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REPORT TO THE CONGRESS

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Observations On
Financial Inventory Accounting--
What It Is And What It Could Be

B-146828

Department of Defense

BY THE COMPTROLLER GENERAL
OF THE UNITED STATES

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MAY 17, 1972

This report is sent to you because of your indicated interest in the work of the U.S. General Accounting Office.

It is concerned with the contributions that better accounting can make to the management and control of the \$47 billion of Department of Defense inventories.

The digest in the front of the report highlights the principal findings, conclusions, and recommendations growing out of the review.

The report is one of several reports sent by the Comptroller General of the United States to the Congress during May 1972. Additional copies are available on request for student use.

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B-146828

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on observations on financial inventory accounting in the Department of Defense--what it is and what it could be.

Our review was made pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

Copies of this report are being sent to the Director, Office of Management and Budget; the Secretary of Defense; and the Secretaries of the Army, Navy, and Air Force.

A handwritten signature in cursive script that reads "James B. Stacks".

Comptroller General
of the United States

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ABBREVIATIONS

ALPHA	Army Materiel Command Logistics Program Hardcore Automated
DCASR	Defense Contract Administration Services Regions
DOD	Department of Defense
DSA	Defense Supply Agency
GAO	General Accounting Office
ICP	inventory control point
SAMMS	Standard Automated Materiel Management System

D I G E S T

WHY THE REVIEW WAS MADE

Effectively managing the Department of Defense (DOD) inventory--valued at over \$47 billion--requires reliable and accurate inventory records in both quantities and dollars.

If quantity records are inaccurate, materiel not needed is ordered and materiel needed is not available when required. Inaccurate financial data adversely affect management decisions concerning inventory investment and budgetary requirements.

DOD's inventory quantity records continually have been inaccurate and unreliable. GAO has issued several reports showing the extent of inaccuracies and the resulting effects on management decisions.

The Congress and GAO have long required--in numerous laws and prescribed accounting principles and standards--that all Federal agencies have adequate property accounting records in both quantities and dollars.

All these factors led to this study by GAO to seek ways to improve the accuracy of inventory data, which bears so strongly on effective logistics management.

FINDINGS AND CONCLUSIONS

None of the operational financial inventory accounting systems reviewed by GAO had the financial controls necessary to improve the accuracy of inventory data used for making management decisions.

In all systems that GAO has reviewed, the financial records merely reflect inventory transaction data--receipt and issue of items--as recorded in the quantity records. Therefore incorrect quantity data result in incorrect financial data. (See p. 10.)

Considerable effort is put forth by the military services in reconciling the dollar values in the quantity and dollar records, but this effort serves only to ensure the accurate transfer of data--correct or incorrect--from one record to another. It does not ensure the accuracy and reliability of inventory data used for making management decisions. (See p. 10.)

There is no comparison of quantity record data and related financial data prior to recording the data in the financial record. Thus there is no

assurance that the quantities paid for agree with the quantities entered in the detailed stock records and, subsequently, in the financial record. (See p. 11.)

GAO believes that it is essential that DOD establish financial control of its inventories. GAO believes that instituting financial control need not await the achievement of accurate quantity records but, rather, that financial control can be used as a concurrent tool in achieving that goal. Accurate inventory data, both quantitative and financial, can and must be available to ensure:

- Effective and efficient supply of materiel to the troops.
- Accurate determination of budgetary requirements.
- Accurate reporting of the taxpayers' investment in inventory.
- Effective control of inventory investment to minimize cost.

All the military services and the Defense Supply Agency have plans in various stages of implementation that will change their logistics and accounting systems. Although the proposed system changes do promise varying degrees of improved inventory control, only those of the Defense Supply Agency and the Army appear to include the types of financial controls that GAO believes are necessary.

Both the Navy and the Air Force have indicated, however, that their new systems will not incorporate such financial control techniques. If these new systems go into operation without such techniques, subsequent revision could be resisted and difficult to obtain. (See pp. 11, 24, and 25.)

GAO believes that financial data should be compared with related quantity data before the data are recorded. This would help identify erroneous quantity data entering the system. In addition, it would provide management with an effective tool for ensuring that errors are corrected and for isolating basic causes of inaccurate data. Finally it would provide management with accurate financial data for budgeting and reporting inventory investment. (See pp. 15 and 16.)

GAO recognizes that attaining financial control of all DOD inventories will not be an easy task. Involved is the consideration of and solution to several practical problems. For example:

- Inventory transactions, "ins and outs," are of various types, and each type of transaction will present a system design problem as to how related financial and quantitative data can be compared.
- The Defense Contract Administration Services Regions, not the inventory control points, make the majority of disbursements for inventory purchased. Because the financial data must be supplied to the inventory control points (ICPs), a coordination and timing problem must be considered.

- The availability of resources, both design talent and computer capability, must be given careful consideration.
- The continuing effort that would be required to correct errors as they occur and to research the causes of such errors may involve a redistribution of manpower effort, at least in the initial stages.

Although these problems are not insurmountable, considerable effort will be required of DOD to arrive at solutions and to coordinate the actions of all the military services. GAO believes, however, that the benefit to be attained--more effective management of DOD's inventory investment--far outweighs any of the difficulties that can be foreseen. (See pp. 21 to 23.)

RECOMMENDATIONS OR SUGGESTIONS

GAO advised DOD of a number of financial inventory control techniques that GAO considered desirable for improving the accuracy of inventory data in the military services and the Defense Supply Agency. Such techniques should include:

- The comparison of quantity record data and related financial data.
- System controls and procedures to ensure the timely research and correction of discrepancies occurring in the comparison process.
- Periodic comparison of financial and quantitative record totals as an overall test of reliability.

AGENCY ACTIONS AND UNRESOLVED ISSUES

DOD agreed with GAO's conclusions that improvements can and should be made in both financial and item inventory control. DOD believes that the Defense Supply Agency system and the one being developed by the Army will have the financial controls suggested by GAO.

The Navy and Air Force have confirmed that their existing systems do not incorporate such financial controls as GAO recommends and that the controls are not included in new systems being developed. The Navy maintains that such controls can be added after the new systems are implemented. The Air Force believes that its new system should be implemented and evaluated before considering the use of such financial controls.

Since DOD indicates that the Defense Supply Agency's Standard Automated Materiel Management System has financial controls comparable to those outlined in this report, GAO recommends that the Secretary of Defense evaluate the controls incorporated in this system; make refinements as necessary; and ensure that similar control techniques are built into the proposed systems of the other military departments, preferably during the design stage.

GAO believes the Secretary of Defense should reconsider the positions taken by the Air Force and the Navy and should ensure that financial control techniques are included in the design stages of these systems.

MATTERS FOR CONSIDERATION BY THE CONGRESS

This report contains no recommendations or suggestions requiring action by the Congress. It is submitted because of the continuing congressional interest in how financial control techniques can contribute to improved management effectiveness.

CHAPTER 1

ACCURATE INVENTORY DATA: MEANING AND VALUE

The management of Department of Defense inventory valued at over \$47 billion is "big business." DOD's success or failure in effectively managing this huge investment is often determined by the reliability and accuracy of inventory in both quantities and dollars.

Only when quantity records are accurate and current can they be relied upon to determine whether requisitions can be filled or whether procurement is necessary. Conversely, if the quantity records are inaccurate, materiel not needed is ordered and materiel needed is not available when required.

Inaccuracies in the financial records also have a significant impact, particularly on the budgetary process. For example, after quantity requirements are determined, the data are converted to dollars and certain adjustments are made on the basis of financial records. Thus money requested for the purchase of inventories is computed as follows:

Estimated dollar value of requirements	Less	Dollars of inventory on hand and on order	=	Dollars needed to buy inventory
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If the financial records are inaccurate, management decisions on inventory investment also will be inaccurate.

The Congress has long recognized the need for accurate inventory records. Numerous laws require that DOD--as well as all other Federal agencies--have adequate property accounting records. Various requirements in the laws show congressional intent to safeguard the Government's investment in property. For example:

- The National Security Act of 1947 established the requirement to maintain property records on both a quantity and a dollar basis.

--In 1949 the Federal Property and Administrative Services Act required that each executive agency maintain adequate accountability systems for property.

--The Congress, in the Budget and Accounting Procedures Act of 1950, required that accounting in the Government provide both effective control over property and adequate financial information needed in the management of operations.

To carry out the congressional requirements for maintaining adequate accountability systems for property, DOD issued policy statements and directives stressing the importance of financial inventory data and providing guidelines for the development of financial inventory accounting systems. Subsequently each of the military services and the Defense Supply Agency (DSA) issued regulations requiring that property records be maintained in both quantities and dollars and prescribed procedures for recording financial inventory data.

The General Accounting Office--in prescribing accounting principles and standards for Federal agencies--also recognized the importance of accurate and reliable financial and quantitative information on inventories. For example, in our prescribed standards¹ we stated that:

"Property accounting for Federal agencies must include ***:

"(1) Recording in accounts all [financial] transactions ***.

"(2) The keeping of appropriate records of physical quantities ***.

¹General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies, "Title 2 - Accounting," pp. 2-32 and 2-33.

"(3) Independent checks on the accuracy of the accounting records through periodic physical count, weight, or other measurement."

Over the years DOD's inventory quantity records have been inaccurate and unreliable. We have issued several reports showing the extent of inaccuracies and the resulting effects on management decisions. (See app. II.) Our latest report, "Army Inventories--Inaccuracies, Effects, and Ways to Improve," issued in February 1971 emphasizes this perennial problem.

"*** the Army thought it had \$439 million of inventory in 1969 that did not exist; the Army also found \$391 million of inventory in 1969 it did not know it had."

To gain a broad perspective of inventory accounting systems in DOD, we made a limited study of such systems in operation at selected ICPs in all the military services and the Defense Supply Agency. (See app. I for locations.) The systems included in our study accounted for both stock-fund- and appropriation-financed inventories. We also made limited inquiries into various proposed changes that would affect the systems.

CHAPTER 2

FINANCIAL INVENTORY ACCOUNTING IN DOD:

HOW IT WORKS AND WHAT'S WRONG WITH IT

DOD financial inventory accounting systems included in our study do not provide accurate inventory data for making management decisions. These systems merely assign dollar values to quantity transaction data--data repeatedly shown to be inaccurate and unreliable. There is no comparison of quantity record data and related financial data, e.g., vendor's invoice, prior to recording in the financial record.

Considerable effort is put forth by the military services in reconciling the quantity and dollar records, but this effort serves only to ensure the accurate transfer of data--correct or incorrect--from one record to another.

DOD FINANCIAL INVENTORY ACCOUNTING SYSTEMS

Financial inventory accounting systems within DOD are composed of two parts--supply (detailed stock records) and accounting (financial records). Generally inventory quantity and dollar records are maintained centrally at ICPs. ICPs determine quantities to buy or rebuild; issue contracts to vendors; receive notices of shipment or receipt of items purchased; and receive requisitions from, and direct shipments to, their customers.

A large portion of contracts with commercial vendors are turned over to Defense Contract Administration Services Regions (DCASRs) for administration and payment of vendor invoices. Payment data subsequently are forwarded to ICPs for recording in the accounting records. The items in inventory are located at various supply depots throughout the country and overseas. The depots count the items as they are received, store the items until needed, and ship the quantity of items to the customers as directed by ICPs. These quantity data subsequently are fed to ICPs for recording in the supply records.

Inventory transactions, which run into the millions, are made up of receipts of items from various sources and various types of issues to the customers. For example, at just one ICP in DSA, the average number of individual inventory transactions recorded monthly totaled 593,000 --81,000 receipts and 512,000 issues--having a total value of about \$52 million.

Most inventory transactions affect both the recorded quantities and dollars. However, some affect only dollars and others affect only quantities. For example, a change in the standard price of an item would result in an increase or a decrease in the dollar value of inventory but the quantity would not change.

Conversely, interdepot transfers of items result in physical movement of goods that must be recorded in the stock records by location but the overall dollar value in the financial records would remain the same if financial records are maintained centrally at ICPs. If the financial records are maintained at depot locations, however, interdepot transfers of items would require changes in both quantity and financial records.

The systems observed at ICPs we visited (see app.I) performed financial accounting for both stock-fund- and appropriation-financed inventories. Regardless of type of inventory involved, DOD financial inventory accounting systems in operation accumulate financial inventory data in a comparable manner.

The basic system design and data flow--common among all the systems--are explained in further detail in the remaining sections of this chapter.

System design and data flow

When inventory items are received at a depot, a receipt document describing the item and number of units is submitted to ICP.

A requisition for inventory items to be issued will identify the type and quantity of inventory involved. These receipt documents (ins) and requisitions (outs) are recorded in a master data record, which increases or

decreases the quantity of a particular item of inventory. Periodically these ins and outs are converted to dollars --quantities multiplied by a standard unit price--and the resulting financial data are fed into the accounting system.

Systems do not provide financial control

In all systems that we reviewed, dollar inventory data in the financial inventory accounting system were derived from the detailed stock records--the supply side of inventory accounting. Therefore quantity data correctly entered into the detailed stock records should result in correct dollar data reflected in the financial records. More importantly, however, quantity data incorrectly entered into the detailed stock records will be reflected incorrectly in the financial records.

In most systems the dollar value of inventory in the detail stock records is determined periodically by applying the standard price of each item to the number of units recorded on hand. This dollar value is compared with the dollar value of inventory on hand recorded in the financial records. Differences between the two are researched and, if possible, are reconciled.

Many of the agencies have backlogs of this research and reconciliation work, and several officials told us that considerable effort was needed regularly to reconcile the two records. Reconciling these balances, at best, can ensure only that what was entered into the detailed stock records was transferred to the financial records. It does not ensure the accuracy and reliability of inventory data used for making management decisions.

Additional control problem-- receipt of materiel

In addition to the lack of financial control resulting from the systems design and data flow, a further problem is involved in relating quantity data recorded by ICPs to payment data recorded and forwarded to ICPs by DCASRs.

The largest dollar volume of items received into inventory comes from commercial vendors as a result of contracts, most of which are administered by DCASRs. Before making payment the DCASRs receive and match an invoice from the vendor and, depending on when title to the item passes to the Government, a receiving document showing either the quantity shipped by the vendor or the quantity received at the depot.

The depot transmits information to ICP regarding quantities received, which is recorded by ICP in the detailed stock records. That information may not always agree with the information received from DCASR. The DCASR payment data subsequently are forwarded to ICP for recording in the accounting records as a decrease in available funds but not as an increase in inventory.

ICPs generally do not attempt to match the payment data received from DCASRs with the data recorded in the detailed stock record. Therefore there is no assurance that the quantities paid for--shown on the receipt documents and vendors' invoices--agree with the quantity data entered in the detailed stock records and, subsequently, in the financial record.

In some instances an attempt is made to match DCASR payment data and quantity record receipt data, i.e., receipt document data as recorded in the quantity record. In this case lists of matched and unmatched transactions are prepared for management's review and correction. We were told that it may be months before the unmatched transactions are researched and corrected. Meanwhile the incorrect quantity and dollar data continue to be used in reporting and decisionmaking.

PROPOSED CHANGES AFFECTING FINANCIAL INVENTORY ACCOUNTING SYSTEMS

All the military services and DSA have proposed changes to their logistics and/or accounting systems that will result in varying degrees of revisions to the overall systems. The major purpose of the changes seems to be an attempt to obtain uniformity within each of the services. For the most part these system changes have not been finalized or implemented fully.

The proposed changes promised some degree of improved inventory control, but they generally appeared to fall short of achieving the financial control that we believed was necessary. DOD provided additional information which indicates that:

- The DSA and Army systems will include the type of financial control techniques we believe are necessary to help ensure the accuracy of both quantity and financial inventory data.
- The Air Force and the Navy systems apparently do not provide for such techniques.

The proposed DOD systems are discussed further in chapter 4.

CONCLUSIONS

The controls present in the DOD financial inventory accounting systems contribute little to the accuracy of either the quantity data or the financial data. The financial data merely reflect, in dollars, the quantity data included in the detailed stock records. The reconciliation of the dollar value of detailed stock records and the financial records proves only that the data in the detailed stock record have been transferred to the financial record--whether those data are right or wrong! The comparison--in some systems--of payment data and the receipt data in the detailed stock record has merit but, as presently performed, does not result in effective financial control, because:

- Erroneous data are not prohibited from entering the detailed stock record or financial record.
- The research and correction effort frequently is backlogged.

Therefore, when this technique is used, it does not appear to contribute to the accuracy of current operating data needed for management decisions.

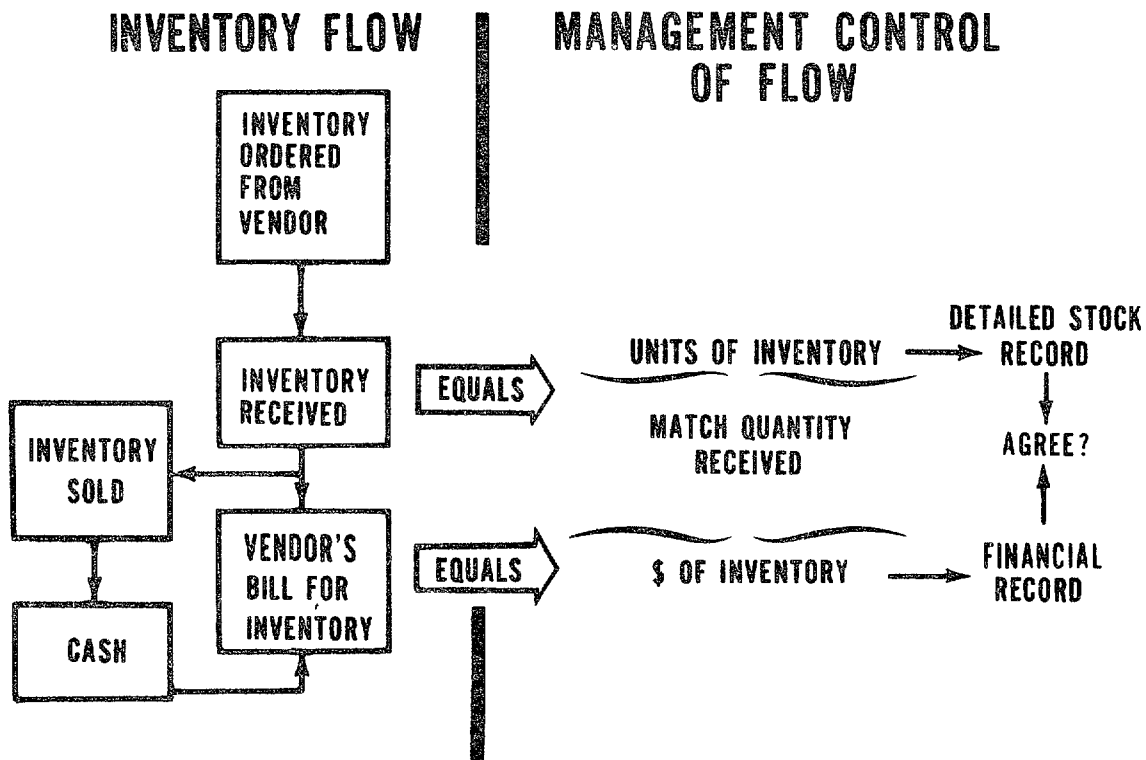
CHAPTER 3

WHAT CAN BE DONE TO ACHIEVE ACCURATE INVENTORY DATA

Effective management of DOD's multibillion dollar inventory investment requires accurate inventory data in both quantities and dollars. Although not easy to attain, significant improvement in the accuracy of inventory data can be achieved by the design and use of a system of financial control.

CONCEPT OF FINANCIAL CONTROL

Financial control is the attempt by management to regulate the flow of resources--cash, property, inventories, etc.--and to reflect in the financial records the progress of this flow and the relationship of the resources involved. The following diagram illustrates the basic flow of resources in relation to inventory and how management could control this flow.



The above diagram shows three basic techniques generally used in attaining financial control of inventory.

- The source of data recorded in the financial record and the source of data recorded in the detailed stock record are different, and the records are maintained independently.
- Matching the quantity received with the quantity for which payment is to be made.
- Periodic reconciliation of the financial record and the detail stock record.

Source of data

Financial records that reflect the flow of resources in relation to inventory must show that what was \$1 of cash is now \$1 of inventory. The logical source of this information is, and should be, the vendor's invoice, i.e., the dollars to be paid for a certain number of units of inventory. Conversely the detailed stock records are to reflect the quantities of a specific inventory item in stock. The

source of data entered in the detailed stock records should be a "count document" showing the units of a particular item received and put in stock.

Matching data

Before money is paid out on the basis of a vendor's invoice, the invoice should be compared with a count document to verify the receipt of the inventory item--the same count document used to record the receipt of inventory in the detailed stock record. This process lends reasonable assurance that "you got what you're paying for" and supports the validity of the dollar amounts to be entered in the financial records.

Reconciliation

When the invoice data are entered correctly in the financial records and when the count document data are entered correctly in the detailed stock records, the total of the detailed stock records (converted to dollars by multiplying the units on hand by the related unit price) should equal the total of the financial records.

If the totals agree, management can be reasonably assured that both the vendors' invoices and the count documents are in agreement and were recorded correctly in the financial record and detailed stock record, respectively. If the totals do not agree, management will recognize that erroneous data have been fed into the records, e.g., the count documents were recorded incorrectly and/or the invoice amounts were recorded incorrectly.

This procedure will not identify the cause(s) of the differences but merely provides notice that an error (a difference) exists. The reason for the difference must be located and corrected. Therefore this procedure provides a test (control) only of the overall reliability of the records.

For the sake of simplicity, the preceding discussion of financial control centered on the receipt of inventory from vendors. The basic concept discussed above and the various techniques explained below, however, can be applied to most, if not all, other inventory transactions.

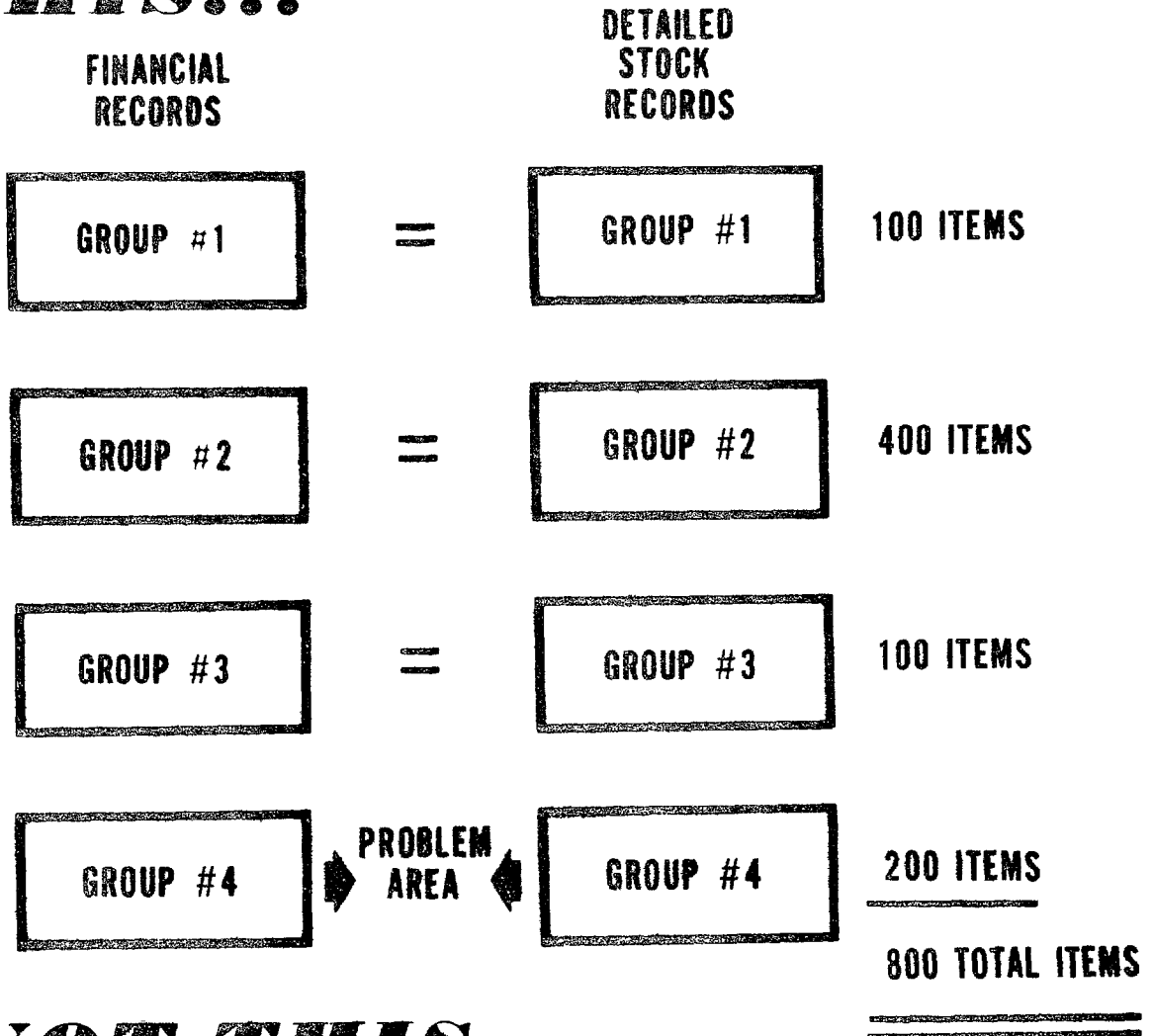
PRACTICAL APPROACHES TO ACHIEVING
ACCURATE INVENTORY DATA

Overall control is indispensable to any inventory system. As a practical matter in the military services, however, thousands of transactions must be reviewed to locate and correct discrepancies between the financial records and the detailed stock records. Consequently additional techniques must be used to enable the prompt identification and correction of errors.

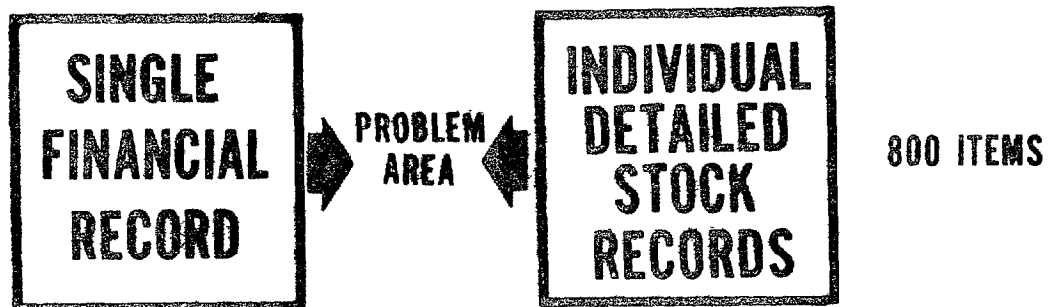
Instead of comparing only the overall dollar totals of the financial record and the detailed stock record, several financial record and detail stock record subtotals could be developed for particular groups of inventory items. This technique would help localize a problem requiring research. To illustrate:

LOCALIZING ERRORS

THIS...



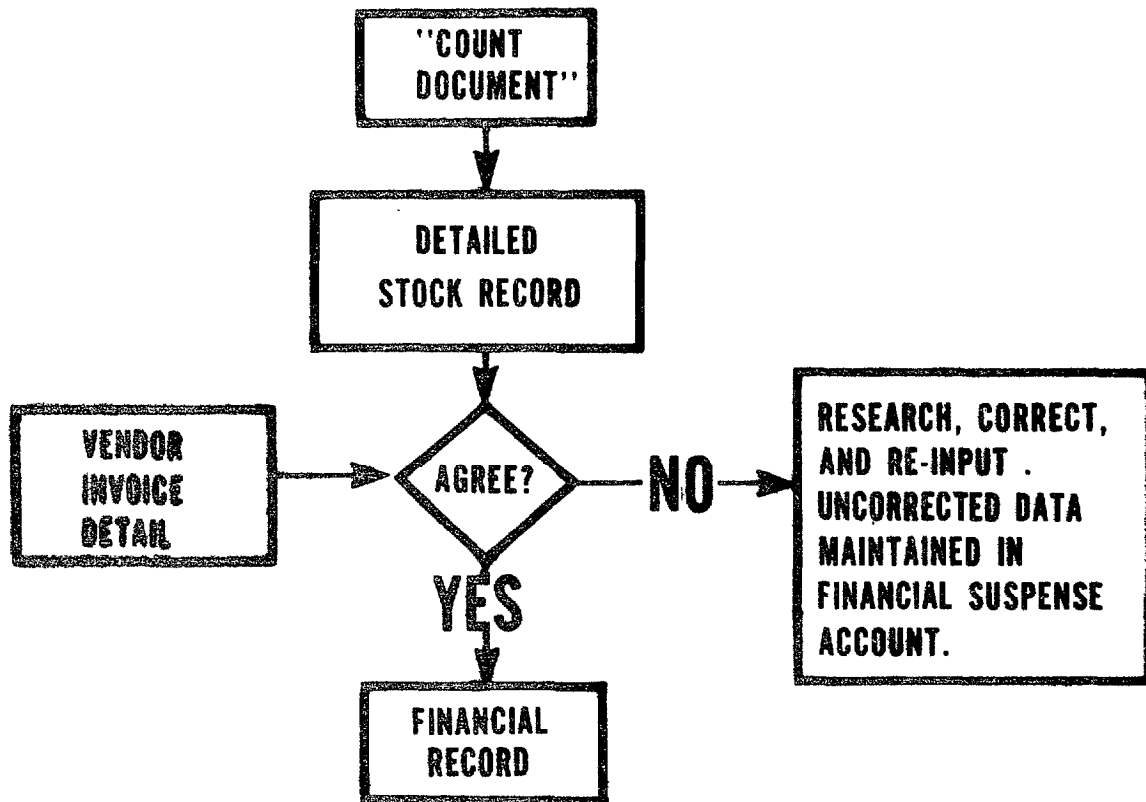
NOT THIS...



By using this technique research is confined to transactions for only 200 items. If only one total had been developed for the financial record and the detailed stock record, however, all transactions would be subject to research.

With such overall controls established, the next step should be to design controls within the system to ensure that dollar and quantity data are in agreement prior to recording these data in the financial record. This can be accomplished--assuming computer application--by comparing financial data (e.g., invoice data) and detailed stock record data on a transaction-by-transaction basis.

There are several ways this can be done. The peculiarities of each military service, the type of documentation available for input, and the degree of computer capability would be the determining factors. To illustrate, a large automotive company applies this technique as follows:



As the diagram shows, when quantity data are received they should be posted or recorded in the detail stock records without delay. The items must be available for issue even if there is a discrepancy between detailed stock record and financial data. Corrections to the detail stock records can be made after it is determined the original entry was in error.

Some variations to this technique could include:

- Allowing the portion of a transaction that matches to flow through into the financial record and only the difference subject to research and correction. For example--invoice for 10 items, count document for 12 items. Post to financial records only what was paid for--invoice amount. Conversely--invoice for 12 items, count document for 10 items. Pay only for 10 and post to financial records. In both cases, differences should be held in a suspense account until corrected to maintain control over the errors.
- Allowing the vendor invoice--amount paid--to flow through into the financial records regardless of differences. Record differences in suspense account until corrected. For example--invoice for 12 items, count document for 10 items. Pay invoice for 12 items and record in financial record. Set up suspense showing two items paid for but not yet received.

This matching technique provides specific identification of differences between the financial record and the detailed stock record as they occur. As a result, research effort is reduced greatly and prompt corrections can be made. If corrections are made management reaps the benefit of more accurate and current inventory data. By recording differences in a suspense account, management is provided with a tool for gauging the dollar magnitude of errors and for evaluating the effectiveness of the research and correction procedure.

The financial control techniques discussed above have long been used and proven in private industry for obtaining accurate inventory data in both quantities and dollars. GAO believes that DOD can and must establish such financial

control of its inventories and sees no inconsistency between the objectives of DOD and private industry. Private industry seeks accurate unit and dollar inventory data for:

- Effective and efficient supply of materiel to customers.
- Budgetary purposes.
- Accurate reporting of inventory investment.
- Regulating inventory investment to maximize profit.

Likewise accurate DOD inventory records--in dollars and units--are essential for:

- Effective and efficient supply of materiel to the troops.
- Accurate determination of budgetary requirements.
- Accurate reporting of the taxpayers' investment in inventory.
- Effective control of inventory investment to minimize cost.

Erroneous records inhibit the successful accomplishment of these objectives.

POSSIBLE IMPLEMENTATION PROBLEMS

We are aware that various technical and practical problems must be solved before financial control of all DOD inventories can be achieved. What appear to be the more significant of these problems are discussed below.

Numerous types of transactions

Inventory transactions, ins and outs, are of numerous types, and the flow and form of documentation varies. Therefore each type of transaction will have to be considered separately in determining how related financial and quantitative data can best be compared. Some of these different ins and outs are:

- Receipt of inventory from commercial contractors at a specific and final price.
- Receipt of repair parts from contractors under provisioning contracts for support of major equipment purchased. The final price of these repair parts often is determined long after the parts have been received.
- Receipt of inventory under contracts where progress payments have been made.
- Returns from customers for both credit and no credit.
- Interdepot transfers (the movement of inventory between storage points).
- Receipt of inventory from other services.
- Reimbursable issues (issues for which a customer is billed).
- Nonreimbursable issues ("free issues").

We realize that some of these types of transactions may be adapted more easily to financial control techniques than others. We believe, however, that, although implementation difficulties may vary, sufficient documentation is generated

within the systems for most, if not all, transactions to achieve financial control.

Delays in furnishing financial data

Most of the inventory purchased by ICPs is paid for by DCASRs. ICPs cannot relate payment data to specific inventory receipts until the information is provided by DCASRs. We were told that DCASRs frequently did not provide the financial data for several weeks after ICPs received the inventory. As a result ICPs find it difficult to correlate quantity and financial data pertaining to specific inventory transactions. Before financial control can be implemented effectively, a solution to such time lag problems must be worked out.

We were informed by DCASR personnel that new procedures were being implemented to provide more timely reporting to ICPs and that considerable transaction detail would be provided. The specifics of the reporting flow, as yet, have not been determined.

Availability of resources

As with any system change, availability of resources, particularly systems design talent and equipment, must be considered. In addition, the possibility exists in the initial stages of implementation that the continuing research effort required to correct erroneous data and to define causes may require a redistribution of manpower effort.

As part of our study, we discussed the above implementation problems with various DOD supply and comptroller officials representing all the military services and DSA. There was general agreement that inaccurate quantity inventory records continue to be a major problem in DOD and that something must be done.

Some of the officials agreed that financial controls would be of great help in identifying and correcting erroneous inventory input data. Not all agreed, however, that financial control was the ultimate answer. Some officials felt that existing quantity records must be cleaned up before establishing financial control. Other officials believed

that more physical controls were needed to ensure better counts at the depot and more accurate preparation of input data.

CONCLUSIONS

We recognize that attaining financial control of all DOD inventories will not be an easy task. The complexity and interrelationship of the various supply and accounting systems, as well as the sheer volume of inventory transactions, is staggering. But foreseeable difficulties should not detract from the goal of achieving accurate inventory data.

Financial control will be--at the least--a beginning toward achieving that goal. Moreover we believe that instituting financial control need not await the achievement of accurate quantity records but, rather, that financial control can be used as a concurrent tool in achieving that goal.

It is our opinion that improvement in inventory accuracy can be achieved by:

- The design and use of a financial inventory accounting system which complements, rather than merely reflects, the supply system detailed stock records.
- Use of intersystem controls which isolate differences between specific transactions in the financial and detailed stock records as they occur.
- Periodic comparison of the inventory dollar totals of financial and detailed stock records.

By using the comparison of unit and dollar record total as an overall test of the system's integrity, research effort could be concentrated upon correcting specific transaction differences on a current and continuing basis. We believe that this continuing-effort approach will provide additional incentive not only for correcting individual discrepancies but also for identifying and correcting the causes of the discrepancies--whether they are people, machines, or procedures.

CHAPTER 4

AGENCY COMMENTS, OUR EVALUATION, AND RECOMMENDATIONS

In commenting on our findings, DOD, in its letter dated January 18, 1972 (see app. III), agreed that improvement can and should be made in financial and item inventory control. DOD stated that DSA's Standard Automated Materiel Management System (SAMMS) and the Army Materiel Command's Logistics Program Hardcore Automated System (ALPHA) included the elements of financial control described in our report.

DSA stated that SAMMS--operated at only one of its six supply centers--apparently does incorporate various financial control techniques. Although this specific supply center was not visited during our study, it would appear from DSA's description of this system that SAMMS does include the basic elements of financial control.

The Army stated, in an attachment to DOD's reply, that ALPHA "*** will optimize the financial inventory control techniques proposed by the General Accounting Office." Although descriptions of this system obtained during our study did not provide such indications, we agree that the control features described in the Army's statement are comparable to those described in our report.

Therefore we believe that the concepts included in DSA's SAMMS and the Army's ALPHA--if effectively implemented and expanded to the services' ICPs--could contribute to the improvement of inventory record accuracy and could provide the type of financial controls necessary for effective management of their inventories.

DOD stated that certain of the financial control techniques suggested would be detrimental to the supply function.

We do not believe that our concept of financial control would have a detrimental effect on supply performance since, as stated on page 13, our concept advocates that:

"*** when quantity data are received they should be posted or recorded in the detail stock records without delay. The items must be available for issue even if there is a discrepancy between detailed stock record and financial data."

The supply record validation technique we suggested would in no way delay the supply function.

In commenting on the services' financial inventory accounting systems DOD stated also that:

"*** the DOD components have installed or plan to install financial inventory accounting systems which we believe are in conformance with statutory and GAO requirements. Representatives of GAO have assisted materially in these efforts."

Although we assisted the services by providing advice or pointing out various requirements and will continue to do so, we have not approved any of the existing or proposed DOD financial inventory accounting systems as to either operation or design.

The Navy, in an attachment to the DOD reply, stated that:

"*** the current priority for systems development embodied in the DON FYEMIP [Navy Five Year Financial Management Improvement Plan] was commented on by both DOD and GAO incident to their review of the Navy plan."

We did comment on the Navy plan and indicated agreement with the concept of the overall approach. We did not approve, however, the design of the financial inventory accounting segment of the Integrated Financial Management Systems Project of the Navy plan.

Both the Navy and the Air Force apparently intend to delay consideration of the financial control techniques recommended. We believe, however, that the consideration of and solution to various timing and coordination problems crucial to the implementation of the techniques suggested

should be included in the planning stages of the overall systems. We believe that an add-on approach is neither practical nor desirable and will only result in delay in achieving the financial control necessary for the effective management of DOD inventories. If these new systems go into operation without such techniques, subsequent revisions could be resisted and difficult to obtain.

RECOMMENDATIONS

Since DOD indicated that the DSA's SAMMS has financial controls comparable to those outlined in this report, we recommend that the Secretary of Defense evaluate the controls incorporated in this system, make further refinements as necessary, and ensure that similar control techniques are built into the proposed systems of the other military departments, preferably during the design stage. Such techniques should include:

- The comparison of quantity record data and related financial data.
- System controls and procedures to ensure the timely research and correction of discrepancies occurring in the comparison process.
- Periodic comparison of financial and quantitative record totals as an overall test of reliability.

DOD INSTALLATIONS VISITED
DURING GAO STUDY OF
FINANCIAL INVENTORY ACCOUNTING SYSTEMS

NAVY:

Aviation Supply Office
Philadelphia, Pa.

MARINE CORPS:

Marine Corps Supply Activity
Philadelphia, Pa.

ARMY:

Aviation Systems Command
St. Louis, Mo.

Tank-Automotive Command
Warren, Mich.

AIR FORCE:

San Antonio Air Materiel Area
San Antonio, Tex.

Air Force Logistics Command
Dayton, Ohio

DEFENSE SUPPLY AGENCY:

Defense Electronics Supply Center
Dayton, Ohio

APPENDIX II

EXAMPLES OF PRIOR GAO REPORTS

CONCERNING STOCK RECORD INACCURACY

Need to Improve Military Supply Systems in the Far East
(B-160682, April 21, 1970)

Need for Improvement in the Receipt and Storage of Military
Supplies and Equipment (B-146828, July 30, 1969)

Improvements Needed in Army Supply Management and Stock
Fund Activities in Korea (B-166312, June 30, 1969)

Army and Air Force Controls Over Inventories in Europe
(B-161507, June 30, 1969)

Need to Improve the Army Tank-Automotive Command's Supply
Management Data System (B-146772, September 23, 1968)

Improved Inventory Controls Needed for the Departments of
the Army, Navy, and Air Force and the Defense Supply
Agency (B-146828, November 14, 1967)



COMPTROLLER

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

18 JAN 1972

Mr. J. K. Fasick
Associate Director, Defense Division
U. S. General Accounting Office

Dear Mr. Fasick:

Your draft report on "Observations on Financial Inventory Accounting -- What It Is and What It Could Be" (OSD Case #3350) has been reviewed. We concur with GAO's conclusions that improvements can and should be made in financial and item inventory control. However, we do not concur with GAO's general conclusions that none of the Department of Defense's existing or proposed financial inventory accounting systems has achieved or will achieve the financial controls necessary for effective management of DoD inventories.

We recognize the GAO concept of matching the vendor's invoice with an authenticated receiving report before introducing the item received into either the item or financial records. This concept may be applied where all activities concerned with the acquisition, recordation, and payment for supply items are located together. Such a concept does not take into consideration the size and complexity of the DoD's logistic system where the activities for paying, accounting, inventory control and storage functions may be in different geographic locations. To preclude the recordation of receipts into DoD inventories until the transaction is completely vouched would have a deleterious effect on supply performance throughout the Department of Defense.

To attain our mutual objectives of satisfactory control of inventories, and the providing of effective management data, the DoD components have installed or plan to install financial inventory accounting systems which we believe are in conformance with statutory and GAO requirements. Representatives of the GAO have assisted materially in these efforts. Enclosed are brief statements drafted by the DoD components reflecting the current "state of the art."

We appreciate having your opinions made available to us, and will continue to consider them in our efforts to improve DoD financial inventory accounting.

Sincerely,

Robert C. Moot
Assistant Secretary of Defense

Enclosures 4

APPENDIX III

DEPARTMENT OF THE ARMY

The Department of the Army through AMC Logistics Program Hardcore-Automated (ALPHA) intends to improve management in the functional areas of financial management, provisioning, cataloging, stock control, international logistics, maintenance, supply management, and procurement and production.

Specifically, through ALPHA, the Army will optimize the financial inventory control techniques proposed by the General Accounting Office through the following sequential processes:

1. Transmittal of a MILSTRAP prepositioned receipt card from the inventory control point to the receiving storage activity based upon dues-in entries established at the inventory control point.
2. Match, at the storage site, of the prepositioned receipt card quantities with quantities shown on advance copies of the Materiel Inspection and Receiving Report (DD Form 250), the Order for Supplies or Services (DD Form 1155), or other procurement instruments from the vendor.
3. The physical receipt of materiel at storage site results in the preparation of count card and the match with the prepositioned receipt card, DD 250 or DD 1155. Then post to stock record card.
4. Prepare a MILSTRAP Materiel Receipt Document (MRD) from the physical count card and transmit the MRD to the ICP.
5. Match the Materiel Receipt Document and the vendor's invoice prior to posting to the financial ledgers at the inventory control point. The receipt and disbursement transactions are specifically matched by contract line item numbers; contract shipment number; and quantities.

When a match is made, the quantities are price-extended and posted to the inventory general ledger account. When a match is not made, the transaction is listed on an exception report and remains there until a MILSTRIP inquiry card is sent to the storage site for verification and confirmation of quantities physically received. If verified by the storage site, the quantity is posted to the financial inventory record and an adjudication process is instituted regarding the payment of the invoice.

By following this process, the Army believes it is meeting GAO's financial inventory control objectives by not posting to the inventory financial records until a match of the vendor's invoice and quantities received at storage sites has been made, or a reconciliation has been achieved.

DEPARTMENT OF THE NAVY

To achieve financial controls necessary for effective management of inventories, the Department of the Navy Five Year Financial Management Improvement Plan (DON FYFMIP) provides the basis for an orderly large scale systems design, development and implementation program. This plan encompasses existing Navy financial management improvements and establishes a new project - the Integrated Financial Management Systems (IFMS) Project - which is responsible for the design, development and implementation of a Navy-wide Integrated Accounting System. The efforts of the IFMS Project are centered in two basic segments - Integrated Accounting and Procurement Accounting and Reporting. The Integrated Accounting segment will develop and implement an accounting processing network that will meet financial information and control requirements in the program, fiscal and operating management structures of the Navy. The Procurement Accounting and Reporting segment will focus on providing information which management can use to effectively control procurement actions.

The current priority for systems development embodied in the DON FYFMIP was commented on by both DoD and GAO incident to their review of the Navy plan. Major improvements in financial inventory accounting are logical follow-on phases after the IFMS processing network and procurement accounting and reporting segments are completed.

In addition to the development efforts under the DON FYFMIP, there are several interim improvement programs specifically addressing financial inventory accounting in the Navy Stock Fund. These include:

1. Financial Inventory Reports (FIR). Twenty-three of the ninety-one FIR codes have been eliminated. Activities with limited sales and inventory will be authorized to use only thirty-two of the remaining sixty-eight codes. Implementation will be July 1, 1972. Also, a study is being conducted to reduce the number of inventory segments for which financial inventory accounting is required.

2. Centralized Requisitioning, Accounting and Billing (CRAB). Plans have been made to conduct a centralized accounting and billing test. The test will involve selected stock points and inventory control points. Implementation of the test is scheduled for May 1, 1972. Based on the results of the test, a determination will be made regarding the implementation of CRAB within the Navy.

3. Retail Inventory System (RIS). A plan has been initiated to extend RIS to specific Naval Supply Centers. Refinements will be made to the current RIS as each implementation is accomplished.

DEPARTMENT OF THE AIR FORCE

Within the Air Force, significant improvements will result from implementation of the Advanced Logistics System (ALS) and the Department of Defense's Military Standard Contract Administration Procedures (MILSCAP) currently scheduled for September 4, 1973 and October 1, 1972, respectively. The full extent of improvements to be realized from the increased integration, mechanization, standardization, improved communications, and other features designed into these systems can only be determined after implementation. There is a basic difference, however, in the conceptual approach recommended by GAO and that designed in current and planned systems.

Essentially, the GAO recommendations require a comparison of the value of items shipped, received, and on hand as reflected in financial records, with the value of items in inventory and in related stock records. The objective is, of course, to independently record the value of inventory in financial records and, through comparisons, verify and control quantities actually received and on hand, as reflected in inventory records. In common accounting terms, this basically involves the updating of financial records based on payments, after matching of data in contractor invoices, receiving or acceptance reports, and related contractual documentation. It also involves the updating of financial and inventory records from common source documentation, such as materiel receipt, issue, and transfer documents. Under ALS, the procedures require an integrated system and common data base approach, with simultaneous updating of all affected systems (financial, inventory and other), on an individual transaction basis. To a significant extent, this is consistent with GAO recommendations since the same source documents are used for updating of all systems. The ALS involves maximum use of third generation technology and systems integration concepts which are appropriate to the size and complexity of the DoD logistical area. In this same context, the related contract administration and disbursement functions are for the most part performed centrally by Defense Contract Administration Services Regions. These central offices disburse based on reports of materiel accepted at the contractor's plant or destination, and otherwise receive documentation which is not available at accounting locations.

The Air Force formerly utilized a system similar to that recommended by GAO. With the subsequent growth of the procurement and logistical functions, the maintenance of two separate systems (financial and supply) became cumbersome and necessitated greater use of mechanized systems integration concepts, and elimination of duplicate records and excessive documentation or data flow. Some of the problems associated with a reversion to former techniques were mentioned in the GAO report. Other problems include different location of paying, accounting, and inventory control and storage functions. The problems involved would make it extremely difficult to implement the totality of the recommendations without significant organizational or functional realignment and/or adverse effects on the timely implementation of the new systems.

Since one of our primary objectives is to improve inventory control through the systems under development, we believe the sufficiency of these systems should be evaluated before basic procedural concepts

are changed. The implementation of these systems need not preclude a subsequent change to increase control features under the then existing procedures or through incorporation of procedures recommended by GAO on a selective basis.

DEFENSE SUPPLY AGENCY

This agency has developed an integrated logistics management system called the Standard Automated Materiel Management System (SAMMS), which is mentioned in the draft report. The SAMMS system has been operational at the Defense Construction Supply Center at Columbus, Ohio, since September 1969, and is scheduled to be phased in at each of our supply centers. Although this system was not included in the GAO review, it is our opinion that the improvements incorporated in the design of the SAMMS provide all controls which are essential toward maintenance of accurate financial inventory data. We believe that the controls in SAMMS achieve the improvements in inventory accuracy and meet all the test objectives covered in the GAO draft report. These objectives are believed attainable through the overall control features which have been incorporated in the system, such as:

- Prevalidation of quantitative and financial inventory data to insure accurate update of supply and financial inventory balances.
- Inter-system control for daily comparison of transactions recorded to supply and financial inventory records to insure that each transaction affecting a quantitative balance is recorded in the financial inventory records. Any transaction creating an out-of-balance condition between the quantitative and financial inventory records is output on a transaction listing for research and correction.
- An overall test of the accuracy of the inter-system control is performed monthly. Any uncorrected out-of-balance condition is adjusted to the financial inventory balance; however, the error record is held in suspense until corrected.

In addition to the overall control features outlined above, SAMMS provides special control features for materiel being acquired by purchase action. These features are designed to insure that:

- all on-order materiel is received and taken up on both the quantitative and financial inventory records,
- all receipts of on-order materiel are paid for, and
- all materiel which has been paid for is taken up on both the quantitative and financial inventory records.
- Or, in the words of the GAO narrator, assure that "you got what you're paying for."

In order to attain the objectives outlined above for materiel acquired

through the procurement process, we have established an Active Contract File (ACF) for control purposes. All order, receipt, and payment information (both quantity and value) applicable to materiel acquired by purchase, is recorded on the ACF. This record reflects the stock number and description of the item ordered, contract number, contract line item number, unit of issue, unit price, quantity ordered, quantity received, quantity paid for, etc. The record is not closed until the contract is completed and all quantities received and paid for are in agreement with the quantities ordered. We believe, too, that the quantitative receipt documentation should be the basis for establishing in the financial records the accrued liabilities applicable to receipts of on-order materiel. This method is used throughout the DoD; however, in our SAMMS system the materiel receipt document is validated against an outstanding order to insure that the materiel covered by the receipt document is the same as that which was ordered.

Although SAMMS uses the price extended MILSTRIP/MILSTRAP quantitative transactions to record increases and decreases in the financial inventory records, we believe this method is the most practicable way to provide a direct auditable record to the input source documentation. To illustrate the point, every supply requisition processed, which results in a "drop" from the quantitative and financial inventory records, is recorded on a Requisition History File (RHF). When the issue transaction is billed, the bill number, quantity, and value of the item billed is recorded on the RHF. Thus, the complete history of the issue transaction from receipt of the requisition to the billing process, is included in the RHF. We believe the SAMMS system design provides a financial inventory accounting system which complements, rather than merely reflecting, the supply system detail transaction records, and meets all the principles, standards, and requirements prescribed by the Comptroller General of the United States under Title 2 of the General Accounting Office Policy and Procedures Manual for Guidance of Federal Agencies.

APPENDIX IV

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF DEFENSE
 AND THE MILITARY DEPARTMENTS
 RESPONSIBLE FOR ADMINISTRATION OF ACTIVITIES
 DISCUSSED IN THIS REPORT

	<u>Tenure of office</u>	
	<u>From</u>	<u>To</u>
<u>DEPARTMENT OF DEFENSE</u>		
SECRETARY OF DEFENSE:		
Melvin R. Laird	Jan. 1969	Present
DEPUTY SECRETARY OF DEFENSE:		
Kenneth Rush	Feb. 1972	Present
Vacant	Jan. 1972	Feb. 1972
David Packard	Jan. 1969	Dec. 1971
ASSISTANT SECRETARY OF DEFENSE (COMPTROLLER):		
Robert C. Moot	Aug. 1968	Present
ASSISTANT SECRETARY OF DEFENSE (INSTALLATIONS & LOGISTICS):		
Barry J. Shillito	Feb. 1969	Present
DIRECTOR, DEFENSE SUPPLY AGENCY:		
Lt. Gen. Wallace H. Robinson, Jr.	July 1971	Present
Lt. Gen. Earl C. Hedlund	July 1967	June 1971
<u>DEPARTMENT OF THE ARMY</u>		
SECRETARY OF THE ARMY:		
Robert F. Froehike	July 1971	Present
Stanley R. Resor	July 1965	June 1971
UNDER SECRETARY OF THE ARMY:		
Kenneth E. Belieu	Aug. 1971	Present
Thaddeus R. Beal	Mar. 1969	July 1971

<u>Tenure of office</u>		
	<u>From</u>	<u>To</u>

DEPARTMENT OF THE ARMY (continued)ASSISTANT SECRETARY OF THE ARMY
(FINANCIAL MANAGEMENT):

Eugene M. Becker	July 1967	Present
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ASSISTANT SECRETARY OF THE ARMY
(INSTALLATIONS & LOGISTICS):

Dudley C. Mecum	Oct. 1971	Present
J. Ronald Fox	June 1969	Sept. 1971

COMPTROLLER OF THE ARMY:

Lt. Gen. John M. Wright, Jr.	Sept. 1970	Present
Lt. Gen. Frank Sackton	July 1967	Aug. 1970

DEPARTMENT OF THE NAVY

SECRETARY OF THE NAVY:

John H. Chafee	Jan. 1969	Present
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UNDER SECRETARY OF THE NAVY:

John N. Warner	Feb. 1969	Present
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ASSISTANT SECRETARY OF THE NAVY
(FINANCIAL MANAGEMENT):

Frank Sanders	June 1971	Present
Charles A. Bowsher	Dec. 1967	June 1971

ASSISTANT SECRETARY OF THE NAVY
(INSTALLATIONS & LOGISTICS):

Charles L. Ill	July 1971	Present
Frank Sanders	Feb. 1969	July 1971

DEPARTMENT OF THE AIR FORCE

SECRETARY OF THE AIR FORCE:

Dr. Robert C. Seamans, Jr.	Jan. 1969	Present
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UNDER SECRETARY OF THE AIR FORCE:

John L. McLucas	Mar. 1969	Present
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APPENDIX IV

<u>Tenure of office</u>	
<u>From</u>	<u>To</u>

DEPARTMENT OF THE AIR FORCE (continued)

ASSISTANT SECRETARY OF THE AIR
FORCE (FINANCIAL MANAGEMENT):

Spencer J. Schedler	June 1969	Present
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ASSISTANT SECRETARY OF THE AIR
FORCE (INSTALLATIONS & LOGISTICS):

Philip N. Whittaker	May 1969	Present
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