

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

2

NAVAL POSTGRADUATE SCHOOL

Monterey, California

AD A127363



THESIS

AN ANALYSIS OF
CAPITALIZATION OF PROPERTY
IN THE U.S. COAST GUARD

by

Thomas Ford Conlan

December 1982

Thesis Advisor:

J. M. Fremgen

DTIC FILE COPY

Approved for public release; distribution unlimited

83 04 28 099

DTIC
ELECTE
APR 28 1983
S
E

field research at the USCG Group Office, Monterey, California. After consideration of issues relevant to capitalization problems in current practice, improvements to the system are recommended.

This thesis concludes that, with proper implementation, the system will provide the required control. Recommendations are concerned with correcting the system's implementation problems.



Accession For	
NTIS GRA&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	



Approved for public release; distribution unlimited

An Analysis of
Capitalization of Property
in the U.S. Coast Guard

by

Thomas Ford Conlan
Lieutenant, United States Coast Guard
B.A., Tarkio College, 1977

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

from the

NAVAL POSTGRADUATE SCHOOL
December 1982

Author:



Approved by:


_____ Thesis Advisor

Second Reader


_____ Chairman, Department of Administrative Sciences


_____ Dean of Information and Policy Sciences

ABSTRACT

This thesis studies the system used by the Coast Guard to capitalize property. Capitalization impacts upon both the physical accountability for property and the accuracy of financial records. The system for property capitalization and control is analyzed first by reviewing the accounting principles applicable to all Federal agencies. Implementation of the property accounting system is then evaluated through field research at the USCG Group Office, Monterey, California. After consideration of issues relevant to capitalization problems in current practice, improvements to the system are recommended.

This thesis concludes that, with proper implementation, the system will provide the required control. Recommendations are concerned with correcting the system's implementation problems.

TABLE OF CONTENTS

I. INTRODUCTION 11

II. BACKGROUND 14

III. FEDERAL ACCOUNTING STANDARDS 19

 A. GENERAL ACCOUNTING OFFICE 19

 1. General 19

 2. Uses of Accounting Records 20

 3. Standards 20

 a. General 20

 b. Fixed Asset Accounting 25

 c. Property Accounting Standards 26

 B. DEPARTMENT OF TRANSPORTATION 29

 1. General 29

 2. Significant DOT Property Accounting Principles 31

 C. GENERALLY ACCEPTED ACCOUNTING PRINCIPLES 33

IV. ACCOUNTING FOR FIXED ASSETS--COAST GUARD POLICY 35

 A. SOURCE OF POLICY 35

 B. GENERAL PRINCIPLES AND STANDARDS 35

 C. CLASSIFICATIONS OF PROPERTY 37

 D. REAL PROPERTY ACCOUNTING 38

 1. Capitalization Policy 38

 2. Valuation Policy 40

 3. Reporting Requirements 40

	4. Flow of Accounting Information	41
E.	PERSONAL PROPERTY ACCOUNTING	41
	1. Capitalization Policy	41
	2. Valuation Policy	41
	3. Personal Property Accountability System (PPA)	41
	4. Review	43
V.	IMPLEMENTATION OF CAPITALIZATION POLICIES--USCG GROUP MONTEREY	48
	A. THREE LEVELS OF ACCOUNTING RESPONSIBILITY	48
	B. RESEARCH SCOPE AND METHODOLOGY	50
	C. OVERVIEW OF USCG GROUP MONTEREY	51
	D. REAL PROPERTY ACCOUNTING--GROUP MONTEREY	52
	1. Historical Accounting Records	52
	2. 4700--Real Property Acquisitions in Process	63
	3. Field Level Capitalization--Real Property	66
	E. PERSONAL PROPERTY ACCOUNTING--GROUP MONTEREY	68
	1. Statistical Model--Hypergeometric Distribution	69
	2. Sample Selection and Testing	70
	3. Statistical Inference	70
VI.	RELEVANT ISSUES IN THE CAPITALIZATION PROBLEM	76
	A. ASSET VALUATION	77
	1. Valuation Basis	77
	2. Capitalization Criteria	82
	B. DEPRECIATION	84
	C. DECISION SIGNIFICANCE	85

1.	Performance Measurement	85
a.	External	85
b.	Internal	89
2.	Internal Control	92
VII.	CONCLUSION	93
A.	SYSTEM EVALUATION	93
B.	RECOMMENDATIONS	94
1.	Reconciliation	94
2.	Review	96
3.	Training	97
4.	Priority	99
	LIST OF REFERENCES	101
	BIBLIOGRAPHY	102
	INITIAL DISTRIBUTION LIST	103

LIST OF TABLES

I.	SUMMARY OF REAL PROPERTY ACCOUNTS 1961-1976 . . .	61
II.	SAMPLE BASED UPON THE \$300 PERSONAL PROPERTY CAPITALIZATION THRESHOLD	71
III.	SUMMARY OF NON-CAPITALIZED PERSONAL PROPERTY . . .	72
IV.	PROBABILITY OF ERROR OCCURRENCE	74

LIST OF FIGURES

1.	Federal Accounting Standards	21
2.	Uses of Accounting Data	22
3.	Comparison of General Accounting Office Characteristics with Those of the Financial Accounting Standards Board	24
4.	Fixed Asset General Ledger Accounts	39
5.	Flow of Accounting Information	42
6.	Detail Record, Personal Property	44
7.	Property Report	45
8.	Capitalization Report of Personal Property	46
9.	GSA-1166 Annual Report of Real Property Owned by the United States dated June 1961	54
10.	CG-3652 Report of Changes to Federal Real Property June 1963	57
11.	GSA-1166 1974	58
12.	Summary Report of Real Property 1974	59
13.	GSA-1166 September 1977	62
14.	Account 4700 Trial Balance 1982	65
15.	Newspaper Article PT. SUR Light Station	79
16.	Summary Report of Real Property 1974	81
17.	Statement of Financial Condition U.S.C.G. 30 September 1981	86
18.	Property Questionnaire from the U.S.C.G. District Inspection Team	90

ACKNOWLEDGMENT

The author wishes to thank Professor J. M. Fremgen for his invaluable guidance in the creation of this thesis. Without his patience and dedication to accuracy and detail, this effort would not have been successful. Also appreciated are the efforts of CDR Peter Blondin, the Second Reader. His comments on the organizational aspects of the thesis proved valuable.

Much assistance was received from LCDR Smith of the Twelfth Coast Guard District, along with the entire accounting staff. The crew at Coast Guard Group Monterey facilitated my field research with their helpful attitude.

Finally, I wish to thank my wife, Glenda, and my children, Elsa, James, and Katy. Without their love and understanding, none of this would have been possible.

I. INTRODUCTION

The purpose of this thesis is to analyze the Coast Guard's system for capitalization of fixed assets. The system is designed to provide a financial structure for internal control over and accountability for real and personal property. It is also designed to identify the monetary valuation of the Coast Guard's investment in property.

Some doubt exists in the minds of the author as well as other practicing Coast Guard accountants concerning the effectiveness of the system. Most seem to agree that, with proper implementation, the system will provide physical control. Conceptual problems stem from the degree of usefulness of the monetary value information. One basic question to be answered is why capitalization is necessary at all in the Federal government. Property control can be effective without reliance upon financial accounting principles. Given the lack of a profit motive, what purposes do detailed financial reports serve?

The system's effectiveness can be measured through analysis of its design and implementation. In particular, this analysis will focus on the capitalization policy of the property accounting system. The policy must first be defined and that definition evaluated in terms of system output. In analyzing the implementation of capitalization policies, the

study will address the implications of both efficient and improper use of the system. Capitalization principles used in the Coast Guard will be discussed and, thus, understood in the context of the larger accounting environment as well as in their practical application. Finally system problems, irregularities and improvements will be identified through conclusions drawn from the analysis.

The overall purpose of the study, then, is to find out why the system of capitalization exists, whether or not it is implemented efficiently, and whether or not its effectiveness can be improved.

The method of this thesis is to evaluate the efficiency and effectiveness of the property accounting system in the framework of the overall governmental accounting system. The Coast Guard's system works within this larger system. With the structure made clear, an evaluation of the efficiency and effectiveness of the system will be made. Chapter II discusses the relationship between property accounting and the accrual basis and its implications for the internal control system. This provides a general background for subsequent system evaluation. Chapter III seeks to gain a greater understanding of the accounting environment within which the Coast Guard exists. Chapter IV is an analysis of the Coast Guard accounting system, with particular emphasis on asset capitalization. Chapter V studies the implementation of capitalization policies by an evaluation of property and accounting

records at the field level. Empirical research was completed with the cooperation of USCG Group Monterey, California, and the Twelfth Coast Guard District. Chapter VI can be described as a summary of relevant issues in asset accounting theory. Chapter VII summarizes the major problems identified in the analysis of the system and identifies solutions.

This thesis is written more for use by the manager than the accountant. Terminology has been chosen to assist the nonaccountant in understanding that which is technically an accounting problem but which practically has far greater implications for internal control. The basic subject matter is accounting for real and personal property in a way that affects the financial health of the Coast Guard. The concern is not just for a few dollars expensed rather than capitalized, or even for a few missing items of property. It is also for a professional responsibility owed to the citizens of the United States in carrying out assigned missions. The Coast Guard manager is bound to use public resources wisely. Proper accounting control and adequate capitalization policies assist toward this end.

II. BACKGROUND

The accrual basis of accounting has been prescribed by the Comptroller General of the United States for use by federal agencies. Accrual accounting is most often associated with the recognition of revenues and expenses in the period in which the transactions occur. The accrual basis also encompasses the recognition of fixed assets, which are not expensed in the period of acquisition. Fixed assets are defined as tangible resources used in operations and not intended for sale, with life expectancy exceeding one year [Ref. 1: p. 253]. The principal classifications of fixed assets in governmental accounting are real and personal property. The accrual basis provides proper accounting procedures for the capitalization rather than expensing of the value of property resources.

Agency accounting systems that provide financial information primarily in terms of obligations and disbursements are incomplete if they cannot also produce the data needed to properly disclose information on financial and property resources....They do not meet the objectives of Federal agency accounting prescribed by law. [Ref. 2: pp. 2-14 - 2-15]

In the private sector, accrual accounting provides a more accurate measure of performance by matching expenses with their associated revenues. In government accounting, this matching principle applies as well. Costs, however, are

matched with the services or goods they help to generate rather than with revenues.

Assets are resources that contain the potential for future service. Expenses measure resources which have been consumed. Costs incurred in the process of operating a firm or a government agency can either be expensed in the period when their service is provided or be capitalized as assets and included in the balance sheet of the entity.

In the Federal government, capitalization criteria have been established to assist the decision maker. The criteria vary from general guidance at the GAO level to specific policies within operating elements. This thesis has been designed to evaluate the implementation of and implications for capitalization policy within the United States Coast Guard.

The capitalization decision is just one of many within the total accounting system. Federal accounting systems are developed to insure that each agency receives the full benefit of and makes proper use of tax dollars provided. Accounting is a tool within the larger internal control system, which helps to guard against the waste and abuse of public funds. It is from the broad perspective of internal control that capitalization policies must first be viewed.

Internal control comprises the plan of organization and all of the coordinated measures and methods adopted within a business to safeguard its assets, check the accuracy and reliability of its accounting data, promote operational efficiency, and encourage adherence to prescribed managerial policies. [Ref. 3: p. 211]

The above quote, taken from the Statements on Auditing Standards, defines internal control from a private sector viewpoint. The specific mention of "business", however, does not rule out the application of the components of the definition to government service. In fact, the Office of Management and Budget Circular No. A-123, October 28, 1981, presents a definition of internal control which is substantially the same [Ref. 4]. The Coast Guard is primarily in the business of saving lives and property at sea. Measurement of success in private industry is profit. In the Coast Guard, success is measured by the efficiency and effectiveness with which the "business" is run.

Effectiveness is measured by comparing actual output with goals or objectives [Ref. 5: Ch. 1]. How well did the organization or suborganization accomplish what it set out to do? Effectiveness measures pervade the varying levels of an organization. At the highest level, objectives set by the strategic planning of top management are compared to overall organizational achievements at year end. Middle managers measure effectiveness by their success in implementing procedures which serve the objectives of strategic planning by transforming general concepts into concrete accomplishments. Operational effectiveness is measured by actual performance against goals defined by upper levels of management.

Efficiency is measured by the amount of input required for a certain amount of output [Ref. 5: Ch. 1]. In a broad

sense, the Coast Guard's inputs can be considered costs and outputs, lives or property saved. A system that allows inaccurate or unreliable information is more likely to find the resources of the organization inefficiently used. This does not mean to imply that efficient use of resources is guaranteed by a thorough accounting system, only that it is facilitated.

An organization's efficiency is measured primarily at the operational level. Overall strategic policies have been well defined, and middle management has implemented the plans and procedures for carrying out those policies. The efficient use of resources can be evaluated by the operational manager's ratio of costs to achieved goals. Valid property accounting helps to identify the input resources.

In the private sector, internal control is a vehicle by which the fair presentation of financial statements is insured. The responsibility of management is to the owners or stockholders to increase return on their investment. In the public sector, management's constituency is the taxpaying public. The internal control system again insures return on investment. Return, however, is measured in terms different from money. Return is measured by the efficient use of resources, the lack of waste, the knowledge that tax dollars are being used for purposes intended by law. More importantly, return is measured in effectiveness. It is measured

by the public's perceived value of the organization's output,
the organization's success in reaching its goals.

III. FEDERAL ACCOUNTING STANDARDS

A. GENERAL ACCOUNTING OFFICE

1. General

The Budget and Accounting Procedures Act of 1950 directs the Comptroller General of the United States to prescribe governmental accounting principles, standards, and requirements for executive agencies. The establishment of these guidelines must consider the needs of other agencies, primarily the Department of the Treasury and the Office of Management and Budget. The principles and standards prescribed by the Comptroller General require compliance by all agencies.

In setting the guidelines for Federal agencies, the Comptroller General has emphasized consistency. The working interrelationships between agencies are naturally enhanced by accounting systems which are basically similar. Unfortunately, the vast differences in agency purposes require that policies be adapted to the constraints of each individual organization. The standards and policies promulgated by the GAO, therefore, authorize sufficient deviation for agencies to establish systems and partial system components which fulfill GAO requirements but which lack practices common in other government agencies [Ref. 3].

Figure 1 is a graphic display of the hierarchical relationships that apply to governmental accounting policy in the Coast Guard. Generally accepted accounting principles (GAAP) impact informally on the development of policy through their acceptance by the accounting profession.

2. Uses of Accounting Records

The need for accurate accounting records can be classified generally into internal and external requirements (see Figure 2). The primary internal purposes are internal control and the planning/budgeting cycle. The main external purpose is the reporting function. Reports are used by other agencies (e.g., OMB) in the Federal budget process. They are also used by Congress to assist in policy as well as budgetary decision making.

3. Standards

a. General

As stated above, GAO requirements are designed primarily to provide the overall framework for agency accounting. Accounting principles established by the Comptroller General for use in governmental accounting are conceptually the same as those used in the private sector. The Financial Accounting Standards Board (FASB), which is responsible for standard setting in the private sector, has listed six "qualitative characteristics" of accounting data.

1. Relevance in decision making
2. Reliability

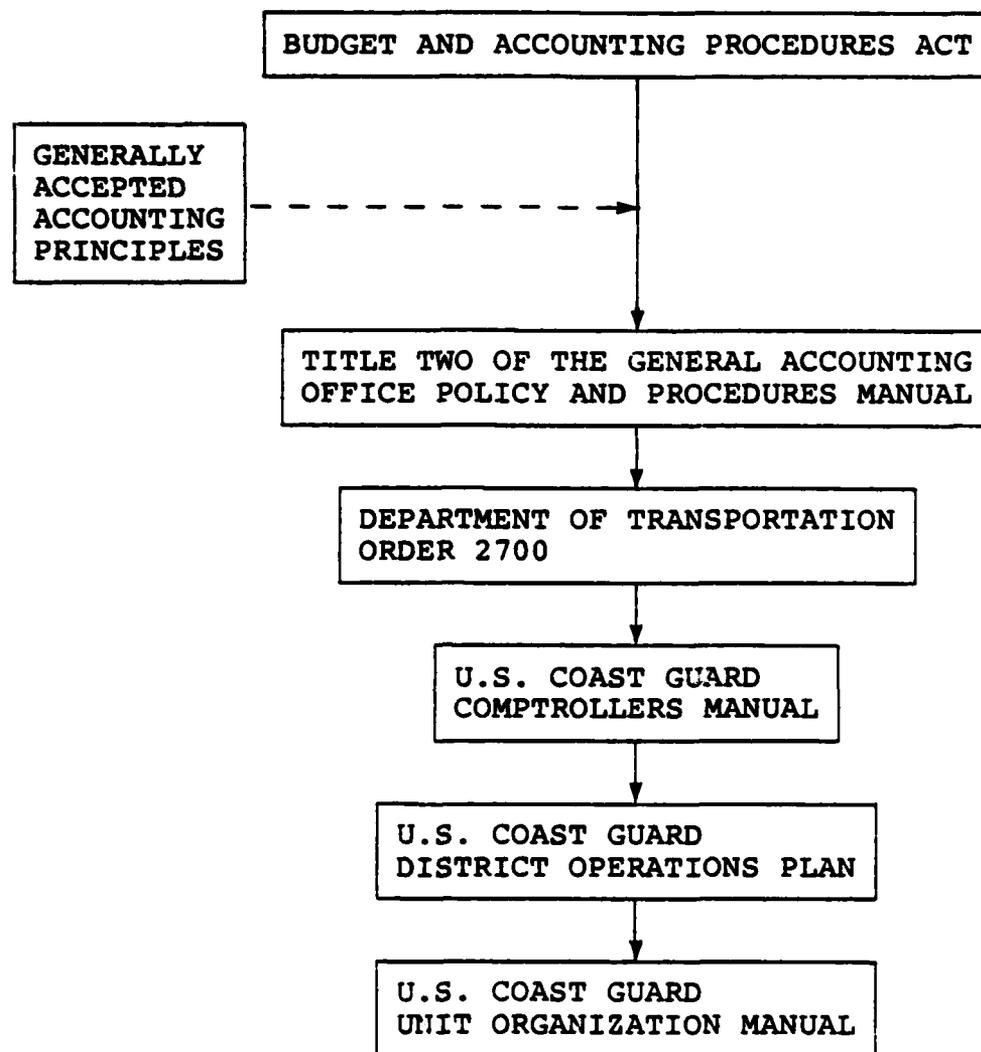


Figure 1. Federal Accounting Standards

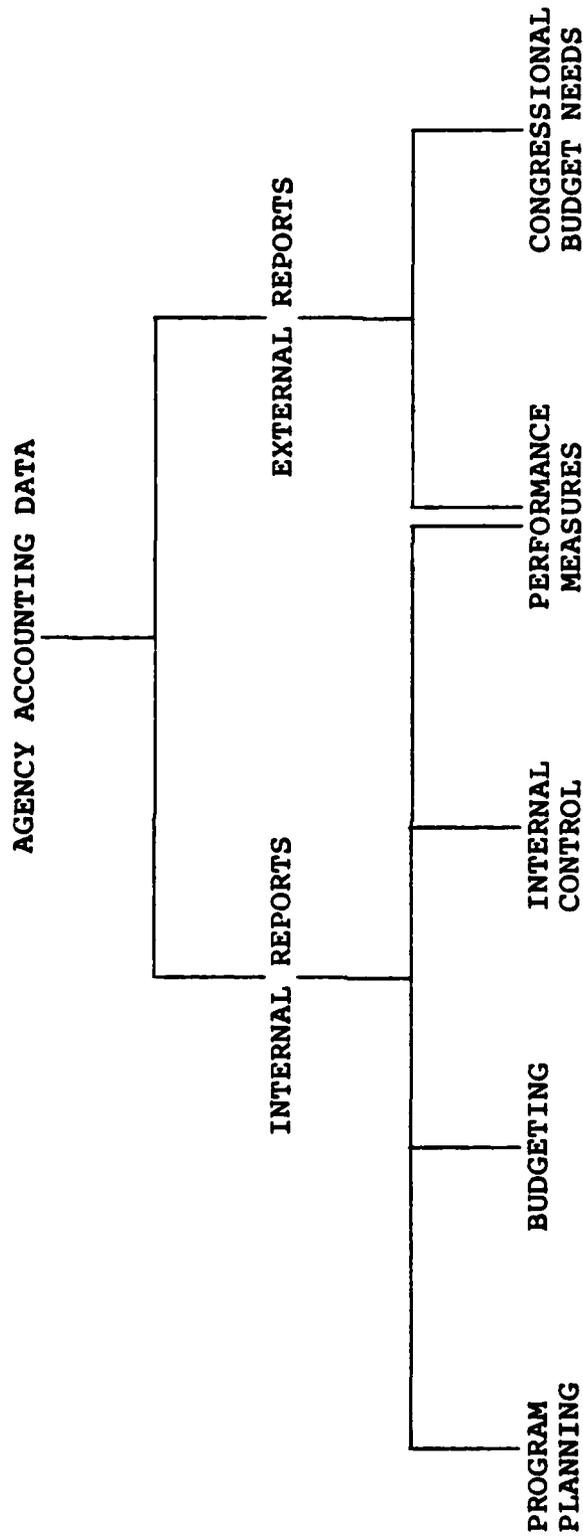


Figure 2. Uses of Accounting Data

3. Consistency and comparability
4. Efficiency
5. Materiality
6. Understandability [Ref. 5: pp. 1-2 - 1-5]

The Comptroller General has used these same concepts, in different terms, to establish the guidelines for Federal accounting systems. The characteristics of accounting information required by GAO standards can be summarized as follows:

1. Usefulness of financial data
2. Consistency
3. Qualified personnel
4. Truthfulness and honesty
5. Simplicity
6. Reliability and materiality [Ref. 2: Ch. 2]

Figure 3 shows the similarities between accounting characteristics in the government and in the private sector.

In the financial accounting practices of business enterprises, the fair presentation of accounting data such as corporate financial statements is the overriding concern. Internal control is a major issue as well. The most notable difference in governmental accounting is the lack of an income statement. The emphasis on the profit motive in the private sector is not a factor in government. Instead of corporate profit or loss, the government accountant must emphasize internal control over appropriations and expenditures,

FASB STANDARDS

GAO STANDARDS

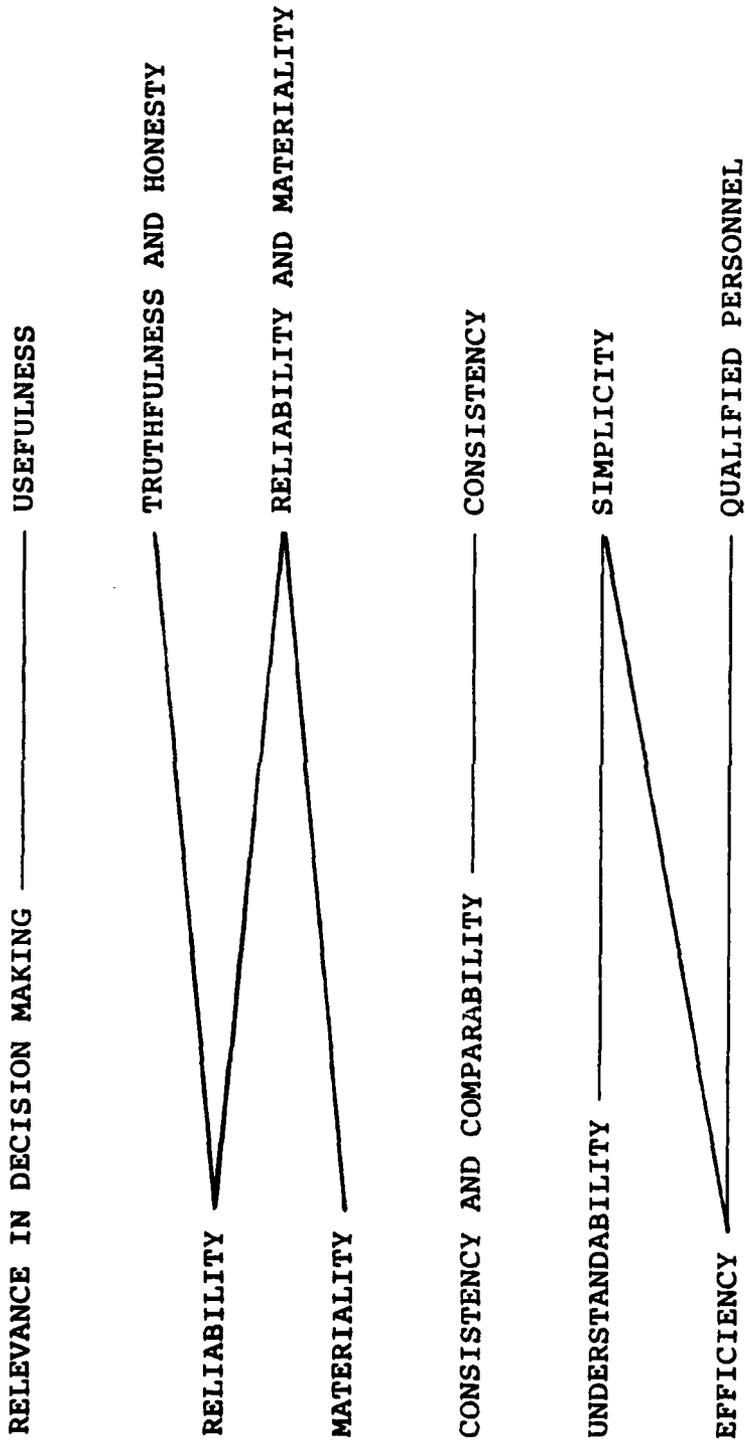


Figure 3. Comparison of General Accounting Office Characteristics with Those of the Financial Accounting Standards Board

the people working within the control structure, and the goods and services provided by the expenditures.

b. Fixed Asset Accounting

Assets are the resources of an entity that have the potential for providing future benefits or services to that entity. Fixed assets consist primarily of property, including land, plant, and equipment. The Comptroller General's standards stress the importance of authorization and preservation. Authorization is specified in the following areas:

1. Government assets are used for authorized purposes only.
2. Assets remain under government control.
3. Assets are revalued downward, written off, and disposed of. [Ref. 2: p. 2-22]

Preservation is stressed in asset accounting to insure proper maintenance and care.

Each of the areas listed above is under the domain of internal control. The emphasis of asset accounting in the Federal government is internal control, not proper monetary valuation. Yet, standards and procedures for asset valuation are the substance of most of the asset accounting literature.

Title Two of the GAO Policy and Procedures Manual for the Guidance of Federal Agencies [Ref. 1] takes a common sense approach to property accounting.

The importance of adequately accounting for property held by Federal agencies stems primarily from the fact that public funds are invested in such resources. [Ref. 2: p. 2-26]

Government accountants have a moral obligation to control, invest wisely, and record the use of appropriated public funds. The GAO principles are weighted toward the control function. In private sector accounting, the weight is placed upon the proper recording of transactions. In government as well, however, proper monetary valuation and transaction recording are vital to the purposes of a thorough internal control system.

c. Property Accounting Standards

Financial accounting for property should be interrelated with property accountability and control. The Comptroller General requires that each agency's system provide for the following basic controls over property.

1. All transactions must be recorded.
 - a. The date of custody is the critical point for acquisitions.
 - b. The use and consumption of assets should be reflected by depreciation over their useful lives where operating costs are a factor.
 - c. The date of disposition or retirement is the critical point for disposal of assets.
2. Appropriate records of physical inventories of plant property should be maintained.
3. Performance of independent reconciliation of these physical inventories with the accounting records is required. [Ref. 2: pp. 2-27, 2-28]

Acquisition (historical) cost, including set up costs, is considered the primary basis for valuation of property. Property acquired by means other than purchase will be discussed below.

One of the purposes of this study is to help in the understanding of a critical decision that the governmental accountant or manager must make. That is whether to expense or capitalize the cost of a resource acquired. The Comptroller General has specified the following criteria for each agency to consider in the design of its system:

Length of useful service life

Repetitive use

Frequency of replacement

Retention of identity when placed in use

Cost (or other basis)

Significance of improvement--increases in usefulness, productivity, service life, capacity, etc. [Ref. 2: p. 2-28]

Specifically, the GAO regulations require that no minimum cost in excess of \$1,000 be established as a criterion for capitalization. Additionally, Title Two requires that large quantities of similar items, which would not be capitalized individually, be capitalized as a group if the group has a material effect upon accounting records.

The Comptroller General's guidelines become less advisory and more detailed in setting procedures for specific accounting transactions. Outlined below for selected

frequently occurring situations are GAO rules for asset capitalization. [Ref. 2]

INTERAGENCY TRANSFERS

- a. If reimbursable, capitalize at transfer price but not less than value in use by the receiving agency.
- b. If nonreimbursable, capitalize at the asset's estimated value based upon usefulness to the agency, condition, and estimated market value.
- c. Capitalize set up costs (transportation, installation, etc.).

TRADE-INS

Capitalize at the lesser of cash paid plus allowances for trade or purchase price (without trade).

ASSETS ACQUIRED BY OTHER MEANS

Capitalize at an estimate of its worth to the agency.

MISCELLANEOUS

- a. Capitalize construction and interest costs.
- b. Capitalize assets net of purchase discounts and late penalties.
- c. Capitalize assets received under installment contracts upon receipt.

CHANGES IN FIXED ASSETS

- a. Capitalize when improvements significantly extend useful life or increase the capacity of the asset.
- b. Capitalize leasehold improvements with estimated useful lives greater than one year.

DEPRECIATION

GAO requirements for depreciation of assets can be summed in the following quote:

The activities of the Federal government are so varied that a uniform requirement to account for depreciation of capital assets cannot be justified. [Ref. 2: pp. 2-35]

Specifically, Title Two instructs each agency to develop depreciation methods when one of the following information needs exists:

- a. Financial reports require matching revenues to the costs of services.
- b. Reimbursement for services are collected on a full cost of performance basis.
- c. A substantial investment in fixed assets exists and total cost information is required for decision making.
- d. Proper capitalization of total costs of self constructed property is required.

No preference for depreciation methods is given [Ref. 2: pp. 2-36].

B. DEPARTMENT OF TRANSPORTATION

1. General

Title Two of the GAO Policy and Procedures Manual requires each agency to implement accounting principles and standards in accordance with its mandates [Ref. 2: p. 2-1]. The Department of Transportation (DOT), the executive agency within which the Coast Guard operates, is the administrative level between the GAO and the Coast Guard. The DOT interpretations of GAO accounting principles and standards can be found in DOT Order 2700.8A [Ref. 7]. Instructions for the financial management control of property are found in DOT Order 2700.12 [Ref. 7].

The DOT Orders, like the Comptroller General's Title Two, provide general guidelines for the establishment of a uniform accounting system. Just as the Comptroller General

leaves system design to the accountants within each executive agency, the Secretary of Transportation delegates the responsibility to the Commandant of the Coast Guard. Each operating administration within the DOT must conform to DOT standards in the development of its system.

DOT Order 2700.8A is, in essence, a restatement of GAO's Title Two. The principles outlined earlier in this chapter are paraphrased by DOT. In the area of property, however, the DOT Orders become somewhat more specific. Like the GAO guidelines, the DOT stresses the importance of property accounting to disclose the full extent of the use and control of public funds. The main difference between the two levels of guidelines is the importance placed upon property records by the DOT. Unlike GAO's regulations, which stress accounting principles, the Secretary begins to shift emphasis to the managerial control of resources. Management control involves the implementation of strategic policy so that an organization will reach its goals. It is the middle ground where policy is transformed into effective, efficient operations. Management control encompasses all phases of an organization's activities. Accounting control is just one system within this larger responsibility of management. Specific accounting methods are delineated within the DOT Orders. However, the overall implication is that practical management control and use of assets supersedes the importance of financial accounting for those assets.

2. Significant DOT Property Accounting Principles

Because of the similarity between GAO and DOT principles, the latter are not recounted in detail. Instead, outlined below are the significant DOT departures from the Comptroller General's policies. Also listed are property accounting principles and standards particularly relevant to this study, which appear for the first time in DOT literature. [Ref. 7]

PROPERTY RECORDS

Detailed property records are required to contain information for property management and accounting needs. Use of the same transaction source document is recommended.

CAPITALIZATION POLICIES

- a. The criteria for consideration in establishing capitalization thresholds are identical to GAO guidelines (see para. A.3.c.).
- b. The Secretary establishes a \$300 cutoff. Any deviation up or down in setting dollar thresholds must have Secretarial approval.
- c. The Secretary recommends that a list of sensitive items, which might not otherwise be capitalized, be developed by the operating element.
- d. The Secretary requires that assets acquired by trade-in be recorded at the value of cash paid plus the allowance for trade. The GAO gives an optional accounting procedure.
- e. DOT grants the option of recording assets acquired by reimbursable transfer from another government agency at the transfer price, like GAO, or at the asset's estimated value to the operating element.
- f. Specific identification of some costs of construction which should be capitalized follows:

- 1) consultant services for design, etc.
- 2) land, building and facility acquisitions
- 3) labor, materials and supplies
- 4) prorated shares of equipment and facilities during construction
- 5) indirect costs
- 6) inspection fees
- 7) legal and damage claims
- 8) "fair" value of donated assets
- 9) interest during construction

DEPRECIATION

DOT directives recognize the importance of depreciation expense in allocating the cost of long term capital assets over the period in which they remain useful. This amortization of cost is critical to the accrual basis of accounting. All significant costs must be matched against resultant agency production to measure accurately the cost of operations. Found in DOT Order 2700.8A, however, is the identical quote from the Comptroller General's Title Two (para. A.3.c.) regarding depreciation. This disclaimer allows accountants in the Federal government to ignore depreciation expense when compiling the real cost of operations.

PROPERTY CLASSIFICATION

It is at the Secretary of Transportation level in the hierarchy that the initial breakdown of classes of property is found. The DOT specifies three broad categories of property: Real Property; Personal Property--equipment; and Personal Property--material and supplies. Common examples of each type are given below.

REAL PROPERTY	PERSONAL PROPERTY EQUIPMENT	PERSONAL PROPERTY MATERIALS/SUPPLIES
docks	aircraft	repair parts
land/buildings	vessels	administrative supplies
airports	navigation aids	
	furniture	

Capitalization procedures, however, do not differ between the classified types of property at this level. The same general principles apply to both real and personal property.

PROPERTY GUIDELINES

In establishing its property control and accounting systems, DOT has mandated operating elements to stress the following points.

- 1) Clear capitalization criteria (including examples);
- 2) At least quarterly reconciliation between property management records and general ledger accounts;
- 3) Frequent independent inventory;
- 4) Clear depreciation criteria; and
- 5) Periodic reports designed to identify problems early.

C. GENERALLY ACCEPTED ACCOUNTING PRINCIPLES

Although generally accepted accounting principles (GAAP) apply to private sector accounting, they impact upon the environment in which government accountants work. GAAP have been developed over time to provide a framework for the fair presentation of financial reports. Private sector financial reporting is designed to help investors make rational investment decisions based upon fair comparisons between opportunities. Government financial reports are also designed for investors, but these investors are taxpayers and their elected representatives. The main difference, again, is that the profit motive in the private sector becomes the efficiency and effectiveness motive in government. With these considerations in mind, outlined below are the most

basic principles of fixed asset accounting from GAAP [Ref. 1: pp. 252-257].

1. Fixed assets are carried at the historical cost of acquisition or construction.
2. Fixed assets have an expected useful life of at least one year.
3. "Practicable yardsticks or criteria should be established in order that consistent distinctions may be made between fixed assets, operating expenses, and maintenance."
4. Charges should be made for depreciation of fixed assets. The cost of the services rendered by a fixed asset are allocated over its expected useful life.

IV. ACCOUNTING FOR FIXED ASSETS--COAST GUARD POLICY

A. SOURCE OF POLICY

Within the framework described in the preceding chapter, the Coast Guard has developed its own specific system for property accounting. The current guidance has been in effect for many years with little revision. A completely revised manual has been published in draft form [Ref. 8]. The draft is expected to be approved without significant changes. Because the draft is far superior in form and content and because it represents anticipated future approved procedures, it will be used as the basic reference document for this paper. The draft simply amplifies rather than changes current procedures that have a material effect on this thesis.

The current manual (CH 2) was designed as a simple streamlined regulation for field bookkeepers, accountants, and storekeepers. Its primary thrust seems to be that required reports are correctly filled out and submitted. Chapter 2 provides no background information for the critical choice in decisions whether to capitalize or expense an item.

B. GENERAL PRINCIPLES AND STANDARDS

The purpose of fixed asset accounting is to provide financial and physical control of the Coast Guard's investment in property. The controls operate through physical counts, inventory records, financial records, and records

of accountability. These records are used to enumerate fixed assets, their status, location, and to show the monetary valuation of the property. [Ref. 8: p. 1L01001]

The general purpose statement above, quoted from the new draft policy, remains well within the standards of the GAO and the DOT. At the same time, it makes an important conceptual reference to both internal control and monetary valuation. These two ideas can be used together to implement a more thorough internal control system. Too often in government accounting and particularly in the Coast Guard system, no advantage is taken of the common properties between strict accounting rules and control. Instead, the two concepts are treated separately, with the property section developing controls which place little or no emphasis on available internal accounting data.

Monetary valuation of assets is a controversial subject in both private and public sector accounting. The primary basis for valuation in the Coast Guard's system, in accordance with higher directives, is historical cost. The question of whether or not this basis is adequate for purposes intended will be considered in Chapter VI. The potential impact of property valuation considered here is the effect that the carrying value has on the control system. Property valued at original cost, undervalued when compared with current replacement costs or current value to the service, may not receive the necessary benefits of an internal control system. A system naturally separates types of controls for

varying assets by the value of those assets. Similar types of property, acquired under different methods or in different time periods, could fall under different controls. The interrelationship of accounting system design and the purposes of internal control are shown in this situation. Mentioned by GAO and stressed by DOT, this reconciliation of accounting and control of property should be found in the actual design of the Coast Guard operating system.

The following general principles apply to all classifications of Coast Guard property.

1. When feasible, the same source documents should be used by property control and accounting offices.
2. Accountability begins with either acquisition, construction, or acceptance of property.
3. Donations of property shall be capitalized at estimated value, net of set up costs. A \$1000 threshold for real property and a \$500 threshold for personal property exists.
4. Property acquired under installment contract should be recorded at the time of receipt.
5. Construction costs shall be recorded in the Acquisition in Progress account (4700) until completion. When the property is accepted, its capitalized value should be transferred to the appropriate property account. [Ref. 8: Section L]

C. CLASSIFICATIONS OF PROPERTY

Fixed assets in the Coast Guard can be classified as real or personal property. Real property is defined as land, land improvements, buildings and other structures and facilities, including improvements and expansions costing \$1000 or more

in which title is held by the U.S. Government. Personal property is defined as all tangible property other than real. Personal property is further broken down into specifically identified groups and the category Other General Purpose Property. Applicable general ledger accounts for property are shown in Figure 4. The focus of this thesis is on real property, with supporting arguments taken from procedures for Other General Purpose personal property. The remaining personal property accounts have unique systems for each specialized type of property and are not representative of the overall control system.

D. REAL PROPERTY ACCOUNTING [Ref. 8: Section L)

1. Capitalization Policy

Real property with the following characteristics is required to be capitalized.

- a. The property has a service life of at least one year.
- b. The property is used repeatedly.
- c. The property has a cost basis of at least \$1000.

In addition, improvements or alterations to real property are required to be capitalized if the change constitutes one of the following;

- d. The enlargement of an existing structure;
- e. A major modernization or renovation;
- f. A conversion to a different use; or
- g. The improvement of productivity or usefulness.

1. Real Property Accounts	3110	Land--Inside Cont. U.S.
	3120	Land--Outside Cont. U.S.
	3210	Buildings--Inside Cont. U.S.
	3220	Buildings--Outside Cont. U.S.
	3310	Other Structures & Facilities-- Inside Cont. U.S.
	3320	Other Structures & Facilities-- Outside Cont. U.S.
	4700	Real Property Acquisition in Process
2. Personal Property Accounts	3510	Vessels
	3520	Aircraft
	3530	General Purpose Property
	3540	Small Boats
	3550	Small Arms
	3560	Vehicles
	3570	Electronics Equipment
	3580	Navigational Aids
3. Other Fixed Asset Accounts	3640	Personal Property in Possession of Contractors
	3641	Personal Property in Possession of Other Government Agencies
	3650	Personal Property Borrowed from Contractor
	3651	Personal Property Borrowed from Other Government Agencies
	4510	Vessels--Acquisition in Process
	4520	Aircraft--Acquisition in Process
	4760	Leasehold Improvements (For Planning Purposes)

Figure 4. Fixed Asset General Ledger Accounts

2. Valuation Policy

As previously stated, the Coast Guard uses historical cost as the primary basis of measurement. The following is a summary of cost valuation for capitalization purposes.

- a. Cost includes set up costs, those funds expended in preparing the property for initial use. In construction, this includes costs of labor, design, survey, salvage, etc.
- b. Donations are valued at estimated fair market value.
- c. Trade-in acquisitions are recorded at the lesser of cash paid plus allowance for trade or the price without trade allowance. (Note: This policy is identical to GAO requirements but a slight departure from the DOT Order.)
- d. Transfers from other agencies are recorded at the transfer price or at estimated fair market value if no reimbursement is given.

3. Reporting Requirements

In addition to the maintenance of general ledger account balances at the District and Headquarters level, the following real property control reports are required. These reports form the basic documentation support for individual account balances.

- a. CG-3652, Report of Changes to Federal Real Property. This report updates carrying values for property units. It is maintained in the property file as objective evidence for valuation after posting to the general ledger. The CG-3652 becomes the individual unit record of account entries. Subsidiary accounts for individual properties are not maintained.
- b. GSA-1166, Annual Report of Real Property Owned by the United States. This report is submitted to the Commandant of the Coast Guard property section within thirty days of acquisition or disposal of or change to any real property assets. Reconciliation of general ledger accounts at the Headquarters level is accomplished

with GSA-1166 adjustment. Reconciliation at the District level between the GSA-1166 totals and the general ledger trial balance is required. This report becomes the current record of land, buildings, and other structures account balances. The GSA-1166 is the sole record of individual property balances.

4. Flow of Accounting Information

Figure 5 shows the flow of information from the construction or acquisition of a real property asset into the proper general ledger and property accounts.

E. PERSONAL PROPERTY ACCOUNTING

1. Capitalization Policy

General Purpose Property with the following characteristics is required to be capitalized.

- a. Unit cost of at least \$300
- b. Service life of at least one year
- c. Retention of identity
- d. Not leased [Ref. 9: p. 8-3-2]

2. Valuation Policy

General Purpose Personal Property is valued according to the same criteria as for Real Property (para. D.2., above).

3. Personal Property Accountability System (PPA) [Ref. 9: Part VIII]

The Coast Guard has developed an integrated personal property accounting and control system. The design of the system is twofold, to provide for effective, efficient management of assets and to assure users of the validity of

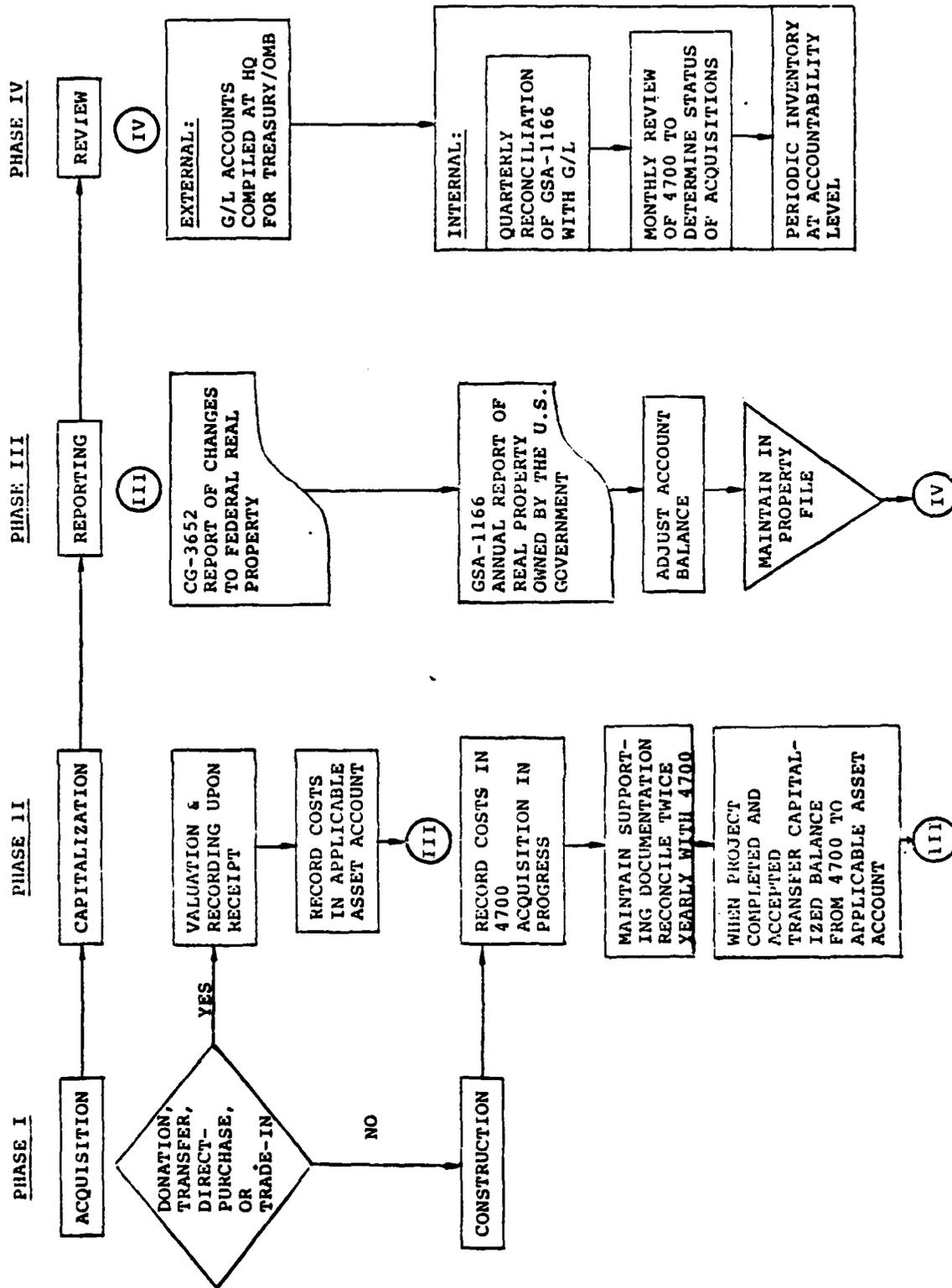


Figure 5. Flow of Accounting Information

financial records. The three primary means of reaching these goals are:

- a. Prompt accurate recording of transactions
- b. Frequent inventory
- c. Reconciliation of physical inventories with accounting records.

PPA is initiated at the operating unit level. The capitalization/expense issue is determined by the operating guide administrator at the unit. If a purchased asset is determined to require capitalization, a computerized input form, Detail Record, Personal Property (Figure 6) is completed. Subsequent unit inventory control procedures are completed by using the Property Report (Figure 7), a compilation by the operating unit of all capitalized personal property.

The Capitalization Report (Figure 8) identifies by specific accounting center the total dollar value of capitalized personal property in each of its operating elements. The Capitalization Report is maintained to document the general ledger account.

4. Review

External review is conducted through monitoring of general ledger totals in submissions to the Department of Treasury and OMB. Internal review should be conducted through:

PROPERTY REPORT

17120803
03/13/79

OPFAC 42 20210
CUSTODIAN SUP

PROPERTY REPORT
73/03/13

ITEM CODE	SERIAL NO	FSC	DESCRIPTION	TOTAL COST	QUANTITY ON HAND	OWNER	YR ACO	LOCAL USE	TRANSACTION MO DA YR
00001	80007	5020	CAMERA TV SONY	220	1	1	72		03 03 77
00001	80002	5020	CAMERA TV SONY	120	1	1	72		03 03 77
02542	4000000	9130	RIVETER PNEUMATIC	90	1	1	72		03 03 77
02062	DCAL400010	7110	SAFE 1 DOOR	250	1	1	67		03 03 77
02062	DCAL832510	7110	SAFE 2 DRAWER MOLSER	172	1	1	75		03 03 77
02009	127730	4110	REFRIGERATOR HOUSEHOLD ADM	220	1	1	72		03 03 77
02014	221143	7430	TYPewriter ELECT IBM	715	1	1	77		02 01 78
02014	250116	7430	TYPewriter ELECT IBM	605	1	1	77		02 01 78
02014	2705020	7430	TYPewriter ELECT IBM	693	1	1	75		03 03 77
02014	5210925	7430	TYPewriter ELECT IBM	375	1	1	71		03 03 77
03000	120-005932	6730	NO PIC PRO HD AV 120 FR	365	1	1	72		06 08 78
03123	032223	3440	LATHE METAL GRINDING	3,500	1	1	67		03 03 77
03170	031000	3415	GRINDER UTILITY PEDESTAL	315	1	1	70		03 03 77
03250	031003	3405	SAW HACK FINES POWER	600	1	1	68		03 03 77
03271	2A201901	6720	STELL CAM PCL 250	50	1	1	72		06 08 78
03714	03114	3431	WELDER ARC MILLER	1,700	1	1	70		03 03 77
03815	370000007	4310	COMPRESSOR RECIP AIR	2,153	1	1	75		03 03 77
03805	1014114	3413	DRILLING MACH PRESS	700	1	1	60		03 03 77

Figure 7. Property Report

CAPITALIZATION REPORT OF PERSONAL PROPERTY

OFFAC	UNIT NAME	\$ CAPITALIZED	\$ LEASED	\$ ON HAND
11 12111	COC VENTUROS WMEC 825	65,565	0	65,565
11 13237	PT DIVIDE WPO 82337	14,710	0	14,710
11 13245	COC POINT JUDITH	14,169	0	14,169
11 13254	PT EVANS WPO 82354	48,354	0	48,354
11 13258	COC PT STUART WPO82358	8,579	0	8,579
11 13272	PT BROWER WPO 82372	10,875	0	10,875
11 13273	PT BROWER WPO 82373	13,953	0	13,953
11 13274	COC POINT CARREN	8,958	0	8,958
11 13277	PT HOBART WPO 82377	1,241	0	1,241
11 14481	COC GLACIER WAGS 4	57,561	0	57,561
	ADMIN ALLOT UNIT TOTAL	1,538,518	1,000	1,538,508

Figure 8. Capitalization Report of Personal Property

- a. Quarterly reconciliation of the Capitalization Reports to general ledger account 3530 at the District level.
- b. Periodic unit inventory of property.
- c. Periodic District review of unit inventory and recording procedures by the District Inspection Staff.

V. IMPLEMENTATION OF CAPITALIZATION POLICIES--
USCG GROUP MONTEREY

A. THREE LEVELS OF ACCOUNTING RESPONSIBILITY

In preceding chapters the framework within which Coast Guard property managers must work has been outlined. The pervasive concern at each level of the hierarchy is the overall internal control system. Property accounting and control is just a component of the larger system. Accounting for property must conform to the principles set by authorities within the chain of command of government agencies. General guidelines for all agencies are set by the GAO. For the Coast Guard, Department of Transportation policies must also be followed. The accountants within the Coast Guard have developed a property accounting system which attempts to conform to the mandates of higher authorities while still accomplishing the internal control needs unique to the service.

Within the Coast Guard's system are three levels of responsibility. The first level is found at Coast Guard Headquarters in Washington, D.C. Headquarters' accountants designed the property system for implementation in the field. Headquarters is the level where accounting policy development takes place. Some functional responsibilities for the system's operation are also located here. Compilation

of data from District Offices and major Headquarters Unit accounting centers is performed at this stage in the system. Review of the overall system's data is accomplished by the designers of the system. Headquarters is the control point for dissemination of accounting information (balances, trends, etc.) for external reporting purposes.

The second primary level of responsibility is the accounting center, normally located at the geographical District office. The role of accountants at this stage is similar to that of middle managers in the private sector. The District Comptroller's office implements the strategy developed in Washington into a working system at field level units. The District is the accounting center for units under its command. The general ledger accounts are kept by the District office. The District serves as the intermediary between the conceptual world in Washington and the practical, operational Coast Guard in the field.

The third level of responsibility within the Coast Guard's property accounting system is the field unit. The operational unit purchases, uses, maintains and is accountable for property. The operational level is not staffed by accountants but by operators. The system at this stage is not conceptual; it is a practice that helps the manager physically control his assets. The operator's main concerns are (1) that he has the assets to perform his job and (2) that, if he is responsible for the property, it has

not been lost or stolen. As long as an asset is properly documented, that documentation makes management aware of its responsibility for accountability.

The design of the accounting system is not generally understood at the field level. The implications which financial record keeping at the unit has for broader organizational purposes are not considered by the operator. He makes the critical decision whether to expense or capitalize based upon his experience with accountability and with little knowledge of the chain of effect that decision generates. This breakdown of understanding is the first step to problems in system implementation.

B. RESEARCH SCOPE AND METHODOLOGY

In order to understand and evaluate the efficiency and effectiveness of the property system, it was necessary to begin at the field level with an evaluation of the degree to which the system has been successfully implemented. The scope of the field study encompassed the accounting and property records at USCG Group Monterey. Results from this study would not necessarily have any statistically meaningful implications for field units Coast Guard-wide. These results could, however, indicate trends and identify possible problems or similar situations for other field level units.

Data obtained in field research were subsequently traced upward through the system to determine the physical flow of

accounting information and to identify uses for the data at different stages.

Fieldwork was conducted through the use of financial audit techniques. Complete records were available for fiscal years 1980 and 1981 only. This was determined to be a reasonable period for study. The thrust of the research was to identify transactions in real property and general purpose personal property and to audit the trail through the accounting control system which was left by those transactions. A logical division in the research occurred between real and personal property because of the different dollar thresholds for capitalization.

C. OVERVIEW OF USCG GROUP MONTEREY

Group Monterey is located in downtown Monterey, California. The Group has administrative and operational command over subunits (primarily search and rescue patrol craft) in the geographical coastal area between Santa Cruz and San Luis Obispo. The Group office also has operational responsibilities in the form of short range surface search and rescue, performed by small boats operated and maintained by Group personnel. A complement of four storekeepers performs all fiscal, accounting, and supply functions. They assist the Executive Officer (who also serves as Property Officer) in maintaining the Personal Property Accountability System (PPA). Although real property is used and maintained by

Group personnel, accounting for real property is accomplished by the Twelfth Coast Guard District in San Francisco.

D. REAL PROPERTY ACCOUNTING--GROUP MONTEREY

1. Historical Accounting Records

In Febraury, 1943, by letter from the Attorney General of the United States to the Secretary of the Navy, certificate of title for approximately five acres of land in the city of Monterey was transferred from the Associated Oil Company, Inc., to the Navy. This land is the approximate site of the Coast Guard Group office today. Title to the land was received by the U.S. Government through condemnation hearings for the sum of \$10,502. The land was transferred to the Navy for use as a Section Base.

During World War II the Navy made many improvements to the land through its use as a Section Base. A letter dated November 21, 1945, provides the only cost data available concerning these improvements. The letter summarizes "Plant Inventory" costs to the Navy for all land and improvements to the property. The condition of the original letter precludes photostatic copying. Thus, the costs are presented below.

APPURTENANCES	\$164,410.00
BUILDINGS & STRUCTURES	172,375.00
PLANT APPLIANCES	160,820.64
MACHINERY & TOOLS	19,375.59
LAND	65,002.00
<hr/> TOTAL	<hr/> \$581,983.23

The rise in land value is unexplained. Actual land recovery or fill operations at the water's edge may account for the increase. The remaining records may also be incomplete in regard to the original transfer price.

On December 31, 1946, the five acres were transferred from the Navy Department to the U.S. Coast Guard, which was then operating under the Secretary of the Treasury. The actual transmittal letters and documents are not available. However, the transfer was authorized by Public Law 627 of August 7, 1946.

Chronologically, the next accounting event maintained in permanent record was a letter of August 27, 1957, from the Commandant of the Coast Guard to the Twelfth CG District Comptroller. This letter established the cost basis for Coast Guard accounting records. The cost data appearing on this transmittal were taken directly from the "Plant Inventory" summary cited above. The cost basis as transferred to the Coast Guard was \$581,983.

The next Coast Guard documentation in record is the Annual Report of Real Property Owned by the U.S. (GSA-1166) dated June 1961 (Figure 9). This report amends the property valuation because of some structural demolition and the transfer of 1.24 acres to the city of Monterey. The land was written down by \$16,000. No supporting documentation exists. However, the calculation which follows demonstrates

GENERAL SERVICES ADMINISTRATION ANNUAL REPORT OF REAL PROPERTY OWNED BY THE UNITED STATES				FORM APPROVED BUDGET BUREAU NO. 28-1166-4	1. REPORT AS OF JUNE 30 1961	
(For instructions see GSA Reg. 2 XI-201.04)				2. AGENCY CONTROL NO. 12-203110	3. GSA CONTROL NO. 12-03774	
4. NAME OF INSTALLATION (Abbreviate when necessary so as not to exceed 23 type spaces) Monterey Lifeboat Station				5. REPORTING AGENCY Treasury Department U. S. Coast Guard		
LOCATION						
7. STATE OR CONTINENT California			8. CITY OR TOWN Monterey		9. COUNTY OR COUNTRY Monterey	
4. GEO. GRAPH. ICAL CODE	5. STATE OR CONTINENT	6. CITY OR TOWN	7. COUNTY OR COUNTRY	10. STREET ADDRESS, RFD, ROUTE NO., OR OTHER LOCAL DESIGNATION		
	04	2250	053			
LAND						
11. USAGE		12. METHOD(S) OF ACQUISITION CODE	13. DATE(S) ACQUIRED (Year(s) only)	14. AREA (Acres to nearest tenth)		15. COST (In thousands of dollars - omit 000)
11. CODE (A)	11. CLASSIFICATION (B)			14. URBAN	14. RURAL	
1	18	2	1945	** 3.06		49
TOTAL LAND				3.06		49
BUILDINGS						
17. USAGE		18. NUMBER OF BUILDINGS	19. DATE(S) ACQUIRED (Year(s) only)	20. GROSS FLOOR AREA (Linear dimensions)		21. COST (In thousands of dollars - omit 000)
17. CODE (A)	17. CLASSIFICATION (B)			20. TOTAL No. sq. ft.	20. PERCENT OCCUPIED	
19	OFFICE	2	1945	17,220	150	159
21	HOSPITAL					
22	PRISON	5	1945	1,250	100	2
23	SCHOOL					
29	OTHER INSTITUTIONAL USES	2	1945	7,460	90	33
30	RESIDING					
40	STORAGE					
50	INDUSTRIAL					
60	SERVICE ***					
70	RESEARCH AND DEVELOPMENT					
80	ALL OTHER (Specify in Remarks)					
99	TRUST BUILDINGS (Specify in Remarks)					
TOTAL BUILDINGS				25,000		194
OTHER STRUCTURES AND FACILITIES						
23. USAGE		24. COST (In thousands of dollars - omit 000)	25. USAGE (Cont.)		26. COST (Cont.) (In thousands of dollars - omit 000)	
23. CODE (A)	23. CLASSIFICATION (B)		25. CODE (A)	25. CLASSIFICATION (B)		
12	AIRFIELD Pavements	130	71	UTILITY SYSTEMS	6.0	
13	HARBOR AND PORT FACILITIES		72	COMMUNICATIONS SYSTEMS		
15	POWER DEVELOPMENT AND DISTRIBUTION	7.0	73	NAVIGATION AND TRAFFIC AIDS	3	
16	RECLAMATION AND IRRIGATION		74	ROADS AND BRIDGES		
18	FLOOD CONTROL AND NAVIGATION		75	RAILROADS		
40	STORAGE (Other than buildings)		76	MONUMENTS AND MEMORIALS		
50	INDUSTRIAL (Other than buildings)		78	MISC. MILITARY FACILITIES		
60	SERVICE (Other than buildings)		80	ALL OTHER (Specify in Remarks)	3.0	
70	RESEARCH AND DEVELOPMENT (Other than buildings)		99	TRUST (Specify in Remarks)		
TOTAL COST OTHER STRUCTURES AND FACILITIES					150	
23. TOTAL COST: LAND, BUILDINGS, AND OTHER STRUCTURES AND FACILITIES						
26. REMARKS (Use reverse if more space is required)						
** B/S 12-37-50 Tracts 4 & 5 & Parcel 2 transferred to City of Monterey. Reduce land area 1.24 acres; reduce value \$10,000. *** B/S 12-37-50 Fuel oil pump house & Diesel oil clarifier bldg. removed. Reduce floor area 620 sq. ft., reduce value \$10,000. • B/S 12-37-50, Block 23: 60 - approx. 70 ft. of fencing removed; reduce value \$1,700. 40 - Gasoline storage tank & Diesel oil tank removed; reduce value \$17,500. 71 - Diesel oil system removed, reduce value \$6,600. 12, 19, 76 - Values rounded off to next thousand. They is being used as the barracks for Reserve Facility.						
27. TYPE OF TRANSACTION (Check one only)			28. DATE			
<input type="checkbox"/> 1 NEW ACQUISITION <input type="checkbox"/> 2 OMISSION <input type="checkbox"/> 3 TRANSFER IN <input type="checkbox"/> 4 DISPOSAL <input type="checkbox"/> 5 TRANSFER OUT <input checked="" type="checkbox"/> 6 OF INTEREST			10 July 1961			
29. PREPARED BY (Type name and title) G. E. Logan General Supervisory Engineer			30. SIGNATURE			

Figure 9. GSA-1166 Annual Report of Real Property Owned by the United States dated June 1961

the logical process which must have been used to arrive at the land valuation:

$\% \text{ TRANSFERRED} \times \text{HISTORICAL COST} = \text{VALUE OF LAND TRANSFERRED}$

$1.24 \text{ acres} / 5.079 \text{ acres} = .244 \text{ or } 24.4\%$

$.244 \times (65,002.00) = \$15,860.00$

Since the report is stated at the nearest thousand dollar increment, \$15,860 is rounded up to \$16,000.

The USCG Comptroller's Manual requires that the amounts reflected for disposal of real property be the same as the amount currently carried in the account for that property. At the time of original acquisition of the land, the 1.24 acres had a separate, intrinsic value. That value may have been greater or less than the value of the surrounding land. Because the total 5.079 acres was capitalized as an entity, the individuality of the transferred acreage was lost for accounting purposes. Therefore, the written down value of the land does not represent actual historical cost, but an estimate of that historical cost. In a similar way, building and other structure values were written down on the same GSA-1166 of June 1961. The theoretical basis for the historical cost of the demolished structures was the percentage reduction of square footage.

The total capitalized value of real property at the Group as summarized on the report is broken down as follows:

LAND	\$ 49,000
BUILDINGS	194,000
OTHER STRUCTURES	159,000
<u>TOTAL</u>	<u>\$402,000</u>

Costs written off by the report total \$52,000.00.

Even after reducing the original transferred cost basis (\$582,000) by \$19,375 for the machinery and tool costs, which are not real property costs, a valuation discrepancy of \$109,000 exists. No record of reconciliation of the difference is available.

Figure 10 is an example of the use of the CG-3652, Report of Changes to Federal Real Property. In this instance, the CG-3652 of June 1963 is used to revalue the real property so as to conform to custodial property records. Because of the limited supporting documentation, these physical property records became the source document for valuation. This was a reconciliation of accounting records with property records which, in effect, established a new historical valuation. Again, it includes an estimate of historical cost and indicates a lack of thorough accounting control.

A comparison of Figures 11 and 12 amplifies the relationship between the accounting implementation function at the District level and the reporting function in Washington, D.C. Figure 11 is a copy of the GSA-1166 submitted by the Twelfth CG District to Headquarters in 1974. Figure 12 is

TREASURY DEPARTMENT U. S. COAST GUARD CG-3652 (1-56)		REPORT OF CHANGES TO FEDERAL REAL PROPER..		REPORT CONTROL SYMBOL
ACQUISITION		DISPOSITION		
ACCOUNTING OFFICE 12th Coast Guard District		1. REPORT NUMBER 39 - 63		
LOCATION San Francisco, California		2. DATE 30 June 1963		
UNIT COST CODE 12 - 30469		4. GSA CONTROL NUMBER 8774		
<input type="checkbox"/> INSIDE CONTINENTAL U. S.		<input type="checkbox"/> 6. OUTSIDE CONTINENTAL U. S.		
STATE, CONTINENT, OR ISLAND GROUP AND CITY California, Monterey		8. COUNTY, U.S. TERRITORY, POSSESSION, OR FOREIGN COUNTRY Monterey		
NAME OF PROPERTY Monterey Lifeboat Station				
DESCRIPTION OF PROPERTY ACQUIRED OR DISPOSED OF (10)		AMOUNTS		
		LAND (11)	BUILDINGS (12)	OTHER STRUCTURES OR FACILITIES (13)
MONTEREY LIFEBOAT STATION Comparison of current Station plans with the (ecv) Real Property Record Cards revealed a material discrepancy between the buildings and structures indicated on the GSA 1166 and those actually in existence. For that reason a new listing of existing buildings and structures was compiled using original cost amounts where available and estimating the balance. This adjustment is processed to record the resulting established value and correct the previous GSA 1166.			(30,000.00)	(7,000.00)
TOTALS			(30,000.00)	(7,000.00)
These amounts will be included as adjustments to GSA Form 1166 on 11667 for the period ended 30 June 1963.				
APPROVED BY <i>[Signature]</i> Lcdr. W. P. [Name] (Chief, Civil Engineering Section)				
18. JOURNAL VOUCHER		<input checked="" type="checkbox"/> GENERAL LEDGER ENTRY		
		<input type="checkbox"/> EXPENDITURE LEDGER ENTRY		
GENERAL LEDGER ACCOUNT NUMBER	SUBHEAD OR PROJECT NUMBER	AMOUNT-		
		DEBIT	CREDIT	
6523		37,000.00		
3210			30,000.00	
3310			7,000.00	
	37,000.00 T		37,000.00 T	
PREPARED BY K. Ishii		APPROVED BY <i>[Signature]</i> Chief, Accounts Branch		

CG-3652 TREASURY, USCGHQ, WASH., D.C.

Figure 10. CG-3652 Report of Changes to Federal Real Property June 1963

GENERAL SERVICES ADMINISTRATION ANNUAL REPORT OF REAL PROPERTY OWNED BY THE UNITED STATES <small>(For instructions see GSA Reg. FPMR (41 CFR) 101-11.4901)</small>				FORM APPROVED BUDGET BUREAU NO. 10-9100-4	1. REPORT AS OF Code 8999 10 10 74	
4. NAME OF INSTALLATION (Abbreviate when necessary or so not to exceed 23 type spaces) Monterey Station				2. AGENCY CONTROL NO. 30469	3. GSA CONTROL NO. 08774	
5. REPORTING AGENCY Dept. of Transportation				6. BUREAU OR OTHER MAJOR ORGANIZATION U. S. Coast Guard		
LOCATION						
7. STATE OR CONTINENT California		8. CITY OR TOWN Monterey		9. COUNTY OR COUNTRY Monterey		
10a. GEOGRAPHICAL CODE	10b. STATE OR CONTINENT	10c. CITY OR TOWN	10d. COUNTY OR COUNTRY	10e. STREET ADDRESS, RD., ROUTE NO., OR OTHER LOCAL DESIGNATION		
LAND						
11. CODE (A)	11. USAGE CLASSIFICATION (B)	12. METHOD(S) OF ACQUISITION CODE	13. DATE(S) ACQUIRED (Year(s) only)	14. AREA (Acres to nearest tenth)		15. COST (In thousands of dollars - round to 00)
				URBAN	RURAL	
18	Flood Control and Navigation	2	1897 1942	4.7		49
TOTAL LAND				(1) 4.7		49
BUILDINGS						
17. CODE (A)	17. USAGE CLASSIFICATION (B)	18. NUMBER OF BUILDINGS	19. DATE(S) ACQUIRED (Year(s) only)	20. GROSS FLOOR AREA (Linear dimensions) (In thousands of sq. ft. - round to 00)		21. COST (In thousands of dollars - round to 00)
				TOTAL (Sq. Ft.)	OCCUPIED	
18	OFFICE	1	1945	11,500	100	75
21	HOSPITAL					
22	PRISON					
23	SCHOOL					
24	OTHER INSTITUTIONAL USES					
26	HOUSING	1	1945	8,900	100	54
28	STORAGE	8	1945	8,152	100	37
30	INDUSTRIAL					
40	SERVICE	2	1945	243	100	1
70	RESEARCH AND DEVELOPMENT					
80	ALL OTHER (Specify in Remarks)					
90	TRUST BUILDINGS (Specify in Remarks)					
TOTAL BUILDINGS				26,755		167
OTHER STRUCTURES AND FACILITIES						
23. CODE (A)	23. USAGE CLASSIFICATION (B)	24. COST (In thousands of dollars - round to 00)	25. USAGE (Cont.)	26. CODE (B)	27. COST (Cont.) (In thousands of dollars - round to 00)	
						CLASSIFICATION (B)
12	AIRFIELD PAVEMENTS	136	28. UTILITY SYSTEMS	52		
13	HARBOR AND PORT FACILITIES		29. COMMUNICATIONS SYSTEMS	2		
15	POWER DEVELOPMENT AND DISTRIBUTION		30. NAVIGATION AND TRAFFIC AIDS			
16	RECLAMATION AND IRRIGATION		31. ROADS AND BRIDGES			
18	FLOOD CONTROL AND NAVIGATION		32. RAILROADS			
40	STORAGE (Other than buildings)		33. MONUMENTS AND MEMORIALS			
50	INDUSTRIAL (Other than buildings)		34. MISCELLANEOUS MILITARY FACILITIES			
60	SERVICE (Other than buildings)		35. ALL OTHER (Specify in Remarks)	(2) 1		
70	RESEARCH AND DEVELOPMENT (Other than buildings)		36. TRUST (Specify in Remarks)			
TOTAL COST OTHER STRUCTURES AND FACILITIES				191		
25. TOTAL COST: LAND, BUILDINGS AND OTHER STRUCTURES AND FACILITIES				497		
26. REMARKS (Use reverse if more space is required)						
<p>(1) Acquired by transfer from the U.S. Army on:</p> <p>a. 2 Aug 71 - 0.74 acres of tidelands ceded to the USA at no cost under an Act by the State of California, approved 9 Mar 1897.</p> <p>b. 3 Jan 74 - 0.0997 acres of land acquired by the USA for \$1.00 by deed dated 27 May 1931.</p> <p>(2) 1 flagpole and 1 basketball court</p>						
27. TYPE OF TRANSACTION (Check one only)						
<input type="checkbox"/> 1 NEW ACQUISITION <input type="checkbox"/> 2 OMISSION <input type="checkbox"/> 3 TRANSFER IN <input type="checkbox"/> 4 DISPOSAL <input type="checkbox"/> 5 TRANSFER OUT <input checked="" type="checkbox"/> 6 ACQUISITION						
28. PREPARED BY (Type name and title)				29. SIGNATURE		
I. W. LINDEMUTH, CDR, USCG Chief, Civil Engineering Branch				30. DATE 30 Sept 74		

Figure 11. GSA-1166 1974

1035ABR1
11/23/76

REAL PROPERTY GAINED BY UNITED STATES GOVERNMENT
30 SEPT 1976

PAGE 352

CD NM	C G S A CODE	G E O G R A P H I C A L S T - C I T Y - C I T Y	I N S T A L L A T I O N N A M E (D E S C R I P T I O N)	P E U S	A D A T E S F R O M T O	N O O F B L D G S	S Q F T	X O C C	A C R E A G E		C O S T P E R T H O U S	
									U R B A N	R U R A L		
DISTRICT 12												
R	08774	06-2250-053	MONTEREY LTSTA	1	18 2	1897 1942				4.7	49	
R	08774	06-2250-053	MONTEREY LTSTA	2	10	1945	11500	100%			75	
R	08774	06-2250-053	MONTEREY LTSTA	2	30	1945	8900	100%			54	
R	08774	06-2250-053	MONTEREY LTSTA	2	40	1945	8152	100%			37	
R	08774	06-2250-053	MONTEREY LTSTA	2	60	1945	243	100%			1	
R	08774	06-2250-053	MONTEREY LTSTA	3	13						136	
R	08774	06-2250-053	MONTEREY LTSTA	3	71						52	
R	08774	06-2250-053	MONTEREY LTSTA	3	72						2	
R	08774	06-2250-053	MONTEREY LTSTA	3	80						1	
							12	28795		4.7	407	
							12	28795			20.0	6
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	1	18 1	1866					111	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	2	30	1961	7350	100%			171	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	2	40	1908 1930	4968	100%			37E	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	3	60	1909 1914	1680	100%			28	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	3	71						2	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	3	72						28	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	3	76						2	
R	08776	06-3415-079	PIEDRAS BLANCAS LTSTA	3	80						3	
							10	13998		4.7	380	
							10	13998			20.0	6
DISTRICT 9												
R	08777	06-2735-081	PIGEOON POINT LTSTA	1	18 2	1870 1929					9	
R	08777	06-2735-081	PIGEOON POINT LTSTA	2	30	1909 1961	7670	00%			120	
R	08777	06-2735-081	PIGEOON POINT LTSTA	2	40	1942	190	00%			1	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	60	1872 1948	2337	25%			72	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	71						16	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	72						6	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	73						12	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	76						4	
R	08777	06-2735-081	PIGEOON POINT LTSTA	3	80						11	
							10	10197			247	
							10	10197			12.0	6
R	08778	06-2860-045	POINT ARENA LIGHT STA	1	18 1	1866					21.2	
R	08778	06-2860-045	POINT ARENA LIGHT STA	1	18 2	1880 1882					12.0	

Figure 12. Summary Report of Real Property 1974

from the summary Report of Property Owned which is generated by submissions of the GSA-1166. Two items are of particular note. First, numbers are taken directly from the submitted report for use on the summary. Any external request for information or reporting requirement would utilize these exhibits as documentation. Secondly, note the increase in acreage from 3.84 to 4.7 acres in the remarks section of Figure 11. Almost a full acre was acquired from the Army with no associated historical costs. If the transfer was reimbursable, the transfer price (which is not mentioned) should have become the capitalized value of the land to the Coast Guard. If nonreimbursable (the more likely situation), the recorded capitalized value of the acquired asset should have been the estimated market value at the time. Because no entry has been made to increase the land account, adjoining land valued at over \$12,000.00 an acre (estimated historical cost) is included in the same capitalized account with land that has an immaterial cost basis.

Table I summarizes the recorded accounting history of the real property at Monterey from its transfer to the Coast Guard until September 1977. The latest recorded GSA-1166 prior to the construction of the totally new facility in the 1976-1978 period is dated September 1977 (Figure 13). As shown by Table I, the only discrepancy subsequent to the adjustment in 1963 occurs in the Other Structures and Facilities (3310) account. The bulk of the difference

TABLE I
SUMMARY OF REAL PROPERTY ACCOUNTS 1961-1976

ACCOUNT:	LAND	BUILDINGS	OTHER STRUCTURES
DATE	DR (CR)	DR (CR)	DR (CR)
6/61	49	194	159
6/63		(30)	(7)
6/63		4	
11/70		(1)	
1/76		(131)	(3)
BALANCE	49	36	149
GSA-1166 9/77 BALANCES	49	36	197
DIFFERENCE:	0	0	48

GENERAL SERVICES ADMINISTRATION ANNUAL REPORT OF REAL PROPERTY OWNED BY THE UNITED STATES <small>(For instructions see GSA Reg. 2-XI-201.04)</small>				FORM APPROVED BUDGET BUREAU NO. 70-0100-4		1. REPORT AS OF JUNE 30 19__		
2. NAME OF INSTALLATION (Abbreviate when necessary so as not to exceed 25 type spaces) Monterey Station				2. AGENCY CONTROL NO. 30469		3. GSA CONTROL NO. 06774		
				3. REPORTING AGENCY Department of Transportation				6. BUREAU OR OTHER MAJOR ORGANIZATION U.S. COAST GUARD
7. STATE OR CONTINENT California			8. CITY OR TOWN Monterey			9. COUNTY OR COUNTRY Monterey		
10. STREET ADDRESS, RFD, ROUTE NO., OR OTHER LOCAL DESIGNATION	11. USAGE	12. METHOD(S) OF ACQUISITION	13. DATE(S) ACQUIRED	14. AREA (Acres to nearest tenth)		15. COST		
	11. CLASSIFICATION	12	13	14 URBAN	14 RURAL	15 (In thousands of dollars-unit 000)		
	Flood Control and Navigation	2	1897 1942	4.7		49		
TOTAL LAND				4.7		49		
BUILDINGS								
17. CODE (A)	18. USAGE CLASSIFICATION (B)	19. NUMBER OF BUILDINGS	20. DATE(S) ACQUIRED (Year(s) only)	21. GROSS FLOOR AREA (square dimensions)		22. COST		
				21. TOTAL (Sq. Ft.)	21. PERCENT OCCUPIED	22 (In thousands of dollars-unit 000)		
	OFFICE (1)	7	1945	8,152	100	36		
	HOSPITAL							
	PRISON							
	SCHOOL							
	OTHER INSTITUTIONAL USES							
	HOUSING (2)							
	STORAGE (3)							
	INDUSTRIAL							
	SERVICE (4)							
	RESEARCH AND DEVELOPMENT							
	ALL OTHER (Specify in Remarks)							
	TRUST BUILDINGS (Specify in Remarks)							
TOTAL BUILDINGS				7		8,152	100	36
OTHER STRUCTURES AND FACILITIES								
23. CODE (A)	24. USAGE CLASSIFICATION (B)	25. COST (In thousands of dollars-unit 000)	26. CODE (A)	27. USAGE CLASSIFICATION (B)	28. COST (In thousands of dollars-unit 000)			
					28			
	AIRFIELD PAVEMENTS	133		UTILITY SYSTEMS	52			
	BERM AND PORT FACILITIES			COMMUNICATIONS SYSTEMS	2			
	POWER DEVELOPMENT AND DISTRIBUTION			NAVIGATION AND TRAFFIC AID	0			
	RECREATION AND IRRIGATION			ROADS AND BRIDGES (5)	0			
	FLOOD CONTROL AND NAVIGATION			RAILROADS				
	STORAGE (Other than buildings)			MONUMENTS AND MEMORIALS				
	INDUSTRIAL (Other than buildings)			MISC. MILITARY FACILITIES				
	SERVICE (Other than buildings)			ALL OTHER (Specify in Remarks)	(6) 1			
	RESEARCH AND DEVELOPMENT (Other than buildings)			TRUST (Specify in Remarks)				
TOTAL COST OTHER STRUCTURES AND FACILITIES					17			
TOTAL COST LAND, BUILDINGS, AND OTHER STRUCTURES AND FACILITIES					273			
29. REMARKS (Use reverse if more space is required)								
(1) Demolition of barracks building 8,900 S.F. reduce value \$54,000. (2) Demolition of Admin. Building 11,500 S.F. reduce value \$75,000. (3) Demolition of Paint Storage Building 800. (4) Demolition (2) two storage building 243 S.F. reduce value \$1,000. (5) Removal of roads and parking lot (asphalt) reduce value \$2,600. (6) Appraisal Service land fill Monterey Station increase value \$3,100.								
37. TYPE OF TRANSACTION (Circle one only)				38. PREPARED BY: W. J. ... , USCG Chief, Civil Engineering Branch				
<input type="checkbox"/> 1. NEW AC. Q. <input type="checkbox"/> 2. OMISSION <input type="checkbox"/> 3. TRANSFER IN <input type="checkbox"/> 4. DIS. TOTAL <input type="checkbox"/> 5. TRANSFER OUT <input type="checkbox"/> 6. REVISION				39. SIGNATURE: M. Allen (for) DATE: 9/25/77				

Figure 13. GSA-1166 September 1977

(\$39,000) can be explained by a December 1970 improvement which was written off to expense by the District Office Accounting Branch. The same \$39,000 entry was capitalized on a GSA-1166 which originated in Civil Engineering on the same date. The remaining \$9,000 discrepancy might be partially explained by rounding errors. However, no documentation is available to support that contention.

The Accounting Branch in the District office prepares and uses the CG-3652 to support general ledger entries. After the form is verified by Civil Engineering, it is used as a journal voucher for the general ledger. It is also used to update the GSA-1166, which is prepared and maintained by Civil Engineering. Because of the design of the CG-3652, it is possible that the same change to a real property asset may be expensed in the accounting records but recorded as a capitalized value in the real property records.

2. 4700--Real Property Acquisitions in Process

The Acquisition in Progress account is a suspense account in which all capitalized costs applicable to a construction project or acquisition which has not yet been accepted are carried. Upon final acceptance of the project all capitalized costs are transferred into the appropriate ledger account.

Construction of the new facilities at Group Monterey was completed in 1978. Due to a backlog in the Twelfth CG

District office, the transfers to the Building and Other Structures accounts have not been effected. Figure 14 is taken from the Trial Balance of Accounts near the end of fiscal year 1982. The first three entries in account 4700, totalling approximately \$1.3 million of an account balance of \$6.4 million, are the figures which will be transferred to the general ledger account for the Group Monterey project. The backlog is caused primarily by two factors. First, a low priority has been given to the capitalization records because of other requirements on financial personnel which have a more direct effect upon operations. The daily requirements of monitoring the status of unit operating funds, for example, could curtail operations if not performed. The purchasing and disbursing functions also have a priority over the monetary valuation of assets.

Second, the system of coordination between accounting and engineering in establishing the basic capitalized costs and expenses for projects could be improved. Real property records are maintained by the Civil Engineering Branch on the GSA-1166. Civil Engineering is directly responsible for acquisition and construction projects. The accounting records are the responsibility of the Comptroller Division, even though the basic input is generated by engineering. The accounting staff is normally more familiar with the dynamics of the capitalization/expense decision and its effects upon accounting records. The accounting staff,

09/22/82

U.S. COAST GUARD DISTRICT 12
GENERAL LEDGER ACCOUNT
FINAL TRIAL BALANCE
AS OF 08/35/82

TRANS. CODE	GENERAL LEDGER	APPROP. CODE	FY	SUB-HEAD	OPFAC	SUB-ACCOUNT	DEBIT BALANCE	TOTAL ACCOUNT
95	4700	N	6	360831	00000	1,279,037.45		
95	4700	N	6	362331	00000	9,770.01		
95	4700	N	6	362332	00000	11,085.12		
95	4700	V	2	320101	00000	6,750.00		
95	4700	V	2	320646	00000	15,634.33		
95	4700	V	7	370822	00000	21,123.73		
95	4700	V	7	370831	00000	315,946.58		
95	4700	V	7	371931	00000	684,144.45		
95	4700	V	7	371932	00000	622,066.96		
95	4700	V	7	371933	00000	10,027.75		
95	4700	V	7	372231	00000	190,921.85		
95	4700	V	7	372233	00000	43,890.28		
95	4700	W	5	350102	00000	10,000.00		
95	4700	W	5	350646	00000	3,328.91		
95	4700	W	5	350731	00000	22,036.53		
95	4700	W	8	380101	00000	16,426.00		
95	4700	W	8	380531	00000	926,000.00		
95	4700	W	8	380532	00000	110,056.60		
95	4700	X	9	390531	00000	1,535,959.66		
95	4700	X	9	392231	00000	556,634.32		
95	4700	Y	0	303631	00000	41,400.00		
95	4700	1	0	430000	00000			6,432,240.53

Figure 14. Account 4700 Trial Balance 1982

therefore, reviews the capitalized costs charged to 4700 prior to final transfer into the applicable asset account.

The second factor is related to the first. Because of other pressing accounting needs, the independent review of project cost data by accounting personnel is not done concurrently with the gathering of costs from acquisition or construction. If the time were available for accounting to review capitalization and expense decisions as they were entered into the 4700 account, final transfer from Acquisitions in Progress to the applicable asset account would become a simple clerical function.

3. Field Level Capitalization--Real Property

The foregoing sections have dealt with the capitalization issue as seen from the formal accounting records maintained in San Francisco and Washington, D.C. Although all related transactions have concerned real property maintained at Group Monterey, neither personnel at the field level nor operating funds administered by the Group have been involved.

The author's perception is that a breakdown in the control system is likely to occur when real property is purchased with annual unit operating funds. To test this hypothesis, the operating fund ledgers at Group Monterey for fiscal years 1980 and 1981 were reviewed for all entries exceeding the \$1000 capitalization threshold. Additionally all District Purchase Orders were reviewed. Sixty-five

entries over the two year period were greater than \$1,000. Because of the small population size, direct inspection of the documentation for each entry was determined feasible and completed. Out of the population of 65, document review revealed three entries which should have been considered for capitalization as real property. An additional seven transactions were identified as meeting the criteria for capitalization as personal property. The accounting for these seven will be discussed in the section on personal property. The three real property assets were fencing, permanently mounted storage lockers, and an antenna. The total value of the three purchases exceeded \$20,000. No record of the items was found in unit personal property files or in the Twelfth District real property files. Given the historical cost basis of the Group's real property, \$20,000 can be considered significant.

It can be generally stated, however, that real property is not frequently purchased with unit operating funds. Controls over this type of transaction are not often required. A deeper problem is that Group Monterey (or any other field unit), with little or no accounting expertise on hand and no guidance from higher levels, cannot be expected to consider capitalization of real property. There is no procedure which the Group should have followed to insure recording of the transaction in property as well as accounting records. This is up to the District. If there is little or

no danger of theft, as is the obvious case with the fence, the field level operator is likely to feel no further concern for the asset acquired.

E. PERSONAL PROPERTY ACCOUNTING--GROUP MONTEREY

Implementation of the Coast Guard's Personal Property Accountability system (PPA) requires coordination between the three levels of responsibility. Property enters the system at the operational level and is summarized and accounted for at that and higher levels of management. The field unit has direct control over the type and amount of property that is capitalized. Most personal property is purchased at the field level with unit controlled funds. Because purchase accounting documentation and PPA are not an integrated system, the burden is placed upon the unit administrator to insure that property which meets capitalization criteria is entered into PPA. Accurate property accounting further requires that the property be correctly valued at the time of entry.

The hypothesis to be tested is that, because of broad capitalization criteria and operator unfamiliarity with the intricate system and the reasoning behind it, many items which should be capitalized are not. As was the case with real property, reliable data were available for fiscal years 1980 and 1981. Review of the Group's operating ledger indicates that over the two year span, 213 transactions had

exceeded the \$300 personal property capitalization threshold. In view of the size of the population, it was concluded that statistical sampling was appropriate for the purpose of extrapolation.

1. Statistical Model--Hypergeometric Distribution

The hypergeometric distribution [Ref. 10: Ch. 6] is used by statisticians to evaluate the probabilities of the total number(s) of occurrences of items with a given attribute in a sample size of n. These probabilities can be used, for example, to test manufacturers' claims of reliability for their products. The formula to evaluate the probability of s errors, p(s), is as follows:

$$p(s) = \frac{\frac{M!}{s! (M-s)!} \cdot \frac{(N-M)!}{(n-s)! ((N-M) - (n-s))!}}{\frac{N!}{n! (N-n)!}}$$

Where M = number of errors in population

N = population size

n = sample size

s = number of errors in sample
(s is an integer)

The number of errors expected to be found in the sample is a product of the sample size and the population rate. This expected value is the mean, derived by the following formula:

MEAN

$$E(s) = \frac{(n)(M)}{N}$$

2. Sample Selection and Testing

A sample of thirty was selected at random from the population of 213 ledger entries exceeding \$300. Random selection was accomplished without replacement with the use of a random number table. Supporting documentation was reviewed for each of the thirty selected sample transactions. Eight items of the thirty met capitalization criteria for personal property and should have been entered into the PPA. Of the eight, two had actually been correctly recorded as personal property. There were six errors. The remaining twenty-two transactions had been properly expensed.

In addition to the sampling, transactions noted as a result of real property testing (para. V.D.3) were directly reviewed for supporting evidence. Of seven items identified in the real property survey which should have been capitalized as personal property, three were actually in the system. Two of these three were improperly valued, however.

Table II summarizes the dollar values and the capitalization/expense decisions for the sample based upon the \$300 personal property capitalization threshold. Table III summarizes the monetary implications of the property which was incorrectly expensed rather than capitalized.

3. Statistical Inference

Based upon the sample of thirty from the population of 213, probabilities of finding a finite number of errors were computed for varying assumed error rates. The initial

TABLE II

SAMPLE BASED UPON THE \$300
PERSONAL PROPERTY CAPITALIZATION THRESHOLD

TRANSACTION	DOLLAR VALUE	EXPENSE (E) or CAPITALIZE (C)
1	487	C
2	676	E
3	390	E
4	850	E
5	740	C
6	530	E
7	624	C
8	370	E
9	340	E
10	325	E
11	405	E
12	475	E
13	490	E
14	475	E
15	375	C
16	475	E
17	730	E
18	655	E
19	1287	C
20	700	C
21	441	E
22	486	E
23	492	E
24	500	E
25	525	C
26	1000	E
27	302	E
28	1380	C
29	380	E
30	375	E

TOTAL = \$17,280.

MEAN VALUE OF SAMPLE = \$576.

TABLE III

SUMMARY OF NON-CAPITALIZED PERSONAL PROPERTY

Personal Property Errors Discovered in Sample

TRANSACTION # (see Table II)	DOLLAR VALUE	DOLLAR VALUE CAPITALIZED
1	487	100
7	624	0
19	1287	0
20	700	0
25	525	80
28	1380	400
TOTAL:	5003	

MEAN DOLLAR VALUE = 834

Personal Property Errors Discovered
During Real Property Survey

	DOLLAR VALUE	DOLLAR VALUE CAPITALIZED
	3040	0
	2500	0
	1140	0
	2290	500
	2550	1000
	1125	0
TOTAL:	12645	1500

MEAN DOLLAR VALUE = 2108

assumed error rate was 1 percent. This means that ninety-nine out of one hundred transactions involving sums greater than \$300 would be properly accounted for. The transactions would be expensed or capitalized according to the established criteria. At an error rate of 1 percent, the probability of finding six errors in the sample of thirty was effectively zero. The expected number of errors was only .28. Thus, there was virtually no chance that the 1 percent error rate was correct.

The assumed error rate was gradually increased from the initial 1 percent to 25 percent. Rates of 1, 2, 5, 10, 15, 20, and 25 percent were evaluated. At 25 percent the probability of finding six errors in the sample was .813. The expected number of errors was 7.5. The actual number of errors found (6) was equal to the expected number when the error rate was assumed to be 20 percent.

Table IV provides the results of the hypergeometric calculations for various error rates and selected sample occurrences. Sensitivity analysis is included for the probability of finding 6 errors at increasing population error rates greater than 25 percent.

It is essential to understand that the use of this distribution cannot predict the population error rate based upon sample error occurrence. The probabilities which have been generated help to refute a claim that the error rate is insignificant. There exists a 59 percent probability that

TABLE IV
 PROBABILITY OF ERROR OCCURRENCE

p(s) for n = 30 at Various Assumed Population Error Rates

s	Population Error Rate						
	1%	2%	5%	10%	15%	20%	25%
1	.262	.536	.82	.965	.995	.999	.999
2	.019	.146	.476	.831	.962	.993	.998
3	0	.021	.190	.594	.869	.968	.992
4		.001	.052	.340	.900	.971	.698
5		0	.010	.153	.483	.773	.916
6			.001	.055	.281	.594	.813
10			0	0	.005	.050	.176
20					0	0	0
E(s)	.3	.6	1.5	3.0	4.5	6.0	7.5

SENSITIVITY ANALYSIS

For P(s=6) at increasing population error rates:

30%	35%	40%	50%
.939	.985	.997	.999

(This is an extension of row s=6, above.)

six errors would have been discovered, given a population error rate of 20 percent. It is very unlikely that an error rate as low as 10 percent exists. The probability of finding six errors in the sample, if the population error rate were 10 percent, is only 5.5 percent.

For purposes of discussion, if we assume that a 20 percent error rate exists, then 42.6 of the 213 transactions would have been improperly recorded. Multiplying 42.6 by the mean sample value of \$576 suggests a total possible error figure of \$24,538.

Statistical inference does not allow the identification of a specific error rate in the population. Intuitively, however, the presence of a 20 percent error rate in a random sample of 30 transactions indicates that a significant error rate in the population is likely. The financial implications of a substantial error rate could have a significant effect upon capitalized account balances. The property accountability system loses its effectiveness when it is likely that many assets are not entered under the system's control or are entered at incorrect amounts.

VI. RELEVANT ISSUES IN THE CAPITALIZATION PROBLEM

Chapter V presented the results of research into the implementation of current Coast Guard property accounting procedures. Before drawing conclusions regarding the effectiveness of those procedures, however, it is helpful to understand two basic policy decisions in property accounting--valuation and depreciation.

Current cost is often suggested as an alternative to historical cost for use as the primary valuation base for assets. The following section on valuation discusses the implications of this alternative base in comparison with historical cost. The section also contains a discussion of the nonmonetary capitalization criteria.

Governmental requirements for depreciation were listed in Chapter III. However, except for one limited application, Coast Guard accounting policies do not consider depreciation. The relationship between capitalization of fixed assets and depreciation is discussed in section B below.

The third section in this chapter considers the uses of the information generated by the property accounting system. The system can be effective only if its output is of practical use to the decision maker. The informational needs of managers may vary according to their positions. The decision significance of property accounting information can be

evaluated on the basis of how it fulfills the needs of management.

A. ASSET VALUATION

1. Valuation Basis

Throughout previous chapters, acquisition or historical cost has been the only asset valuation considered. Coast Guard accounting regulations, in accordance with GAO requirements, specify the use of historical cost. GAAP on the subject of fixed asset valuation are summed in the following quote:

Fixed assets should be carried at the cost of acquisition or construction in the historical accounts, unless such cost is no longer meaningful. [Ref. 1: p. 252]

GAAP require the use of historical cost "unless such cost is no longer meaningful". Whether or not historical cost is meaningful depends upon the user's needs for the cost information. If the cost information is needed as objective proof of an asset's existence or as a measure of the historical transaction price, then historical cost is useful and meaningful. For the purpose of planning and decision making, however, historical cost is not relevant. The historical cost of an asset is a "sunk" cost which will not vary under alternative decisions. [Ref. 11: Ch. 1, 11]

There is sentiment among some accountants to report cost information which is relevant for decision making through current cost accounting. Statement No. 33 of the

Financial Accounting Standards Board [Ref. 12] requires disclosure of current cost information for some private sector firms. Implementation of current cost accounting in the Federal government would alter the Coast Guard's property capitalization procedures and cause a change in the capitalized asset position of the service. For this reason current cost accounting is considered below.

Current cost, or current entry value, is the current acquisition price of an asset in an entity's input market. The inputs are the untransformed resources used in generating output. Current entry values can be represented in two forms. One is current reproduction cost, today's cost of replacing an asset with an identical asset. The second form is current replacement cost, which represents the cost of replacing the service potential of an asset [Ref. 6: Ch. 5]. For planning and decision making, current replacement cost is more relevant than current reproduction cost. The decision maker should be concerned with the cost of replacing an asset's service potential in the current market rather than the costs of replacing a specific, and possibly outmoded or inefficient, asset.

The difference between historical cost and current cost is illustrated by the following example. Figure 15 is a newspaper article which discusses the disposal of a piece of Coast Guard property on the California coast. The estimated market value (source unknown) is \$1 million. Figure

Coast Guard Ends Plans To Dispose of Point Sur

By Ken Peterson
Herald Staff Writer

The U.S. Coast Guard has dropped plans to dispose of 33 acres at Point Sur as surplus property, paving the way for continued negotiations leading to lease of the land as a state park, a spokesman for Rep. Leon Panetta, D-Monterey, said Wednesday in Washington.

And a representative with the state Department of Parks and Recreation in Sacramento said the state is "very interested" in the property as a site for limited public tours and, perhaps eventually, as a youth hostel or bed and breakfast facility.

The reports came out in the wake of a Time magazine article this week which lists the Point Sur Lighthouse property as one of 307 parcels around the nation being proposed for sale by the federal government.

While the Coast Guard will continue to operate a lighthouse at Point Sur, the facility is automated and there is no longer a need for surrounding land where the home of former lighthouse keepers still stands.

The Coast Guard, in response to an initial federal survey, indicated to a special Property Review Board established by President Reagan that the land was surplus, according to Mike Case, a legislative assistant in Panetta's office.

But the congressman subsequently wrote to Coast Guard Commandant Admiral James S. Gracey, asking that the land be held by the Coast Guard for possible lease to the state parks department, Case said.

Gracey wrote back to Panetta on Aug. 11, saying that he has asked that the land be dropped from the surplus list, Case said.

The letter also says that the Property Review Board has not yet confirmed withdrawal of the property, he added.

If the land remains on the list, the Coast Guard would have to file a "report of excess" with the federal General Services Administration, a process that takes about a year to complete, Case said.

Subsequently, the land would be offered for sale at its fair market value to other federal agencies and then to state and local governments before it would be submitted for sealed-bid sale to the general public, he said.

Value of the property is estimated to be at least \$1 million in the Time article.

Negotiations between the state, the Coast Guard, the Navy — which operates a small station adjacent to the lighthouse — and Monterey County have continued throughout this process, according to Ross Henry, chief of the planning division for the state parks department.

Henry said he met last week with a Coast Guard representative and had earlier presented a detailed state proposal for use of the land.

If a lease is approved, the state plans initially to place a ranger in the abandoned lighthouse residence buildings on Point Sur, he said.

Later plans would include opening up the point to reservation-only historical and interpretive tours, relating to lighthouse operations in California and the Big Sur coast, opening the point for more extensive public visits and, finally, opening either a small youth hostel or bed and breakfast inn, Henry said.

The parks department would evaluate problems with increased public access at each step before opening Point Sur further, he said.

Immediate problems include where to allow parking that would not spoil the scenic view of Point Sur from other places along Highway 1, and how people would be able to get to the top of the rocky point.

The only access now is on a steep, narrow road that is "passable, but barely," Henry said.

Visitors might have to walk to the top or, when tours are arranged, carried to the top in a shuttle van or other vehicle, he said.

"We are very interested in the property," Henry said.

State representatives will continue to refine their plans for the land and to negotiate for a license from the Coast Guard to use the site.

Figure 15. Newspaper Article PT. SUR Light Station

16 is a Report of Real Property Owned by the U.S. Government, which places a total historical value of \$75,000 on the property. A comparison of Figures 15 and 16 reveals a vast difference in valuation bases. Property worth at least \$1,000,000 on the market is carried on Coast Guard books at \$75,000. This demonstrates that the current worth of property, even in an interagency transfer, could be far different from recorded historical cost.

Current replacement costs provide users of financial statements with more current and comparable financial data. This information helps decision makers evaluate the future potential and needs of the entity. It enables investors to make a fair comparison between asset levels of different organizations. To continue with an earlier analogy, the investors in the Coast Guard are taxpayers. Current cost disclosure would provide those investors with the financial positions of various agencies on a comparable basis. Current replacement cost also provides a better base for estimation of an agency's budgetary needs. It would make no sense to base a budgetary request for replacement on the historical cost of an asset when the asset's current purchase price is available.

Although current cost information is more relevant than historical data for planning and decision making, historical cost remains as the primary cost basis. In an interview with an accountant on the Accounting Policy, Planning

103-4881
11/23 76

REAL PROPERTY OWNED BY UNITED STATES GOVERNMENT
30 SEPT 1976

PAGE 255

DISTRICT 12

CD FM	C G S A CODE	G E O G R A P H I C A L S T - C I T Y - C T Y	I N S T A L L A T I O N N A M E (D E S C R I P T I O N)	P E U S A	D A T E S F R O M T O	N O O F B L D G S	S Q F T	X O C C	A C R E A G E		C O S T P E R / T H O U S
									U R B A N	R U R A L	
R	08786	06-2859-041	POINT REYES LSTA	1	18 2 1869					83.0	6
R	08786	06-2859-041	POINT REYES LSTA	2	30 1960	1	3900	100%			89
R	08786	06-2859-041	POINT REYES LSTA	2	40 1900 1560	4	2900	100%			14
R	08786	06-2859-041	POINT REYES LSTA	2	60 1870 1934	7	1504	100%			10E
R	08786	06-2859-041	POINT REYES LSTA	3	71						18
R	08786	06-2859-041	POINT REYES LSTA	3	72						3
R	08786	06-2859-041	POINT REYES LSTA	3	76						4
INSTALLATION SUB TOTAL				7		12	8304			83.0	144
R	08787	06-3863-041	PT STUART L F SIGNAL	2	60 1915	1	140	100%			15
INSTALLATION SUB TOTAL				1		1	140				15
R	08788	06-9999-053	POINT SUR LIGHT STATION 1	1	18 1 1866					36.0	6
R	08788	06-9999-053	POINT SUR LIGHT STATION 1	16	2 1889 1932					9.0	6
R	08788	06-9999-053	POINT SUR LIGHT STATION 2	30	1889 1944	2	6740	00%			22E
R	08788	06-9999-053	POINT SUR LIGHT STATION 2	40	1889 1926	4	2240	00%			3
R	08788	06-9999-053	POINT SUR LIGHT STATION 3	60	1869 1945	3	3030	97%			14E
R	08788	06-9999-053	POINT SUR LIGHT STATION 3	71							10E
R	08788	06-9999-053	POINT SUR LIGHT STATION 3	72							13E
R	08788	06-9999-053	POINT SUR LIGHT STATION 3	76							7E
R	08788	06-9999-053	POINT SUR LIGHT STATION 3	80							6E
INSTALLATION SUB TOTAL				9		9	12010			45.0	75
R	08793	06-0900-015	ST GEORGE REEF LTS	1	16 1 1867					.2	6
R	08793	06-0900-015	ST GEORGE REEF LTS	2	30 1891	1	5530	100%			70.4E
R	08793	06-0900-015	ST GEORGE REEF LTS	3	40						2
R	08793	06-0900-015	ST GEORGE REEF LTS	3	71						30
R	08793	06-0900-015	ST GEORGE REEF LTS	3	72						2
R	08793	06-0900-015	ST GEORGE REEF LTS	3	73						30
R	08793	06-0900-015	ST GEORGE REEF LTS	3	80						2.5
INSTALLATION SUB TOTAL				7		1	5530			.2	793

Figure 16. Summary Report of Real Property 1974

and Procedures Staff at USCG Headquarters [Ref. 13], optional valuation bases were discussed. The thrust of the Headquarters position was that funds should not be expended unnecessarily to gather valuation data. The degree of use of the data by external sources does not justify the added expense or effort required to adjust historical records.

The author feels that further study into the development and use of current cost information would prove worthwhile. Practical methods for determining current replacement costs exist. The information could be developed initially as a supplement to historical data. The information generated using a current cost basis would be more useful and meaningful for both internal and external decisions. At the same time, it would continue to serve the accountability needs of the property control system.

2. Capitalization Criteria

The GAO directive sets property capitalization thresholds at a \$1,000 maximum. The drafted Coast Guard policy specifies a \$300 limit for personal property and establishes a \$1,000 cutoff for real property. The Federal government's real property, including Coast Guard property, is of a grand magnitude. The Coast Guard reports almost \$2 billion of real property. In this context, an investment in real property of less than \$1,000 is certainly an immaterial one. Additionally, uneven amounts are rounded off to the nearest thousand for Federal reporting purposes.

The Coast Guard personal property capitalization threshold is set at \$300. Items sensitive to theft (e.g., calculators) are capitalized although they cost less than \$300. A lower capitalization threshold for such sensitive items serves the interests of property accountability. Even though the monetary valuation of inexpensive property may not be material in comparison with overall account balances, the property represents the taxpayers' investment and should be controlled. The property inventory serves as a record of the Coast Guard's assets.

Some discussion of the other capitalization criteria is necessary. The capitalization/expense decision based upon monetary valuation is relatively straightforward. It is a simple matter to compare actual values with a finite standard. It is more difficult to interpret the nonmonetary criteria. Determining the significance of an improvement to a building, for example, requires a greater understanding of the application of the criteria. The decision maker must decide whether productivity or usefulness is increased by the improvement or whether the expected life is extended. Different interpretations of criteria can result in different decisions. The personal property system provides a list of assets that require capitalization, but too many different kinds of property exist to make an exhaustive list realistic. The solution to this problem, education, will be considered in the following chapter.

B. DEPRECIATION

Depreciation expense attempts to measure the portion of an asset used up over a defined period of time. It is an estimate based upon an estimated useful life. GAAP address different methods of depreciation and their appropriate uses [Ref. 1: Ch. 6]. Primarily, however, depreciation is critical to the accrual concept of matching revenues or services to related expenses.

As mentioned in an earlier chapter, the Comptroller General has specified conditions under which depreciation should be measured. The Coast Guard currently maintains no formal records for depreciation of fixed assets. There are no plans to create general ledger accounts for accumulated depreciation or depreciation expense. Informal records, however, are maintained on a limited basis to calculate depreciation expense for allocation of costs of services provided by the Coast Guard to other agencies. [Ref. 14]

The formal recording of depreciation is required in the private sector. More thorough recording may be required of the Coast Guard in the future. The accurate portrayal of depreciation expense will depend upon the proper implementation of capitalization policies. Monetary valuation errors will cause a misstatement of the amount of depreciation expense taken. Failure to capitalize an asset will result in the same problem. The resolution of these implementation problems is discussed in Chapter VII. The point to be

realized here is the impact that capitalization policies have upon the accuracy of subsequent accounting procedures.

C. DECISION SIGNIFICANCE

In the private sector proper accounting procedures separate current expenses from assets. Capitalization and depreciation of assets help to identify expenses to match with revenues for accurate income reporting. They also aid the user of the balance sheet in evaluating a firm's financial position.

A government agency's financial status may also be evaluated through its financial statements. Because of the absence of the profit motive, however, this use of financial data is less important. The emphasis of government property accounting is on the custodial control of assets. The following paragraphs discuss the significant uses of financial information generated by the property control system.

1. Performance Measurement

a. External

Figure 17 is the Statement of Financial Condition of the U.S. Coast Guard as of 30 September 1981. The report is prepared for the Department of Treasury, which then compiles this and similar reports from other agencies for use by interested parties. Overall agency performance can be evaluated by comparing annual changes in financial status. Comparison of this report with the budget provides follow up

STATEMENT OF FINANCIAL CONDITION
AS OF 30 September 1981

U. S. Coast Guard

All Funds

ASSETS	Bureau or Fund Name	Bureau Identification No.
SELECTED CURRENT ASSETS		
1. Fund balances with Treasury (Schedule 1):		
a. Budget funds	942,590,067.48	
b. Budget clearing accounts	1,155,529.21	
c. Deposit funds	1,573,452.71	
d. Foreign currency funds		
e. Allowances, foreign currency funds (-)		945,319,049.40
2. Federal security holdings (at par) (Schedule 2)		17,963,000.00
3. Accounts receivable:		
a. Government agencies	20,122,745.81	
b. The Public	32,663,703.56	
c. <u>Unamortized Discount on Gov't Sec.</u>	-500,595.26	
d. Allowances (-)	-13,246,565.98	39,039,288.13
4. Advances to:		
a. Government agencies	60,125,541.35	
b. The Public	3,421,469.21	63,547,010.56
5. TOTAL SELECTED CURRENT ASSETS		1,065,868,348.09
6. Loans receivable (Schedules 3 and 4):		
a. Repayable in dollars		
b. Repayable in foreign currencies		
c. Allowances (-)		
7. Inventories:		
a. Items for sale	33,476,170.45	
b. Work-in-process	9,397,517.31	
c. Raw materials and supplies	170,717,292.95	
d. Stockpile materials and commodities		
e. Allowances (-)	-56,487.99	213,534,492.72
8. Real property and equipment:		
a. Land	54,267,806.00	
b. Structures and facilities	754,968,331.87	
c. Equipment <u>Estimated</u>	129,685,505.00	
d. Equipment	960,671,996.62	
e. Acquired security, pending disposition		
f. Allowances (-)	-13,517,043.30	1,886,076,596.19
9. Other assets:		
a. Work-in-process, contractors		
b. Materials and supplies—other	138,250.62	
c. <u>Investments—Gift Fund</u>	42,975.86	
d. <u>Deferred and Undistributed Charges</u>	26,287.95	
e. <u>Acquisitions in Process</u>	375,021,925.13	
f. Allowances (-)	-137,143.81	375,092,295.75
10. TOTAL ASSETS		3,540,571,732.75

220-108

Figure 17. Statement of Financial Condition
U.S.C.G. 30 September 1981

STATEMENT OF FINANCIAL CONDITION
AS OF 30 September 1981

U. S. Coast Guard

All Funds

Bureau or Fund Name

Bureau Identification No.

LIABILITIES			
SELECTED CURRENT LIABILITIES			
11. Accounts payable (including funded accrued liabilities):			
a. Government agencies		56,208,897.93	
b. The Public		49,201,679.60	
c. _____			105,410,577.53
12. Advances from:			
a. Government agencies		35,717,309.75	
b. The Public			35,717,309.75
13. TOTAL SELECTED CURRENT LIABILITIES			141,127,887.28
14. Deposit fund liabilities			1,573,452.71
15. Unfunded liabilities:			
a. Accrued annual leave		9,225,964.88	
b. _____			
c. _____			9,225,964.88
16. Debt issued under borrowing authority:			
a. Borrowings from Treasury			
b. Agency securities outstanding:			
(1) Participation certificates			
(2) Other			
c. _____			
d. _____			
17. Other liabilities:			
a. Mortgage - Cape Hart Housing		965,128.10	
b. _____			965,128.10
18. TOTAL LIABILITIES			152,892,432.97
GOVERNMENT EQUITY			
19. Unexpended budget authority:			
a. Unobligated		146,830,316.63	
b. Undelivered orders		808,198,342.43	955,028,659.06
20. Unfinanced budget authority (-):			
a. Unfilled customer orders		-49,728,586.46	
b. Contract authority			
c. Borrowing authority			-49,728,586.46
21. Invested capital			2,481,223,697.97
22. Other equity:			
a. Receipt account equity		1,155,529.21	
b. Unappropriated receipts (-)			
c. Foreign currency fund equity			1,155,529.21
23. TOTAL GOVERNMENT EQUITY (SCHEDULE 5)			3,387,679,299.78
24. TOTAL LIABILITIES AND GOVERNMENT EQUITY			3,540,571,732.75

Figure 17 (Continued)

Footnotes:

Line 3B - Reflects 30.0 million of "Receipt Account" receivables including \$26.1 million from Pollution Incidents. Collections of the latter amount will be over a prolonged period based on pending litigation.

Line 8D - Vessels	592,373,392.00
Aircraft	138,847,000.00
Small Boats	70,526,182.99
Vehicles	7,988,911.51
Buoys	69,039,456.58
Personal Property	81,897,053.54
	<u>\$960,671,996.62</u>

Line 9E - Vessels	121,899,932.81
Aircraft	185,738,349.33
Real Property	67,383,642.99
	<u>\$375,021,925.13</u>

Figure 17 (Continued)

information on execution of planned projects, acquisitions and operations.

The Coast Guard's budget appropriations depend largely upon the justification provided by accurate accounting information. Approval of Acquisitions, Construction, and Improvement (A,C&I) funds by Congress is partially based upon the use of such funds in previous years. The capitalization of real property, which is normally funded through A,C&I, is evidence that budgeted appropriations were properly used. The accurate portrayal of current real property status also provides Congress with information to work with when determining the need for additional or replacement property.

b. Internal

The capitalization of property is a natural internal budgetary review measure. Operating funds are given to field level units by the District office on the basis of the unit's budget request and the way funds have been spent in the past. In the fund allocation process, the budget officer can review unit performance in fund utilization for purposes requested. A check on the change in a unit's capitalized property is a relatively easy method of separating expenses from new assets.

The administrative performance of a field unit staff is evaluated periodically by the District Inspection Team. Figure 18 is the questionnaire currently used to evaluate a shore unit's property accounting procedure. It is

SECTION 3
PART C
SHORE UNITS
PROPERTY

1. Does the unit have an up-to-date allowance list? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
2. Are there any major discrepancies between the allowance list and the property onboard the unit?
3. Has a property officer been designated in writing by the Commanding Officer? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
4. Are supply department personnel familiar with the definition of general purpose property? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
5. Does the unit have established procedures whereby all additions and deletions of general purpose property are submitted on Forms CG-5009A and CG-5009B as appropriate? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
6. Is Property officer maintaining general purpose property reports (ADP print-outs from Headquarters computer; resulting from submission of Forms CG-5009, CG-5009A and CG-5009B)? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
7. Was an inventory of general purpose property taken upon relief of the last custodian or within the last three years? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
8. Have custodians signed property officer's copy of the property report noting any discrepancies? (COMDTINST 4400.13, COMPTMAN VOL. III, Part VIII)
9. Has the property officer advised the Commanding Officer of completion of the inventory? (COMDTINST 4400.13, COMPTMAN VOL. III, Part VIII)
10. Are Boards of Survey, Report and Expenditure (NAVSUP 154) forms promptly executed when disposing action has been effected? (COMDTINST 4400.13, COMPTMAN VOL. III, Part IX)
11. Are office labor-saving devices onboard within the allowances and properly maintained?
12. Protective type clothing and equipment.
 - a. Does the unit's allowance list contain items of protective clothing and equipment which meet the criteria for capitalized general purpose property? (COMDTINST M4400.13, COMPTMAN VOL. III, Part V)

Figure 18. Property Questionnaire from the
U.S.C.G. District Inspection Team

- b. Is this clothing and equipment onhand, within the allowance and properly cared and accounted for?
(COMDTINST M4400.13, COMPTMAN VOL. III, Part V)
13. Were relief procedures followed by the present CO/OIC, Property Officer and Custodian(s) as required by COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII?
 14. Are reportable items of general purpose property properly identified as prescribed in COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII?
 15. Have boards of survey been convened and approved by the proper command? (COMDTINST M4400.13, COMPTMAN VOL. III, Part IX)
 16. Have boards of survey been convened for property found missing? (COMDTINST M4400.13, COMPTMAN VOL. III, Part IX)
 17. Are informal boards of survey being conducted and approved in accordance with COMDTINST M4400.13, COMPTMAN VOL. III, Part IX?
 18. Is the board of survey file orderly and complete?
 19. Does the property record contain the serial number, or if not serially numbered, a decal number for each item except items to which a decal cannot be affixed? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
 20. Is Coast Guard morale and recreational personnel property (if any) maintained on the property record? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
 21. Is there any Coast Guard property on loan to other government agencies? If so, is it properly documented? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)
 22. Is the consumable material onboard properly stowed and marked or tagged so as to be readily identified for use when needed?
 23. Is the Property Officer reviewing Coast Guard excess and other government agencies excess for reutilization within his unit? If so, has proper authority from the District been requested? (COMDTINST M4400.13, COMPTMAN VOL. III, Part IX)
 24. Is the Electronic Installation Record (EIR) used as the property record for all electronic equipment which is reported under the EICAM System? (COMDTINST M10550.13, Electronics Manual)
 25. If any electronic equipment is excluded from EICAM reporting, has it been accounted for in the prescribed method? (COMDTINST M4400.13, COMPTMAN VOL. III, Part VIII)

Figure 18 (Continued)

designed for personal property over which the unit maintains full control. The number and severity of the problems identified by the questionnaire impacts upon the unit's overall evaluation. The questionnaire is designed to evaluate the unit's effectiveness in custodial accounting for property. Improvements to the current method are recommended in the next chapter.

2. Internal Control

The performance-measurement uses of accounting information cited above are basically measurements of personnel interacting with the property control system. The monetary valuation of capitalized assets has its own importance, but the overriding concern is the security and protection of government property. If the internal property control system is effective, then any material investment in property will receive the physical security it requires. That same investment is more likely to receive proper care and maintenance because its existence is known to authorities and well documented. Replacement of an investment in property is easier when care has been taken to insure accounting and maintenance control over the expired asset.

If the internal property control system is run efficiently, any material investment of public funds will be properly accounted for. An asset which meets the criteria will be capitalized. Costs of resources which do not meet the criteria will be expensed.

VII. CONCLUSION

A. SYSTEM EVALUATION

The property accounting system, when properly implemented, provides physical and financial control over the Coast Guard's investment in property. When implemented incorrectly, however, neither accountability for property nor proper monetary valuation of assets is assured. The implementation research in this thesis identifies problems which may have implications for other field units. It is hoped that property accountability centers can recognize the potential problems which they have in common.

In the final analysis, the system for capitalization stresses physical accountability over financial record keeping. The monetary valuation aspect of property control is not ignored in the system design. In practice, however, it receives less emphasis and its impact is less well understood than physical accountability. As discussed in Chapter VI, historical monetary values have little relevance for financial decision making.

Accountability really is the more important function within the Coast Guard's property system. It is logical, therefore, that this aspect be stressed. In a Federal organization as large as the Coast Guard, the wise use of resources by management is facilitated directly by physical

control over those resources. With minor improvements to the existing system, material physical control over property can be assured.

B. RECOMMENDATIONS

In the interest of constructive improvement to the present property capitalization process, deficiencies found within the system have been narrowed into a few primary categories. Possible solutions to these problems are then identified.

Two characteristics common to a successful control system are (1) a procedure for authorization and recording of all transactions and (2) technically qualified personnel [Ref. 1: p. 37]. In support of the first element, there are two recommendations which discuss the processes of reconciliation and review. The third recommendation involves training and falls within the scope of the second characteristic, technically qualified personnel. The final problem to be considered is the priority given to property accounting.

1. Reconciliation

The real property control system now provides for periodic reconciliation between detailed property records and general ledger account balances. The personal property accountability system (PPA) requires reconciliation through independent inventory of property whenever a key person in a command is relieved. In each case a further step would

help to insure that transactions involving items which meet capitalization requirements are entered into the property accountability system.

A single source document could initiate payment for an asset received and enter the asset into the appropriate property record concurrently. The form could be designed to take the place of the current receiver copy of a purchase order. When a unit verifies receipt of a purchase, the purchase order is forwarded to the District for payment. If the purchase price represented the cost of a capital asset, that same purchase order could enter the asset into the property system. The expenditure of funds would thereby be reconciled with the financial property records. A computer program could recognize a coded source document and initiate the transaction's entry into the already computerized property and accounting data bases. Consideration should be given to the creation of subsidiary property accounts for each field unit or for a group of units. Adoption of a computerized data base system would, of course, depend upon its cost effectiveness. It would facilitate accurate record keeping and reconciliation.

One drawback to this approach is its requirement for an understanding of the capitalization process at the operator level. If the operator does not make the correct capitalization/expense decision, the system will not be effective without a review process at the District level. Exhaustive

AD-R127 363

AN ANALYSIS OF CAPITALIZATION OF PROPERTY IN THE US
COAST GUARD(U) NAVAL POSTGRADUATE SCHOOL MONTEREV CA
T F CONLAN DEC 82

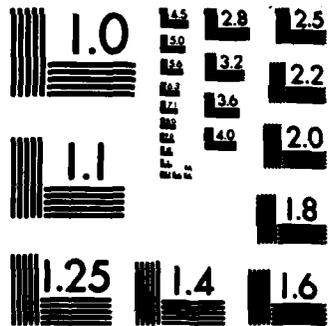
2/2

UNCLASSIFIED

F/G 5/1

NL





MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS-1963-A

review would be costly and time consuming. A procedure for sampling entry documents could be developed to limit manpower expense and insure quality control. The process would test a sample of transactions that meet or exceed the monetary capitalization threshold. The size of the sample would depend upon the degree of accuracy desired and the acceptable error rate. It is expected that the sample size would decrease over time if the system's operators come to understand how the capitalization/expense decision is made. The key to understanding lies in education and is discussed in section 3 below.

The advantages of a single source document are numerous. For the operator it would integrate accounting functions and thus reduce the overall work load. The implementation of this recommendation would solve the problem raised in Chapter V, paragraph D.3, by providing a means for the field level entry of real property purchased with operating funds. The interests of property control would be served by insuring an asset's entry into the system. Finally, the accuracy and reliability of the financial property records and reports would be improved by the matching of actual funds expended with assets received.

2. Review

The second recommendation concerns the adoption of more scientific audit procedures by the District Inspection Staff. Figure 18 is the current check list used by the

property inspector. The check list calls for yes and no answers rather than explanatory ones. It fails to identify an operator's conceptual problems with the system. It does not require a direct comparison of the ledger for unit operating funds with property inventory reports.

The use of a technique similar to the author's field research method would provide the inspector with actual evidence of the degree of implementation of the control system. An exhaustive review would not be efficient in the inspection process, but an appropriate sampling would indicate whether or not compliance problems are likely to exist. The obvious benefit of this approach is the early recognition of problems and an earlier start at resolving them.

3. Training

The attitude which the operator has with respect to compliance with property capitalization guidelines may be directly related to his understanding of the system. If he sees the system as providing only physical control over property, the financial records will probably suffer. If the operator is concerned only with his personal accountability, the whole system will suffer.

The decision whether to capitalize or expense the cost of resources should be made with the knowledge of the implications of the decision. If the operator knows that the value he assigns (or doesn't assign) to property will affect financial records throughout the hierarchy of

government, he will be more likely to value assets accurately. This knowledge will come from understanding property control as a system. The understanding will come through education.

Most of the field level operators in the system are trained at the basic Storekeeper 'A' School in Petaluma, California. The school trains the operator how to implement the system, but not how to make the capitalization/expense decision. Because the storekeeper is often the unit's property expert, he should have an understanding of how his decision fits into the larger picture. Other field level and District and Headquarter level decision makers are trained at the Coast Guard Academy in New London, Connecticut, and at OCS in Yorktown, Virginia. Each of these sources should teach personnel the specific rules governing the property accounting system. Operators should understand the financial importance of proper monetary valuation as well as the importance of recording physical custody of property. Managers who will be capitalizing assets must have a practical understanding of the nonmonetary criteria. They must know how to recognize an asset that requires capitalization. This understanding will help managers ask the right questions when in doubt about whether or not an asset meets capitalization criteria.

4. Priority

The overall effectiveness of the property accounting system depends upon accurate and timely implementation at both the operating unit and District levels. The operator at the unit level should recognize capital property upon receipt and insure its entry into the system. A delay is likely to cause the asset to be forgotten for record purposes.

At the District level, delays in reviewing entries of capitalized costs into asset accounts increase the chance for error and cause a misstatement in account balances. As noted in Chapter V, paragraph D.2, the assignment of a low priority to property capitalization has a material effect upon the balance carried in the acquisitions in process account. The second factor identified in Chapter V as having an impact upon the cost transferring delays is the current method of review. All transactions involving charges to one construction project are reviewed when that project is completed. It is recommended that this review be conducted by the accounting staff as costs are accumulated throughout the construction process. In this way, capitalized costs would be verified prior to being recorded in the acquisitions in progress account. This process would spread the workload out over time. When a project is accepted, the entire applicable balance in account 4700 could then be transferred to the proper asset account. The advantage of a

more level workload is that many small jobs can be completed in short periods of time rather than accumulating into one larger project. Short idle periods that occur between other tasks could be filled constructively with the review of property accounting documents. The purchase documents used for construction projects are the same as those used to account for operating funds. Therefore, the review of entries into the 4700 account can be included in the sampling process discussed in section 1.

LIST OF REFERENCES

1. Grady, Paul, Inventory of Generally Accepted Accounting Principles for Business Enterprises, AICPA, Inc., 1965.
2. Comptroller General of the United States, Accounting Principles and Standards for Federal Agencies, General Accounting Office, 1978.
3. Arens, A. A., and Loebbecke, J. K., Auditing: An Integrated Approach, 2nd ed., Prentice-Hall, Inc., 1980.
4. Office of Management and Budget, OMB Circular No. A-123, October 28, 1981.
5. Anthony, Robert N., and Herzlinger, R. E., Management Control in Non Profit Organizations, Richard D. Irwin, 1980.
6. Davidson, Sidney; Stickney, C. P.; and Weil, R. L., Intermediate Accounting: Concepts, Methods and Uses, CBS College Publishing, The Dryden Press, 1981.
7. Secretary of Transportation, DOT Order 2700, Department of Transportation, 1977.
8. Commandant, USCG, US Coast Guard Comptroller's Manual (draft of volume 1), 1982.
9. Commandant, USCG, US Coast Guard Comptroller's Manual Vols. 3, 5, 8, USCG, 1981.
10. Zehna, Peter W., Calculator Statistics, Naval Post-graduate School, 1981.
11. Horngren, Charles T., Cost Accounting, A Managerial Emphasis, 4th ed., Prentice-Hall, Inc., 1977.
12. Financial Accounting Standards Board, Statement of Financial Accounting Standards No. 33, 1979.
13. Statement by John Oxley, Accounting Policy, Planning and Procedures Staff, U.S. Coast Guard, 28 September 1982.
14. Phone interview with Bob Freeman, Accounting Staff User Fee Task Force, USCG Headquarters, 10 November 1982.

BIBLIOGRAPHY

California Committee on Municipal Accounting for Fixed Assets, 1977.

Campbell, D. G., Thesis 5/1972 George Washington University, Financial Management in a Government Agency and Means to Attain It.

Gibson, Charles, "Given an Option Should You Expense or Capitalize?", National Public Accountant, Vol. 25, pp. 18-21, February 1980.

Goodwin, Ron, and Knibbs, Robert, "Valuation of Fixed Assets," Accountancy (UK), Vol. 92, pp. 70-71, August 1981.

Gross, M. J. Jr., and Washauer, W. Jr., Financial and Accounting Guide for Non Profit Organizations, John Wiley and Sons, 1979.

Gross, M. J. Jr., and Jablonsky, S. F., Principles of Accounting and Financial Reporting for Non Profit Organizations, John Wiley and Sons, 1979.

Robbins, W. A., Jacobs, Fred A., and Apostolou, N. G., "Implications of the Statement of Position for Non Profit Organizations," National Public Accountant, Vol. 25, pp. 19-22, August 1980.

Sterling, R. R., and Thomas, A. L., Accounting for a Simplified Firm Owning Depreciable Assets, Scholars Book Company, 1979.

Welsch, G. A., Zlatkovich, Charles T., and Harrison, Walter T. Jr., Intermediate Accounting, Richard D. Irwin, 1979.

INITIAL DISTRIBUTION LIST

	<u>No. Copies</u>
1. Defense Technical Information Center Cameron Station Alexandria, Virginia 22314	2
2. Defense Logistics Studies Information Exchange U.S. Army Logistics Management Center Fort Lee, Virginia 23801	1
3. Library, Code 0142 Naval Postgraduate School Monterey, California 93940	2
4. Department Chairman, Code 54 Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
5. Professor J. M. Fremgen, Code 54Fm Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
6. CDR P. W. Blondin, Code 54Zf Department of Administrative Sciences Naval Postgraduate School Monterey, California 93940	1
7. Commandant (G-FAC-1) U.S. Coast Guard Washington, D.C. 20590	1
8. LT Thomas F. Conlan, USCG Commander (fbr) Ninth Coast Guard District 1240 E. Ninth Street Cleveland, Ohio 44199	2
9. LT Thomas Johns Commander (fbr) Third Coast Guard District New York, New York 10004	1

10. Commander (fbr)
Twelfth Coast Guard District
Government Island
Alameda, California 94501

1

