
	Research Conclusions.....	76
	General Observations.....	82
	Recommendations for Future Research.....	82
	Appendix A: Air Force Stock Fund Terms.....	84
	Appendix B: Acronyms.....	89
	Appendix C: Interview Instrument.....	91
	Appendix D: List of Persons For Interviews.....	92
	Appendix E: Interviews.....	94

Appendix F: Executive Stock Fund Handbook	155
Bibliography.....	205
VITA.....	209

Abstract

This study developed a handbook for executive level stock fund managers. The Air Force Logistics Management Center requires a single source of information executives can turn to for stock fund processes and procedures. Current literature for technical writing to develop a handbook, regulations, pamphlets, and manuals for stock funds was examined. A set of questions was developed and transformed into an interview instrument. Sixteen selected stock fund experts chosen by the logistics management center were interviewed using the interview instrument. The results of the interviews formed the basis for including material in the prototype handbook developed from this research.

The interviews indicated that among stock fund experts exists the belief that an executive level stock fund handbook could be useful and is needed. The managers cited that capital control and inventory management are two crucial aspects of stock fund management requiring understanding by managers.

The prototype handbook development incorporated key aspects of technical writing such as readability,

suitability to the audience, validity, and usability. The handbook also included the recommendations of the interviewed stock fund experts.

The scope of the research focused solely on stock fund operations of interest to executives. Additional recommended research includes the need for a technician oriented stock fund manager's handbook for base level usage. Other future research should focus on the two newly developed stock fund divisions: Reparable Support Division (RSD) and Cost Operations Division (COD). Future studies or research should also focus on stock funded depot level reparable.

DEVELOPMENT OF AN EXECUTIVE LEVEL STOCK FUND HANDBOOK

I. Introduction

General Issue

The Logistics Management Center, Gunter AFB, Alabama needs a stock fund handbook to aid managers for worldwide Air Force use. Currently, there is no single source that points managers to regulations and other sources of available information about stock funds. Consequently, time and resources are spent unnecessarily and inefficiently by managers unfamiliar with stock fund procedures, as they resort to multiple sources to pool together needed information (2:1). A handbook would consolidate and reference stock fund information to facilitate improved management of critical funds. In times of severe budgetary constraints, the effective management of stock funds becomes crucial, and could be greatly enhanced by a relevant and useful tool.

The advantage in selecting a handbook rather than rewriting the regulations or pursuing another tool stems from the nature of the audience. The stock fund handbook would be directed to an executive level audience. One technical writer, in describing executive characteristics, noted:

First of all without exception they are in a hurry; they are pressed for time. They cannot afford the luxury of a close and contemplative reading of a proposal or technical report. They are consequently

interested in the gist of a report - the conclusions and recommendations (43:29).

Thus, a document that consolidates and references key material, and quickly establishes essential points (thereby accommodating managerial decision making), such as a handbook, offers direct benefits to senior managers. Although not necessarily the answer to every new manager's prayers, a handbook does provide potential relief from exhaustive literature searches through various sources by narrowing the focus and specifying where needed information is located.

There are three other possibilities besides a handbook: regulation revisions, video presentations, and additional managerial training. Regulation revisions, the first possible alternative, fail to bring everything together when the manager only has time for a quick, but crucial scan.

Videos represent a second possibility. Video presentations offer a condensed straight forward method to present material, but are restrictive in scope, limiting overall treatment. Additionally, a video recorder must be accessible to the user, and if the required information is not contained therein, the viewer must resort to additional sources. According to Tom Milligan, technical writer for O'Neil and Associates, Inc., an engineering and development consulting firm which specializes in logistics analysis and technical documentation, handbooks provide several advantages over video presentations:

Printed documentation is portable, and easily accessible. Information from within is readily obtained, and is not limited to a linear presentation. In other words, the user can jump forward or backward and proceed at his own speed. Printed documentation condenses information (29:1).

As one can see, a handbook gives the user a medium that is accessible and easy to use.

A third possible alternative to a handbook is to provide increased training for managers. In a time when managers are budget conscious, a less expensive means of providing necessary guidance, precluding diversions from daily operations, can be fulfilled through a useful stock fund handbook rather than through expenditures of scarce funds on travel. Another drawback to increased training is that instruction loses effect over time resulting in a need for refresher training, or requires referencing other material which could be just as easily accomplished by referring to a manual to begin with. Thus, the handbook offsets training costs, defers travel expenses, and can be easily accessed. Although regulation revisions, video presentations, and additional training serve as possible options, they fail to outweigh the advantages provided by a handbook. Consequently, in lieu of these options, and due to the expressed desire of the sponsor (the Air Force Logistics Management Center) to provide information to managers in a handy, readily available medium, a handbook becomes a concise and feasible means for meeting this need.

Background

Stock Fund Defined. United States Air Force Supply Manual 67-1, Volume II, Part Two, Chapter 29 outlines Air Force Stock Fund policies and procedures (12:29-9) and gives a general definition.

A stock fund is a revolving or working capital fund. It is used to finance inventories and required military materiel and generates income from the sale of such materiel. Any time a customer obtains materiel from the stock fund, this transaction is regarded as a sale or issue (in AF usage, the two terms mean the same thing). The fund is established through an act of Congress (10 U.S.C. 2208) and gives the Secretary of Defense authority to finance inventories through working capital funds in the Department of Defense (DOD). The five stock funds within the DOD are the Army, Navy, Marine Corps, Air Force, and Defense stock fund. These stock funds hold the cost of purchases in suspense. This means that when money is spent for purchase of supplies, that money is not available until the items purchased are sold. At the local level, supply cannot use the customers' money to purchase items from commercial sources, DLA, GSA, or other stock funds unless authorized to do so by HQ USAF (12:29-11).

In the above description of stock funds, reference was made to working capital funds. To further clarify the function of stock funds, Air Force Manual 67-1, Volume II, Part II expands the definition of working capital as:

"The working capital can be thought of as the funds tied up at all times in inventory, orders outstanding, and working cash balances on hand" (12:29-33). Thus, stock funds are resources and hence represent more than just dollars. They include inventory, assets on order, and cash balances. Stock funds, therefore, display a fluid, constantly changing financial picture.

In this way, stock fund assets represent the total financial resources needed to bring goods to the customer. As customers buy goods, these customers provide funds for continuing the process (12:29-33).

By viewing stock funds as resources, one recognizes the revolving nature embodied in the process. Once something bought with stock funds has been sold, the amount of the sale returns to the stock fund for further use.

For the purpose of this thesis, the use of the term "stock fund" pertains solely to the Air Force Stock Fund (AFSF), unless otherwise specified. Within the Air Force, there are six types of stock funds:

- 1) Commissary
- 2) Fuels
- 3) Air Force Academy
- 4) Medical-Dental
- 5) General Support Division (GSD)
- 6) Systems Support Division (SSD) (18:1).

Effective 1 October 1990, the Cost of Operations Division (COD) and the Reparable Support Division (RSD) activate and become operational (17). The eight stock fund divisions within the Air Force receive brief treatment below:

Commissary: The Commissary Division handles financial management and inventory control as well as ensures distribution of rations to support Air Force personnel (10:4).

Fuels: The Fuels Division renders financial management and inventory control as well as provides distribution of bulk petroleum fuels

and missile fuels to support peacetime and wartime requirements (10:4).

Air Force Academy: The Air Force Academy Cadet Store Division manages provision of academic supplies and services for Academy cadets (10:5).

Medical-Dental: The Medical-Dental Division furnishes financial management and inventory control as well as provides distribution of medical and dental supplies and equipment to support peacetime health care. The division also handles prepositioning of war time medical supplies (10:4).

Systems Support Division: The Systems Support Division includes financial management and inventory control at the depot (wholesale) level pertaining to weapons systems for five Air Logistics Centers (ALCs). The division also provides for management and control of SSD items from the ALCs to the operational (base or) retail level (10:3).

General Support Division: The General Support Division renders financial management and inventory control at the retail level for expense consumable items. The major sources of supply include The Defense Logistics agency (DLA), the General Services Administration (GSA), other Service branches, and local purchase (10:4).

Cost Operations Division: The Cost Operations Division is primarily responsible for ensuring the day-to-day wholesale operations costs are budgeted for and covered through RSD, SSD, and GSD stock funds (17).

Reparable Support Division: The Reparables Support Division is responsible for the financial management and inventory as well as the distribution of depot level reparable assets (17:11 July 1990).

Since the first four divisions are unique and apply to specific circumstances, and the last two divisions (COD and RSD) are currently being brought on-line, this thesis

focuses primarily on GSD and SSD which are commonly encountered, and more likely to concern all managers, as well as stock fund managers in particular. Christopher H. Hanks, in a report for the Department of Defense, contract MDA903-81-C-0166 (Task AF301), summarized GSD and SSD by stating:

In the GSD, items are requisitioned or procured at the base or retail level from outside wholesalers, such as DLA, the General Services Administration, other Services, and commercial vendors (20:1-2 - 1-3).

Hanks continues with the SSD:

In the SSD, the Air Force acts as its own manager and wholesaler, with Inventory Control Points (ICPs) at each of the five Air Logistics Centers (ALCs) within the Air Force Logistics Command (AFLC), and a sixth ICP, the Cryptological Support Center, at Kelly Air Force Base (AFB), Texas (20:1-3).

The primary method for Air Force Stock Fund management is Inventory and Capital Control (ICC). Stock fund managers possess a degree of "built-in" flexibility since they can adjust levels up or down to keep pace with customer requirements. This flexibility does not exist for inventory objectives pertaining to funds involving assets on-hand, on order, or in transit. In these three cases, the objectives are preset (12:29-11). ICC objectives must operate within the baselines established. If objectives are maintained, the Stock Fund Operating Program (SFOP) requires no revision. In the case of the General Support Operating Program (GSOP), if end-of-year objectives fall short, the GSOP may require revision (12:29-11).

The organizing principle for the Air Force Stock funds presupposes a no profit - no loss approach encouraging attention to financial, logistical, and technical functions of operations (12:29-11-29-12).

Stock Fund Issues

At the 15-19 November 1989 Worldwide GSD Stock Fund Conference held at Wright-Patterson Air Force Base, Ed O'Clarien, Headquarters TAC stock fund manager, encapsulated some common problems stock fund managers face.

"Historically, times of trouble resulted from wholesale price increases, cash diversions, changing demand formulas..." (33:1). At the same conference, it was pointed out that over the past two years, three Blue Ribbon panel meetings (29 Nov - 2 Dec 88, 17-20 Jan 89, and 21-23 Mar 89) and two General Officer Steering Group meetings (28 Feb, and 8 May 89) were held to discuss stock fund strategies and implementations (28:4). These high level meetings demonstrate a keen interest in stock funding issues among top leadership. Thus, in view of higher echelon interest, proper management of stock funds takes on renewed significance, and likewise the availability of information for managers' use gains additional importance.

Statement of The Problem

The Logistics Management Center requires a stock fund handbook for world-wide Air Force use. No such handbook currently exists.

Research Objective

The specific objective for this research is to develop a useful handbook for worldwide use by senior level Air Force stock fund managers at the request of the Air Force Logistics Management Center, Gunter AFB, Alabama that consolidates information on stock fund procedures into a single source.

Limitations

Since the handbook will not replace existing regulations, but supplement them, material is presented in generalized terms to preclude major overhauls whenever regulations change. Also, applicability of operations discussed in the handbook is limited strictly to the Air Force Stock Fund, focusing primarily on General Support Division (GSD) and Systems Support Division (SSD) stock fund procedures.

Audience

The handbook's designated audience is middle to senior managers and executives who deal with stock funds. The handbook is not directed at clerks and technicians.

Research Questions

Specific questions for research fall into two categories. The first group of research questions deals with handbook preparation, and examines the process and arrangement of a handbook. The second set of questions pertains to stock fund management, and examines what is

involved in the stock fund process from a manager's perspective. These questions have been structured to obtain the appropriate data required to compose a handbook detailing relevant stock fund information for managerial use.

Handbook

1. What constitutes a handbook or manual?
2. How should a handbook be physically arranged?
3. What makes a good handbook (facilitates learning)?
4. What considerations must be addressed to develop a handbook?

Stock Fund

1. Who are the intended users of the stock fund handbook?
2. What is the stock fund and how does the stock fund process operate?
3. What affects the stock fund?
4. What are the key sources of available information pertaining to the stock fund?
5. What considerations are involved in stock fund management?

Scope of Study

In order to design the handbook, extensive library research on handbook preparation was conducted. In conjunction with the library research, interviews of several corporate technical writing divisions were conducted to understand the process of manual design and development. The

corporations were chosen based on proven expertise in technical writing and frequent employment by the military on technical writing projects.

Also, a literature review of stock fund material was performed. The literature review concentrated on regulations, pamphlets, manuals, etc. Material included in the literature review dealt with the stock fund as a process, applicable procedures, and background information pertaining to potential changes in stock fund operations. A significant portion of the research methodology also consisted of structured interviews with stock fund experts in the field. In addition to being recommended by the sponsor (the Logistics Management Center), structured interviews provided an additional source of information not found through library research. A second benefit to conducting structured interviews was that information obtained through interviews highlighted what expert stock fund managers considered as important issues for inclusion in an executive-style handbook. Hence, the overall research had two focal points: stock fund management and handbook development. To ensure the stock fund handbook suited the intended audience, a study of usability was also performed to gauge validity, reliability, and practicality (16:94).

As previously mentioned, this stock fund research was restricted to the Air Force Stock Fund as embodied in GSD and SSD. Since these two areas are most often encountered

by stock fund managers, and affect Air Force operations to the greatest extent, they generate the most management interest. Focusing on GSD and SSD also supported the purpose of the handbook, which was to outline stock fund procedures for senior managers.

Expected Benefits of Research

This research provides several benefits. One benefit is the handbook for stock fund managers. The handbook represents a useful tool for worldwide use by stock fund managers, consolidates key concepts, and references available sources to help find additional material. The handbook fulfills a recognized Air Force need by working an Air Force Logistics Management Center (LMC) - designated project. The research provides a tool geared to the needs of experts in the field (as determined by personal interviews with selected expert stock fund managers). The research also outlines aspects of the technical writing process used in handbook/manual development and provides bibliographic material on technical writing and stock fund procedures for use by future research studies. This study also proposes several areas for further research.

Thesis Overview

Chapter I covered the general issue, included pertinent stock fund background, detailed limitations to the research, defined the audience, listed research questions used in this

study, specified the scope of the research, and highlighted benefits of the study.

Chapter II consists of two literature reviews. The first review provides background material on the Air Force Stock Fund and related procedures. The second literature review entails handbook/manual development and preparation. Hence, the overall literature review consists of two major divisions.

Chapter III treats the methodology involved in gathering and evaluating material for inclusion in the stock fund handbook.

Chapter IV presents results from interviews with stock fund experts, rates readability, and evaluates the field testing.

Chapter V summarizes, draws conclusions, and proposes recommendations based on the research conducted.

Appendices include a glossary of related stock fund terms and acronyms, a completed copy of the proposed handbook, and copies of interviews with stock fund experts.

The next chapter presents the two literature reviews.

II. Background and Review of Literature

Overview

This chapter consists of two literature reviews. The first section involves relevant literature detailing the stock fund process and relates some background on changes in the stock fund environment. For stock fund procedures, the majority of literature appears as Air Force and Department of Defense regulations, pamphlets, and manuals. Some technical reports and research studies exist, but are limited in number and scope. Reports relevant to this thesis have been included.

The second literature review contained in this chapter deals with technical writing as a function of the handbook design process. Unlike the limited amount of literature available on stock funds, there exists a wealth of technical writing literature. For this study, the material included consists only of those technical writing works related to the handbook development process. The main categories considered are: aspects of technical writing, audience selection, readability, usability, and format design. These categories lay the foundation for developing a handbook.

The Air Force Stock Fund (AFSF)

The Air Force Stock Fund consists of six divisions as mentioned previously. The six divisions currently operating

have been extracted from AFR 170-25 and are listed below with the location and supervision of each office:

Location of Division

TITLE OF DIVISION	MANAGEMENT OFFICE	ADMINISTRATION AND MANAGEMENT OF DIVISION
Air Force Academy	USAF Academy CO 80840	Superintendent US Air Force Academy
Commissary	AFCOMS/DO Kelly AFB TX 78241	Commander, Air Force Commissary Service
Fuels	San Antonio Kelly AFB TX 78241	Commander, Air Force Logistics Command
General Support (note)	AFLC/MMMF Wright-Patterson AFB OH 45433	Commander, Air Force Logistics Command
Medical-Dental	AFMLO/FOS Frederick MD 21701	The Surgeon General, HQ USAF
Systems Support (note)	AFLC/MMMF Wright-Patterson AFB OH 45433	Commander, Air Force Logistics Command

NOTE: These Division funds are presently apportioned at HQ USAF level. However, for practical purposes, at all other echelons the following basic statement regarding non-apportioned funds applies: For those divisions not under apportionment controls, allocations and allotments are replaced by objectives in approved operating programs (13:8).

The activation of two additional divisions will take place in October 1990. The new divisions are the Cost Operations Division (COD) and the Reparable Support Division (RSD) (17). Both will operate out of Air Force Logistics Command, Wright Patterson AFB.

Air Force Regulation 170-25, Procedures In Support of Air Force Stock Fund, governs the operation of the Air Force Stock Fund pursuant to DOD Directive 7420.13-R. AFR 170-25 details accounting and budgeting procedures and establishes reporting requirements for the AFSF (13:8).

Review of the Stock Fund Process

As mentioned earlier, stock funds are revolving funds used within the Department of Defense. The revolving nature of these funds is essential to maintaining inventories and generating cash. Revolving funds are defined in the following excerpt from DOD 7420.13-R, Stock Fund Operations:

A funding concept that allows the use of funds received from sale of items or services to customers to acquire assets for resale to customers. For example, a stock fund sells parts to a customer and uses the funds collected from the customer to pay for parts acquired to restock its inventory (8:C-2).

This definition points out that revolving funds generate the capability to restock inventories based on sales generated. This revolving nature coincides with the concept of working capital. Since stock funds are working capital, there exists a need for self-sustainment, or regeneration in order to continue operations; otherwise, congressional appropriations become necessary (12:6-3). One premise of a working capital fund is the need for self-sustainment through sales of material purchased or authorization of additional financial resources to invest in inventory

levels or support issues that do not result in cash collections (11:6-3).

For peacetime replenishment of inventories, Congressional appropriations are not required.

Instead, the stock funds operate with obligational authority approved within the Executive Branch by the office of the Assistant Secretary of Defense (Comptroller) and the Office of Management and Budget (20:1-1).

Two types of inventory exist that require appropriations. These categories are war reserve stocks and stocks falling under the classification of peacetime inventory augmentation (20:1-1). Under peacetime inventory augmentation:

...the stock funds must seek appropriations for their net requirements for any new or additional stocks needed to support force growth and modernization, modification programs, and readiness improvement initiatives (20:1-1).

There are two forms of stock funds relating to operational levels. They are horizontal and vertical. Horizontal stock funds pertain to a single level such as in one case - a base (retail level), or in a second instance - a depot (wholesale level). When transactions take place solely at base level, they fall under General Support Division (GSD) authority (12:29-12).

Vertical stock funds, on the other hand, function at both retail and wholesale levels. System Support Division (SSD) operations serve as an example of vertical stock funds. "Because the SSD operates at both the wholesale and retail levels, it is a vertical operation" (12:29-13). This

vertical concept of wholesale to retail operations permits the SSD to maintain inventory at inventory control centers (wholesale level) and at the same time distribute and maintain inventory (under SSD auspices) worldwide to Air Force operating locations (retail level). The items at the retail level do not become SSD sales until a customer at the base withdraws/purchases an asset from stock. What these events indicate is that movement of items from the wholesale level to the retail level do not constitute sales to the SSD. Only when the item is withdrawn from stock does it count as a sale. Thus, the vertical nature of the SSD stock funds provides an element of protection for the bases against unbearably long lead-times and, at the same time, offers Systems Division control and distribution of inventory items (10:10). Now that the horizontal and vertical aspects of stock funds have been examined, the specific functions of the General Support Division and the Systems Support Division receive treatment.

General Support Division

The General Support Division (GSD) exercises retail level financial management, inventory control, and distribution functions valued at approximately 1.4 million dollars in consumable items (10:4). In other words, "The General Support Division (GSD) is established to fulfill general requirements needed for day-to-day Air Force operations" (12:29-77). The GSD maintains assets worldwide

at over 200 Air Force bases and operating locations (8:4).
"The GSD manages both Peacetime Operating Stocks (POS) and
War Reserve Materiel (WRM) inventories" (10:14).

Material under the supervision of the GSD includes
all base-funded expense items (budget code 9),
including DLA, GSA, other services stock funds,
commercial vendor items, local purchases other
than commercial vendor items, and local manufacture
items not included in another division of the Air
Force stock fund (12:29-77).

At the base level, stock fund operations are governed by
General Support Division procedures. GSD policies are
delineated in Air Force Manual 67-1, Volume I, Part 3,
Chapter 6.

GSD Procedures

General Services Division operations involve the base
level or retail portion of stock funds.

The AF stock fund is financially designed to operate
on a no profit/loss basis. In other words, the
difference between the cost of buying GSD items
and their selling or issue price is utilized to
pay for the expense of transportation, and
authorized inventory losses. All issues of GSD
items that process through the retail or base
inventory systems require reimbursement from the
consuming or requiring appropriations such as
operating and Maintenance (O&M), Air Force
research development test and evaluation (RDT&E)
and the various services divisions of the
Air Force Industrial Fund (another working capital
fund) (11:6-3).

In the above excerpt, the reimbursement practice mentioned
depicts the revolving nature of the stock fund. This
revolving concept allows the stock fund a degree of self
sufficiency which is covered in detail in a later section.

For actual guidelines concerning managerial procedures, "AFR 67-18 establishes basic policies and outlines specific management responsibilities for managing the AF stock Fund" (11:6-3).

GSD Responsibilities

Within the GSD, inventory management and capital control become primary concerns for stock fund management (11:6-3). The challenge for the manager is to meet stockage objectives while remaining within financial guidelines.

The successful operation of the AF stock fund depends largely upon predicting and maintaining proper inventory stockage objectives. Such objectives must be adequate to support mission requirements and be controlled to maintain necessary working capital to insure proper operation of the stock fund. Therefore, it is a responsibility of all levels of management within the Air Force to insure strict compliance with approved stockage policies (11:6-3).

Thus, management receives a challenge to observe approved stockage policy and ensure the availability of capital generated through the stock fund to support mission requirements. To aid in managing GSD stock funds, expense codes become useful to the manager.

Expense type retail managed items are identified in USAF management data lists (federal supply catalogs) or item records by a budget code "9" are included in the GSD, AF stock fund (11:6-3).

These expense codes help identify the commodity type by which class of money should be applied to the item.

Now that General Support Division stock funds have been treated, examination focuses on stock funds within the Systems Support Division.

Systems Support Division

While the General Support division deals with support at the retail level, the Systems Support Division (SSD) extends to the wholesale level.

Wholesale divisions exist to finance (ie., budget and provide for) depot-level inventories (i.e., inventories at Conus depots, overseas depots, and major supply points within the stock funds. The wholesale divisions all operate through Inventory Control Points (ICPs), which serve as the central inventory management point for some subset of the items assigned to the division (21:A-1).

The Air Force Logistics Command (AFLC) exercises management responsibility for the Systems Support Division. Five Air Logistics Centers assigned to the Air Force Logistics Command act as inventory control points. The SSD ICPs are located at Tinker AFB, Oklahoma; Hill AFB, Utah; Kelly AFB, Texas; McClellan AFB, California; and Warner Robbins AFB, Georgia. The Cryptological Support Center located at Kelly AFB, Texas is a sixth inventory control point (10:10). "Both Peacetime Operating Stocks and War Reserve Material are procured and maintained by the Systems Support Division" (10:10). Detailed procedures for the SSD appear in Air Force Manual 67-1, Volume I, Part Three, Chapter 5. SSD requirements generate from: 1) force modernization, 2) force modification, and 3) readiness

improvements and sustainability (10:10). Under force modernization, items for new weapons systems or end items require "initial lay-in" resulting in new inventory and incremental increases of weapon systems (10:10). With force modification, the addition of new items support changes in configuration or upgrade of older weapon systems (10:10). The final category of requirements, improvements to readiness and sustainability, pertains to stockage policy changes implementing better forecasts of future requirements as opposed to past demands (10:10).

SSD Responsibilities

"Responsibilities for operation of the SSD, AF stock fund are identified in AFR 67-18" (12: 5-3).

The successful support operation of the AF stock fund depends largely upon predicting and maintaining proper inventory stockage objectives. Such objectives must be adequate to support mission requirements and be adequately controlled to maintain sufficient working capital that will insure proper operation of the stock fund. Therefore, a major responsibility of all levels of management within the Air Force is to insure strict compliance with approved stockage policies (12:5-3).

From this except, one observes the crucial linkage of financial considerations to stockage policies. To evaluate the management of stock funds at either the retail or wholesale level, managers must understand what occurs within the stock fund process incorporating both capital and inventory factors. Several management indicators serve as

tools to analyze stock fund impacts and to guide managerial decision making.

Management Indicators

Management of stock funds gains effectiveness through the use of certain management indicators. A 1985 report published by the Logistics Management Institute, Bethesda, Maryland, entitled Stock Fund Operations In The Department of Defense, describes aspects of the stock fund process pertaining to the Department of Defense. Three prescribed management indicators listed in the report are: requirements-to-demand ratios, inventory-to-sales ratios, and performance ratios (20:3-1). From a macro perspective:

The indicators are designed to enable the Office of the Secretary of Defense (OSD) to track and evaluate underlying trends in stock fund requirements, inventories, and performance, regardless of changes in prices and demand patterns (20:1-11).

Since these indicators react with relative insensitivity to price changes and variations in demand patterns, they provide substantial insight into trends exhibited in requirements, inventory, and sales (20:3-1). By monitoring trends, management gains information to enhance decisions concerning disposition and management of stock funds. For instance:

Requirements-to-demand ratios provide a way to evaluate stock fund planning and programming, while inventory-to-sales ratios provide a means for evaluating actual execution (20:3-3).

For planning and programming purposes, requirements-to-demand ratios provide key information. From the execution standpoint, inventory-to-sales ratios also provides useful insights. Prior to effectively applying the information gained from these techniques, a limitation to these indicators warrants consideration. Both requirements-to-demand ratios and inventory-to-sales ratios are effective tools for evaluating requirements as long as the ratios remain stable over time. When they vary with respect to time, some measurement of the extent to which the changes are justifiable must be employed (20:3-3). Thus, the manager needs to know when these measurements are justified.

The only justifications for changes in requirements and inventory levels (beyond that caused by changing demand or changing lead-times) are changes in desired levels of supply performance, or financial performance, or both (20:3-3).

Two types of measurement that gauge the extent to which changes in inventory and requirements levels are justifiable are supply performance and financial performance (20:3-3). Both receive expanded treatment in later paragraphs. Again, the three types of indicators are requirements-to-demand ratios, inventory-to-sales ratios and performance ratios.

Requirements-To-Demand Ratios. To examine requirements-to-demand ratios, requirements are viewed as statements of gross requirement objectives and are more commonly referred to as levels. Likewise, demands refer to the dollar value of actual or forecasted requisitions. As

such, demands and levels comprise key aspects of requirements-to-demand ratios (20:3-2). "Requirements-to-demand ratios provide a measure of what the stock funds think they need to meet the demand they expect" (20:3-2). They don't show actual effects. For stock funds, computations of stock levels reflect the level at which customer support is rendered. When the requirements-to-demand ratio increases, the inference is that the stock levels increase more rapidly than the supported demands. Thus, trends of this nature signal a need to investigate causation. As such, examination of the ratios provides indications of trends in the levels. If the fluctuations are sizable, additional analysis to determine cause and extent is required (20:3-2).

Inventory-To-Sales Ratios. Unlike requirements-to-demand ratios which measure what is thought to be required to meet stock fund demands, inventory-to-sales ratios "...measure what they actually have (or project to have) against what they have sold (or project to sell)" (20:3-2 - 3-3). Inventory-to-sales ratios actually show the effects of current (or forecasted) demands for assets. Examination of these effects provides useful information for stock fund execution, thus enhancing the management process.

Performance Indicators. Since the first two types of indicators are limited by requirement variances over time, additional measures are required to ensure proper

application of stock fund procedures. To deal with changes in requirements over time, supply performance and financial performance indicators may be appropriate to use in addition to requirements-to-demand and inventory-to-sales ratios. By including supply and financial indicators, performance feedback is obtained. Supply availability rates (fill rates) measure supply performance. Fill rates generally accompany stock fund budgets. Additional supply performance measures include the average number of unfilled requests (backordered requisitions) and the average delay time for orders (requisitions) (20:3-3). On the financial side, obligation-to-sales ratios represent a key measurement indicator (20:3-3 - 3-4).

Net Demands-to-Obligations Ratio. At the retail level, the General Support Division currently applies a net demands-to-obligations ratio (23:2 July 1990). The optimal situation occurs when the ratio is exactly 1 to 1 which indicates that as assets are sold, the stock fund is instantaneously replenished. In such a case, no changes occur in the cash or inventory balance. In other words, the stock fund cycle revolves as intended. Since, in actual operations, transactions do not process instantaneously, lags occur between the request and receipt of property. Thus, the ratio does not sit exactly at 1 to 1. When the ratio is greater than 1 to 1, inventories tend to grow.

Conversely, when the ratio is less than 1 to 1, inventories tend to decrease (36:7).

Stock Fund Analysis

Some primary variables which prompt base level management action involving stock funds include budget constraints which limit available Organization and Maintenance (O&M) dollars, drops in customer demands, increased on-hand inventory, quarterly allocations of stock fund dollars, and end of year requirements carry-overs from prior fiscal years (18:1). These are examples of factors which influence the stock fund position. A June 1989 Air Force Logistics Management Center Report (AFLMC) entitled Stock Fund Analysis examined the impact of alternative Materiel Acquisition Record (MACR) constraints. "In stockage policy terms, the MACR factor is really an adjustment factor (zero to 100%) of the economic order quantity (EOQ) of a stock replenishment requisition" (18:3). Thus, what the MACR factor does is decrease the EOQ requiring the order of a smaller quantity to replenish stock turnover (18:3).

The study included a simulation of the Standard Base Supply System (SBSS) to assess MACR impacts based on the accumulation of actual demand data (18:1). The research indicated that MACR factors are useful stock fund management tools when customer demands display a constant decline.

As a general rule, MACR controls (factor options) are applied if the stock fund manager anticipates or actually experiences a deficit in the stock fund operating program (value of anticipated requisitions is greater than the value of net orders placed) (18:3).

Such is not the case when demands remain constant or rise. The AFLMC report cited that in cases of increasing or constant demand, the application of MACRS results in a reduction of the total value of requisitions and reduced customer support. Under the same conditions, workloads increase at the base and depot levels. One significant finding of the research is "We also concluded that MACR factoring is only a short-term control mechanism and cannot be used to resolve long-standing stock fund shortfalls" (18:1). Using the information produced by the study, base stock fund managers have the ability to determine potential MACR constraint impacts and can project stock fund dollar outlays (18:1). In the final analysis, the report arrived at five conclusions and provided two recommendations. The conclusions were:

1. There is no right or wrong MACR factor. Each base-level stock fund manager has to apply MACR factors based on the health of their stock fund operating program and the mission of their base.
2. MACR factors will reduce the total dollar value of requisitions for a standard base supply account and will consequently reduce on-hand inventory. The amount of reduction is proportional to the severity of the MACR factor. Table 9 quantifies the amount of reduction for our six MACR alternatives.
3. MACR factors will only work to resolve short term

(6 to 8 month) stock fund problems and cannot be used from one fiscal year to the next, unless net customer demands decline. If customer demands are on a decreasing trend line, MACR factoring is an excellent tool to proactively control the outlay of stock fund dollars and the subsequent reduction in inventory.

4. Application of the MACR factor will reduce customer support (backorders increase) and generate additional workload for both the retail (receipt processing) and wholesale (requisition processing and shipping) systems. Table 9 quantifies the projected impact for each alternative that we evaluated.
5. Holding funds requirement cards (FRC) at base level for secondary review will reduce customer support and increase workload without any real savings (18:13).

In addition to the findings compiled from the stock fund analysis research, proposed recommendations include:

1. A copy of this analysis should be provided to all GSD stock fund managers to help manage (control) the outlay of stock fund dollars and project the impact of their MACR options.
2. MACR factoring options should be used to control the AF stock fund (AFSF) when customer demands are on the decline or to correct short term deviations in the AFSF operating program; however, we do not recommend MACR factoring as a long term solution to correct year-to-year stock fund orders to sale ratio imbalances (18:13).

By applying the results of the analysis of stock fund impacts using MACRS, base stock fund managers can manage stock funds more effectively while also projecting outlays. The analysis also provides managers with the capability to identify impacts on customer support, requisition dollar values and workload considerations (18:i).

General Ledger Accounts

A General ledger account (GLA) is defined as a "... three-digit accounting code used to identify a major account series" (12:29-29). Explanations for the use and application of GLAs are found in AFR 170-25, Procedures In Support of Air Force Stock Fund. General ledger accounts are used to track transactions and are used on a "double-entry, accrual basis" (12:2-1). The updating of general ledger accounts show the results of annotating supply and accounting transactions (12:2-1).

There are four types of assets tracked by the use of general ledger accounts. The four categories of assets are:

- 1) Fund Balances With Treasury.
- 2) Inventories.
- 3) Work in Progress.
- 4) Receivables (8:2-1 - 2-5).

Under the first category, fund balances with treasury, different types of transfers occur. The transfers include transfers within a stock fund, transfers between stock funds, and other transfers (8:2-1 - 2-2). Within a stock fund, treasury balance transfers must have the Service's Comptroller or Defense Agency's approval (8:2-1 -2-2). As such, a "... transfer of a Treasury balance shall be accounted for as a transfer of the equity of the U.S. Government rather than an allocation or allotment of funds" (8:2-1). Procedures differ when the transfer occurs between

stock funds. "Such a transfer shall be approved only upon justification of an exceptional situation" (8:2-1). When a transfer between stock funds takes place, the "apportionment and reapportionment schedule" requires OMB approval with the obligation authority and fund balance with Treasury requiring apportionment (8:2-2). In cases where other transfers occur, the Treasury balance transferring to another appropriation, fund, or a Treasury balance of a different appropriation requires proper approval under the appropriation agencies (8:2-2).

The second type of asset is inventories. Asset levels are maintained to support weapons systems in use. "The military departments should track the funding amounts for applicable/inapplicable assets associated with active weapon systems" (8:2-2).

For inventories, supplies are considered capitalized when they fall under stock fund management (8:2-2).

Onhand and onorder inventories of supplies financed by other appropriations and funds shall be considered as contributed capital when the stock fund undertakes management responsibility for the items (8:2-2).

The types of inventories include "...Onhand - Operating; Onhand - Mobilization; In Transit - Between Storage Points; In Transit - From Procurement; In Transit - From Customers; On Loan To Others For Use; and With Agents" (8:2-3).

In addition to inventories, another type of asset is work in Progress (WIP). Work in progress falls into the following classes:

- 1) Work In Progress - In House.
- 2) Work In Progress - Contractor - Progress Payments.
- 3) Work In Progress - Contractor - Cost Reimbursements.
- 4) Work In Progress - Contractor - Unpaid.
- 5) Work In Progress Other Government Plants - Unpaid.
- 6) Work In Progress Other Government Plants - Paid.
- 7) Work In Progress - Government Furnished Material (GFE).
- 8) Work In Progress - Government Furnished Equipment (GFM) (8:2-4).

"An item or equipment issued on a contract for the procurement, repair, alteration, or modification of a stock fund item shall be accounted for as GFM or GFE..."

(8:2-4). "Items required under a contract to procure property or services for another appropriation or fund shall be sold to, and accounted for as GFM, by that appropriation or fund" (8:2-4).

The final class of assets is receivables. "An account receivable may be recorded based upon the issuance of a material release order" (8:2-4). When an account receivable is recorded in the GLA, revenues increase by the receivable amount. By the same token, when the cost of goods increases, the equivalent decrease of inventories takes place with the sale of items (8:2-4). The four types of

assets: Fund balances with Treasury, inventories, work in progress, and receivables are recorded on the general ledger account and provides an indication to the stock fund manager to aid in the decision making process.

For example, management actions necessary to operate within obligation authority limitations require timely updating of financial records. A frequent updating of the reconciliation of general ledger balances with supporting subsidiary supply records (8:2-1).

Therefore, attention to the general ledger accounts serves as an effective measure to stay within obligation authority.

Stock Fund Material Pricing

Stock fund pricing policies and procedures incorporate six aspects of standard prices. Single price is the first standard price.

Each catalogued item with a national stock number assigned which is managed by a DOD Inventory Control Point, except for a subsistence item sold to a commissary, shall have a one standard price for all sales to DOD and Coast Guard customers (8:4-1).

In addition to the standard price, there exists instances when price stabilization applies.

The stabilization of prices requires that the standard price for a catalogued item which is managed by a DOD Inventory Control Point, except for a clothing item required for a mandatory clothing bag or a subsistence item, shall be changed only at the beginning of the FY and shall remain constant throughout the FY (8:4-1).

The acquisition cost represents another feature of standard pricing and provides a basis for establishing an item's standard price.

For items without a procurement history, an acquisition cost may be estimated based upon current manufacturer's price listings or market price quotations. The acquisition cost of an item procured by means of a multiyear contract may include up front cost such as setup cost that will not be incurred in future years (8:4-1).

A fourth aspect of standard pricing that accommodates recovering operating expenses involving stock funded items is the application of a surcharge. The surcharge involves elements of transportation, inventory expense, inventory maintenance, and price stabilization (8:4-1).

Although the surcharge consists of several definable elements, the ultimate purpose of the surcharge is to maintain an approved level of funds with Treasury and consistency with the budget for DOD customers. A proposed surcharge to achieve these objectives shall be developed for each major material category and submitted to OASD for approval (8:4-1).

The surcharge offers a method to cover operating expenses and keeps planners in line with budgetary goals.

Publication serves as an additional pricing component. Pricing determinations are made prior to the execution year and published to provide advance notice. Where stock funded items stand as undelivered orders and unfilled orders, adjustments are made to the stabilized prices when notice of price changes arrive (8:4-2).

Finally, circumstances arise where authorized price changes become justifiable.

When a standard price is based upon an estimated acquisition cost, the price shall be revised when the actual acquisition cost becomes available and is significantly different from the estimated acquisition cost. In addition, significant errors

in the computation of a price may be corrected during the FY. A price will not be changed during the FY based upon a procurement after the cut-off date for establishing the annual stabilized price (8:4-2).

The six aspects of standard pricing (single price, stabilization, acquisition cost, surcharge, publication, and authorized price changes) all affect the stock fund process. Each aspect impacts the sales of stock funded items (8:4-2).

Factors Driving Stock Fund Changes

DMRD 901

OSD's concern with Air Force management of stock funds revolves around three major areas: inventory, outlays, and cash flow. In the past, the Air Force was charged with buying too much or not enough of the "correct" items, not carefully monitoring the stock fund process operationally, and failing to recognize the need to maintain stock fund liquidity (36:8). Defense Management Report Decision (DMRD) 901 emphasized the need to reduce Supply System costs. DMRD 901 indicated that the DOD spent close to \$30 billion regarding the purchasing and management of supplies and maintained approximately \$100 billion in on-hand inventories (7:3). Under the perception that DOD inventories were steadily increasing, proposed policy changes were enacted to produce at the minimum a 3% annual decrease in operating, purchasing, and management costs (7:3).

The report highlighted nine policy changes to accomplish the stated goal of reducing inventory related costs. These policy changes as stated in DMRD 901 are:

- 1) Move support costs now funded in O&M to the stock fund.
- 2) Provide sufficient obligational authority to permit multiple contracts with guaranteed minimums.
- 3) Fund drawings and technical data in the stock fund.
- 4) Allow holding and interest costs to encourage Just-In-Time inventory management.
- 5) Authorize the procurement of forgings and castings in the stock fund.
- 6) Provide visibility of operating and retail stocks to the wholesale inventory managers.
- 7) Stock items closest to vendor rather than closest to customer.
- 8) Retain returns at closest depot to reduce handling and transportation costs.
- 9) Provide specific goals to managers for increasing the use of commercial items (7:2-5).

To accomplish the goals listed above, Department of Defense implementation includes three thrusts. The first approach promoted the merger of stock fund operations into a single Department of Defense Stock Fund to ease cash management while simultaneously providing increased managerial flexibility (7:6). The second DMRD thrust stipulated that "there will be a uniform surcharge established for all commodities, including fuel, but excluding products sold to commissaries" (7:6). The final aim called for in DMRD 901 applied to local purchase and

stipulated: "... because the surcharge will probably exceed 30 percent, the policy of prohibiting local purchase for stock numbered items will have to be reenforced" (7:6). In brief, DMRD 901 came about due to an OSD perception that corrections to stock fund procedures were necessary to reduce inventory costs and allow for improved higher echelon management of stock funds. The directive outlined nine policy changes and provided three implementation plans.

DMRD 904

Defense Management Report Decision 904 posed the question regarding the feasibility of the Air Force and Army adopting the practice of stock funding reparable assets. The basis for this proposal stemmed from the Navy's success with the reparable approach throughout the past decade. The Navy witnessed a 20% reduction in customer demands of reparable assets (9:1).

Initially, the effects of stock funding depot level reparable assets will appear transparent to customers (15). As of the time of this thesis, a planned "grace period" until the program transitions will be implemented. The current projection for charging the units for stock funded reparable is scheduled for FY 1994 (9:1). One of the key drivers behind the push for stock funded depot level reparable is to initiate a decrease in customer demands. The thought is that making the customers pay directly out of their own funds will cause a more frugal response toward

spending stock fund dollars (9:2). The concept of stock funding depot level reparables underlies the creation of the Reparable Support Division (RSD) which operates effective October 1990 (15).

Now that key literature pertaining to the stock fund process and applicable procedures have been examined, attention focuses on a literature review of technical writing and handbook development.

Handbook Development Process

Technical Writing

Since stock fund management is a complex process involving many interrelated technical factors, features of technical writing become essential to presenting stock fund concepts and issues in a useable handbook format. To begin with, proper organization of a handbook determines the degree to which an audience either accepts or rejects the thoughts espoused in a document. Thus, organization and presentation become essential elements in the technical writing process. In organizing data, the information often must be classified by order of importance. "Classification is especially useful for the technical writer because it helps present facts and information in a clear and logical manner" (31:58). Organizing information entails much more than simply material classification. One author considers three necessary aspects for the initial arrangement of material.

There are three essential characteristics of good organization or of things that are well organized:

1. All related items are together in one place.
2. All unrelated items are separated.
3. Packages of related items are clearly labeled (43:66).

By carefully arranging information in a manner that separates similar groups of ideas and permits logical flow of those ideas, the writer stands a better chance of retaining the reader's attention. However, the process of data organization does not stop here.

Another approach to data organization, for a technical report, involves developing structures for material arrangement while preparing text. The steps involved are:

- Step 1: Prepare a master list of topic headings into which you think your subject will divide.
- Step 2: Label your information by Subject-Heading.
- Step 3: Sort your information by Subject-Heading.
- Step 4: Re-read and outline the information in each pile to determine the priority message and the supporting evidence under each category, and to determine the overall significance of your research.
- Step 5: Determine the sequence in which you will write up the sections of your outline (38:58-61).

In essence, the excerpts cited above represent several approaches for organizing technical information which permit the reader to more readily follow and draw from the data presented. Strategic use and placement of "structures" or physical arrangements of information conveys the written

message with less distraction than would be encountered if these elements of technical writing were ignored (38:58-61).

Audience Selection

As mentioned in Chapter I, the designated audience for the stock fund handbook consists of senior managers and stock fund managers. With such a specific audience in mind, the final product development hinges on the needs and expertise of the particular audience.

There are certain aspects of technical writing that accentuate the usefulness of a written product and provide precisely what a specific audience requires. But, in order to capitalize on these technical writing strengths, accurate audience identification becomes critical and the subsequent writing must keep that designated audience in mind.

"...the audience determines the language, the difficulty of instructions, and the technical information to be included" (31:48). In this sense, the audience drives the product development and influences the final composition of the handbook.

From a technical writing perspective, audience identification is a key element. For technical writing purposes, there are four types of audiences. They are:

1. Executives and administrators.
2. Technical experts.
3. Technicians.
4. Lay people (30:29).

For the stock fund handbook, the audience falls into the first category.

Of practical significance to an executive or managerially constituted audience is the fact that usefulness in decision making becomes a key determinant for predicting the eventual usability of a handbook. Simply stated, managers want tools that improve their management capabilities (43:29). Thus, for the stock fund manager or the executive interested in stock fund impacts, material in a stock fund handbook must reflect a relevance to information that creates a climate conducive to enhanced decision making. The key to successfully achieving this relevance depends on the handbook's orientation to an executive level audience. Therefore, the technical writer must "...anticipate how the intended audience will react and using [your] suppositions, write in a way that anticipates and prevents communication interference" (38:51). Through adequate understanding of the audience and attendant characteristics, the writer then adjusts his focus to prepare a document that structurally and contextually fits the audience. Thus, by knowing the audience and its requirements, a writer makes inferences pertaining to the readers and incorporates techniques using various tools to strengthen the appeal and efficacy, thus producing a document that is both useful and relevant.

Readability

Writers increase the potentiality of their documents gaining widespread "readership" by writing with sensitivity to the audience. By interweaving throughout a work a sense for the targeted audience's reading abilities, and an interest for the topic, an author enhances the potential for increased readership. The actual measuring of readership potential is termed "readability" (14:422).

Among writers, a rift concerning the value gained from readability tests exists. One proponent of the school of thought which questions the usefulness of many readability formulas is Charles H. Sides, Massachusetts Institute of Technology. Sides dissected and analyzed two popular readability formulas: (1) the Gunning Fog Index and (2) the Flesch Check System (39:E-106). The Gunning Fog Index has been and continues to remain a favorite choice for readability assessment.

The Gunning Fog index procedure receives preference among many writers based on its simplicity of use and on the ease with which results are interpreted. The basic procedure as outlined in William C. Emory's Business Research Methods is:

1. Find the average number of words per sentence. Use a sample at least 100 words long. Divide the total number of words by number of sentences. This gives the average sentence length.
2. Count the number of words of three syllables or more per 100 words. Don't count (a) words that are

capitalized, (b) combinations of short easy words - like bookkeeper, butterfly; (c) verbs that are made three syllables by adding ed or es - like created or trespasses.

3. Add the two factors above and multiply by 0.4. This will give you the Fog Index. It corresponds roughly with the number of years of schooling a person would require to read a passage with ease and understanding (The Fog Index of this entire passage is 6.7) (16:422-423).

Emory cautions that the Gunning Fog Index is only an approximation of the overall readability of a document. He maintains that good technical writing includes more than just writing to the readability formula (16:423). Skills such as comprehension, usability, and format (which are presented in detail in later sections of this report) constitute the overall writing process, whereas the Gunning Fog Index is simply a measurement of readability. The purpose of using a readability formula is for the writer to determine if the writing style (word choice) of the document corresponds to the reading level of the designated audience. Thus, simply stated, readability formulae are tools to assess textual complexity.

The Flesch method is quite popular as well. This method also bases evaluation on sentence and word length. Application of the Flesch method as outlined by John D. Raffaldi, technical writer/editor, Physical Science Laboratory, New Mexico State University proposed the following procedure:

1. Select a representative 100-word passage from the material, exclusive of tables and figures.

2. Count the number of words and sentences in the passage, contractions and hyphenated words are counted as two separate words. When complete thoughts are separated by a colon or semicolon, count the sentence as two individual sentences.
3. Divide the number of words by the number of sentences to obtain the average sentence length.
4. Count the number of syllables in the entire passage. Numbers and symbols contain the number of syllables they contain when pronounced.
5. Compute the Reading Ease (RE) using the following equation:

$$RE = 206.835 - (.846 * S) - (1.015 * A)$$

S = the number of syllables counted
A = the computed average sentence length

A score that approaches 0 indicates an extremely difficult passage, while a score approaching 100 indicates a very easy passage (34:WE-140).

Raffaldi points out that the Flesch method, although easy to use, only assesses readability based on word and sentence length, and notes the formula's failure to account for voice change or other grammatical complexities. He candidly cautions writers to ensure that passages assessed using quantitative measurements (readability formulae) be representative samples of the entire text. Otherwise, the assessments derived are suspect and may distort the readability level assigned resulting in a document that fails to reflect skills the audience possesses, thereby defeating the purpose of using a readability test (35:WE-139-140). Additional criticisms of readability formulae voice disdain for widespread use without understanding and compensating for limitations.

Accentuating the existence of restrictions in readability applications, Redish and Selzer list five points to consider concerning readability formulae:

1. It is not clear what a readability score means in technical writing for adults.
2. Studies have shown that readability formulas are not reliable and valid predictors of how difficult documents are.
3. Shorter sentences are not necessarily clearer sentences; short words are not always easier words.
4. People are not text-processing machines.
5. Readability formulas do not measure the most important features of a document (37:47).

These five criterion do not disavow the value of readability formulae, but serve notice to the danger of placing undue credence in the results.

The bottom line in considering the use of readability techniques is that they are not the "all in all" for gaging the propriety of text. Therefore, strengths derived from the full spectrum of technical writing must receive adequate and appropriate treatment as well. (See the section in this thesis entitled "Usability".) The careful writer employs a readability test only as a "measuring-stick" and concientiously incorporates other techniques to enhance the overall quality of the document. With this in mind, one should remember that readability formulae were designed as tools to help the writer suit his material to the audience.

Another aspect of technical writing that places particular emphasis on document-audience suitability is usability.

Usability

Usability refers to the ease with which readers are able to use a book or document. Usability goes beyond mere comprehension by introducing practicality and usefulness into the document design process. Robert W. Lenehan, Staff Information Developer for International Business Machines Corp., lists seven guidelines for achieving enhanced usability. He proposed that a document heightens usability when it does the following:

1. Introduces new terms and topics clearly and simply for readers who need this information.
2. Allows quick random searches for information because of its organization and the correct use of mechanical aids.
3. Contains unambiguous examples to reinforce ideas and concepts that occur in the text.
4. Includes tabular summaries of information where appropriate.
5. Highlights to readers any frequently occurring anomalies in the product or program that it describes.
6. Contains cross-references to related information in other parts of the book.
7. Provides enough information to help its readers get their jobs done without having to make questionable assumptions (25:W-67).

Judicious inclusion of Lenehan's techniques lends strength and appeal to a document. If a primary underlying

goal behind producing a manual is for the manual to be widely used, then Lenehan's seven rules offer directions to qualitatively ensure a greater probability that readers will desire to use the product. His techniques cater to "ease of usership." By purposefully including characteristics that simplify and make the reader's job easier, the technical writer increases the chances the document will be accepted and used.

A variety of methods exist to gage and test usability. Richard Kerr, Advisory Information Developer, General Technology Division, IBM Corporation, suggests the following:

1. Reading grade-level assessment.
2. Vocabulary testing.
3. Cloze testing.
4. Retrieval testing.
5. Exercises.
6. Satisfaction testing (23:W&E-122).

The first of these six approaches is reading grade level (RGL). Reading grade level assessment is a method which estimates the educational level needed to read and comprehend a document. One means to measure the RGL uses sentence length determined by the average number of syllables in a word and the average number of words in a sentence. These averages are plugged into a formula to attain a generalized reading level. Currently, writers may

choose a technique from over forty different formulae. The two commonly employed methods already reviewed are the Gunning-Fog and Flesch Method (24:W&E-122). These formulae are normally referred to as readability tests. For a more in-depth explanation of Gunning Fog and Flesch techniques, refer to the "Readability" section in this thesis.

Vocabulary lists represent a second usability test. These published lists match particular word choices with different education levels. The appearance of certain words in a text permit identification of audience comprehension levels based on the designated level assigned to specific words and categorized accordingly in the vocabulary list. Therefore, these vocabulary lists measure the level a document was written at and permits a determination on the part of the writer as to whether the text matches the audience's reading comprehension level (24:W&E-122-123).

Number three in Kerr's list of usability tests is the Cloze test. Cloze testing uses "fill-in-the-blanks" where users insert words based on clues provided. This test permits the experimenter to measure user education level. The method is complex and involves intricate, in-depth analysis, but produces adequate usability evaluations to determine the usefulness of a document (24:W&E-123).

Index testing provides an experimental means to improve usability. Index testing exposes potential users to the cover and introductory material of a book. These users were

then asked to write seven questions they felt the book should answer. Using the index, the testees proceeded to the corresponding pages to attempt to answer their questions. The results of the test were analyzed and formed a basis for inclusion of additional information, thereby enhancing the overall effectiveness of the product (24:W&E-123).

Exercise testing provides another method for testing usability. Including exercises in the early stages of a book permits evaluation of user comprehension and, based on sample surveys, affords opportunities to evaluate efficacy and correct deficiencies. (24:W&E-123-124).

The final usability test proposed by Kerr is the satisfaction questionnaire. He recommends inclusion of about 15 questions to form a questionnaire. Interviews can accompany or serve as a substitute for questionnaires. This type of testing necessitates accomplishment during the early phases in the product development process to allow for alterations based on the interview findings (24:W&E-124).

The six methods presented by Richard Kerr to test usability represent a small portion of the total number of usability tests available. However, they serve as a fair representation of some of the more generally accepted and widely used approaches.

Format Design

Effective writing and appropriate illustrations constitute only two components of the technical writing process. In order to expand the overall effectiveness of a manual, the document's arrangement must include format considerations. For the purpose of this thesis, format design incorporates those elements of technical writing involving the physical arrangement of text.

Sherry G. Southard, Oklahoma State University Assistant Professor of English, defines format as:

... any aspect related to the physical appearance of a document. Format involves, among other matters, the typography and physical arrangement of the words of a document. However, not only does format determine the visual effect of a document on a user it also determines the ease with which a user can read it (42:203).

From Southard's definition, one observes a relationship between format and usability. The ultimate goal behind formatting decisions is producing a product that encourages usership. In other words, the objective in formatting parallels usability goals in that both approaches aim at prompting users to read and apply a document.

Southard espouses three major advantages garnered from careful consideration of format in document preparation:

1. It can make an audience want to use them.
2. It can help an audience find and understand information quickly and easily.
3. It can emphasize important information so that an audience does not overlook it (42:203).

Proper alignment of text by highlighting and emphasizing key contextual elements allows the technical writer to provide a service to the audience. The end result is a practical document users are comfortable with. Since, as previously explained, the needs of the audience govern the approach a technical writer takes, format becomes a vehicle to aid the audience in capturing essential details.

This chapter examined existing literature for stock fund management and for technical writing. The literature review pertaining to stock funds dealt with the stock fund process, General Support Division and Systems Support Division. The literature demonstrated the stock fund process and examined key aspects of stock fund management.

The second literature review presented selected technical writing material related to handbook development. Data organization, audience selection, readability, usability, and format design were examined to establish a background for handbook preparation.

Now that the key literature involving stock funds and technical writing has been reviewed, attention will focus on methodology for obtaining information and using that material to develop a stock fund handbook for managers.

III. Methodology

Overall Approach

Several methodologies were used in conjunction with each other to develop a useful stock fund handbook. To ensure proper technical preparation, literature reviews of material about manual development and technical writing were conducted. Interviews with several corporate technical writing staff members were performed to observe the overall process involved in designing and compiling a manual. Insights gained through this research were incorporated into the actual design of the stock fund handbook.

A literature review of stock fund regulations, manuals, pamphlets, and existing reports was performed. In addition to information obtained through library research, interviews with stock fund experts chosen by the Logistics Management Center (1:1) formed the basis for obtaining data to construct the stock fund handbook. The interview instrument contained a set of open-ended questions concerning stock fund operations. Prior to conducting interviews, the interview instrument underwent evaluation by a panel of faculty experts located at the Air Force Institute of Technology to negate bias and enhance content validity. After the interview instrument had been evaluated and finalized, interviews with selected stock fund managers were accomplished and recorded. Data gained from the interviews was evaluated for validity and compiled with material

already obtained and incorporated into the handbook, which was then field tested.

While compiling the handbook, a readability test was conducted to keep the language level compatible with the skills of the audience. Even though the use of readability tests remains a hotly debated issue in some areas of academe (37:46), a Gunning Fog Index (16:422) readability test was used to gear the handbook to its intended audience.

Although there are many tests for rating readability, the Gunning Fog Index was selected due to its ease of use and simplicity in scoring. Since the purpose of using a readability test in this thesis was to check suitability for an executive audience, the Gunning Fog Index achieved that aim. "Advocates of readability measurement do not claim that all written material should be at the simplest level possible. They argue only that the level should be appropriate for the audience" (16:423). With these considerations in mind, a readability test was selected solely to serve as a baseline and was used with other technical writing elements to achieve an audience-suited handbook.

Procedure

To answer the investigative questions posed in Chapter I, and to accumulate the appropriate material for inclusion in a stock fund handbook, the methods mentioned in preceding paragraphs are delineated and expanded on next.

Library Research

This method was recommended by the sponsor. To gather information on handbook design and preparation, library research was primarily accomplished at Wright State University. Wright State was chosen based on research previously accomplished by Air Force Institute of Technology (AFIT) thesis studies. Because of proximity to AFIT, proven prior research results, and cost effectiveness, the Wright State library served as the major source for obtaining handbook development research material.

Several Air Force publication libraries located at Wright-Patterson Air Force Base functioned as sources for the stock fund literature review. Since the bulk of existing literature concerning stock funds is regulations, manuals, and pamphlets, these military libraries provided ready access to key stock fund literature. To obtain previous studies on related research, a Defense Technical Information Center (DTIC) literature search was made. The library and DTIC searches provided the core of existing information pertaining to stock fund management, excluding individual expertise among managers in the field which was covered through interviews with selected managers.

Interviews

Captain Jeff Bailey, project officer at the Logistics Management Center, suggested interviews of selected recognized major command and base level stock fund

experts be conducted to improve the researcher's knowledge of stock funds and to obtain relevant information.

There are three commonly recognized types of interviews used to collect data: personal, telephonic, and mail interviews (16:160-174). Mail surveys were excluded primarily because the objectives of this study were readily accomplished through the first two interview methods. Consequently, non-response (16:172) was precluded through use of telephonic and personal interviews. As a result, these two interview techniques were selected for use in this thesis.

Personal interviews were conducted where cost and time permitted. For personal interviews, the "... greatest value lies in the depth and detail of information that can be secured. It far exceeds the information secured from the telephone and mail surveys" (16:160). In cases where the stock fund expert is located overseas, telephonic interviews were performed. "Of all the advantages of telephone interviewing probably none ranks higher than its moderate cost" (16:170). Both interviewing methods contain limitations. For personal interviews, cost often acts as a restrictive factor (16:161). Therefore, in some cases, telephone interviews were performed as a less expensive alternative. In those interviews where selected stock fund experts chose to include other stock fund managers, the

sessions were treated as round-table discussions and recorded as such in Appendix E.

Using semi-structured interviews, all respondents were asked the same set of questions. Open-ended questions were proposed to respondents. The purpose of using open-ended questions was to exclude bias from the researcher, and to improve validity of data collected and to obtain as much information as possible. A key strategic rule for interviewers is to get "... more information than you can possibly use" (40:W&E-129). Open-ended questions facilitate this goal by allowing the interviewee to provide more information than "yes or no" questions and promote a comfortable atmosphere for exchange which may yield valuable information excluded by restrictive questions.

Three important elements of an interview are 1) Preparing for the interview. 2) Getting down to business. 3) Wrapping it up (40:W&E-129-131). Cognizance of the relative importance in handling these three interview phases effectively fosters the stage for a successful interview.

The method of semi-structured interviews using open-ended questions previously screened to preclude bias provided validity and internal consistency in the data collected. The results of stock fund interviews were recorded and used with material gained through the

literature reviews to prepare the stock fund handbook. These interviews were recorded and are presented in Appendix E.

In addition to the stock fund interviews, personal interviews with technical writing experts were conducted primarily to gain insight as to how the handbook design and technical writing process occurs.

Panel of Experts

To ensure content validity, the interview instrument was reviewed and evaluated by faculty members of the Air Force Institute of Technology chosen for proven expertise in survey/interview techniques. The faculty members who evaluated the interview instrument were Lieutenant Colonel John W. Shishoff, Professor Ralph F. Liebhaber, and Dr. Charles R. Fenno. The experts were easily accessible, were reputable, and represented a cost effective means to ensure content validity. Content validity is defined as "... the extent to which it [what you are measuring] provides adequate coverage of the topic under study" (16:95). Once satisfactory coverage was determined, the interview instrument was ready for use.

Interview Instrument

To improve effectiveness, and to tailor the handbook for executives, the interview instrument was sent out as a purposive sample to selected senior managers and Logistics Management Center personnel. A purposive sample

is defined as "a non probability sample that conforms to certain criteria" (16:280). Two types of purposive samples exist, judgment sampling and quota sampling. The first: judgment sampling "... occurs when one handpicks sample members to conform to some criteria" (16:280). The second purposive sample is the quota sample. "One uses it to try to assure that the sample is representative of the population from which it is drawn" (16:281). For the intent of this research, the judgment sample was more appropriate. Since the research was exploratory in nature, and a select audience (executive level stock fund experts) was required which was not representative of the larger population of all stock fund managers, the purposive sample was more applicable than the quota sample (16:279-281). Thus, by using the purposive sample, a field test became the necessary tool to gauge the handbook's practicality and usefulness.

Handbook Format Design

After consolidating and refining data gained through research and interviews, the ingredients for the handbook were organized to blend together to produce a "handbook prototype." The model's construction served two major purposes: to consolidate material into a reliable document, and to provide a useful tool for the intended users. With the goal of meeting these objectives, format became a moderating factor between the final product and

audience reception. It is through format that the audience sees the presentation and acquires a sense of where the material is going (5:WSE-147). According to Cynthia Creager, a Hewlett Packard Company technical writer, there were four considerations for designing a format. They were: audience definition, document purpose and use, budget/production costs, and special features (5:WSE-147-8).

In the case of this thesis, the audience was defined as senior and base level stock fund managers. As a result of this classification, the design considered the expertise and needs of the designated audience. Charles R. Stratton, author of Technical Writing: Process and Product, discussed technical writing for an executive level audience and how to formulate the proper approach: "Accordingly, your best strategy with this type of audience is to present your technical information in such a way as best to serve the decision-making function" (43:28). Therefore, both the audience and the purpose of the document were inextricably tied together. Consequently, the purpose for the handbook, taking into account Stratton's premise, was to pool together into a single source stock fund information to provide a useful tool which would enhance the stock fund manager's decision making process.

Under format design, another consideration was budget/production costs. Basically, these costs fell outside the scope of this study. Since the handbook must

pass through several levels of approval before production commences, the ultimate cost decisions fall under the purview of the Logistics Management Center and AFLC Headquarters. With this in mind, the "prototype handbook" was designed to provide an effective, yet relatively inexpensive document but without specific consideration of production costs.

Lastly, special features were included in the design process. For the stock fund handbook, special features included a glossary of stock fund terms, several flow charts depicting the stock fund process, the handbook design process, as well as other appropriate charts and tables.

Handbook Usability

To demonstrate effectiveness, and to improve the handbook, a Gunning Fog Index readability test was performed to evaluate suitability for the selected audience. Furthermore, the text was field tested by selected senior managers and Logistics Management Center personnel. A field test was necessary to gauge the usefulness of the handbook. To measure handbook effectiveness, a set of questions pertaining to the handbook was presented using a Likert scale during the field testing stage. In the case of a Likert scale, the respondents register a like or dislike response based on a numerical value (16:258). One limitation is that with a Likert scale, "... we can report respondents are more or less favorable to a topic, but we

cannot tell how much more or less favorable they are" (16:258). For the purpose of the handbook, interest focused on usability.

Content Validity

Validity is defined as "... the extent to which differences found with a measuring tool reflect true differences among those being tested" (16:94). In other words, "Are you measuring what you say you are?" "Content validity of a measuring instrument is the extent to which it provides adequate coverage of the topic under study" (16:94). Content validity involves judgment on the part of the person conducting the measurements. Definition of scope, a logical approach to the problem, and elimination of bias act as underlying principles (16:95).

Handbook Readability

A Gunning Fog readability test was applied to the prototype handbook. Each chapter was evaluated by using the first 100 words. The total number of words were divided by the number of sentences. The total number of three syllable words were counted. These two totals were added together and multiplied by .4 to get index values. The six scores were averaged to obtain the overall reading level for the handbook.

Field Testing

The value in field testing arises from immediate feedback from users. Through a field test, methods for

improving and strengthening the overall usefulness of a manual are obtained. In the long run, the field test may prevent problems not previously detected during the research and developmental stages of the handbook from occurring. Two constraints are length of visit and availability of users. Both constraints may severely limit the ability to attain credible results (14:253). For field tests, four primary methods of data collection exist. They are:

1. Field Notes.
2. Discourse-Based Interviews.
3. Post-Hoc Interviews.
4. Read Aloud Protocols (14:252-253).

Chapter Summary

This chapter presented the procedures used to achieve the goals of this thesis. Methodologies involving library research, interviews, panel of experts, the interview instrument, handbook format, handbook usability, content validity, readability, and the field test were delineated. Each section gave an explanation of the processes used.

The next chapter describes the results of the interviews, the recommendations of the panel of experts, the interview results, the applications of data obtained to the handbook format design, usability factors, the validity of handbook content, and the results obtained up to the point of thesis publication from field testing the handbook prototype.

IV. Findings and Analysis

Overview

Panel Recommendations

Three members of the faculty assigned to the Air Force Institute of Technology reviewed the interview instrument located in Appendix C in final form. Lieutenant Colonel John W. Shishoff, Professor Charles Lieberhaber, and Dr. Chalres R. Fenno examined the lists of questions and proposed suggestions to enhance the effectiveness of the interview questions. The interview instrument was changed to reflect those recommendations. The faculty members provided suggestions to remove bias and improved the questions to elicit more meaningful answers from respondents.

Summary of Interviews

Twelve interviews were conducted. The interviews were either accomplished "face to face" or performed telephonically. In cases where the respondents preferred to have additional members participate in the interview, the results are listed as round-table discussions. The experts interviewed were selected based on Logistics Management Center recommendations (see the Logistics Management Center letter, Appendix C). All interviews followed the format listed in Appendix B under the "Interview Instrument." The

key points for each interview question were extracted from Appendix E and are delineated below.

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

The range of experience varied from base level to command level to Air Force Logistics Command (AFLC) to Headquarters USAF. Several of the answers included jobs and positions held career-wise, by the respondents, pertaining to stock fund management. Other answers focused strictly on recent or currently held positions. Twelve interviews were conducted involving sixteen managers. Of the sixteen individuals interviewed, five (Draudt, Farver, Herrian, Hyde, and Mobely) worked at AFLC. Seven worked at the Major Commands (Daniele, Overby, O'Clarien, McCants, Simmons, Thorogood, and Triplett). One, Lt Colonel Matthews, was in charge of the Logistics Management Center's Supply Directorate. One, Franklin, worked at the Accounting and Finance Center at Lowry AFB. The remaining two (Becket and Christensen) were involved with stock funds at Headquarters USAF. The stock fund divisions represented by this breadth of experience included SSD, GSD, and RSD.

Question 2: a) Name what you consider to be the key aspects of stock fund management. b) You listed... (answer from 21) as key aspects. How would an understanding of each of these items aid an executive manager?

This question led to a large variance in responses. The answers provided by the stock fund experts reflected the manager's experience and personal perspective. The primary areas considered of greatest importance were presented as:

- 1) Inventory management control.
- 2) Revolving sales and replenishment of cash.
- 3) Capital control.
- 4) Training and background in stock control and finance.
- 5) Visibility of customer O&M budgets and finance.
- 6) Customer support.
- 7) Knowing the process.
- 8) Financial accuracy and the operational program.

These answers were encapsulated to represent what the experts saw as the key aspects of stock fund management. For more detailed explanations involving the responses, refer to Appendix E.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

The responses to this question were related to the level of experience and reflected the jobs the respondents previously held or were working in at the time of the interview.

Three categories most of the answers fell into were: applications, tools, and skills.

1) Applications: These applications are methodologies used by stock fund managers to control stock funds. The applications presented included ratios, sales-to-orders, and net demands-to-obligations. Other applications included summary accounting information, trend analysis, and mission capable rates which clue the manager into situations requiring corrective actions. MACR constraints and execution of the operating program were other methods for effective management of stock funds.

2) Tools: Among the tools listed by the experts, the following designations indicate management reports useful to a stock fund manager: D041, Table III, D07, D08, D020, D32, M01, M18, M20, M29, M36, M37, GV587, Trial Balance, R01, R04, and the R45.

3) Skills: Under this category, the items listed included management and interpersonal skills which were seen as important to the management of stock funds. Rapport and relationships with other managers were viewed as essential. Ability to integrate logistics, finance, and manpower rated highly as well.

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

The key theme the stock fund managers emphasized was that the tools available were essential to providing critical insight, and allowed for control and proper

management of resources. Application of the tools listed in Question 3 affords managers the means to determine impacts on the stock fund process. Several managers indicated the criticality of ratios to maintain financial and inventory control. Training and education were considered essential to ensure effective use of the available tools. Several managers pointed out that the future actions involving stock funds demands more stringent management of inventory and cash flow in response to budget cuts and changes in philosophy involving stock fund management.

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

There were many pitfalls identified in the interviews. The most frequently listed pitfalls are presented next. For detailed discussion involving the underlying principles that make these and other pitfalls relevant, refer to Appendix E. From the interviews, these pitfalls were viewed by the stock fund experts as most relevant.

- 1) Allowing inventory to grow unnecessarily.
- 2) Failing to understand and apply trend analysis.
- 3) Not knowing what the customer needs.
- 4) Trying to manage stock funds as though they were appropriations (O&M).
- 5) Not sizing the budgets, and not making proper projections of requirements.
- 6) Not understanding outlays, appropriations, and cash-flow, and the operating program.

- 7) Failing to understand MACR impacts on stock funds.
- 8) Not maintaining currency with changes in regulations or directives.
- 9) Being confused by terminology.

These nine pitfalls were paraphrased by the author and represent a generalized list of the key problem areas perceived by the stock fund experts.

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

In the answers to this question, the managers drew elements from their own experiences that seemed difficult or challenged them when they managed stock funds. The key areas proposed by the interviewees are listed as follows:

- 1) Understanding the operating program.
- 2) Developing effective trend analysis.
- 3) Understanding financial aspects, surcharges, variances and the interrelationship between inventory and financial accounting.
- 4) Understanding capital controls and the relationship to inventory management.
- 5) Understanding General Ledger Accounts (GLAs).
- 6) Understanding obligations.
- 7) Seeing the big picture and the relationship between wholesale level stock funds and the retail level.
- 8) Understanding Stock fund pricing procedures.
- 9) Knowing the revolving concept of stock funds.
- 10) Knowing what drives inventory management and consequently impacts stock funds.

11) Understanding the effects of demand levels.

12) Knowing the stock fund process.

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

One recommendation hinged on communication being the key to gaining a macro perspective. Points of contact, training, and experience were considered essential by several managers. Staying flexible was another key espoused by one expert. Seeing stock funds from the macro, or "big picture," perspective was deemed necessary by several respondents. One advice to executive managers was to trust the funds manager's recommendations. One suggestion was for executives to be familiar with the operating program as well as staying informed regarding the overall health of the stock fund. An underlying common element in the recommendations is the need for the executive to stay interested and involved.

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

The managers provided many different items to include in a handbook. Some of the items are more applicable to a technician's handbook as opposed to meeting the requirements of a handbook for executive managers. Only the key elements for overall executive interest are summarized here. For the

full discussion, refer to Appendix E. Items suitable for possible inclusion in a executive stock fund handbook are:

- 1) A reference guide to regulations and literature.
- 2) A treatment of essential terms.
- 3) A treatment of process related concepts.
- 4) A brief history of stock funds to include changes in the system.
- 5) A list of key tools available to managers.
- 6) An explanation of what stock funds are, and how they operate at different levels.
- 7) An explanation of Total Operating Authority (TOA).
- 8) Hints for managers of what indicators to watch.
- 9) A list of questions a manager should ask.

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

As with Question 8, only the suggestions pertaining to the overall process are listed here. Detailed answers are found in Appendix E.

- 1) A chart showing the process flow (revolving).
- 2) Net demands to obligations.
- 3) MACR matrix.
- 4) Glossary of acronyms.
- 5) Glossary of terms.
- 6) DLR transaction flow.
- 7) Illustrations of reports.

8) Obligations to sales.

9) EOQ saw-tooth diagram.

The above items constitute some possible illustrations for incorporation in a stock fund handbook. The intention with all included charts, tables, illustrations, etc. is to enhance the word descriptions of the stock fund process and present a handbook that provides a complete picture in and of itself.

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

One suggestion was to include the glossary of terms as an appendix, rather than intersperse definitions throughout the text. Another manager intimated that the information should be easy to find. A recommendation was put forth to model the stock fund handbook after Air Force Pamphlet 170-25, or after the Commander's Handbook on Resource Discipline. Placing detailed information in appendices also received several recommendations. One manager suggested separating information by division or management level. One adamant appeal included the necessity to present, up front, what the executives need to know to stir their interest to read the handbook. Another manager suggested formatting a checklist as well as providing a list of do's and don'ts. A final key suggestion was to provide a list of key indicators to aid managers in making appropriate decisions involving stock fund usage.

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Most of the respondents focused on training, education, and experience as the most important factors to promote learning. One suggestion was to include a segment on stock funds in the Base Supply Customer Training Program. Illustrations in the handbook could aid in clarifying the process. It was suggested that the Chief of Supply could hold a monthly stock fund "How goes it" meeting. Constant review of regulations was considered important.

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

All of the managers interviewed indicated that a handbook was needed. Some of the opinions differed as to whether the handbook could stand alone, or should be used in conjunction with videos. There was a distinct difference of opinion as to whether the handbook should go in-depth into technical details or take a broad, generalized approach. Alternatives included "picking the brains" of the experts, additional training courses, and encouraging executives to read everything available on stock funds. One drawback mentioned was the need to keep the handbook current. As was pointed out, someone would have to monitor and update the

handbook to keep pace with changes in the stock fund environment.

Application Of Data To Handbook Design

The interviews provided a great deal of information obtained from stock fund experts for inclusion in the stock fund handbook. Due to differences in opinion affecting different levels of stock fund management, only the key areas that applied directly to executive managers were incorporated in the stock fund handbook displayed in Appendix F.

Usability

One of the primary methods used in this research centered on the recommendations of proven experts in the field of stock fund management. From the interviews, the stock fund managers provided their opinions on information to aid executives. Their answers were examined to create a practical and useful stock fund handbook. A key recommendation espoused by several experts pointed to the need to keep the handbook simple, but relevant. The managers interviewed generally agreed that an executive manager does not need to be inundated with technical data. However, the key points must clearly convey the essential elements of stock funds and provide insights to aid in the decision making process.

Validity

The validity of the research centered on the information gathered from the interviews. The test of validity stemmed from whether or not the material intended for evaluation or measurement was what actually was measured. In the case of this research, the interview instrument and the purposive sample of selected stock fund managers provided a measure of validity. The questions in the interview instrument were open ended to encourage detailed responses. Since the respondents, by virtue of their positions, experience, and recognized expertise were well versed in the field of stock fund management, their responses formed a baseline for including material in the prototype handbook.

Readability

The Gunning Fog readability test was applied to the handbook. For instructions on the test, see the section in Chapter II entitled "Readability". For each chapter in the handbook, 100 words were totaled and divided by the number of sentences in the selection. To this value, the number of three syllable words or longer was added. The summed value was multiplied by .4 to obtain the index values. The scores for the seven chapters were 12.8, 14.9, 16.0, 22.6, 16.1, 16.6, and 15.9 respectively. The seven values were added to obtain a mean value. The average score was

16.4 which, although a little high, suits the general educational level of an executive audience.

Field Testing

A field test was not fully completed as of the date of this thesis. A copy of the handbook prototype was forwarded to the Logistics Management Center. Upon acceptance by the LMC, the abridged copy of the handbook will be sent to the field for review. This student's follow-on assignment from AFIT is to the LMC. The final phases of field testing will be completed at that time within LMC guidelines and publication of the handbook will be pursued, pending official Air Force approval.

Summary

This chapter described the recommendations of the panel of experts, the results of the interviews, the applications of data obtained for handbook format design, factors involving usability, the validity of handbook content, readability assessment, and the results obtained up to this point from field testing the handbook prototype.

The next chapter provides research conclusions and recommendations. The chapter examines the research questions posed in Chapter I and determines if the objectives established by those questions were met through this research effort.

V. Conclusions and Recommendations

Research Summary

This thesis examined the requirement for a stock fund handbook aimed at executive managers. A prototype handbook has been included in Appendix F. Two literature reviews were conducted to gather background information. Interviews of selected stock fund experts were performed to ensure validity and to gain a reasonable measure of insight into the effective application of usability factors for an executive oriented stock fund handbook prototype. A readability assessment of the handbook was performed to ensure reader suitability. To develop the handbook, and perform the research for this thesis, a set of research questions were applied. The research questions were listed in Chapter I and represent two primary areas: 1) the handbook, and 2) stock funds. Each question is treated and analyzed below under research conclusions to determine if the research objectives outlined by these questions were accomplished.

Research Conclusions

The research conducted in this thesis focused on the need for an executive handbook which details stock fund management and provides an overview of the process. Two literature reviews were conducted to gain the necessary background to prepare a handbook and include the appropriate

information on stock fund procedures. Two sets of research questions formed the basis for the methodologies applied here. To evaluate the measure of the research used to meet the stated goals, the research was examined with respect to the research questions detailed in Chapter I.

Handbook

Extensive research questions were conducted to determine the key aspects of technical writing and establish critical elements to prepare a handbook.

Question 1: What constitutes a handbook or manual?

A handbook or manual details or instructs an audience on a process or procedure. In this case, the process is stock funding. A handbook or manual generally conveys a concept or message, or provides guidance. The proposed stock fund handbook describes stock funds and presents managers with tools to facilitate stock fund decisions. The sample handbook outlines and organizes information deemed useful for stock fund managers.

Question 2: How should a handbook be physically arranged?

Any arrangement of material in a document should incorporate benefits to the audience. Lists and illustrations enhance the physical appearance of a document and promote access to the information contained within the written work. If the document appeals to the reader, there is a better chance it will be read. To accomplish the

objective of Question 2, the stock fund handbook included bold faced headings and subheadings for ease of readership. Items were commonly grouped, and illustrations were sized at full page length to provide clear presentation. The material was separated into chapters and spaced for clear separation of new subject matter.

Question 3: What makes a good handbook
(facilitates learning)?

As determined from the research, a good handbook consists of useful information targeted to meet the needs of a specific audience. To make a document effective depends largely on whether or not the intended message was conveyed understandably and whether or not the audience was able to draw something useful from the written material. Therefore, a good handbook includes aspects of writing that enhance learning. For the stock fund handbook, material was gathered from the stock fund experts to clarify difficult concepts. Several lists of items such as pitfalls, tools, and references along with illustrations were included to provide executive managers with useful information to help them manage stock funds. At this point, Question 3 cannot be measured fully until after the handbook has been field tested and placed in the hands of managers. However, this research objective governed the prototype handbook's development.

Question 4: What considerations must be addressed
to develop a handbook?

Format design constitutes one consideration for developing a handbook. Another is usability. The development process also must address readability and audience suitability. The physical arrangement of items in the handbook was accomplished by grouping similar items together, making information accessible to the reader. A readability test was conducted to ensure that the handbook was written in language suitable to the audience's education level. Throughout the handbook development, actual information included was selected based on potential usefulness to an executive audience possessing little or no stock fund experience. The key considerations for handbook development were met through this research.

These four research questions acted as guidelines throughout the research, and extended to the actual writing of the proposed handbook. Using the technical writing information espoused by the first four questions the next step in this research project was to obtain key stock fund information and transform that material into a handbook. The next set of research objectives pertained to the stock fund information needed to write the handbook.

Stock Funds

Question 1: Who are the intended users of the stock fund handbook?

The handbook's targeted audience was Air Force executive level managers, who possess little or no stock fund

experience. The entire handbook development, from genesis to prototype completion, and through the remaining field testing stages, focused on the executive audience. The selection of key material, the inclusion of overview illustrations, and the physical arrangement to highlight and permit ready access to information all centered on the needs of the executive audience. Since an executive audience requires generalized, broad ranging material, as opposed to extensively detailed technically precise information, the handbook referenced key areas, and avoided in-depth technical details.

Question 2: What is the stock fund and how does the stock fund process operate?

The literature review and ensuing interviews centered on process elements such as the revolving nature of stock funds, inventory management, and capital control. The interviews with stock fund experts yielded considerable insight into the complex nature of stock funding and its manifold impacts on Air Force management. This research showed that the stock fund process is dynamic and experiences constant change, as evidenced by the initiation of two new stock fund divisions and through the continued guidance issued by OSD in the form of Defense Management Report Decisions. The handbook presented key processes and concepts embodied in stock fund operations.

Question 3: What affects the stock fund?

This question led to treatment of factors affecting stock fund management. This objective was accomplished through the literature review and the detailed interviews with stock fund experts. Primary stock fund impacts discussed in this thesis included budgetary constraints, changing management philosophies, customer demands, the interrelationship between inventory management, and financial controls.

Question 4: What are the key sources of available information pertaining to the stock fund?

Accomplishment of this guideline was fulfilled through research of existing stock fund literature and was highlighted by a specific section included in the handbook (refer to Appendix F) which points executives to key stock fund sources of information. Additionally, key informational sources were confirmed through answers supplied by stock fund experts during the interviews (Appendix E).

Question 5: What considerations are involved in stock fund management?

Answers to this question came primarily from the stock fund experts via interview Questions 2, 4, 5, and 9. See Appendix C. For actual answers refer to Appendix E. Considerations such as customer demands, financial and inventory impacts, and budgetary restrictions were addressed in Chapter II of this thesis, and were incorporated into the

handbook prototype. Only the key stock fund considerations were treated in this research.

General Observations

Even though a handbook provides needed information to aid executive managers, there exists the possibility of the handbook becoming outdated. The Logistics Management Center proposes the need for an Office of Primary Responsibility (OPR) to update the handbook every two years. One consideration in the prototype's development included arrangement of material for easy updates. Also, a majority of the included information was presented in a generalized manner to promote long term applicability. Some areas for additional research are presented next.

Recommendations For Future Research

1. There exists a need for development of a stock fund handbook for use by base level stock fund managers. Such a stock fund handbook would focus on procedures and policies used by the base level stock fund technicians emphasizing technical aspects and formulae. This handbook should be aimed at base level stock fund managers. At this level, the handbook needs to emphasize formulae and actual technical methods for applying stock fund procedures.

2. The two new stock fund divisions scheduled to come on line in October 1990 offer additional areas for stock fund research.

3. There exists a need for development of continuity folders and across the board training of stock fund managers at all levels. Even though courses are offered at Lowry AFB, additional training programs for stock fund managers need to be developed. The stock fund environment is currently undergoing many changes to keep pace with a dynamic economy as well as a rapidly changing Department of Defense outlook on the way the military conducts business. Consequently, continued research involving stock funds is not only pertinent, but necessary. Since managers will need to make effective decisions in the face of budgetary constraints, knowledge of capital control and inventory management which are essential elements of stock fund management become critical to the Department of Defense.

Appendix A: Air Force Stock Fund Terms

Terms Explained. Readers must recognize that terms used to explain stock fund concepts convey differing information depending on the application within various activities in the Department of Defense. The following terms were taken in whole or abbreviated from AFM 67-1, Vol II, Part Two; AFM 67-1, Vol I, Part Three; and DOD 7420.13-R.

Aggregate. The sum of values of inventory on hand and due-in.

Accountability Record. Detailed line item inventory record reflecting the current price, unit of issue, and status for each stock number in terms of the quantity in transit and onhand. The onhand portion of the records may include detailed identification by condition, purpose, and location.

AF Stock Fund. A stock fund is a system for holding in suspense the costs of consumable materiel from the time they are incurred; that is, when the materiel are acquired, until the items are issued for use. Within the AF stock fund, there are six administrative divisions. For operating purposes, however, each division is an independent operation and consequently is usually referred to as a stock fund.

Apportionment. The process whereby a limit is imposed upon the amount of obligations that may be incurred within a fiscal year.

Approved Force Acquisition Objective. The quantity of an item authorized to be acquired to support U.S. Forces in accordance with latest Secretary of Defense guidance. See DOD Directive 4100.37.

Capitalization. The transfer of responsibility and control of inventory, as in transfer of supply accounts to the stock fund, is capitalization of inventory.

Capitalized Inventories. The acquisition of ownership of inventories by a stock fund from other DOD appropriations or funds without reimbursement.

Catalogued Item. An item with a stock number or part number assigned, published in the Defense Automated Supply Catalogue.

CLSSA Inventory Investments. Funds received from a foreign government under a Cooperative Logistics Supply Support Arrangement to procure an additional level of inventory stockage for the foreign government. The additional level of inventory is necessary to ensure timely response to the needs of the foreign customer and to preclude the satisfaction of foreign government requirements from impacting the capability to satisfy DOD requirements.

Contract Authority. Statutory authority that permits obligations to be incurred in advance of appropriations or in anticipation of receipts from customers. (By definition, contract authority is unfunded and subsequently must be funded by an appropriation to liquidate obligations incurred under the contract authority, or by the collection and use of receipts from customers).

Expense Items. Criteria for defining expense items are prescribed by AFR 170-14. Stock fund items financed from stock fund appropriations. Expensing is a transaction in which a customer pays for materiel received. The customer reimburses the stock fund at time of issue. The customer does not necessarily consume the supplies immediately following the expensing process since the organization is authorized to maintain levels of certain items such as bench stocks. For accounting purposes in both the Supply System and the Financial Cost System, consumption and expensing are regarded as events that both occur at the time of issue. Refer to Volume I, Part Three, for specific types of items in each division.

Funds With Treasury. Represents the fund balance on the books of the Treasury. The account is increased for funds made available by appropriation, advances, transfers in, collections, and refunds. The account is decreased by transfers out, withdrawals, and disbursements.

General ledger accounts. A three-digit accounting code used to identify a major account series. See AFR 170-25 for explanations of GLAs.

Government-Furnished Material. DOD-owned personal property provided to a contractor for use in the manufacture, fabrication, assembly, disassembly, repair, or other function as stated in the contract.

Horizontal Stock Fund. A "horizontal" stock fund operates only at one level; that is, either retail (base) level or at the wholesale (depot) level. An example of a horizontal type stock fund is the GSD, since it has inventories only at base level. Each time the GSD at the base is required to

acquire inventory from the source of supply, GSD funds are used to pay for the items obtained. Items may be moved laterally (horizontally between bases in certain cases) but the accounting records reflect only an intra-stock fund transfer since the items remain in the GSD until expensed to the user.

Intra-Stock Fund Transfers. Transfers of items between capitalized activities within the SSD or GSD of the stock fund; that is, between depots, depot to base or between bases, will be treated as intra-stock fund transfers. No reimbursement will be required for such transactions.

Inventory and Capital Control (ICC). A technique of managing the Air Force stock fund by using an approved operating program which contains monthly objectives of inventory on hand, on order, commitment, and in transit. This system is used instead of apportionment and obligation authority limitations. Procurement is done only as required to meet anticipated sales and to maintain the planned inventory objectives. The Stock Fund Operating Program (SFOP) is the basic management tool used.

Inventory Augmentation. Peacetime requirements for the initial purchase of stock funded materiel needed to support inventory increases for force modernization, force modifications, or readiness and sustainability initiatives.

Investment Items. Air Force-managed items (ERRCD, ND, XD, NF) financed from central procurement appropriations. These appropriations are distinctly separate from the stock fund division.

National Inventory Control Point. An Activity designated as responsible for the procurement, management, and distribution of a stock numbered item for the Department of Defense or the Federal Government.

Obligated due-out. A due-out detail record containing a fiscal year of obligation.

Operating Capital. The operating capital of the stock fund includes the current assets of the fund comprised of cash available for disbursement, accounts receivable, available inventories of materiel (inventories on hand and in transit), and other assets. The total of these assets is offset by the liabilities (accounts payable, etc) of the stock fund to arrive at the net operating or working capital of the stock fund. The net capital of the fund becomes the "capital control" objective of the inventory and capital control system and procedures. The amount of inventory is controlled by requiring each primary stock fund manager to

meet their inventory objectives as reflected in the approved operating program.

Primary Stock Fund Manager. The individual in charge of each capitalized activity operating under a stock fund operating program (Chief of Supply, AFLC SM, AFLC, IM, etc) will be considered a primary stock fund manager and will be responsible for managing the stock fund inventories in their individual operating program (s).

Reconciliation. The process of balancing two or more files of data.

Reimbursable Procurement. The procurement of an item as an agent for a customer shall reimburse directly the appropriation or fund incurring the obligation.

Requisitioning objective (RO). The value of the demand level as modified by adjusted stock levels.

Resource Management System (RMS). A DOD system concept for internal budgeting and accounting. The RMS includes both management of stock funds and customer operations and maintenance (O&M) funds. The stock Fund Operating Program (SFOP) is used to manage stock funds. The principal management tool used to manage the O&M funds is the operations operating budget (OOB).

Revolving Fund. A funding concept that allows the use of funds received from sale of items or services to customers to acquire assets for resale to customers. For example, a stock fund sells parts to a customer and uses the funds collected from the customer to pay for parts acquired to restock its inventory.

Stock Fund. A revolving fund or a working capital fund which finances inventories and generates income by selling such materiel to the requiring activity/customer.

Stock Fund Operating Program (SFOP). An authorized program which contains projected sales, gains, losses, transfers in, transfers out, and new orders placed with the various sources of supply. The end of the year on-hand inventory and on-order inventory are also forecast and all of the items are time-phased on a monthly schedule.

Stratification. A display of the computed base-level value for requirements, on hand, on order, in transit, and the committed assets applied to those requirements. Within the stock fund, the term stratification refers to the display of requirements and assets in the Stock Fund Stratification Report (M20) at base level or the Table III consolidated

Status and Transaction Statement at command and division level.

Surcharge. A charge added to the product cost to compensate the stock fund for transportation cost, estimated foreseeable net stock losses such as pilferage, damage, deterioration, physical inventory shortages, other losses and other authorized expenses. The rate of surcharge varies from division to division.

Trial Balance. The trial balance is a summary of general ledger transactions which represent the official accounting records. The trial balance will include all general ledger transactions recorded during the current month, the previous balances and the ending balances for all general ledger accounts. The general ledger affected is determined by the applicable fund code as assigned to each stock fund division. The trial balance must be reconciled to the supply records and furnished to the command accounting and finance officer on a monthly basis.

Working Capital Fund. Stock fund assets of cash, orders outstanding, and inventory. The working capital can be thought of as the funds tied up at all times in inventory, orders outstanding, and in maintaining a working cash balance. In this way, stock fund assets represent the total financial resources needed to bring goods to the customer. As customers buy these goods, they provide funds for continuing the process.

Appendix B: Acronyms

The following Acronyms were taken from AFR 170-25.

ACA	Accounts Control Area
ADSN	Accounting and Disbursing Station
A&F	Accounting and Finance
AF	Air Force
AFA	Air Force Academy
AFAFC	Air Force Accounting and Finance Center
AFO	Accounting and Finance Office(r)
AFPRO	Air Force Plant Representative Office
AFSF	Air Force Stock fund
ALC	Air Logistics Centers
AOP	Approved Operating Program
BAFO	Base Accounting and Finance Office
BCE	Base Civil Engineer
BDO	Blanket Delivery Order
BFMO	Base Fuels Management Office(r)
BMSO	Base Medical Supply Office(r)
BNR	Billed Not Received
BOP	Beginning of Period
BPA	Blanket Purchase Agreement
CAFO	Command Accounting and Finance Office(r)
CFY	Current Fiscal Year
CIC	Customer Identification Code
CIO	Customer Item Order
CLSSA	Cooperative Logistic Supply Support Arrangement
COB	Close of Business
COS	Chief of Supply
DCASR	Defense Contract Administration Services Region
DESC	Defense Electronics Supply Center
DFSC	Defense Fuel Supply Center
DGSC	Defense General Supply Center
DIC	Document Identifier
DIFM	Due In From Maintenance
DISC	Defense Industrial Supply Center
DLA	Defense Logistics Agency
DOD	Department of Defense
DPSC	Defense Personal Support Center, Defense Petroleum Supply Center
DRMO	Defense Reutilization and Marketing Office
DSSN	Disbursing Station Symbol Number
EAID	Equipment authorization inventory data
EEIC	Element of Expense/Investment Code
ERRC	Expendability, Recoverability, Reparability Code
EOM	End of Month
FDT	First Destination Transportation
FET	Federal Excise Tax
FIA	Financial Inventory Accounting
FMS	Foreign Military Sales

FSG	Federal Supply Group
GFM	Government-Furnished Materiel
GL	General Ledger
GLA	General Ledger Account
GLSA	General Ledger Subsidiary Account
GSA	General Services Administration
GSD	General Support Division
IPC	Information Processing Center
ISSA	Interservice Support Agreement
MACR	Materiel Acquisition Control Record
MAFR	Merged Accountability and Fund Reporting
MAJCOM	Major Command
MAP	Military Assistance Program
MDS	Mission Design Series
MEDRAMS	Medical Readiness Assemblage Materiel System
MEMO	Medical Equipment Management Office
MICAP	Mission Capability
MILSBILLS	Military Standard Billing System
MILSCAP	Military Standard Contract Administration Procedures
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MITR	Monthly Inventory Transaction Report
MSC	Military Sealift Command
NSN	National Stock Number
OAC	Operating Agency Code
OB	Operating Budget
OBAN	Operating Budget Account Number
OP	Operating Program
OSSF	Other Service Stock Fund
PFMR	Project Funds Management Record
PFY	Project Fiscal Year
POD	Port of Debarkation
POE	Port of Embarkation
POL	Petroleum, Oil, and Lubricants
PR	Purchase Request
PTFM	Peacetime Force Materiel Requirement
RID	Routing Identifier Code
RNB	Return Not Billed
SAFO	Special Accounting and Finance Office
SF	Stock Fund
SFGL	Stock Fund General Ledger
SFIMR	Stock Fund Inventory Management Record
SMA	Subject Matter Area
SRAN	Stock Record Account Number
SSD	Systems Support Division
STANAG	Standard NATO Agreement
TAC	Type of Address Code
TID	Type Issue Defuel
TRIC	Transaction Identification Code
UOO	Undelivered Orders Outstanding
WRM	War Reserve Materiel

Appendix C: Interview Instrument

Interview Questions

- 1) What duties or activities have you been involved in pertaining to the stock fund process?
- 2) a) Name what you consider to be the key aspects of stock fund management?

b) You listed ... (answer from 2a) as key aspects. How would an understanding of each of these items aid an executive manager?
- 3) What tools have been instrumental to you as you managed stock funds in the past?
- 4) Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?
- 5) Do you see specific pitfalls a manager with little stock fund experience could fall into?
- 6) What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?
- 7) What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?
- 8) Since the Air Force is proposing a stock fund handbook, what suggestions would you like to about items to include in a handbook?
- 9) Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?
- 10) Do you have any suggestions about how information in a handbook should be arranged?
- 11) Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?
- 12) Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Appendix D: List Of Persons For Interviews

Stock Fund Interviews (arranged alphabetically)

1. Becket, Allen, Civilian
Location: Headquarters USAF/LEYS
Job Title: Deputy Division Chief Supply Fuels
Plans and Policy
2. Christensen, Michael, Colonel
Location: Headquarters Tactical Air Command
Position: Chief of Supply Systems Management
Division
3. Draudt, Joseph, Civilian
Location: Headquarters Air Force Logistics Command
Position: Systems Support Division Lead
4. Daniele, Fred, Civilian
Location: Headquarters Air Force Systems Command
Job Title: Chief Supply Systems Management
Division
5. Farver, Art, Civilian
Location: Air Force Logistics Command
Job Title: AFLC Repair Lead
6. Franklin, Ann, Civilian
Location: Air Force Accounting & Finance Center
Job Title: Systems Accountant
7. Herrian, Joyce, Civilian
Location: Air Force Logistics Command
Job Title: Program Manager
8. Hyde, Hazel, Civilian
Location: Air Force Logistics Command
Job Title: General Support Division Lead
9. Matthews, Edward C., Lt Colonel
Location: Air Force Logistics Management Center
Job Title: Director Supply Logistics
10. McCants, John H., Civilian
Location: Headquarters Military Airlift Command
Job Title: Chief Funds Management
11. Mobely, Marie, Civilian
Location: Air Force Logistics Command
Job Title: Chief Repairable Support Division

12. O'Clarien, Jack, Civilian
Location: Headquarters Tactical Air Command
Job Title: Command Stock Fund Manager
13. Overby, Jim, Civilian
Location: Headquarters Strategic Air Command
Job Title: Command Stock Fund Manager
14. Simmons, James, Colonel
Location: Headquarters Material AirLift Command
Job Title: Chief Supply Systems Management
Division
15. Thorogood, Roger, Civilian
Location: Headquarters Material AirLift Command
Job Title: Command Stock Fund Manager
16. Triplett, Vicky, Civilian
Location: Headquarters Material AirLift Command
Job Title: Chief Supply Resources Branch

Appendix E: Interviews

Interview Results:

1. Person(s) Contacted: Hazel Hyde (23)
Joyce Herrian (22)

Position (s): Hyde - GSD Lead
Herrian - Program Manager

Date of Interview: 2 July 1990

Type Interview: Personal (Face to Face)

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: Hazel Hyde worked stock fund issues at HQ AFLC for the past 5 years. Previous experience at base level relates to working special levels at the 2750th Air Base Wing. Joyce Herrian was a base level stock fund manager for approximately 3 years and assistant MAJCOM manager for 2 years.

"The general support Division (GSD) controls and implements over a 2 billion dollar budget each year which support eighteen MAJCOMS and approximately 200 bases. Duties involve validating requirement determinations submitted by the MAJCOMS, incorporating mission change requirements at the division level and preparing the budget submission to Air Staff and OSD/OMB. The budget Estimate Submission (BES) submitted to OSD/OMB requests obligation authority (OA) which is used in managing the stock fund. GSD is responsible for implementing policies and procedures. GSD also applies a management tool of net demands to obligations ratio to control the aggregate inventory. One of the many managerial responsibilities is the development and implementation of the AGSOP is a primary management tool in supporting our customers' needs."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "The key to GSD stock fund management is inventory management control. To maintain inventory control we use a demands to obligations ratio indicator. Other primary management tools are the AGSOP, Table III, Q07 Report, 8604 quarterly analysis and the Trial Balance. The key operating principle is to balance the GSD stock fund inventories. This requires a balance with the revolving nature of working capital and replenishment of inventories. The objective is to keep the stock fund revolving without allowing for unnecessary growth of inventories."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer included in 2a.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "In the past, sales to orders placed was used. In 1987, net demands to obligations became the management indicator. Due to constraints on obligational authority, OSD instituted policy changes which led to the use of net demands to obligations."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today: How would they be useful?

Answer: "Tools used now include net demands to obligations ratio, surcharge, and trend analysis. Replenishment funding is provided by sales and through the use of a surcharge on local purchase/local manufacturing. The net demands to obligations ratio serves as an

indicator. When the ratio is not 1 to 1, this is an indication that the inventories are growing. Other factors affecting increases in the inventory include repricing of items, capitalization, and customer returns. Other tools previously mentioned (i.e., AGSOP, Table III, etc.) will give excellent guidance to an executive manager to gain needed insight into the impact of stock fund. The base level manager also has capability to use the Materiel Acquisition Control Record (MACR) in the Standard Base Supply System (SBSS) to control obligation authority."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "Controlling inventory and capital control is essential. If inventory builds without effective management, a manager could encounter problems. The manager needs to establish good trends to identify problems at an early stage. Some key trends to monitor involve watching demands, obligations, free issues, policy changes, and excess growth. At the base level, the stock fund manager should be concerned with maintaining solid customer relations. The manager must know what the customer will spend so stock funds can be managed accordingly. It is also important for the manager to receive proper training, and to know where to go for assistance."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "Understanding the operating program takes time. It involves knowing how to compute the capital controls and to manage aggregate inventory. The development of good trend analysis must be accomplished. Other primary areas for someone with little stock fund experience to learn include

financial data, the surcharge, cost variances, and the relationship of inventory to financial management and requirements."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "There are six divisions of stock funds which are under Air Staff control. To get a macro perspective at the executive level good contacts must be established."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "Include a reference guide to help managers find information concerning stock fund topics. Material should also include discussion of planned, approved, and actual values. A comprehensive list of definitions would also assist new managers. The handbook also should address the ratio, impacts, transactions, examples of trends, and a discussion of MACR constraints. An additional area would be to explain net demands and the GLA 910 shredout. Executives need to be able to evaluate the AGSOP and know the key points."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook?

Answer: "A chart showing the total flow of the stock fund process is necessary to illustrate the revolving nature of stock funds. Other charts that would be useful should show net demands to obligations, MACR matrix, MACR controls, trends showing demands, customer impacts, and obligations. Copies of important documents would also be helpful. An acronym chart would help managers gain familiarity with stock fund related terms."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "A glossary of terms and acronyms should be included as an attachment rather than placed in the body of the handbook."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "Generally it takes at least 6 months to gain an overall familiarity with concepts and procedures. A new manager must dig into the manuals, and attend available training. For example, there is an informal training program being established and conducted by AFLC for GSD Command managers. This training is most useful after the 6 month break-in period. Other training, of course, is provided by the Air Training Command at Lowry AFB."

Question 12: Do you think a stock fund handbook could be a useful tool for executives: Why, or why not? If no, what is the single most important alternative?

Answer: "A handbook would be an excellent tool. There is also a need for a handbook for base level managers that addresses technical aspects of stock fund management."

2. Person contacted: Joseph Draudt (15)

Position: Systems Support Division Lead

Date of Interview: 6 July 1990

Type of Interview: Personal (Face to Face)

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the

stock fund process?

Answer: "Worked Systems Support Division budget for six years. Previous experience was at the wholesale level as an item manager at the San Antonio Air Logistics Center."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "Revolving sales, replenishment of cash, and the fact that, at the SSD Air Force item management is specific to weapons systems."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Question not answered.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "From the wholesale side, obligations to sales ratio was used and so was percent of sales. From the percent of sales, what you sell determines how much order authority you have. For example, if you have a 75% ratio then with \$100 in sales, you have authority to order \$75 worth of inventory."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "The obligations to sales ratio helps keep inventories down and serves as a way to control inventory growth. One problem however, is that unless you make sales, you are restricted in how much you can purchase."

Question 5: Do you see specific pitfalls

a manager with little stock fund experience could fall into?

Answer: "Other than being limited with purchasing ability, the number of SSD managers is limited to five, so they must be on top of things."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "The relationship between inventory and financial considerations. Also, the need for managing by particular weapon system and maintaining a good obligation to sales ratio."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "The manager should establish good points of contact, and attend all available training."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "Discussion of the spares requirements process, the revolving nature of stock fund replenishment, non-appropriated considerations, appropriated requirements, and the budget process."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "An overview chart of the stock fund process for spares requirements. A chart of the stock fund cycle showing the process flow. Also, an

illustration of the revolving nature of stock funds would be helpful. SSD sales and purchases as well as a flow chart of the budget process should also be included."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "Information should be easily accessed."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: Not answered.

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "A handbook of this type is needed."

3. Person Contacted: Art Farver (16)

Position: AFLC Repair Lead

Date of Interview: 11 July 1990

Type of Interview: Personal (Face to Face)

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "Chairman of the RSD implementation working group stock fund. Previous stock fund jobs included GSD and SSD branch chief slots. Bringing the Repair Support Division (RSD) on line includes managing \$20 billion per year in funds and inventories. The transfer of support to RSD will be transparent to the customers. Under the RSD concept each ALC

will have 2 managers for the buy side and potentially 2 managers for the repair side. The manning factors still need to be worked out."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "The key aspects have to be inventory and capital management."

Question 2: b) You listed... (answer from 2a) as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: "For RSD sales are important. You must have the right thing to sell. If you don't have what the customer wants, he will not buy what is in stock. So the key is to buy the right items at the right time. This is the same for the other stock fund divisions."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "In the past the DO-41 was used and was based on past demand data and flying hours."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today?

Answer: "The RSD will use the Automated Budget Compilation System (ABCS). ABCS manipulates data and allows for what-if analysis. It is used at the ALCS for the buy side and needs to be implemented for the repair side."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: Not answered.

Question 6: What aspects of stock fund management seem to be hard to grasp or

would be elusive to someone possessing little or no experience?

Answer: "Being able to grasp accounting and financial data coming out of Denver is tough. For example, there are hundreds of General Ledger Accounts (GLAs) listed in AFR 170-25. They fall into different categories. The 100 series pertains to asset accountability. The 200 series pertains to liability. The 300 series is for capital. The 400 series is for income. And the 500 series is for expenses and so on. The GLAs can be very complicated. At the base and ALC levels trends can be difficult to grasp for a new manager."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "Not for RSD specifically. Training is important. So is knowing how to budget at the ALC level. Experience is critical. Unfortunately, there is a problem with retaining experienced people. Due to turnovers, the experience is just not there."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "The recommendations are the same as those applying to SSD. They include discussion of the spares requirements process, the revolving natures of stock funds, replenishment, non-appropriated considerations, appropriated considerations, and the budgetary process involving stock funds. Regulation references need to be included. It should be mentioned that AFM 67-1, Vol Two, Part Three will have a chapter on RSD procedures. It will most likely be chapter seven."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be

included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "There ought to be a chart on the DLR transaction flow."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: Not answered.

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "There is no way to learn stock funds without going through the experience. There is currently no formal training for RSD stock fund management. It just cannot be learned easily without living through it. If you tried to write a primer on every aspect of stock funds, it would take an encyclopedia to contain it all."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? IF no, what is the single most important alternative?

Answer: "It could be useful to answer broad questions."

4. Person contacted: Fred Daniele (7)

Position: Chief Supply Systems Management Division,
Headquarters Air Force Systems Command

Date of Interview: 17 July 1990

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: Fred Daniele has held a number of different stock fund related jobs.

Those positions include:

- Stock Fund Manager Tactical Air Command from 1967-1970
- Command Stock Fund Manager Headquarters from 1970-1972
- Base Stock Fund Manager at Andrews AFB from 1972-1974
- Command Stock Fund Manager Air Force Systems Command from 1974-1982
- Chief Supply Systems Management Division, Headquarters, Air Force Systems Command from 1982 until present position.

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "Training, and a background in base supply in the stock control area."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: "Stock Funds today are of primary importance. It includes financial resources and overall Air Force material management. Therefore, finances are key resources. It behooves managers to know financial stock fund operations."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "An ability to interrelate with other program managers areas. Interface with logistics, finance, comptroller, and manpower were important tools."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "Yes. Training and education are keys for success for executive management in control of stock funds."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "Yes. It is a pitfall to try to manage stock funds in the same manner as operating appropriations. It would be foolish to do so. Supplies are based on seasonal requirements and customer demands vary. Appropriations are done on a quarterly basis. You don't replace except for changes in mission requirements and not on a seasonal basis."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "The relationship of outlay control versus fluctuations in demands at the base level."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "Training, education and understanding not only of finances, but of peculiarities in weapons systems. Must manage appropriations and stock funds with flexibility rather than by a rigid trend mentality."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "It is important to have a handbook that explains the past way of doing things at the base management level. Also it is important to include the RMS system. The handbook must help interrelate element expense to the type

of commodities bought by stock funds. Try to reflect tools at base level to help field level management." Show reports like the D-11, F1A, DO-4, comptroller MO-5 etc."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "Illustration of reports. It may be repetitious, but include fund codes, budget codes to appropriations relationship. GSD items mainly expendable supplies, GSA, DLA and local purchase have to be included. Straight line equating of XF items and budget code 9 items, stock funds ERRC codes etc. would be useful. What would be helpful is to remember that the customer wants to certain items with certain types of money. What class, ERCC, dollars, mission, what money to spend and how to process transactions must be determined. We need to feed codes and information to equate to property. Then, someone could tell how to process the transactions. For example, with an XD item you know that it is provided for by AFLC. You also know that in 2 years DLRs will be obtained with stock fund monies. You can tell if it is a major subassembly for an aircraft. The EIC if it is 544 tells that it is for flying. If it is 545 then it is non flying. A lot can be gained from knowing the ERCC, or the budget code, or the fund code. A handbook should have the interrelationship of DLRs to different codes. An explanation of DLRs and how they were handled in the past as well as how they will be handled in the future is needed. We should identify the threshold of budget code 2 versus budget code 9 items. We should have a chart of dollar breakouts on how to relate the complete picture."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "Not necessarily. Air Force Pamphlet 170-25, and the Resource Advisor's booklet have good formats. The resources advisors book covers every area and gives about fifty hints to save money or minimize expenses. Pamphlet 170 is important. It is crucial that DLRs are understood. They will be effective under stock funding FY 93 starting in October of 1992. Since they will be paid for out of local budgets through stock funds to get commodities management is key."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "Base Supply is a key role. A training program is needed to provide supply people and customers information. A segment of the Base Supply Customer Training program should be devoted to stock funds and the different relationships involved."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "Very much so. Even though there is a lot of detail, they could scan and pick out points that arouse their curiosity. It is very important for executives to have a reference for when they are aroused by a subject they could look it up in more detail."

5. Person contacted: Allen Becket (3)

Position: Deputy Division Chief Supply Fuels Plans and Policy, Headquarters USAF/LEYS

Date of Interview: 17-18 July 1990 (Held in two parts due to duty commitments for Mr. Becket)

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: Positions include:

- With Lt Col Meinhart held the first Blue Ribbon Panel for stock funds at Wright Patterson
- Held stock fund DLRs DOD working group 1983-1984
- Conducted third study in 1985

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "Having visibility of O&M customer budgets and financial status. We are in the blind if we want X when the customer only has Y. We budget MACR as far as we go. Now we are changing supply records to be more in line (AFLC message) with recording sales obligations. This is more timely accounting of appropriations."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: "I sit on an executive committee. Most executive managers eyes glaze over when you talk stock funds. Need to make the connection from O&M to reimbursement."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "We've acted as advisors to LEXW to push for more overall Air Force management of stock funds. Lt Col Rich Meinhart energetically explained and communicated to the Commands about stock fund management. A tool has been working with the schoolhouse at Lowry to produce a video on stock funds."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "General Bracken at the PRC pushed stock funds. The new direction has been set down with DMRD 901. Stock funds and industrial funding will mean the people will pay for the items. They don't know or understand the implications. They need to understand obligation authority, and the revolving cycle. Something needs to be done to show every year what is needed for stock funds without making the stock fund managers have to educate everyone. A video could serve as a kickoff. Don't know how expensive that would be. If someone wanted more detail they could go to the handbook. There is a PBBS primer which would make a good example for a handbook."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "From our aspect not sizing the program. Not sizing the budgets for base level. Each year you have fallout of O&M dollars. By not understanding or not projecting requirements properly causes problems."

Taking money while not having the obligation authority causes problems. It gets the customers upset."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "At this level, not realizing the different things we buy with stock funds. Many don't understand that GSD buys stuff to fix airplanes. They think some of the purchases are mundane, but the customers don't see it that way. How obligations are done, the amount authority was set at and what's driving the ratio are hard to understand. What is probably hard to understand is the end of year carry-over - how it works. One year a manager may be over, and the next year may be down, and the next year zeroed out. Managers don't know how to explain what the idea of the ratio is and how it works, or how to say it to the RM or Wing Commander. It's hard to understand that for every dollar we sell, we may only get 80 cents of obligation authority. It's hard to explain what drives it, or why we are stuck with say 95 cents? Can we live with it? Why? It's hard to explain it all."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "One suggestion is that a lot of the time at the base level, the focus is only on their base on their command. Sometimes the decisions have to be made for the aggregate. To make a certain target they may need the ratio less than one. This forces managers to watch obligation authority with the ratio. The

stock fund at the aggregate does not consider the effect at a specific base. The MAJCOMM may look at itself and forget that everyone is being penalized, short of mission degradation. Likewise, the DOD has to look at the trickle down effect and what it does to the base level. Managers at the base level have to realize that at the top they look at the aggregate. You can't look at your base as the only event in the DOD. By the time the target gets down to the base level, its been through many hands. The base level managers need to look at the big picture."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "One would be a brief history of philosophy - why we have it (McNamara added it not Supply) - what was the intent - how has it evolved? A way to balance the books in O&M and how flexibility has been taken away. It may not be the optimum way to manage. And why more things like DLRs are being added to stock funds."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "Include a chart like the one LEX uses showing the different divisions. Also a chart showing the flow of materiel. I never did see a chart that showed in simple terms what was stock fund obligations and sales. I never saw one that tells what we mean by obligations, what we mean by sales, shows what is on the books. Showing commitments would be helpful. Should

show sales (demands). What does it look like? Show what percent of transactions are parts delivered from shelf. When does the transaction occur? When contract is signed? The accountants say so. You need commitment flexibility: You could not commit more for replenishment than what's been appropriated. You should track an obligation through the system. Show when it becomes a sale. An example would be good."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "No. The only suggestion is to include philosophy, history, and evolution of the process. Define terms and present additions details at the back."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "No. Not for below this level."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "I think it would be. One reference book for the pentagon is the PBBS Primer. The only alternative is to pick brains. Remember there is a turnover. A primer can refer managers, or they can go to experts."

6. Person contacted: Marie Mobely (30)

Position: Chief Repairable Support Division (MMM)

Date of Interview: 18 July 1990

Type of Interview: Personal (face to face)

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "Primarily involved with reparables, budgeting, POM - appropriation dollars, actual execution of funds (not just dollar obligations), sales, materializing what is needed with inventory increases and decreases, perform analyses. Previous experience was with both SSD and GSD as division manager."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: Customer support is the key focus. You need to always consider inventory, sales, and cash. Most of the emphasis is on the priorities changing for the DOD as the Nation changes direction and the economy undergoes change. These things impact the DOD focus. Right now, we are looking at inventory growth, sales, cash, and outlays. These will be more critical in the future. Many people are worried that the OSD refocusing of priorities will cause the customer to be forgotten. The customer will not be ignored. We just have to make the right decisions. We had the luxury in the middle to late eighties of being fully funded. That's not what we have now. We have a new situation with budget constraints and increased direction on spending of funds."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: You must start by asking questions. Are we buying too much of the wrong items? Can we do smart things to help the customer? In the future, stock funds will be funding for personnel and operational costs. These costs will be

passed on to SSD, GSD, and RSD. The ALCs will function like product directorates. They will be set up like industry. They will need to know sales and production costs. These will help in making decisions, and will streamline and force conservation. In the end it will help to make better management decisions. If management can understand that if they are not selling, but they still need cash, and will still incur outlays, they can avoid future problems."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "Summary accounting information is crucial to stock funds. Other tools are mission capability rates. These can be used to justify the need for more money. If the trends show a need, then that adds to the case for additional funding. Execution was a big thing in the past. In the eighties we had initiations so procurement had time to obligate."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "Now we have almost the opposite. We look at the backlog and show at each ALC the critical problems. Thus, we only process the critical cases. With sales to obligations this is even more important. For consumables we have EOQ to try to help ALCs. There is a need to look at inventory turns and balance with mission support. Cannot focus strictly on inventory. If it takes 4-5 years to sell assets, then we have to look at the way we are buying. Plus, it helps to be able to explain inventory. For example, excess inventory is not always the result of buying. Sometimes the customer turns things in that he does not want, or ordered the wrong item. Accounting reports are more critical to AFLC."

Inventory managers and buyers get information to AFLC where it is broken out to produce schedules for sales to inventory. There is a penalty - lower obligation authority. There was a cut in SSD to .8 for the ratio. The PBD provided for a further cut to .75 for force structure. People need to be forward thinking. They need to look at flying items and ask if the weapon system changing. There is a new philosophy at ALC concerning termination. There was a real reluctance to terminate. Now, there is more emphasis because of the economical environment. The changes are helping people to be more conservative."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "You can't just look at what to buy now. Must balance with cash, authority to buy and determine what the inventory will look like. Stock funds sell and track inventory. What is interesting is by stocking DLRs we will have flexibility with repairables to buy (BP15). Normally, you repair first because it is cheaper before you would buy. But, the buy may be funded where the repair is not. What people don't understand is that with repair dollars, the outlay is quick. In three months you will pay for the repair. When buying however, the average lead time may be two years. The outlay won't be for two years. In this case, you have time to recover. With the repairs, you may not necessarily be able to support. For example, with \$100 from buying to repair. If \$100 is under the buy, there is no outlay for 2-3 years. You can make sales in the meantime. For repairs, you outlay right away. On the buy side, if you obligate \$100 million, it may take 5 years to deliver, there is some flexibility. You can work with the surcharge to cover costs. However, with repairs, you pay right now and lose flexibility."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "Pricing is hard for people to understand. With SSD, there is the standard price. With repricing, what the customer sees year to year. Price stabilization, surcharges (which act as a balancing factor), accounting details are all hard to grasp. In my opinion, lots of errors occur. Those areas are the hardest to grasp. Sales to obligations are similar to business in that if you don't sell, you go bankrupt. This is not conceptually difficult. Inventory is difficult at the gross level for particular items. If lots of hands work with them and personnel turnover, some items become hard to explain."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "Executives need to have a good idea of what a requirement is. They also have to have faith in that requirement or they must get the right requirement. Then they need to be proactive - planning documents or initial authorizations - rather than letting things go, they must make the decision to apply funding or reduce the requirement. The key thing the division level is graded on is sales versus obligations. Everyone needs to watch them, and can't lose sight of the ALCs. MAJCOMs just don't have the cash visibility. So, you can't focus on that level."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "We are in a rapidly changing environment. You need to get RSD and COD in the handbook. The world is changing, no longer can we give free

issue items. They must be bought. They will be more expensive. SSD and GSD items will have a surcharge. RSD is different. You have serviceable and unserviceable items. They will be valued differently. You have full credit and net credit. There is also unit cost per output. OSD has a group at the Defense Manpower Institute in Monterey California. They've gathered information on the Services to measure output versus expenses. The stock fund is sales versus obligations. Obligations are now what it costs to buy plus administration."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "Yes. The handbook should show revolving funds, the stock fund divisions, pricing and RSD. It should include something on EOQ - the saw-tooth chart, and something on MACR constraints."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "Separate material by division and level of stock fund application."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "Have lots of pictures. Visuals help the words get the message across."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "Very definitely. Stock funds are devoid of readily available

information. What regs we have now are complex and too detailed for executives. If you can't have a handbook, they need to develop a short course."

7. Person contacted: 1) John H. McCants (27)
2) Roger Thorogood (44)
3) Vicky Triplett (45)
4) Colonel James Simmons (39)

Position: McCants - Chief Funds Management
Thorogood - Command Stock Fund Manager
Triplett - Chief Supply Resources Branch
Simmons - Chief Supply Systems Management
Division

Date of Interview: 20 July 1990

Type of Interview: Round-table Discussion

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: Vicky Triplett: "I am not a technician. I have not had base level experience. I oversaw funds management and executed funds program. Gave recommendations as needed for AFLC, AFSC. Had senior management interface, but very little with base level."

Roger Thorogood: "Once upon a time, I was a base level assistant stock fund manager. Another time, I was a command stock fund manager. I was also, Stock Control Branch Chief, and had WRM implications. I worked at command level with 16 MAC base stock fund managers. I spent time with item accounting software at Gunter AFB."

John McCants: "Branch supervision at a small account. It was all base level."

Colonel James Simmons: "I held three different Major Command Headquarters jobs. I've been in the

environment of stock fund process changes. Very early on I spent time in the systems center."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: Vicky Triplett: "That depends on the philosophy. Inventory and capital control have been the by the book approaches. But, as the philosophy changes, there will be adjustments to inventory levels to need the ratio (obligations to sales). Now, where the philosophy is we make adjustments to what OSD dictates and what the Air Force and AFLC agrees to."

John McCants: You've got to know how it works. Know what affects it. You need to work different programs to make the stock fund work in and of itself."

Roger Thorogood: "Stock fund management is not easy. 1) You need to know everything about inventory and finance. The keys are to make sure inventory transactions update financial records. If the updates are wrong, you get lost. You have to have that management tool. 2) You must understand Air Force stockage policy. This will help in making management decisions. If you don't understand stockage policy, you will make mistakes. 3) You need to have rapport to understand where the budget officer and resource managers are coming from. Need to know what the truth is in order to know how much to give and to advise on stocking inventory. 4) Got to build the operating program, even though the LMC has provided a good spreadsheet. The spreadsheet does not tell you what numbers to plug in. 5) Trends and moving analysis are important for the manager."

Colonel Simmons: "The real difficulty is to explain stock funds to

the customers or to the bosses. Many have trouble understanding the revolving nature of stock funds. Down the line, ATC courses are the right direction. Why we need a stock fund, otherwise, we cough up O&M dollars. In upcoming years, there won't be many dollars when they need them. The inventory is just as important. How much to get? How much to stock. What we have may not be what we need. The stock fund does not always revolve like when you have modifications. There was a working task in May 89-90 time period involving budgeting and finance. They dealt with questions on the separate responsibilities. The May 90 tasking came from the General Officer's Steering Group. As a result, a test of procedures was put in the field. the response from the five commands was to wait until the end of the fiscal year to see the workload, and personnel cutbacks. The test is not over, there is a MAC point paper currently in the works. A tie-in to the General Officer's Steering Group is that years ago, the stock fund went bankrupt. Due to disconnects and safeguards, this was prevented. As a result, demands versus obligations were looked at. In the field, now we are looking at orders to sales."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: Roger Thorogood: "Going back to the answers in part (a) - 1) Remember, sometimes things go wrong. When they do, we must fix them. 2) Manager must understand that too. I've been indoctrinated by Colonel Blazer. The Wing Commander or RM needs to know when and what stockage impacts are. 3) He has to understand the correlation between O&M budgets and stock fund operations. Particularly, when O&M gets tight - which will cause stock fund problems. 4) The RM should

understand his operating program. It may look, sound, and feel like a budget, but it is not. It is historical and based on constraints. 5) Executives don't need to know the mechanics of moving averages and trend analysis."

Vicky Triplett: "The manager must consider that the stock fund does not support just his unit. He has to correlate that to all stock funds in the command."

Colonel Simmons: "As an RM its important to understand stock funds so when people complain, or the latest horror story hits the front pages he can give the right perspective. He needs to know surcharges build up cost, but help cover the way we do business. What is happening now comes from DMRD 901. We are passing the overhead for wholesale on to the customer, trying to make the customer cost conscious."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: Vicky Triplett: "The M18, Q07, and M20 which are in Table III. Executives need to know the approved program, where standards are, and how to get to them (not the technical aspects). For example, they need to know how stock is suppressed, and what does that do to the command."

Roger Thorogood: "Here are some tools:

- D07 - gives summary of dollar value, updates FIA codes daily.
- D08 - gives orders placed and sales. Is used by an executive, when he is in trouble. Does not tell status.
- D020 - gives exception actions and tells when to override.

Monthly tools:

- M01 - Lists everything on the obligation side.
- M18 - A great tool. It breaks inventory down to where assets came from.
- M20 - Good for RM. It stratifies inventory.
- M37 - Neat for finance. Not necessarily so for executives.
- GV587 - Good for finance. But again not for executives.
- TB (Trial Balance) - would be real boring to an executive.
- ALC - Good for RM. It says where they are messing up. Would not want this to go to the Wing Commander.
- R01 - Is not a stock fund tool. At one time it was a Red Dog Red Chip program. Once it is updated to include an obligation format, it could be useful.
- R04 - FRC cards - what you have at base level. It tells what you have not bought.
- R45 - MACR analysis. Gives a correlation to what will happen. Right now, it does not track. Gives no time frame. Gives no on-hand position and no demand rate."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: Colonel Simmons: "The key has been order to sales and inventory variance. When the shift is obligations to demands, you need to know where you

stand and how to fix it. In the past, organizations had money, but no ordering authority. Now there will be some potential demands in jeopardy. Supply demands were based on historical data. Today we use MACR restrictions to jump the hurdles. The problem is that MACRs are only good for a while. The RM will ask what is being done to fix the problem when you have to put on the skids. If the bases stop stock replenishment, there will be no money to support the customers. That the revolving nature of stock funds. Even though the funds revolve, there are artificial barriers. If the FY boundary gets out of sync, if obligations to demands falter, what needs to be done? In the supply system, what happens when customers bypass the stock fund? You have to consider what these things do to you."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: Colonel Simmons: "Inventory trends as a tool can be misleading. Current disposal information, reports, excess and redistribution all need to be reviewed."

Vicky Triplett: "At the base level giving credit and having to reverse post. Giving debit when you should be giving property. The purpose of the stock fund is to revolve. If you give away property, you are not accomplishing it. If they don't understand the impacts of actions. When you put on a MACR it takes three months to determine the impact. Its hard to recover after that. For the operating program, if the manager does not understand it, they need to talk to the command manager. He knows what to do and what adjustments to make. The operating program is the key for the manager. They must understand what the figures do, that they all interrelate."

Roger Thorogood: "All directives talk inventory and capital control. You

could blow your target because of variations. The problem is we say we are under when we are not. At one base the manager is six cents over the ratio and says its okay that we are over. It may be okay if everyone is at the ration and you are over. If the command goes over, it may still be okay. If AFLC goes over, then someone goes to jail. A pitfall is that if there is not much experience and you just read the directives, you will go wrong. You are only as good as the currency of the information. Many of the directives are out of date. With all of the changes in stock funds, the area is dynamic. We keep waiting for everything to change before we make the updates. That's a disservice to the stock fund managers."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: Vicky Triplett: "If a person does not have much stock fund experience they may not see that the revolving concept does not revolve real time. It all goes into the POM and the budget cycle. It's hard to grasp."

Roger Thorogood: "When you mention stock funds to executives, their eyes glaze over and you lose them. You need to remember that AFLC buys to appropriations and that they are trying to buy today and manage for long term needs."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: Vicky Triplett: "For the Wing Commander and the FMB, if stock funds are limited, they don't need to put the Chief of Supply where he has to determine base priorities."

John McCants: "Get the stock fund managers to say help - when they need it."

Roger Thorogood: "1) You need to trust the funds manager. Each has at least two managers above them in their face, constantly checking up on them. Between the three levels, we ought to catch the problems. 2) Stock funds are not rocket science, or brain surgery. If the Wing Commander thinks he needs to understand stock funds, he is right. If they have problems, they need to elevate and get the information. If the Command does not have the answer, we can find someone that does."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: Roger Thorogood: "The title has to be catchy. Otherwise, you won't capture the interest. Explain revolving funds. The executives need to know how stock funds work. They need to know limitations. They need to know how concepts are related. They need to know how the chain operates. Going for LGS to the command to the division to OSD and back down."

Vicky Triplett: "The definitions need to be in laymen terms."

Colonel Simmons: "For the handbook to be a good tool, you've got to give good explanations. You might even want to give excedrin or aspirin to go with it. You also want to explain depot level reparables and how they will work."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: Colonel Simmons: "You may want to use some of the charts LtC Rasmussen used for his Air War College paper. There are some good slides for the Air Staff (Corona) briefings. Be careful of the pictures you use. Make sure they show the process."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: Vicky Triplett: "Set things up by level. For example, arrange material by RM, MAJCOM, COS etc. For the funds manager, you would go into great detail. For higher management levels, you would not need so much detail."

John McCants: "The definitions need to be ones that people can relate to."

Colonel Simmons: "Tell what the trial balance is. They need to know what to look for, otherwise it could be a meaningless goat rope. Tell what is a significant discrepancy, out of balance. There is a definite need of close communication between accounting and finance, budget, comptroller, and supply. The RM has to get them to talk to and work with each other. You also need to include the satellite folks to talk over stock fund problems. Don't leave out the Air National Guard, and the Reserves."

Roger Thorogood: "If you hope to have executives read a handbook, you have to tell up front why we have stock funds, what they are, and how do they work?"

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: Vicky Triplett: "Need to have the government have stock funds centralized. Mention why it would be beneficial to have one stock fund?"

Colonel Simmons: "Give the stock

fund background and explain the wholesale relationship. Help clarify confusing definitions."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: Vicky Triplett: "The key is to make the handbook available for use. If it ends up as a pamphlet it ties into the index cycle."

Colonel Simmons: "There has been fifty to sixty percent change in stock funds over the past two years. We've got to have everything updated. Regardless of what's in a handbook there will still be those asking why they can't do things their way. To the DCM a part is a part. Under DLRs he will have to manage. Especially when aircraft can't get off the ground for lack of funding. Years of lean funding are going to force people to make choices."

Roger Thorogood: "What we will go through with reduced budgets and restrictions on weapons systems is parts that are worn, high costs, and production lines closed. Getting the item to the user may be a problem due to delays because of funding. Lead times will be affected."

Vicky Triplett: "The way we will do things needs to be proactive. We've got to anticipate."

Roger Thorogood: "The single most important alternative is for the RM and Wing Commander to read everything on stock funds. The Chief of Supply can get educated with the new COS orientation course. The stock fund video will help. A tool is the wing commander's conferences and the stock fund briefings. It needs to tell what a stock fund is."

8. Person contacted: Lt Colonel Edward C. Matthews (26)

Position: Director Supply logistics

Date of Interview: 23 July 1990

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "I was the Management and Procedures Branch Chief at Shaw. I also headed the LMC study on MACRs. My stock fund experience is limited."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "I guess understanding the system would be the key. You need to make sure the worker-bees and the Wing Commander understand the decisions involved. They need to know the difference in chasing O&M dollars versus stock funds at the base level. Knowledge of the different types of stock funds by budget codes is important. They need to know local purchase and why there is an eight per cent surcharge to the stock fund. You have to be able to explain how the operating program works - the revolving nature, funds tracking and cash flow. Also, they need to understand MACR factors. We need a more definitive description of the four types of commodities and differentiate between aircraft and WRM parts."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: Not answered.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "The biggest thing is the lack of tools. There are management products available, but they are behind the times. Often, they are not processed until a month later. When the MACR II study comes out, it will give real world data like obligations and net demands. It will help prevent over-obligation at the base level. Another tool is the MACR. It used to be like Kentucky windage. You would make your best guess and turn the control knobs. We need to show how to turn the control knobs and what will happen when we do."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "The tools we have today are inadequate to control the stock fund. We've got to tell the Wing Commander that we have a control chart, and when we crank up the controls what will happen. If we throw forms and acronyms at them, the executives will tune them out. Hopefully, the MACR II study will help."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "Yes. In applying MACR factors. They need to understand percentages. If you put 100 percent into the computer it does not allow for any requisitions. The principle is the opposite of what you would think intuitively. The safe way is to go with 50 percent. For an example, let's say that at Hurlburt Field you don't want to restrict bench stock. If the stock fund manager puts in 100 percent, you will get zero on stock replenishment. There are no management reports that show the MACR

edits. You would have to run a special inquiry to get the MACR edits. At Shaw a couple of years ago the MACR was adjusted wrong, and stock replenishment dropped off. Other pitfalls are projection-wise. We need to account for mission changes ISSIs and WRM. They all affect the stock fund process, but the stock fund manager is not included in the planning. They need to know when a weapon system is brought in or when it is phased out. From the education standpoint, you have to tell the Wing Commander early on what the operating program is so when the tide turns, the commander is not surprised. The lack of knowing what is happening with stock funds makes commanders uneasy. Another area is end of year close outs. There are potential problems. You've got to be able to prioritize the right things."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "The ratio and net demands. Definitions need to be in understandable terms. Even today, I have a hard time figuring out and explaining the definitions, especially some of the budget terms. They need to be generic. You need to differentiate between O&M and stock fund dollars. You need also to understand the surcharge."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "You must be familiar with the operating program. A manager needs to stay on it day and night. Don't turn it loose. Also, get the best quality people in stock funds. Make sure there is open communication between accounting and finance, supply, and contracting. Within supply, there needs to be communication between material management, the warehouse, and the computer room."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: The main thing is the handbook. It needs to say it all in few words with a few illustrations to explain how the system works. You need to explain the definitions. Like commitment authority, commitment flexibility, and total obligations. It is real easy to get confused over the financial terms. Everybody must speak from the same platform."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "I would like to pass on this. Let's leave it to the stock fund managers."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "You need to give the background. Explain the process. Include portions on the SSD, GSD, etc. Go through an example of a guy at the organization and walk him through the process. At the wing level, you've got to tie it together with examples. The handbook needs a glossary of terms. There should be a chapter on management products. Up front, you've got to capture the reader's attention. Make it interesting, otherwise they won't read it."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "The thought process. We need

more people trained in stock funds. The Chief of Supply, the Deputy Chief of Supply, the stock fund manager, and the M&P officer - maybe the only people in the squadron who understand stock funds. Generally, the stock fund manager is a civilian, except for overseas where the manager is a military position. There, you have a high turnover rate. We need to assign an SEI for stock fund AFSCs. We have to make it a point to grow stock fund gurus in the Air Force and not rely totally on the civilian cadre. Managers need to include stock funds in their training and whet the appetites of young officers. They need to see how budgets are prepared. People need to realize stock funds are not all smoke and mirrors. At Hickam, my Chief of Supply was a financial guru. He held a how goes it once a month strictly on stock funds. I learned a lot about O&M. The COS insisted that branch chiefs get involved. The warehouse needs to know the stock fund position. It's just plain good overall management. When material management and the warehouse have a good relationship things will go well. It is very important. A lot of dollars are tied up in inventory. The warehouse can sell it to get rid of and free up stock funds. The name of the game is to sell what is in stock. Demand codes are important. Need to differentiate between recurring and non recurring demand codes. If you code wrong, you may have kicked on a switch to excess and will grow inventory prematurely. You absolutely cannot order on whim or fancy. You've got to use NSNs and GSA. A manager also has to review what is on hand. One theme for stock funds for new managers is the appropriate use of demand codes. If the customer puts in a recurring demand, when they know they will not use the item again, it causes problems for Supply."

Question 12: Do you think a stock fund

handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "Yes. On the down-side for a handbook is currency. Somebody needs to keep it current. There needs to be an OPR or a stuckee. The reality is that there is no document now for the Wing Commander or the RM that tells how stock funds and explains it in understandable terms. There is no real overview mechanism. Today through the next five years the big obstacles are going to be managing dollars and personnel shortfalls. There will be limited resources. Management needs to understand the rules. We need to make a pamphlet and get an OPR. We will need a stuckee to update it."

9. Person contacted: Jack O'Clarion (32)

Position: Chief Inventory Management

Date of Interview: 23 July 1990

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "I started stock funds at Osan Korea in December of 1977. February 1978, I went to school in Denver to the stock fund manager's course. I stayed at Osan until May 1981. I went to George AFB in 1981 and was in charge of the Customer Support Section for 20 months. I went back into stock funds in December of 1983. I remained there through March of 1985. Then I went to RAF Kemble in England as a GS-11. RAF Kemble acts as an ALC with a mini depot for A-10s and F-5s stationed in Europe. I remained there until February 1987. I was promoted to GS-12 and moved to my present job."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "1) You've got to have a decent background in the principles of stock control - chapter 19, repair cycle, requisitioning, status, and requirements. Without that background, it is hard to match the accounting. You also need an acquaintanceship with accounting standards. Without that background, it is impossible to be proficient. If you lack either area it will take at least three years at the base level. If you are lacking in both areas, it is impossible to be proficient in less than five years. 2) You need to recognize the transactions that are giving you problems. Like from other areas. In supply, for receiving, if you don't have a receipt, but the property has been received, or the due-in was cancelled, or the stock fund pays twice for the same item, you will have problems. 3) The stock fund manager must have the backing of the Chief of Supply. Most times, there is money. Most times requirements by customers are steady. Problems can be minimized, but when there are purchasing restrictions, which makes it hard to maintain high supply rates. The problem is the rug can get pulled out from under you with no money, and somebody will get embarrassed. If the Chief of Supply supports the stock fund, he can meet customer needs. For strict supply discipline, high prioritizing causes problems later on. A good COS checks daily with the funds manager. The problem with the stock fund is that most people don't understand it. With the current trend of trying to stock fund everything, it will be a bear. A case in point, there is a move afoot to stock fund the cost of depot maintenance. The intention is to gain control of resources. The manager must have a grasp of supply principles.

He needs an in-depth knowledge of supply and at least a working knowledge of accounting principles."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: Answered in part 2a.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "The most important tool is the D07 report. It alerts the manager to problems with exceptions. It gives an ending balance. With GLAs you need a good knowledge of daily updates. If you have strange dollar updates, you need to go to the D32 or D11 to fix the transactions. The longer you wait to fix them, the worse it gets. The D08 tells how many dollars you spent. It gives orders, actual requirements, bills, payments, and transactions. If you are not aware of these, you will get into trouble. You also need to be aware of price changes. You need to know the other reports too. They can shed light on what is happening. If the stock fund manager is going to be good, he has to keep in everyone's business. Like receiving, bench stock, and requisitioning. He should be involved with the comptroller, and use the trial balance reports to record updates. There is also a requirement to maintain historical trends. This is a good tool. There will be aberrations. For example, in the month of June there are generally high sales. The customer is given his full budget which means increase activity. A manager has to plan for that. You need to know the past to forecast the future."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight

into the impacts of stock funds today?
How would they be useful?

Answer: Absolutely. I can't emphasize enough the need to review those tools. The day you omit reviewing the reports for higher requirements, that is the day you will find yourself greatly surprised. If you don't catch the problem transactions, later on someone will be asking you to explain what happened. The tools are there. The biggest problem is using them in the right sequence. The older an obligation gets, the less likely it is to still be valid. You need to go out to the bases to see how much initiative people are taking. The financial details are not the stock fund managers responsibility, but if he has them in order, then I know he has a good program. If people follow the procedures, there should not be problems."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "Taking everything at face value. If they don't communicate and get out of the office. If they are afraid to ask we can help them. You can only help if you know they have a problem. Communication is extremely important. People have to talk to each other, especially to their counterparts."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "The whole area of supply is difficult to grasp. There are so many acronyms. There are so many drivers that make significant impacts. Some questions: When does a transaction start? What causes demand levels to decrease? What causes the demand levels to go out of sight? How do you know if a requirement is valid? It is

most important to get around the base and find out the mission. Find out what people need. It comes back to communication. You also need to read the manuals. Something that is critical is the need for adequate supply training and specialized stock fund training. Be aggressive with the supervisor to get the necessary training. The GSOP is a bear. The operating programs are not getting easier, but harder. Something may be in the book, but without adequate training you just don't know where to start. When the manuals are out of date, it just complicates matters."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "1) Try to become as knowledgeable as possible. At Lowry, the technical training is aimed at senior managers. The manager needs to attend at the earliest possible moment. 2) Pick the stock fund manager's brain. Over the last few years stock funds have gained the attention of top level management. 3) The O-6s are sharp. They want information. The COS needs to provide it. 4) They can benefit from other manager's knowledge. 5) Any stock fund training is beneficial."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "I'd like to review what's in it first. Then I can throw things at you. People need to know what impacts the ratio. If you buy for stock, and not for the customer it will impact the stock fund. You've got to use judgement."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook

for executive managers that would clarify procedures, processes, and impacts?

Answer: "Same as the answer for question eight."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "It should be similar to a checklist. Include something like the ten precepts of stock fund management. Give them a list of do's and don'ts."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "At most bases, the operational commanders don't understand the details. They need to know that it's different at the wholesale level. They need something that will show the concepts. Manuals cover things in detail. We can give them a sugar-coated pill. If they trust their managers, they will get the right advice."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "If it is written in the education level for those who will use it. It should be simple, but readily understandable. It could be most beneficial. Especially if encapsulated with help from us. Right now there is nothing out there. A manual or pamphlet put out today could easily be kept current. It would have to be reviewed at least once every two years."

10. Person contacted: Jim Overby (34)

Position: SAC Command Stock Fund Manager

Date of Interview: 25 July 1990

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "Currently, I am working with the stock fund DLR implementation. I have been a panel member for the implementation since December. I have been involved with the MACR II development with the working group since last March. Last June I was in San Antonio, and last August at Gunter. I wrote the functional description and QC'd it. The implementation for the MACR II is set for 1 February 91. I helped in the chapter 29 rewrite last summer."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "Today, it would have to be financial accuracy. This has been a problem over the years. There have been a couple of meetings at the Air Staff with the accounting and finance people to resolve some of the problems. Last summer all the SAC stock fund managers and accounting and finance managers met for a workshop. They looked at the trial balance and accuracy. We held a workshop in February just for stock fund managers to train them on the AGSOP III. The one that was developed by TAC. We wanted to give them hands on experience. This way, when they get it, they won't be shocked. We were hoping to ease the pain. Actual management other than financial accuracy would be the accuracy of

reports at the base level. Proper execution of total authority the base receives is important. If the data is wrong, there will be costs in the obligations. The key is to ensure you maintain the approved net demand to operating obligation ratio. You need to ensure the operating obligations are not exceeded as well as the TFA itself. Today the stock fund manager does not have anything on a real time basis to show net demands to obligations that shows where they are at. Development of the MACR II will give real time information on obligations and will give close to real for net demands. It will give the total picture of TFA (the total obligation authority approved). At times of constrained funding, for the COS, he still has to support the customer. Trying to give 100% support may dictate cuts on stock replenishment using MACRs or other tools. We went through that back in the 70s where we operated under constraints. We fought in house, but got back to supporting the customer."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: Answered in 2a.

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "On a daily basis the most important are:

- D08 portrays the actual orders placed
- D32 gives all transactions for GSD and SSD and lists fuels

On a monthly basis for management of net demands and operating order obligations:

- D07 report

- M01 report
- M29
- M36

From the headquarters management aspect, there is no real time capability to see where people are at. We've got to rely on telecomm and AUTODIN data to determine if they are on track or out the window. For execution of the approved program there is a lot of historical data to rely on to determine the proper course action to adjust the base to keep them on track. Other reports include the trial balance which is the official accounting and finance record. It is received out of the accounting finance center in Denver. You also have the DOLARS which is the Depot On Line Accounting Report System. This gives the capability to get the trial balance ten days ahead of schedule. It helped everyone in the implementation."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "Oh yeah. Most definitely."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "The lack of knowledge coming into the job. Unless they are knowledgeable in small computers, at least in SAC with net demands to obligations they will have to do a lot of manual computations. There are things like trend analysis that need to be done. At the base supply level, the stock fund manager is usually one of the top three ranking positions. The disadvantage is that there is not a lot of information in AFM 67-1 for operating on a daily basis. Even on a monthly basis, without the proper instruction, they will get in trouble."

For example if you perceive the information is good, when it is not, you will get in trouble fast. In SAC, we get with the new manager after a couple of months to get him educated. Normally, no one in the supply account has that kind of background unless the assistant stock fund manager moves up. The new manager should try to get to Denver for the stock fund course. Without a good foundation, they are on their own. In USAFE and PACAF you have military members in stock funds. The military rotates and a new one gets thrown in. You can have problems. It can be a real bear."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "The biggest thing for people is net demands and operating obligations. Trying to understand how they work. To explain to someone outside of supply is hard. In the handbook you need to explain what net demands are and what operating obligations are. Keep in mind that many people feel with MACR II they can control obligations. They need to realize that supply is not the only area that affects obligations. When a requisition goes to DLA or to the depot, it obligates, a RNB detail runs. A interfund bill may be created. If the document number and the quantity agree, it flies. If they don't agree it does not fly. Instead of \$100 you might get a bill for \$3452. For the interbill, neither supply nor finance have control over. Supply is not the only one that impacts obligations. We only monitor. If the ratio goes out of line, it may mean somebody pumped in lots of requisitions for replenishment. Somebody may have run a special requirements indicator R. Or, you may have the case where accounting and finance has an unmatched seller. The bills come in from depot and there is no RNB. After research and its shown

to be a good bill, it is run and that increases the obligations. Normally supply has no idea accounting and finance is making payment on these items. Today finance and supply are talking to each other. The funds managers are reading the trial balance before it goes out. At least they better be."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "Remember that the Chief of Supply is responsible for support to more than just the base units. He supports the base units, the tenants, and the satellite accounts. They are all important to the COS where they may not be to the Wing Commander. I would not want the commander telling the Chief of Supply to defer requisitions on bench stock. The Chief of Supply knows inventory and capital control. You hate to see folks outside of supply making those kinds of decisions without the knowledge of supply and capital control. Under years of constraints without 100% funding the temptation may be to forget the guard and reserve support. It should not be that way."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "For the executive manager you need to include a brief overview of the process. Explain the revolving stock fund. Also explain net demands and operating obligations. Need to explain TFA - the total financial authority. Total financial authority is approved in schedule five. That's where you get ordering authority. At the financial working group or financial management board meetings, the funds manager or the Chief of Supply briefs the stock fund position or status. They tell

where they are at for total financial authority. Keep in mind that most managers are not interested in supply tools. They want the big picture."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "Not that I can think of."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "Look at the old handbook. Explain the reports."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "Not that I can think of right now."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "We really do need something to help explain the stock fund concept and tells what the Chief of Supply has to do. Two years from now a big portion of the base budget will be through the stock fund."

11. Person contacted: Colonel Michael Christensen (4)
Position: Chief of Supply Systems Management Division
Date of Interview: 27 July 1990
Type of Interview: Telephone
Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "The folks that oversee TAC work for me. We tell AFLC and the Air Staff TAC's requirements. We get approval and funnel funds to the bases and oversee execution for 20 TAC bases."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "The key at the base is understanding how different supply transactions affect the stock fund program. Having adequate information systems to tell status program at any time. Certainly at the MAJCOM you have to understand how the stock fund supports the wing mission. You need to understand how your MAJCOM program relates to how you give support, defend and execute for 20 bases."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: "If I was at the base level, in terms of the Wing Commander, he has to understand how customers who deal with supply can positively or negatively affect the Chief of Supply's stock fund. He needs to understand the elements of demands, and obligations. Know the terms of the stock fund and how customers affect the supply stock fund."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "OSD shifted gears two years ago for judging the health of the stock fund. Until then, the automated program was good. It changed to net demands to obligations ratio. Now, the automated tools don't give information

in a timely manner. It's hard to tell where you are at. Data is generally 3-4 weeks old by the time you get it. At the bases, the information is usually 2-3 weeks late. Supply, and accounting and finance are talking to each other. The design center is working the redesign with the MACR II program. As transactions occur, it will track daily. It will tell the ratio, the actual program, and give real time data. The executive needs to have a working knowledge of the program and its importance to the Chief of Supply."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: Answered in Question 3.

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "The biggest pitfall right now is not understanding terminology. Obligations in stock funds for the Chief of Supply are similar to those at the wing, but are interpreted differently. At the wing some take obligations to mean O&M dollars. When they hear net demands to obligations they think O&M. Demands under O&M are different for managing money. Managers need a general knowledge of the wing approved program. They should know who approves it and how it is approved. They should know how the stock fund benefits the commander and why he needs a stock fund."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "It's importance. I thought it was just an accounting exercise. I was not sure why we had it, and why it

was managed at the bases instead of by Air Staff. They need to know why it is important to the Air Force and at the wings."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "He needs to watch. Periodically he should be informed of progress. He needs to know where the stock fund stands. He needs to be informed as to what the Chief of Supply and the stock fund manager are doing to bring it back on line. A key is involvement. He has to be involved with financial management with the financial management board. He must have frequent involvement in reconciling problems."

Question 8: Since the Air Force is proposing a stock fund handbook, what suggestions would you like to make about items to include in a handbook?

Answer: "Include discussion of what stock funds are? Why we have them? How they work? Provide hints for a commander to keep an eye on. Provide questions he needs to answer. If the program is out of line, provide what areas he should look at to fix. Give a glossary of important terms. You should tell what the one indicator is to watch if you were the Wing CC, or the RM, or the DCM. What is one key element indicator that affects good or bad?"

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "I would rather have an opportunity to send this off to you."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "Arrange material based on the MAJCOM Supply's role and the Comptroller's role. At the base level explain Supply's role and that of Finance. Include illustrations. You need a basic checklist posing key questions and giving key indicators."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "Not off hand."

Question 12: Do you think a stock fund handbook could be a useful tool for executives? Why, or why not? If no, what is the single most important alternative?

Answer: "I think it is. An alternative is videos. ATC has been working on stock fund videos. Videos are good for a first time introduction. But a handbook can be placed on a desk or in a credenza. A handbook makes a ready reference for a manager to brush up on before attending the FMB. You need to be careful how it is worded and structured. If there is too much detail, you will lose the executive's interest. People who are not familiar with stock funds don't want to talk about them. Generally, you want to put all of the detailed information in appendices for those who are interested in in-depth information.

Outline the generalities, and give references."

12. Person contacted: Ann Franklin (17)

Position: Systems Accountant HQ AFAFC

Date of Interview: 13 August 1990

Type of Interview: Telephone

Interview results:

Question 1: What duties or activities have you been involved in pertaining to the stock fund process?

Answer: "I have over twenty years of experience. I was involved with the General Officer's Steering Group decision to improve the stock fund. I Worked with the DMRDs to change the way the Air Force handles stock funds. I spent time at the base level, at the MAJCOM, and at the Air Force level."

Question 2: a) Name what you consider to be the key aspects of stock fund management?

Answer: "The key aspects in the past had to do with buying the right things. In the future, we will still have to be careful to buy the right things. Unfortunately, we never payed much attention to cash and the program. We just knew the program would be there. We have to have controls that keep us from exceeding authorizations."

b) You listed ... in 2a as key aspects. How would an understanding of each of these items aid an executive manager?

Answer: "Based on the training I provided to executives, the Chiefs of Supply, the Budget Officers, and the Wing Commanders have not been familiar with total obligations. In the past year, we have started to put emphasis there. You have to realize, that the stock fund manager gets caught between the commander and the customers. We are still controlling by obligation

authority. In 1987, we almost had a violation. In 1988, we went back the other way. In 1990, we almost had another violation. At all levels, they have to know why we buy, why we have what authority, and they need to know what the penalties are for violations. The way it is now, and has been, is that you can't charge someone at the base level with a violation. However, when you mention violation, everyone backs off."

Question 3: What tools have been instrumental to you as you managed stock funds in the past?

Answer: "Now, we have good tools. The General Officer Steering Group found that the stock fund managers were in the dark. There was no budget interface. The Accounting and Finance reports did not match the Base Supply reports."

Question 4: Do you feel these tools are still useful and would help an executive manager gain needed insight into the impacts of stock funds today? How would they be useful?

Answer: "There is a worksheet we developed last year. The new MACR will come out in February 1991. They provide control."

Question 5: Do you see specific pitfalls a manager with little stock fund experience could fall into?

Answer: "Today - yes. Stock fund managers are the only ones really trying to make it work. Accounting and Finance does not know what they are doing to the stock fund manager. Those above the stock fund managers don't know all the changes going on with stock funds. The stock fund managers have no support unless there is a strong Chief of Supply or a strong Accounting and Finance Officer."

Question 6: What aspects of stock fund management seem to be hard to grasp or would be elusive to someone possessing little or no experience?

Answer: "In the training sessions, I found the biggest problem was that the stock fund managers who were responsible for controlling stock funds did not know what was being updated. It is sort of like being responsible for a bank account with multiple people using it, and not knowing who was using it and what they were doing with it. There needs to be overlap for the stock fund managers, otherwise, they will be in the dark. When the regulations change and are updated, that will help."

Question 7: What suggestions do you have that would be helpful to an executive who must make management decisions involving the use of stock funds?

Answer: "The executives have to work with the stock fund manager. They must know the obligating authority and the operating program. The Chief of Supply should work with the Comptroller, and the Budget Officer. It is a team effort. You have O&M on one side and stock funds on the other. Its up and down. The Comptroller must be more involved. There are two things: 1) the executive must work with the customer and 2) work with the Comptroller. There needs to be an understanding of the controls. They need to know that eventually violations will get down to the base. With the COD coming on line, management of stock funds will be harder. For 1990, it is working at the wholesale level. All indications are that operations costs will be stock funded at the base or retail level in 1991 or 1992. If this happens, there will be even more of a reason to manage stock funds."

Question 8: Since the Air Force is proposing a stock fund handbook, what

suggestions would you like to make about items to include in a handbook?

Answer: "The main thing which is most important is that executives need an explanation of the history of stock funds. It needs to explain what happened, what changes there are, how we got there and where we are going."

Question 9: Can you think of any charts, illustrations, tables, etc. that should be included in a stock fund handbook for executive managers that would clarify procedures, processes, and impacts?

Answer: "When talking at the executive level, they don't need details, they need to know the controls. Like receipts not due-in. They need to know what is by-passing the controls. They need to know if they have a low financial position. Today, violations are only handled at the Air Force wide level. They are not passed on to the individual bases. In the future, the violations may be placed at the MAJCOM level. The executives need to know what transactions take away their authority. Sometimes when the detail gets old, it gets deleted from the machine. The problem is that when the bill comes in, it will be a forced payment and will take obligation authority. The original requisition took authority, when it was deleted and a new detail run the authority was given back, then taken away again. The stock fund paid for the item twice."

Question 10: Do you have any suggestions about how information in a handbook should be arranged?

Answer: "You probably need to talk about stock fund history. You also should talk controls, impacts, what hits the authority, what does not, and how to control the stock fund. Most

people only look at the total obligating authority. They have to look at both commitments and obligations. If you have 100 in TOA, that's what they see. What they don't see is that 25% is commitment authority. If they go over 75%, they have a violation. They have to prevent exceeding their obligation authority."

Question 11: Do you have any suggestions to facilitate the learning curve concerning stock fund procedures that could be included in a handbook?

Answer: "The high levels have to put out information to make people aware of what problems there are. They have to put out the information to the executives. Plus get out the handbook. There also needs to be training."

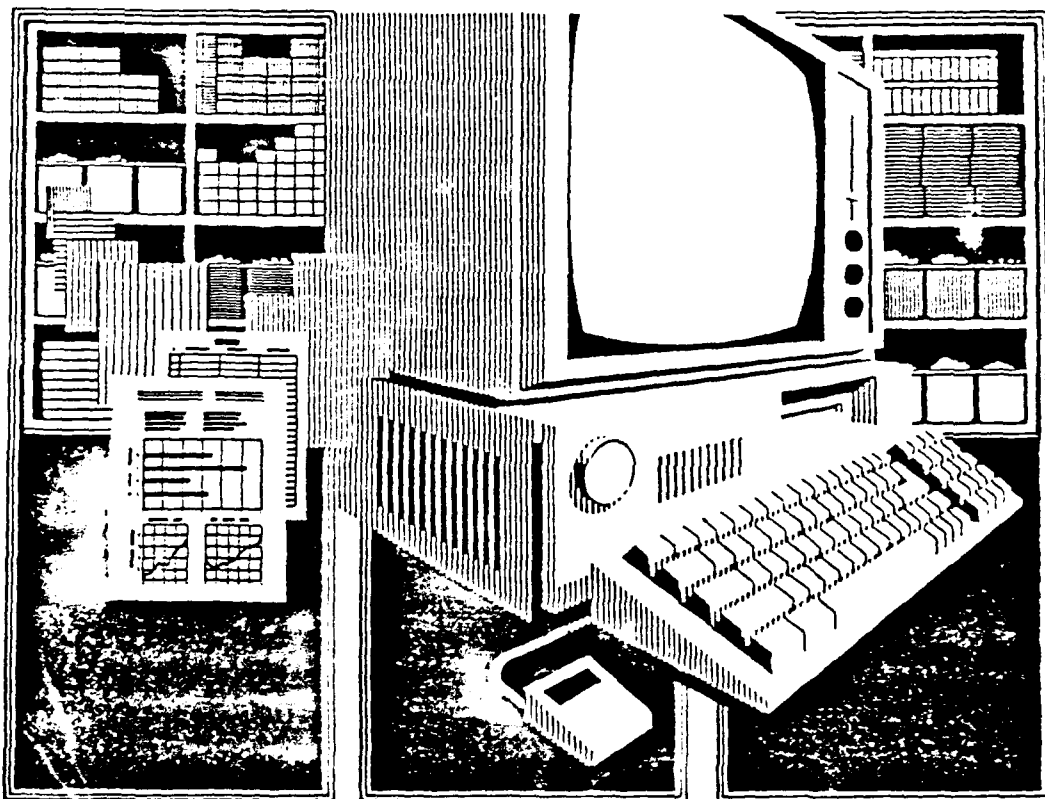
Question 12: Do you think a stock fund handbook could be useful tool for executives: Why, or why not: If no, what is the single most important alternative?

Answer: "There certainly needs to be one provided. People don't know what is happening. They need to know, even if they have been working stock funds for years, why we are now doing things differently."

Appendix F:

Executive Stock Fund Handbook

EXECUTIVE HANDBOOK FOR STOCK FUND MANAGERS



AIR FORCE INSTITUTE OF TECHNOLOGY
Wright-Patterson Air Force Base, Ohio
1 September 1990
Written by R. Daly

Preface

Executive managers often must be familiar with areas in which they possess little background. In light of the pressures of budgetary constraints, and the overriding need to make cost effective decisions, it benefits the executive manager to be familiar with stock funds and relevant impacts. Stock funds are not handled the same way operational funds are. Stock funds represent capital that revolves back into a central fund with each purchase to allow for continued replenishment, while operating funds expend once a purchase occurs. This handbook provides a brief overview of key stock fund terminology, procedures, and impacts. The handbook was designed to provide the executive manager with a "quick and dirty" look at those aspects of stock funds most applicable to managerial decision making. Several tools such as stock fund regulation references, and significant management reports were listed to point the manager in the right direction. This handbook does not replace the regulations but serves as a consolidating source of key concepts, managerial tools, and references to aid the manager as he makes decisions involving stock fund issues.

Table of Contents

	Page
Preface.....	157
Table of Contents.....	158
List of Figures.....	159
Chapter One - Introduction.....	160
Chapter Two - Stock Funds: Key Concepts.....	163
Chapter Three - Stock Fund Benefits.....	172
Chapter Four - Stock Funds Operations.....	180
Chapter Five - Managerial Tools.....	185
Chapter Six - Key Management Reports and References..	191
Chapter Seven - Conclusion.....	195
Glossary.....	196
Acronyms.....	201
Bibliography.....	203

List of Figures

Figure	Page
1. AFSF Concepts: Revolving Concept.....	164
2. Air Force Stock Fund: Stock Fund Divisions....	166
3. Air Force Stock Fund.....	168
4. AFSF Concepts: Stock Fund Cycle.....	173
5. Spares Requirements Process.....	178
6. DLR Stock Fund Retail Transaction Flow.....	179
7. Cash Flow.....	182
8. MACRs.....	188

Chapter 1

Introduction

Surviving Stock Funds

Do You Need To Know about Stock Funds?

As you read this handbook, you are probably asking yourself - "Can I afford the time to go through this booklet?" Knowing that executives are pressed for time and want the key points up front, this handbook was designed specifically to answer five important Questions: 1) What are stock funds? 2) Why do we have stock funds? 3) How do stock funds affect me? 4) How do stock funds operate? 5) What do I need to know about stock funds? This handbook will give you an overview of key stock fund concepts and will provide tools and references to enhance your management of stock funds. In the next chapter, we will examine how the handbook will help you answer the five questions listed above. First, before discussing stock funds there are some pitfalls that you as a manager should be aware of.

Pitfalls

As a manager, you want to be aware of potential pitfalls to avoid problems and ensure a healthy stock fund position. Some common pitfalls involving stock fund management are:

- 1) Allowing inventory to grow unnecessarily.
- 2) Failing to understand and apply trend analysis.
- 3) Not knowing what the customer needs.
- 4) Not recognizing the difference between managing stock funds and managing O&M appropriations.
- 5) Failing to properly size budgets, and failing to accurately project requirements.
- 6) Not understanding outlays, appropriations, cash-flow, and the operating program.
- 7) Failing to understand MACR impacts.
- 8) Not staying up-to-date with regulations or directive changes.
- 9) Understanding terminology.
- 10) Improperly pricing stock funded items.

Although not all inclusive, this list of pitfalls comprises what stock fund experts consider to be traps managers might fall into. This list gave some areas to approach carefully.

How Will This Handbook Help Me?

To assist you with the demands of stock fund management, some useful tools are at your disposal. This handbook provides you with the following:

- 1) An explanation of key terms.
- 2) Illustrations of important processes.
- 3) A glossary of acronyms.
- 4) A glossary of definitions.

5) A reference list of key stock fund literature.

6) A list of available stock fund tools.

These items will give you needed insight into how stock funds fit into the big picture. Let's start with a description of what constitutes stock funds.

Chapter 2

Stock Funds: Key Concepts

What Are Stock Funds?

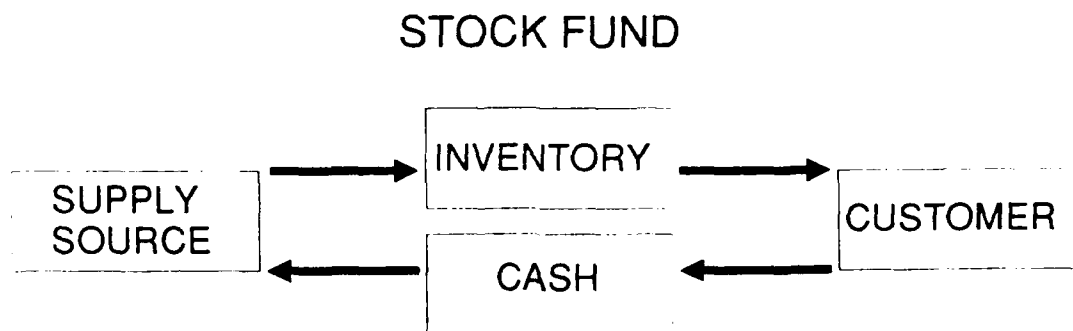
Unless you actually worked with stock funds before, your immediate reaction may be captured by the thought "smoke and mirrors." In actuality, stock funds possess financial precision and through the use of effective management, permit the Air Force to get the job done without having to seek additional appropriations. Simply stated, a stock fund is a revolving or working capital fund. See Figure 1 (10).

Revolving Nature of Stock Funds

From the stock fund, the Air Force finances inventories. With this financing, capital is generated and used to replenish stock. So, with each purchase, the cost incurred by the customer for an item is remitted back into the stock fund and the process continues in a revolving fashion. As long as the cycle progresses unhindered, the stock fund remains able to sustain stock replenishment. If for some reason, the cash flow becomes impeded by processing delays, or the number of demands increases beyond the stock fund's capital, then additional appropriations must be requested. An important point to remember is that even though the Air Force Stock Fund (AFSF) appears to operate

AFSF CONCEPTS

REVOLVING CONCEPT



- SELF-SUSTAINING IN STATIC ENVIRONMENT
- AUGMENTATION REQUIRED BY
 - FORCE MODERNIZATION
 - FORCE MODIFICATION
 - READINESS INITIATIVES
- WRM REQUIREMENTS
- CAPITALIZATION THROUGH
 - PRICING MECHANISM (PRE FY82)
 - CONGRESSIONAL APPROPRIATION (POST FY82)

Figure 1. AFSF Stock Fund Divisions

along business lines: it is not designed to make a profit, but to break even. The specific benefits accrued from the stock fund are discussed in detail in Chapter 3.

What is the Air Force Stock Fund (AFSF)?

The Air Force Stock fund consists of eight divisions. Those divisions are shown in Figure 2. The Cost Operations Division and the Reparable Support Division just came on line effective as of October 1990. Each Division is listed as follows:

- 1) Commissary Division.
- 2) Fuels Division.
- 3) Air Force Academy Cadet Division.
- 4) Medical-Dental Division.
- 5) Systems Support Division.
- 6) General Support Division.
- 7) Cost Operations Division.
- 8) Reparable Support Division.

AIR FORCE STOCK FUND

STOCK FUND DIVISIONS

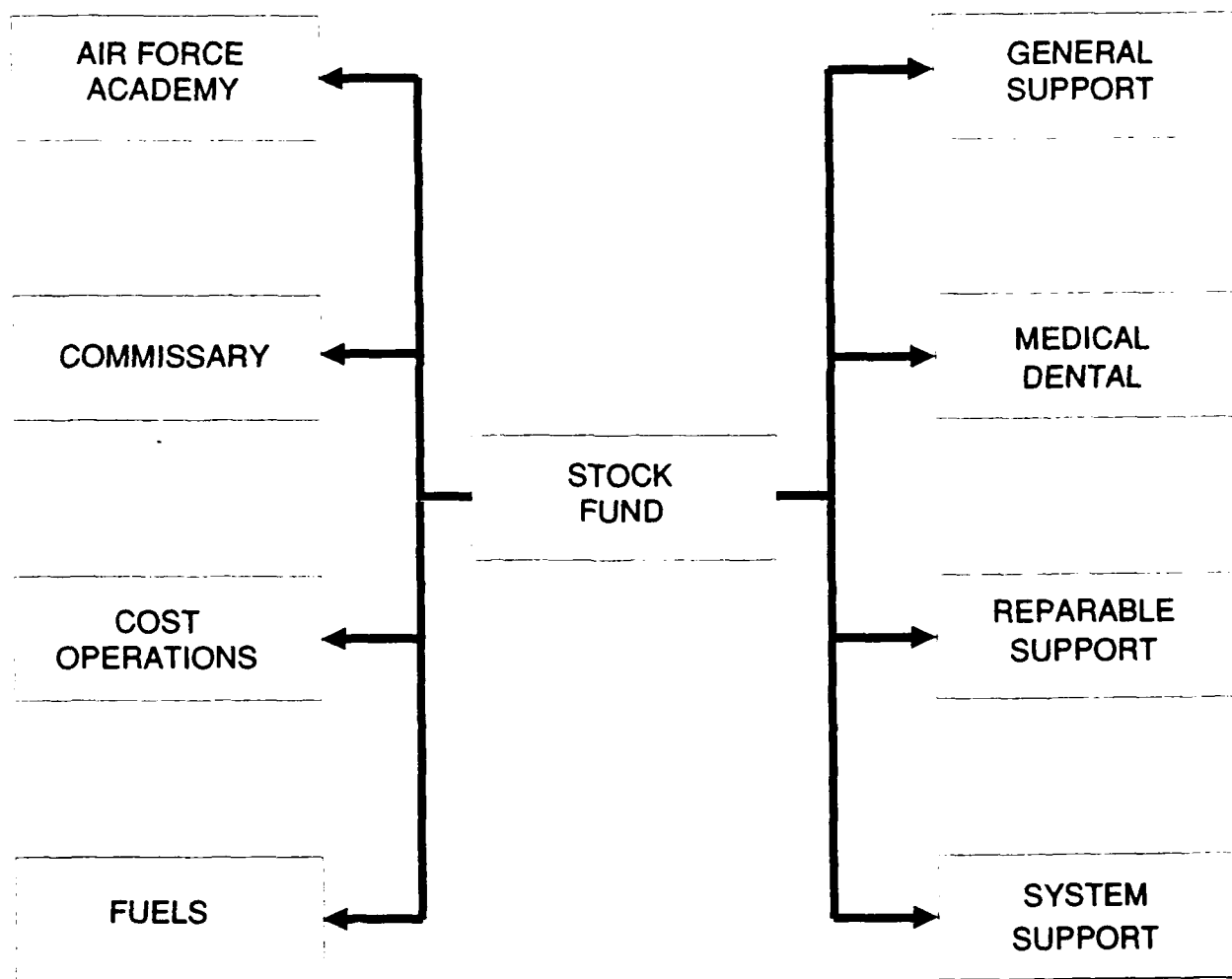


Figure 2. AFSF Stock Fund Divisions

These eight divisions make up the Air Force Stock Fund. Next, an explanation of each division and their respective responsibilities. Figure 3 illustrates the AFSF Divisions.

Commissary Division: The Commissary Division handles financial management and inventory control as well as ensures distribution of rations to support Air Force personnel.

Fuels Division: The Fuels Division renders financial management and inventory control as well as provides distribution of bulk petroleum fuels and missile fuels to support peacetime and wartime requirements.

Air Force Academy Cadet Division: The Air Force Academy Cadet Store Division manages provision of academic supplies and services for Academy cadets.

Medical-Dental Division: The Medical-Dental Division furnishes financial management and inventory control as well as provides distribution of medical and dental supplies and equipment to support peacetime health care. The division also handles prepositioning of wartime medical supplies.

Systems Support Division: The Systems Support Division includes financial management and inventory control at the depot (wholesale) level pertaining to weapons systems for five Air Logistics Centers (ALCs). The division also provides for management and control of SSD items from the ALCs to the operational (base or) retail level.

General Support Division: The General Support Division renders financial management and inventory control at the retail level for expense consumable items. The major sources of supply include The Defense Logistics Agency (DLA), the General Services Administration (GSA), other Service branches, and local purchase (4:4).

AIR FORCE STOCK FUND

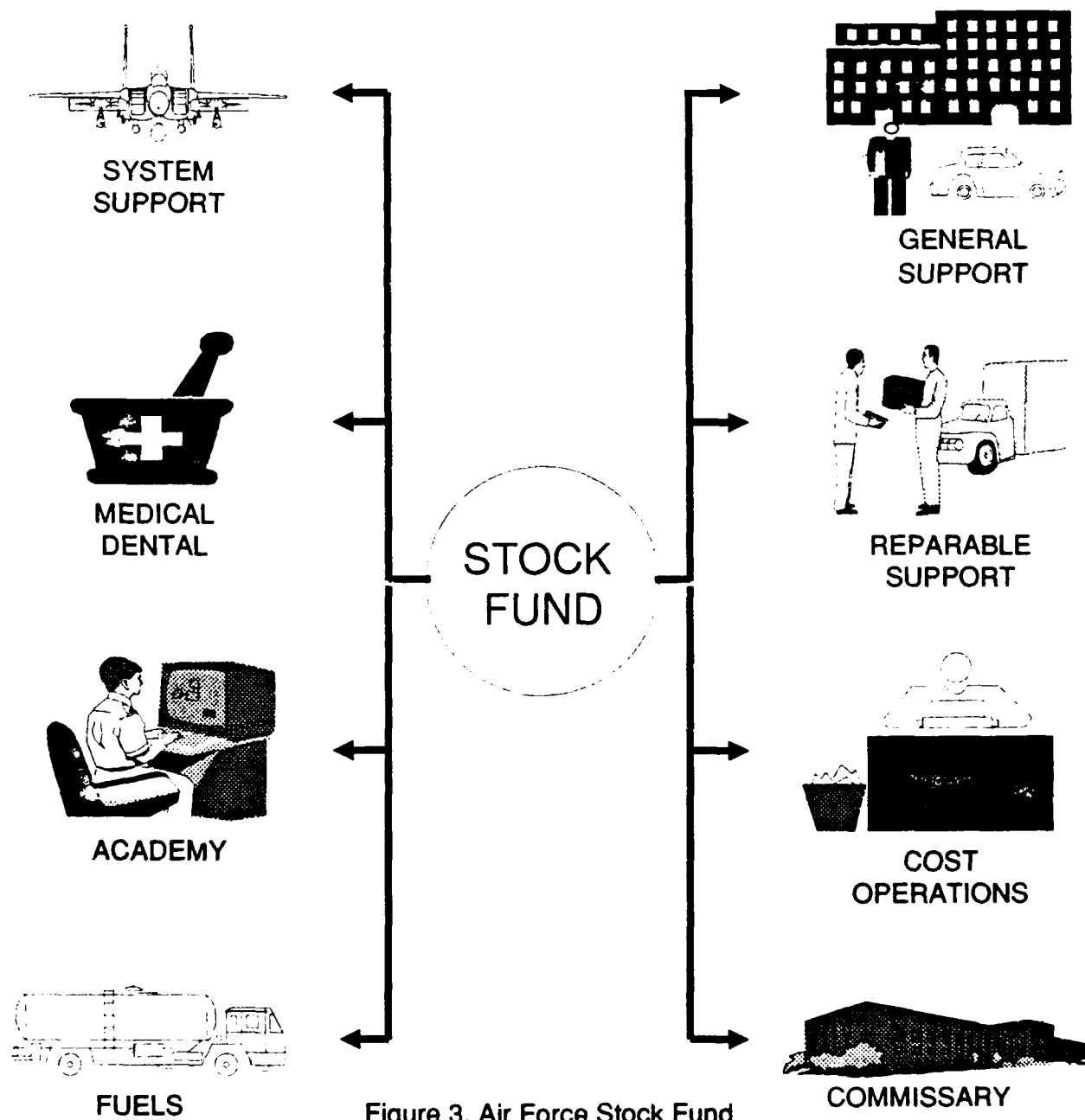


Figure 3. Air Force Stock Fund

Cost Operations Division: The Cost Operations Division is primarily responsible for ensuring the day-to-day wholesale operations costs are budgeted for and covered through RSD, SSD, and GSD stock funds.

Reparable Support Division: The Reparable Support Division is responsible for the financial management and inventory as well as the distribution of depot level reparable assets (7).

These eight divisions manage stock funds in accordance with directives handed down from the Office of the Secretary of Defense (OSD) and channeled through Headquarters USAF for implementation and compliance.

Working Capital

For stock funds, the manager must realize that stock funds are more than dollars or authorizations. Stock funds can be viewed as cash and inventory resources. "The working capital can be thought of as the funds tied up at all times in inventory, orders outstanding, and working cash balances on hand" (6:29-33). Thus, stock funds are resources and hence represent more than just dollars. They include inventory, assets on order, and cash balances.

In this way, stock fund assets represent the total financial resources needed to bring goods to the customer. As customers buy goods, these customers provide funds for continuing the process (6:29-33).

By viewing stock funds as resources, one recognizes the revolving nature embodied in the process. Once something bought with stock funds has been sold, the amount of the sale returns to the stock fund for further use.

Horizontal and Vertical Nature

There are two forms of stock funds relating to operational levels. They are horizontal and vertical. Horizontal stock funds pertain to a single level such as in one case - a base (retail level), or in a second instance - a depot (wholesale level). Some funds are strictly retail, while some are wholesale. Where the funds are both retail and wholesale, the stock fund possesses a vertical nature. When transactions take place solely at base level, they fall under General Support Division (GSD) authority (6:29-12).

Vertical stock funds, on the other hand, function at both retail and wholesale levels. System Support Division (SSD) operations serve as an example of vertical stock funds. "Because the SSD operates at both the wholesale and retail levels, it is a vertical operation" (6:29-13). This vertical concept of wholesale to retail operations permits the SSD to maintain inventory at inventory control centers (wholesale level) and at the same time distribute and maintain inventory (under SSD auspices) worldwide to Air Force operating locations (retail level). The items at the retail level do not become SSD sales until a customer at the base withdraws/purchases an asset from stock. What these events indicate is that movement of items from the wholesale level to the retail level do not constitute sales to the SSD. Only when the item is withdrawn from stock does it

against unbearably long lead-times and, at the same time,
offers Systems Division control and distribution of
inventory items (4:10).

Chapter 3

Stock Fund Benefits

Benefits From The Air Force Stock Fund (AFSF)

Why do we have a stock fund? Since stock funds operate on a revolving basis, the Air Force accrues several distinct advantages. The impetus to achieving the stock fund benefits lies in the health stock fund position or operating program. This health keys off of the revolving nature of stock funds and is maintained through capital control and inventory management. Here are five potential benefits:

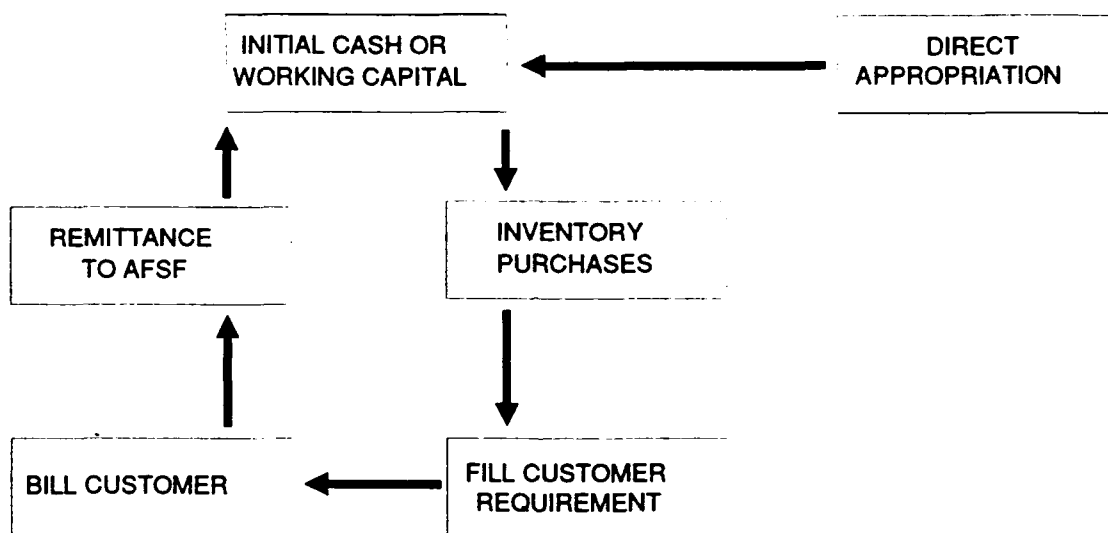
1. Holds stock.
2. Allows for quantity lot buys.
3. Frees from uncertainty of appropriations.
4. Allows for contracts to cut across fiscal years.
5. Does not penalize customer efficiency.

With the addition of two new stock fund divisions, several additional potential benefits exist. Those benefits are:

1. Covers repair costs for Depot Level Repairables.
2. Used to offset wholesale operating costs.

Figure 4 (10) depicts the AFSF cycle shows the chain of events and reflects the revolving nature of the stock fund process.

AFSF CONCEPTS STOCK FUND CYCLE



- BENEFITS
 - HOLDS STOCK
 - QUANTITY LOT BUYS
 - NOT SUBJECT TO PERTURBATIONS OF APPROPRIATED ACCOUNTS
 - CONTRACTS CAN CUT ACROSS FYs
 - REWARDS CUSTOMER EFFICIENCY

Figure 4. AFSF Concepts Stock Fund Cycle

All of the stock fund benefits listed in Figure 4 highlight two key considerations that constitute the effective management of stock funds. Stock fund management hinges on proper inventory management and capital control. These two concepts form the "bedrock" of stock fund management. Before proceeding into managerial aspects of stock funds, let's look at the Air Force Stock Fund and how it operates.

Defense Management Report Decision (DMRD) 901

OSD's concern with Air Force management of stock funds revolves around three major areas: inventory, outlays, and cash flow. In the past, the Air Force was charged with buying too much or not enough of the "correct" items, not carefully monitoring the stock fund process operationally, and the need to maintain stock fund liquidity (9:8). Defense Management Report Decision (DMRD) 901 emphasized the need to reduce Supply System costs. DMRD 901 indicated that the DOD spent close to \$30 billion regarding the purchasing and management of supplies and maintained approximately \$100 billion in on-hand inventories (1:3). Under the perception that DOD inventories were steadily increasing, proposed policy changes were enacted to produce at the minimum a 3% annual decrease in operating, purchasing, and management costs (1:3).

The report highlighted nine policy changes to accomplish the stated goal of reducing inventory related costs. These policy changes as stated in DMRD 901 are:

- 1) Move support costs now funded in O&M to the stock fund.
- 2) Provide sufficient obligational authority to permit multiple contracts with guaranteed minimums.
- 3) Fund drawings and technical data in the stock fund.
- 4) Allow holding and interest costs to encourage Just-In-Time inventory management.
- 5) Authorize the procurement of forgings and castings in the stock fund.
- 6) Provide visibility of operating and retail stocks to the wholesale inventory managers.
- 7) Stock items closest to vendor rather than closest to customer.
- 8) Retain returns at closest depot to reduce handling and transportation costs.
- 9) Provide specific goals to managers for increasing the use of commercial items (1:2-5).

To accomplish the goals listed above, Department of Defense implementation includes three thrusts. The first approach promoted the merger of stock fund operations into a single Department of Defense Stock Fund to ease cash management while simultaneously providing increased managerial flexibility (1:6). The second DMRD thrust stipulated that "there will be a uniform surcharge established for all commodities, including fuel, but excluding products sold to commissaries" (1:6). The final aim called for in DMRD 901 applied to local purchase and

stipulated: "... because the surcharge will probably exceed 30 percent, the policy of prohibiting local purchase for stock numbered items will have to be reenforced" (1:6). In brief, DMRD 901 came about due to an OSD perception that corrections to stock fund procedures were necessary to reduce inventory costs and allow for improved higher echelon management of stock funds. The directive outlined nine policy changes and provided three implementation plans.

Defense Management Report Decision (DMRD) 904

Defense Management Report Decision 904 posed the question regarding the feasibility of the Air Force and Army adopting the practice of stock funding reparable assets. The basis for this proposal stemmed from the Navy's success with the reparable approach throughout the past decade. The Navy witnessed a 20% reduction in customer demands of reparable assets (3:1).

Initially, the effects of stock funding depot level reparable (DLR) assets will appear transparent to Air Force customers during the transistion to stock funding DLRs (7). As of the time of this thesis, a planned "grace period" until the program transitions will be implemented. The current projection for charging the units for stock funded reparables is scheduled for FY 1994 (3:1). One of the key drivers behind the push for stock funded depot level reparables is to initiate a decrease in customer demands.

The thought is that by making the customers pay directly out of their own funds will generate a more frugal response toward spending stock fund dollars (3:2). Figure 5 (10) shows the spares requirements process with stock fund impacts. The concept of stock funding depot level reparables underlies the creation of the Repairable Support Division (RSD) which operates effective October 1990 (7). The depot level transaction flow at the base (retail) level is shown in Figure 6 (12).

SPARES REQUIREMENTS PROCESS

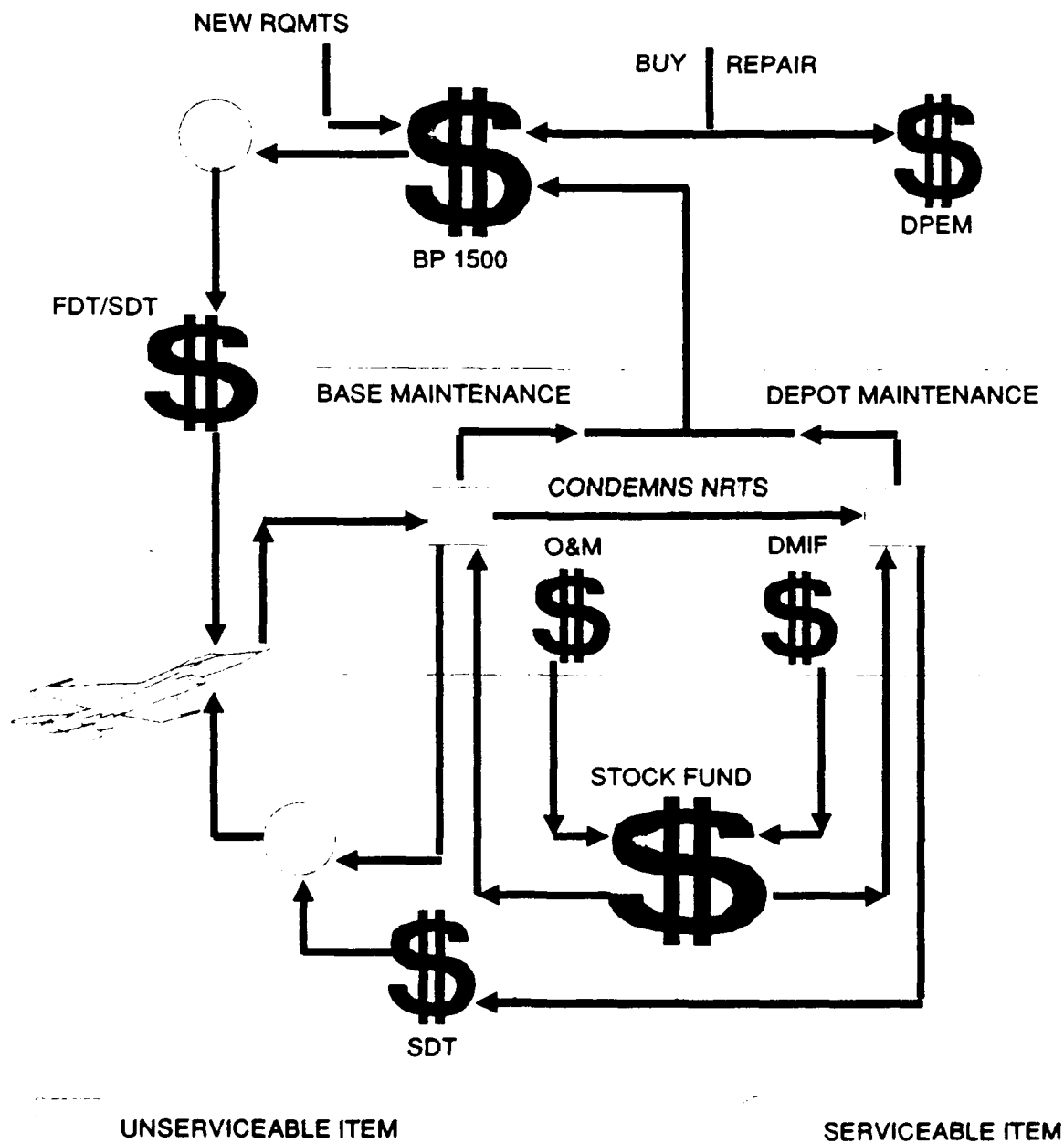


Figure 5. Spares Requirements Process

DLR STOCK FUND RETAIL TRANSACTION FLOW

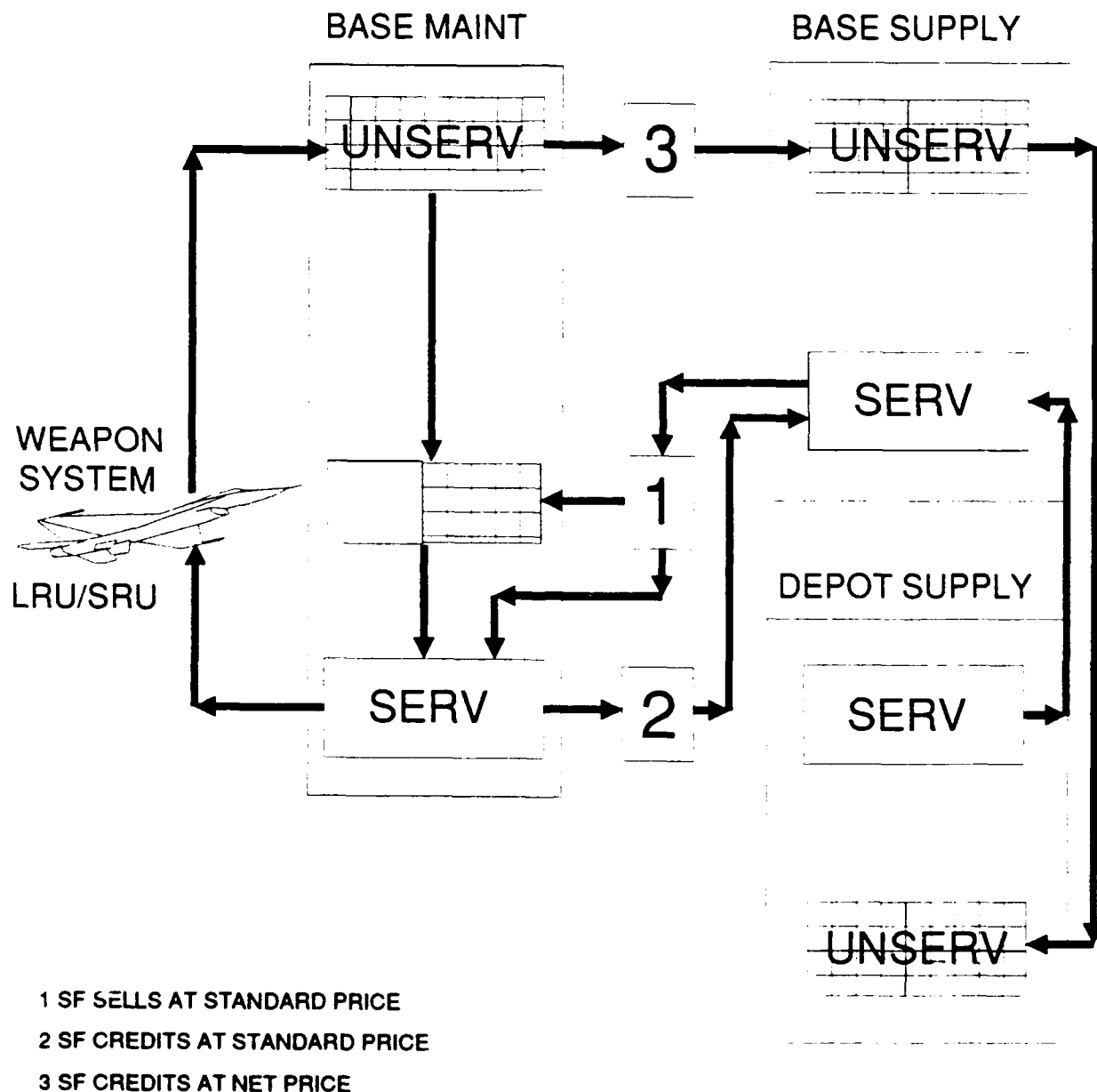


Figure 6. DLR Stock Fund Retail Transaction Flow

Chapter 4

Stock Fund Operations

The "Bedrock" of Stock Fund Management

In order to realize the full benefits from stock funds, inventory management and capital control provide the essential stability required to maintain positive control of critical resources. The key to understanding stock funds lies in a healthy understanding of inventory procedures and financial principles. The blending together of effective inventory management and capital control form the basis for effective stock fund management.

Inventory Management

For the purpose of stock funds, inventory management becomes more than just keeping material on the shelf. Inventory management incorporates customer demands, lead times, stockage levels, obligations, replenishment etc.

Capital Control

In the sense of stock funds, capital control is more than just balancing the books, albeit balancing the ledgers constitutes a key facet of stock fund accounting. Since maintaining the revolving nature of capital and resources is the lifeblood of the stock fund or working capital process, financial impacts drive the overall health of the Air Force

Stock Fund. In addition, the accounting aspects and inventory controls play significant roles in capital control. What must be remembered is that financial transactions and inventory transactions are inextricably related. For most stock fund supply transactions, several accounting and finance actions apply. In other words, when an item issues using stock funds, a chain of events occurs that impacts both the supply side and subsequently, the accounting and finance side (8).

Capitalization

Under capitalization, material and cash allocations from the U.S. Treasury are established and accounted for. It should be noted that capital includes inventory (on-hand and in-transit) and cash. Thus, the working capital or stock fund is used to buy additional inventory which is sold and the remittance returned to the capital fund (6:29-13). Refer to Figure 7 (10) which illustrates the cash flow and depicts the interrelationship between dollar resources and the inventory order process.

CASH FLOW

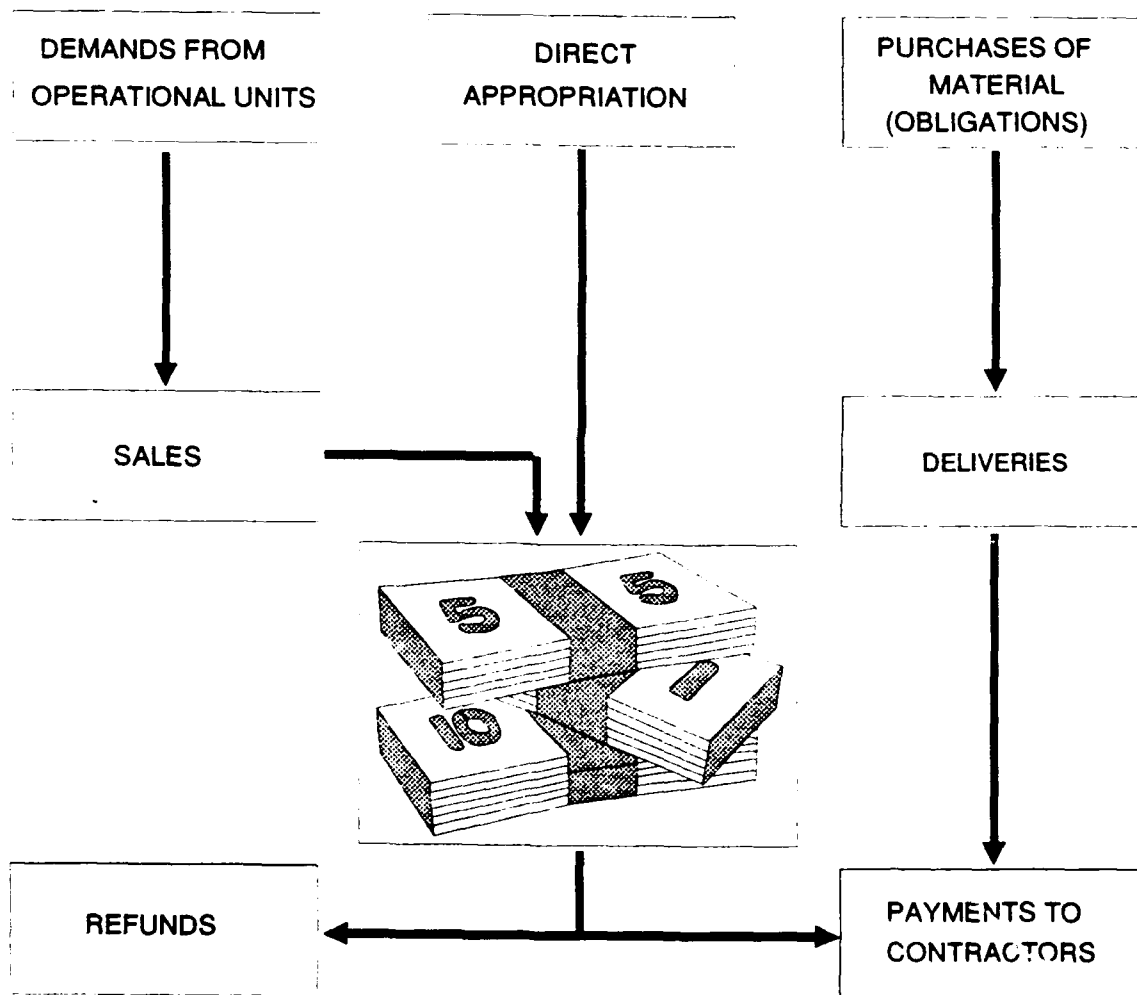


Figure 7. Cash Flow

Stock Fund Material Pricing

Stock fund pricing policies and procedures incorporates six aspects of standard prices. Single price is the first standard price.

Each catalogued item with a national stock number assigned which is managed by a DOD Inventory Control Point, except for a subsistence item sold to a commissary, shall have a one standard price for all sales to DOD and Coast Guard customers (2:4-1).

In addition to the standard price, there exists instances when price stabilization applies.

The stabilization of prices requires that the standard price for a catalogued item which is managed by a DOD Inventory Control Point, except for a clothing item required for a mandatory clothing bag or a subsistence item, shall be changed only at the beginning of the FY and shall remain constant throughout the FY (2:4-1).

The acquisition cost represents another feature of standard pricing and provides a basis for establishing an item's standard price.

For items without a procurement history, an acquisition cost may be estimated based upon current manufacturer's price listings or market price quotations. The acquisition cost of an item procured by means of a multiyear contract may include up front cost such as setup cost that will not be incurred in future years (2:4-1).

A fourth aspect of standard pricing that accommodates recovering operating expenses involving stock funded items is the application of a surcharge. The surcharge involves elements of transportation, inventory expense, inventory maintenance, and price stabilization (2:4-1).

Although the surcharge consists of several definable elements, the ultimate purpose of the

surcharge is to maintain an approved level of Funds with Treasury and consistency with the budget for DOD customers. A proposed surcharge to achieve these objectives shall be developed for each major material category and submitted to OASD for approval (2:4-1).

The surcharge offers a method to cover operating expenses and keeps planners in line with budgetary goals.

Publication serves as an additional pricing component. Pricing determinations are made prior to the execution year and published to provide advance notice. Where stock funded items stand as undelivered orders and unfilled orders, adjustments are made to the stabilized prices when notice of price changes arrive (2:4-2).

Finally, circumstances arise where authorized price changes become justifiable.

When a standard price is based upon an estimated acquisition cost, the price shall be revised when the actual acquisition cost becomes available and is significantly different from the estimated acquisition cost. In addition, significant errors in the computation of a price may be corrected during the FY. A price will not be changed during the FY based upon a procurement after the cut-off date for establishing the annual stabilized price (2:4-2).

The six aspects of standard pricing (single price, stabilization, acquisition cost, surcharge, publication, and authorized price changes) all affect the stock fund process. Each aspect impacts the sales of stock funded items (2:4-2).

Chapter Five

Managerial tools

Ratios

In order to balance cash flow with inventory growth, ratios serve as indicators. At the retail level, GSD applies a net demands-to-obligations ratio. At the wholesale level, SSD applies a sales-to-orders ratio. The optimal situation occurs when the ratio is exactly one to one indicating that as assets are sold, instantaneous replenishment occurs resulting in no change to the cash or inventory balance. Hence, the fund revolves as intended. In most cases, transactions do not process instantaneously. Lags occur between the request and receipt of property. Thus, the ratio does not equal 1 to 1. When the ratio exceeds 1 to 1, inventories grow. Conversely, when the ratio falls below 1 to 1, inventories decrease (11:7).

Total Financial Authority

Total Financial Authority (TFA) is a key financial operating concept which significantly influences stock funds. TFA consists of two components: obligation and commitment authority (6:19). The obligation authority may not equal the amount committed since obligations reflect customer requests and not commitment authority. These authorizations must not exceed the aggregate TFA.

Trend Analysis

As was mentioned earlier, inventory control is a key aspect of stock fund management. Stocking too much or stocking too little causes managerial problems which affect mission effectiveness. If managers have a springboard to predict appropriate stockage levels, they are more apt to have a healthy stock fund operating program. The proper development and application of trend analysis provides the manager with a method for accurately projecting future levels. By comparing past and present performance, the manager possesses information to base inventory decisions upon (6:29-125). Here is a list of key indicators a manager should monitor for the existence of trends:

- 1) Planned versus actual aggregate.
- 2) Percent of net sales to orders placed.
- 3) Percent of credit returns to gross sales.
- 4) Planned versus actual orders placed.
- 5) Percent of excess due-in to total due-in.
- 6) Planned versus actual gains/losses.
- 7) Sales by customer.
- 8) Credit returns (local) by customer.
- 9) Analysis of supply assets (6:29-125).

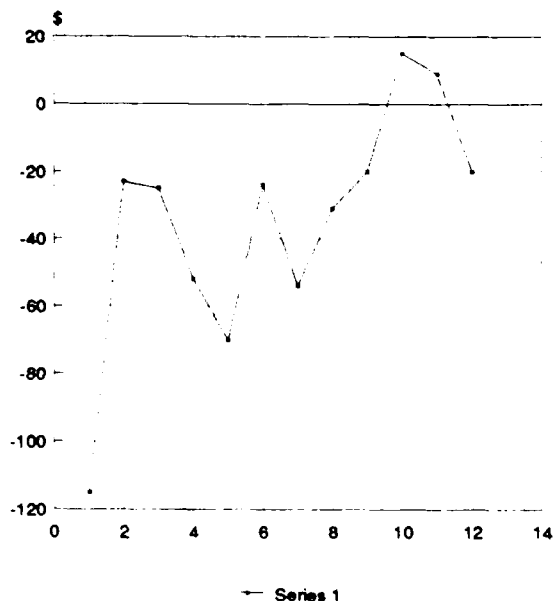
By observing or being aware of trends, the manager may preclude or "nip-in-the-bud" potential problems before they get out of hand.

Materiel Acquisition Control Record (MACR)

Some primary variables which prompt base level management action involving stock funds include budget constraints which limit available Organization and Maintenance (O&M) dollars, drops in customer demands, increased on-hand inventory, quarterly allocations of stock fund dollars, and end of year requirements carry-overs from prior fiscal years (2:1). How does a manager possibly deal with these variables and the uncertainty they introduce?

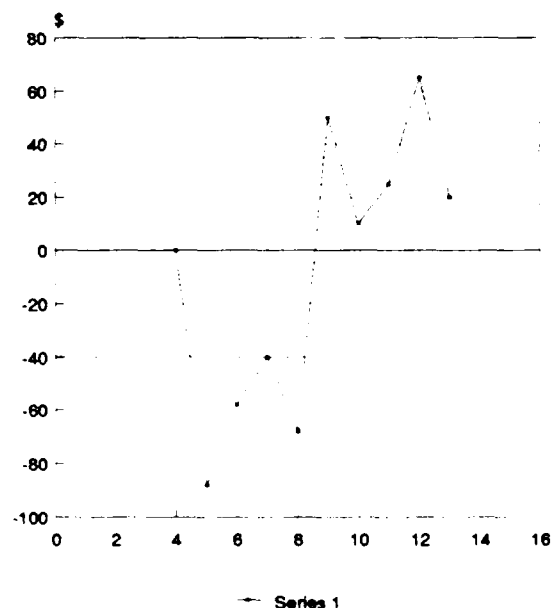
The manager cannot control all of the externalities that affect the health of the stock fund, but there is a control factor - the MACR. With the Materiel Acquisition Control Record (MACR), the manager (in supply) possesses the ability to adjust or prevent automatic requisitioning of assets (6:29-36). MACR factors are extremely useful for long range planning purposes, but must be monitored closely. If the manager fails to accurately assess or monitor the MACR, the impacts could be severe - resulting in either too little inventory or too much. What MACRs do for a manager is present a picture of "where you are, where you want to be, and how you will get there" (6:29). See Figure 8 (9:10).

MACR EFFECT BY MONTH IN REQUISITION \$(000)



NOTE: In this example, the horizontal (Zero - level) line serves as the baseline, using historical demand data. The jagged line below the baseline is the simulated dollar value of savings in requisitions for the month if MACR 5 were applied.

SHORT TERM EFFECT OF MACRs IN REQUISITION \$(000)



On the other hand, if the MACR constraints are lifted, the requisition dollar value will increase as shown in chart above.

Figure 8. MACRs

As a general rule, MACR controls (factor options) are applied if the stock fund manager anticipates or actually experiences a deficit in the stock fund operating program (value of anticipated requisitions is greater than the value of net orders placed) (9:3).

Such is not the case when demands remain constant or rise. In cases of increasing or constant demand, the application of MACRS results in a reduction of the total value of requisitions and reduced customer support. Under the same conditions, workloads increase at the base and depot levels. "...MACR factoring is only a short-term control mechanism and cannot be used to resolve long-standing stock fund shortfalls" (9:i). Base stock fund managers have the ability to determine potential MACR constraint impacts and can project stock fund dollar outlays (9:i). A stock fund analysis conducted by the Air Force Logistics Management Center produced five observations of which you should be aware. They are:

1. There is no right or wrong MACR factor. Each base-level stock fund manager has to apply MACR factors based on the health of their stock fund operating program and the mission of their base.
2. MACR factors will reduce the total dollar value of requisitions for a standard base supply account and will consequently reduce on-hand inventory. The amount of reduction is proportional to the severity of the MACR factor. Table 9 quantifies the amount of reduction for our six MACR alternatives.
3. MACR factors will only work to resolve short term (6 to 8 month) stock fund problems and cannot be used from one fiscal year to the next, unless net customer demands decline. If customer demands are on a decreasing trend line, MACR factoring is

an excellent tool to proactively control the outlay of stock fund dollars and the subsequent reduction in inventory.

4. Application of the MACR factor will reduce customer support (backorders increase) and generate additional workload for both the retail (receipt processing) and wholesale (requisition processing and shipping) systems. Table 9 quantifies the projected impact for each alternative that we evaluated.
5. Holding funds requirement cards (FRC) at base level for secondary review will reduce customer support and increase workload without any real savings (9:13).

In addition to the findings compiled from the stock fund analysis research, two recommendations include:

1. A copy of this analysis should be provided to all GSD stock fund managers to help manage (control) the outlay of stock fund dollars and project the impact of their MACR options.
2. MACR factoring options should be used to control the AF stock fund (AFSF) when customer demands are on the decline or to correct short term deviations in the AFSF operating program; however, we do not recommend MACR factoring as a long term solution to correct year-to-year stock fund orders to sale ratio imbalances (9:13).

Using MACRs, base stock fund managers can manage stock funds more effectively while also projecting outlays. MACR application also provides managers with the capability to identify impacts on customer support, requisition dollar values, and workload considerations (9:i).

Chapter Six

Key Management Reports And References

Management Reports

There exist numerous reports and listings to provide crucial stock fund information. Not all of the reports that are instrumental to effective stock fund management are stock fund reports. Some are supply reports, while others are accounting and finance reports. In order to provide a quick reference list of important management reports useful to an executive, the key reports are presented next. These reports provide indicators for analysis, performance monitorship, and oversight of stock fund processes, as well as related aspects of inventory management and capital control.

- D07. This report provides end of day item record (item record) and general ledger accounts (GLA) updates.
- D08. This report is the Materiel Acquisition Status Report. The report provides daily updates of actual orders placed versus the ordering authority the operating program.
- D20. This report is the Base Supply Surveillance Report. The D20 provides transaction data for all nonreimbursable issues, due-outs, due-out releases shipments, and credit turn-ins (6:29-45 - 29-69).
- M01. This report is the Stock fund on order intransit, payable list. It provides information to the division concerning on order, intransit, and payable accounts.

- M18. The M18 provides information to analyze and manage the stock fund operation. The report serves as a quality control tool.
- M20. This report is the Stock Fund Stratification Program and presents the inventory of the day the report generates.
- M36. This report is the Accounting and Finance (A&F) Stock Fund Due-Out Reports.
- M37. This report is the Local Purchase (LP) and MILSTRIP Research and Follow-up List.
- R04. This report is the Funds Requirement Code update/analysis. The R04 provides a current file of Funds Requirement Code (FRC) outputs and lists dollar requirements by budget code and system designator.

Information for the reports listed above is located in AFM 67-1, Volume II, Part Two, Chapter 29. AFM 177-206, Chapters 5 and 6 also provides information on the reports listed above.

References

Some key literature you as a stock fund manager may choose to review is listed below with a brief description of the purpose of each:

- AFR 145-1 Provides detailed procedures for the Commissary Division AFSF.
- AFR 170-25 This regulation establishes policies and procedures for the Air Force Stock fund. It gives explanations of the accounting and finance system for Air Force operations.
- AFR 177-23 Provides detailed Commissary Division AFSF accounting and budgetary policy and procedures.

- AFR 177-101 Provides Accounting and Finance procedures including the military Standard Billing System (MILSBILLS).
- AFR 177-102 Details procedures and policies for payment.
- AFM 67-1, Volume I, Part Three, Chapter 1
Provides detailed Fuels Division AFSF procedures and policies for bulk petroleum fuels stock fund management.
- AFM 67-1, Volume I, Part Three, Chapter 4
Provides detailed Fuels Division AFSF procedures and policies for missile fuels stock fund management.
- AFM 67-1, Volume I, Part Three, Chapter 5
Provides detailed System Support Division AFSF procedures and policies for centrally procured expense items.
- AFM 67-1, Volume I, Part Three, Chapter 6
Provides detailed General support division AFSF procedures for retail (base) managed expense items.
- AFM 67-1, Volume II, Part Two Chapter 29
Provides procedures for financial management for the Standard Base Supply System (SBSS).
- AFM 67-1, Volume V Provides detailed AFSF procedures for the Medical-Dental Division.
- AFM 167-230 Provides detailed procedures for the Medical Readiness Assemblage Materiel System.
- AFM 167-240 Provides detailed procedures for the Medical Materiel Management System.
- AFM 177-106 Provides detailed AFSF materiel policy and accounting procedures.
- AFM 177-206 Provides detailed procedures for the automated standard base supply system (SBSS) accounting.

- AFM 177-321 Provides detailed procedures for AVFUEL Management Accounting System (AMAS).
- AFM 177-370 Provides detailed procedures for the automated accounts receivable and merged accountability and fund reporting (MAFR).
- AFM 177-375 Provides procedures for augmenting the medical-materiel accounting system.
- AFM 177-381 Provides detailed procedures for the automated general ledger accounting and reporting system.
- DOD 4000.25-7M Provides detailed procedures for the Military Standard Billing System (MILSBILLS).
- DOD 7200.1 Provides information on control of appropriations.
- DOD 7420.13-R Details policy and procedures for stock fund operations. Topics include: stock fund item pricing, sales, issues, loans, and leases, fabrication, testing, repair, and preservation of stocks, returns, and stock fund reports (5:13).

Chapter 7

Conclusion

This handbook did not give you everything there is to know about stock funds. However, the handbook did present the leader with an executive's overview of the key concepts involved with the stock fund process. The handbook also presented some tools and references to point the manager in the right direction if he chooses to increase his knowledge of stock fund management.

In order to truly master stock funds, the executive manager must stay involved with changes to the stock fund process, as well as stay informed as to the health of the operating program. The stock fund managers are the experts and provide a wealth of knowledge on the process. The executive who gets involved in the process, and knows how stock funds work, will be better equipped to make crucial decisions involving capital and inventory resources.

Glossary

Air Force Stock Fund Terminology

Terms Explained. Readers must recognize that terms used to explain stock fund concepts convey differing information depending on the application within various activities in the Department of Defense. The following terms were taken in whole or abbreviated from AFM 67-1, Vol II, Part Two; AFM 67-1, Vol I, Part Three; and DOD 7420.13-R.

Aggregate. The sum of values of inventory on hand and due-in.

Accountability Record. Detailed line item inventory record reflecting the current price, unit of issue, and status for each stock number in terms of the quantity in transit and onhand. The onhand portion of the records may include detailed identification by condition, purpose, and location.

AF Stock Fund. A stock fund is a system for holding in suspense the costs of consumable materiel from the time they are incurred; that is, when the materiel are acquired, until the items are issued for use. Within the AF stock fund, there are six administrative divisions. For operating purposes, however, each division is an independent operation and consequently is usually referred to as a stock fund.

Apportionment. The process whereby a limit is imposed upon the amount of obligations that may be incurred within a fiscal year.

Appropriated Force Acquisition Objective. The quantity of an item authorized to be acquired to support U.S. Forces in accordance with latest Secretary of Defense guidance. See DOD Directive 4100.37.

Capitalization. The transfer of responsibility and control of inventory, as in transfer of supply accounts to the stock fund, is capitalization of inventory.

Capitalized Inventories. The acquisition of ownership of inventories by a stock fund from other DOD appropriations or funds without reimbursement.

Catalogued Item. An item with a stock number or part number assigned, published in the Defense Automated Supply Catalogue.

CLSSA Inventory Investments. Funds received from a foreign government under a Cooperative Logistics Supply Support Arrangement to procure an additional level of inventory stockage for the foreign government. The additional level of inventory is necessary to ensure timely response to the needs of the foreign customer and to preclude the satisfaction of foreign government requirements from impacting the capability to satisfy DoD requirements.

Contract Authority. Statutory authority that permits obligations to be incurred in advance of appropriations or in anticipation of receipts from customers. (By definition, contract authority is unfunded and subsequently must be funded by an appropriation to liquidate obligations incurred under the contract authority, or by the collection and use of receipts from customers).

Expense Items. Criteria for defining expense items are prescribed by AFR 170-14. Stock fund items financed from stock fund appropriations. Expensing is a transaction in which a customer pays for materiel received. The customer reimburses the stock fund at time of issue. The customer does not necessarily consume the supplies immediately following the expensing process since the organization is authorized to maintain levels of certain items such as bench stocks. For accounting purposes in both the Supply System and the Financial Cost System, consumption and expensing are regarded as events that both occur at the time of issue. Refer to Volume I, Part Three, for specific types of items in each division.

Funds With Treasury. Represents the fund balance on the books of the Treasury. The account is increased for funds made available by appropriation, advances, transfers in, collections, and refunds. The account is decreased by transfers out, withdrawals, and disbursements.

General ledger accounts. A three-digit accounting code used to identify a major account series. See AFR 170-25 for explanations of GLAs.

Government-Furnished Material. DOD-owned personal property provided to a contractor for use in the manufacture, fabrication, assembly, disassembly, repair, or other function as stated in the contract.

Horizontal Stock Fund. A "horizontal" stock fund operates only at one level; that is, either retail (base) level or at

the wholesale (depot) level. An example of a horizontal type stock fund is the GSD, since it has inventories only at base level. Each time the GSD at the base is required to acquire inventory from the source of supply, GSD funds are used to pay for the items obtained. Items may be moved laterally (horizontally between bases in certain cases) but the accounting records reflect only an intra-stock fund transfer since the items remain in the GSD until expensed to the user.

Intra-Stock Fund Transfers. Transfers of items between capitalized activities within the SSD or GSD of the stock fund; that is, between depots, depot to base or between bases, will be treated as intra-stock fund transfers. No reimbursement will be required for such transactions.

Inventory and Capital Control (ICC). A technique of managing the Air Force stock fund by using an approved operating program which contains monthly objectives of inventory on hand, on order, commitment, and in transit. This system is used instead of apportionment and obligation authority limitations. Procurement is done only as required to meet anticipated sales and to maintain the planned inventory objectives. The Stock Fund Operating Program (SFOP) is the basic management tool used.

Inventory Augmentation. Peacetime requirements for the initial purchase of stock funded materiel needed to support inventory increases for force modernization, force modifications, or readiness and sustainability initiatives.

Investment Items. Air Force-managed items (ERRCD, ND, XD, NF) financed from central procurement appropriations. These appropriations are distinctly separate from the stock fund division.

National Inventory Control Point. An Activity designated as responsible for the procurement, management, and distribution of a stock numbered item for the Department of Defense or the Federal Government.

Obligated due-out. A due-out detail record containing a fiscal year of obligation.

Operating Capital. The operating capital of the stock fund includes the current assets of the fund comprised of cash available for disbursement, accounts receivable, available inventories of materiel (inventories on hand and in transit), and other assets. The total of these assets is offset by the liabilities (accounts payable, etc) of the stock fund to arrive at the net operating or working capital of the stock fund. The net capital of the fund becomes the

"capital control" objective of the inventory and capital control system and procedures. The amount of inventory is controlled by requiring each primary stock fund manager to meet their inventory objectives as reflected in the approved operating program.

Primary Stock Fund Manager. The individual in charge of each capitalized activity operating under a stock fund operating program (Chief of Supply, AFLC SM, AFLC, IM, etc) will be considered a primary stock fund manager and will be responsible for managing the stock fund inventories in their individual operating program (s).

Reconciliation. The process of balancing two or more files of data.

Reimbursable Procurement. The procurement of an item as an agent for a customer shall reimburse directly the appropriation or fund incurring the obligation.

Requisitioning objective (RO). The value of the demand level as modified by adjusted stock levels.

Resource Management System (RMS). A DOD system concept for internal budgeting and accounting. The RMS includes both management of stock funds and customer operations and maintenance (O&M) funds. The Stock Fund Operating Program (SFOP) is used to manage stock funds. The principal management tool used to manage the O&M funds is the operations operating budget (OOB).

Revolving Fund. A funding concept that allows the use of funds received from sale of items or services to customers to acquire assets for resale to customers. For example, a stock fund sells parts to a customer and uses the funds collected from the customer to pay for parts acquired to restock its inventory.

Stock Fund. A revolving fund or a working capital fund which finances inventories and generates income by selling such materiel to the requiring activity/customer.

Stock Fund Operating Program (SFOP). An authorized program which contains projected sales, gains, losses, transfers in, transfers out, and new orders placed with the various sources of supply. The end of the year on-hand inventory and on-order inventory are also forecast and all of the items are time-phased on a monthly schedule.

Stratification. A display of the computed base-level value for requirements, on hand, on order, in transit, and the committed assets applied to those requirements. Within the

stock fund, the term stratification refers to the display of requirements and assets in the Stock Fund Stratification Report (M20) at base level or the Table III consolidated Status and Transaction Statement at command and division level.

Surcharge. A charge added to the product cost to compensate the stock fund for transportation cost, estimated foreseeable net stock losses such as pilferage, damage, deterioration, physical inventory shortages, other losses and other authorized expenses. The rate of surcharge varies from division to division.

Trial Balance. The trial balance is a summary of general ledger transactions which represent the official accounting records. The trial balance will include all general ledger transactions recorded during the current month, the previous balances and the ending balances for all general ledger accounts. The general ledger affected is determined by the applicable fund code as assigned to each stock fund division. The trial balance must be reconciled to the supply records and furnished to the command accounting and finance officer on a monthly basis.

Working Capital Fund. Stock fund assets of cash, orders outstanding, and inventory. The working capital can be thought of as the funds tied up at all times in inventory, orders outstanding, and in maintaining a working cash balance. In this way, stock fund assets represent the total financial resources needed to bring goods to the customer. As customers buy these goods, they provide funds for continuing the process.

Acronyms

The following Acronyms were taken from AFR 170-25.

ACA	Accounts Control Area
ADSN	Accounting and Disbursing Station
A&F	Accounting and Finance
AF	Air Force
AFA	Air Force Academy
AFAFC	Air Force Accounting and Finance Center
AFO	Accounting and Finance Office(r)
AFPRO	Air Force Plant Representative Office
AFSF	Air Force Stock fund
ALC	Air Logistics Centers
AOP	Approved Operating Program
BAFO	Base Accounting and Finance Office
BCE	Base Civil Engineer
BDO	Blanket Delivery Order
BFMO	Base Fuels Management Office(r)
BMSO	Base Medical Supply Office(r)
BNR	Billed Not Received
BOP	Beginning of Period
BPA	Blanket Purchase Agreement
CAFO	Command Accounting and Finance Office(r)
CFY	Current Fiscal Year
CIC	Customer Identification Code
CIO	Customer Item Order
CLSSA	Cooperative Logistic Supply Support Arrangement
COB	Close of Business
COS	Chief of Supply
DCASR	Defense Contract Administration Services Region
DESC	Defense Electronics Supply Center
DFSC	Defense Fuel Supply Center
DGSC	Defense General Supply Center
DIC	Document Identifier
DIFM	Due In From Maintenance
DISC	Defense Industrial Supply Center
DLA	Defense Logistics Agency
DOD	Department of Defense
DPSC	Defense Personal Support Center, Defense Petroleum Supply Center
DRMO	Defense Reutilization and Marketing Office
DSSN	Disbursing Station Symbol Number
EAID	Equipment authorization inventory data
EEIC	Element of Expense/Investment Code
ERRC	Expendability, Recoverability, Reparability Code
EOM	End of Month
FDT	First Destination Transportation
FET	Federal Excise Tax
FIA	Financial Inventory Accounting
FMS	Foreign Military Sales

FSG	Federal Supply Group
GFM	Government-Furnished Materiel
GL	General Ledger
GLA	General Ledger Account
GLSA	General Ledger Subsidiary Account
GSA	General Services Administration
GSD	General Support Division
IPC	Information Processing Center
ISSA	Interservice Support Agreement
MACR	Materiel Acquisition Control Record
MAFR	Merged Accountability and Fund Reporting
MAJCOM	Major Command
MAP	Military Assistance Program
MDS	Mission Design Series
MEDRAMS	Medical Readiness Assemblage Materiel System
MEMO	Medical Equipment Management Office
MICAP	Mission Capability
MILSBILLS	Military Standard Billing System
MILSCAP	Military Standard Contract Administration Procedures
MILSTRIP	Military Standard Requisitioning and Issue Procedures
MITR	Monthly Inventory Transaction Report
MSC	Military Sealift Command
NSN	National Stock Number
OAC	Operating Agency Code
OB	Operating Budget
OBAN	Operating Budget Account Number
OP	Operating Program
OSSF	Other Service Stock Fund
PFMR	Project Funds Management Record
PFY	Project Fiscal Year
POD	Port of Debarkation
POE	Port of Embarkation
POL	Petroleum, Oil, and Lubricants
PR	Purchase Request
PTFM	Peacetime Force Materiel Requirement
RID	Routing Identifier Code
RNB	Return Not Billed
SAFO	Special Accounting and Finance Office
SF	Stock Fund
SFGL	Stock Fund General Ledger
SFIMR	Stock Fund Inventory Management Record
SMA	Subject Matter Area
SRAN	Stock Record Account Number
SSD	Systems Support Division
STANAG	Standard NATO Agreement
TAC	Type of Address Code
TID	Type Issue Defuel
TRIC	Transaction Identification Code
UOO	Undelivered Orders Outstanding
WRM	War Reserve Materiel

Bibliography

1. Department of Defense. Reducing Supply System Costs
Defense Management Report Decision 901. Washington:
HQ USAF, 6 November 1989.
2. Department of Defense. Stock Fund Operations DOD
Directive 7420.13-R. Washington: Government Printing
Office, June 1986.
3. Department of Defense. Stock Funding of Reparables
Defense Management Report Decision 904. Washington: HQ
USAF, 10 November 1988.
4. Department of the Air Force. Justification of Amended
Fiscal years 1988/1989 Biennial Budget Estimates
Submitted To Congress February 1988.
5. Department of the Air Force. USAF Regulation,
Procedures In Support of Stock Fund. AFR 170-25.
Washington: HQ USAF, 15 December 1986.
6. Department of the Air Force. USAF Supply Manual. AFM
67-1, Vol II Part Two. Washington: HQ USAF, 1 November
1987.
7. Farver, Art, Repair Support Division Lead. Personal
interview. HQ AFLC, Wright-Patterson AFB OH, 11 July
1990.
8. Franklin, Ann, Systems Accountant. Telephone interview.
HQ Air Force Accounting and Finance Center, Lowry AFB
CO, 13 Aug 1990.
9. Faulkner, Wayne, and Gale Jarnagin, Chuck Miller, and
LT Col Chet Matthews. "Stock Fund Analysis." AFLMC
Final Report LS890212, Air Force Logistics Management
Center, Gunter AFB AL. (June 1989).
10. Hyde, Hazel. "Air Force Stock Funds." Briefing slides.
Air Force Logistics Command, Wright-Patterson AFB OH.
11. Rasmussen, Colonel Robert K. "General Support Division
of the Air Force Stock Fund: What Are The Problems And
Proposed Solutions?" Air War College, Air University
Paper, Maxwell AFB AL, April 1990.
12. Simmons, Colonel James. "Trip Report, Depot level
Reparable (DLR) Stock Fund General Officer's Steering
Group." Arlington VA, 4 May 1990.

This page intentionally left blank.

Bibliography

1. Bailey, Jeff. "Logistics Management List of Prospective Interviewees." Written Correspondence. Air Force Logistics Management Center, Gunter Air Force Station, Montgomery AL: 8 November 1989.
2. Bailey, Jeff. "Study Proposal Project Priority Submission: Executive Handbook for Stock Fund Management" (AFLMC Form 13). Air Force Logistics Management Center, Gunter Air Force Station, Montgomery AL: 14 August 1989.
3. Becket, Allen, Deputy Division Chief Supply Fuels Plans and Policy. Telephone interviews. HQ USAF, Washington DC, 17 July through 18 July 1990.
4. Christiensen, Colonel Michael, Chief of Supply Systems Management Division. Telephone interview. HQ Tactical Air Command, Langley AFB VA, 27 July 1990.
5. Creagher, Cynthia. "Format Design Help Your Readers Use Your Manuals." 33rd International Technical Communication Conference Proceedings STC Society For Technical Communication: W&E-147-150 (1986).
6. Daniele, Fred, Chief of Supply Systems Management Division. Telephone interview. HQ Air Force Systems Command, Andrews AFB MD, 17 July 1990.
7. Department of Defense. Reducing Supply System Costs Defense Management Report Decision 901. Washington: HQ USAF, 6 November 1989.
8. Department of Defense. Stock Fund Operations. DOD Directive 7420.13-R. Washington: Government Printing Office, June 1986.
9. Department of Defense. Stock Funding of Reparables Defense Management Report Decision 904. Washington: HQ USAF, 10 November 1988.
10. Department of the Air Force. Justification of Amended Fiscal Years 1988/1989 Biennial Budget Estimates Submitted To Congress February 1988.
11. Department of the Air Force. USAF Manual. AFM 67-1, Vol I Part Three. Washington: HQ USAF, 26 August 1986.

12. Department of the Air Force. USAF Supply Manual. AFM 67-1, Vol II, Part Two. Washington: HQ USAF, 1 November 1987.
13. Department of the Air Force. USAF Regulation, Procedures In Support of Stock Fund. AFR 170-25. Washington: HQ USAF, 15 December 1986.
14. Doheny-Farina, Stephen. "Usability Testing In The Field." International Technical Communication Conference Proceedings STC Society For Technical Communication: 252-255 (1986).
15. Draudt, Joseph, Systems Support Division Lead. Personal interview. HQ AFLC, Wright-Patterson AFB OH, 6 July 1990.
16. Emory, William C. Business Research Methods. Homewood IL: Richard D. Irwin Inc., 1985.
17. Farver, Art, Repair Support Division Lead. Personal interview. HQ AFLC, Wright-Patterson AFB OH, 11 July 1990.
18. Faulkner, Wayne, and Gale Jarnagin, Chuck Miller, and LT Col Chet Matthews. "Stock Fund Analysis." AFLMC Final Report LS890212 Air Force Logistics Management Center. (June 1989).
19. Franklin, Ann, Systems Accountant. Telephone interview. HQ Air Force Accounting and Finance Center, Lowry AFB CO, 13 August 1990.
20. Hanks, Christopher H. "The Air Force Stock Fund and Aircraft Availability." Note AF 301-4: Logistics Management Institute (LMI), Bethesda MD. 1-1 - 4-24 (October 1984).
21. -----, Will H. Horn, and John F. Olio. "Stock Fund Operations In The Department of Defense." MDA903-85-C-0319 (Task ML420): Logistics Management Institute, Bethesda MD. (April 1985).
22. Herrian, Joyce, Program Manager General Support Division. Personal interview. HQ AFLC, Wright Patterson AFB OH, 2 July 1990.
23. Hyde, Hazel, General Support Division Lead. Personal interview. HQ AFLC, Wright Patterson AFB OH, 2 July 1990.

24. Kerr, Richard H. "Testing Usability," Proceedings, 30th International Technical Communication Conference: W&E-122-124 (1983).
25. Lenehan, Robert W. "Style of Writing And Ease Of Use," Proceedings, 29th International Technical Communications Conference: W67-W69 (1982).
26. Matthews, Lt Col Edward C., Director Supply Logistics. Telephone Interview. AFLMC, Gunter AFB AL, 23 July 1990.
27. McCants, John H., Chief Funds Management. Personal Interview. HQ MAC, Scott AFB IL, 20 July.
28. Meinhart, Richard. "Stock Fund Update," Briefing presented at World Wide GSD Stock Fund Conference, meeting minutes and slide contents. AFLC/MMMS, Wright Patterson AFB OH. 14-17 November 1989.
29. Milligan, Tom. Technical Writer. Personal interview. O'Neill and Associates, Inc., Dayton OH, 27 December 1989.
30. Mobely, Marie, Chief Repairable Support Division. Personal interview. HQ AFLC, Wright-Patterson AFB OH, 18 July 1990.
31. Neufeld, Jacqueline K. A Handbook For Technical Communication: Englewood Cliffs, NJ: Prentice Hall Inc. 1987.
32. O'Clarien, Jack. World Wide Stock Fund Conference Briefing Notes. 15-19 November 1989.
33. O'Clarien, Jack. Command Stock Fund Manager. Personal interview. HQ TAC, Langley AFB VA, 23 July 1990.
34. Overby, Jim, Command Stock Fund Manager. Telephone interview. HQ SAC, Offutt AFB NB, 25 July 1990.
35. Raffaldi, John D. "Evaluating Readability Assessment Techniques As Writing Aids," 35th ITCC Technical Communications Proceedings, STC Society For Technical Communications: WE-139-141 (1988).
36. Rasmussen, Colonel Robert K. "General Support Division of the Air Force Stock Fund: What Are The Problems And Proposed Solutions?" Air War College, Air University Paper, Maxwell AFB AL, April 1990.

37. Redish, Janice C. and Jack Selzer. "The Place of Readability Formulas in Technical Communication," Technical Communication: 46-51 (Fourth Quarter 1985).
38. Samuels, Marilyn S. The Technical Writing Process. New York: Oxford University Press, 1989.
39. Sides, Charles H. "Reassessing Readability Formulas," Proceedings 29th International Technical Communications Conference: E-106-109 (1982).
40. Silverstein, Ann Parker. "Writers/Editors as Interviewers or The Art of Interviewing: How to Play Twenty Questions And Get Good Answers With The Tape Recorder Running" 30th ITCC Proceedings International Communications Conference: W&E-129-131 (1983).
41. Simmons, James Col., Chief of Supply Systems Management Division. Personal interview. HQ MAC, Scott AFB IL, 20 July 1990.
42. Southard, Sherry G. "Beyond Words To Effective Instructions And Manuals: Formatting Considerations" International Technical Communications Conference Proceedings Society For Technical Communications: 203-204 (1986).
43. Stratton, Charles R. Technical Writing Process and Product. New York: Holt, Rinehart and Winston, 1984.
44. Thorogood, Roger, Command Stock Fund Manager. Personal interview. HQ MAC, Scott AFB IL, 20 July 1990.
45. Triplett, Vicky, Chief of Supply Resources Branch. Personal interview. HQ MAC, Scott AFB IL, 20 July 1990.

VITA

Captain Raymond T. Daly Jr. was born 6 January 1958 in Jersey City, New Jersey. He attended high school and graduated from St. Peter's Preparatory School. In 1976, he enlisted in the Air Force and served as an Alert Force Controller at Loring AFB, Maine. In 1979, he went to the United States Air Force Academy Prep School. Upon graduation from the Prep School, he received an appointment to the United States Air Force Academy. He graduated in 1983 with a Bachelor of Science degree. He was assigned to 363 TFW Supply Squadron as Chief, Material Management Branch. In 1985, he became the Assistant Chief, Material Storage and Distribution Branch. In May of 1986, he attended Squadron Officer's School in residence. In September, 1986 he reported to the 36th TFW, Bitburg, Germany. He took over as the Operations Support Section Officer-In-Charge. From May 1987, he served as the Chief, Material Management Branch, until entering the School of Systems and Logistics, Air Force Institute of Technology, in June 1989.

Permanent Address: 11930 Mtn Laurel Drive
Richmond, Virginia 23236

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, 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.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE September 1990	3. REPORT TYPE AND DATES COVERED Master's Thesis		
4. TITLE AND SUBTITLE Development Of An Executive Level Stock Fund Handbook		5. FUNDING NUMBERS		
6. AUTHOR(S) Raymond T. Daly, Captain, USAF				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Air Force Institute of Technology, Wright Patterson AFB OH 45433-6583		8. PERFORMING ORGANIZATION REPORT NUMBER AFIT/GLM/LSR/90-13		
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSORING / MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION / AVAILABILITY STATEMENT Approved for public release; distribution unlimited		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) This study developed a handbook for executive level stock fund managers. The Air Force Logistics Management Center requires a single source of information for stock fund processes and procedures. Current literature to develop a handbook, regulations, pamphlets, and manuals on stock funds was examined. a set of questions served as a interview instrument. Sixteen experts were chosen by the Logistics Management Center for interviews. These interviews formed the basis including material in the handbook. The interviews indicated that stock fund experts believe a handbook is needed. The managers cited captial control and inventory management as crucial areas for understanding. The handbook incorporated their recommendations. The research focused on executive stock fund operations. Additional research includes the need for a technician's handbook. Also, research for the reparable Support and Cost Operations Divisions is needed. Depot Level Reparables also needs research.				
14. SUBJECT TERMS Stock Funds, Technical Writing, MACRs, General Support Division Systems support Division, Reparable Support Division, capital			15. NUMBER OF PAGES 219	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL	