

March 1990

# DEFENSE INVENTORY

## Growth in Ship and Submarine Parts



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National Security and  
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The Honorable John Glenn  
Chairman, Committee on  
Governmental Affairs  
United States Senate

The Honorable Jim Sasser  
Chairman, Committee on  
the Budget  
United States Senate

This report responds to your Committees' requests that we study defense secondary inventories. We previously provided you with an overview of inventory growth and are completing our response with two reports on areas of largest growth. The other report deals with aircraft parts growth, while this report discusses the causes of unrequired ship and submarine parts and addresses ways in which such stocks can be minimized.

As arranged with your offices, we plan no further distribution of this report until 30 days from its issue date, unless you release its contents earlier. At that time, we will send copies to other interested committees and Members of Congress; the Secretaries of Defense and the Navy; and the Director of the Office of Management and Budget. We will also make copies available to other parties upon request.

This report was prepared under the direction of Donna M. Heivilin, Director, Logistics Issues (202) 275-8412. Other major contributors are listed in appendix V.

Frank C. Conahan  
Assistant Comptroller General

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# Executive Summary

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## Purpose

The Department of Defense's (DOD) inventory of secondary items (minor end items and repair parts) grew from about \$43 billion in 1980 to \$103 billion in 1988, an increase of 138 percent. The Navy's inventory of ship and submarine parts increased by 249 percent, from about \$2.7 billion in 1980 to about \$9.3 billion in 1988. The Chairmen, Senate Committees on the Budget and on Governmental Affairs, asked GAO to analyze the growth in ship and submarine parts, especially growth not related to increases in military capability. GAO's objectives were to (1) detail the major causes for unrequired inventory, (2) determine whether opportunities exist to minimize growth in unrequired stock, and (3) determine if, in addition to unrequired inventory, the inventory contained items with little potential for future use. This is the third in a series of reports addressing the growth in DOD's secondary inventories.

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## Background

The National Security Act of 1947 requires the Secretary of Defense to report annually to the President and the Congress on DOD's inventory, including principal and secondary items. Principal items include aircraft, tanks, and ships. Secondary items include aircraft, tank, ship, and submarine parts; construction materials; clothing and textiles; and medical and dental supplies. DOD categorizes its inventories into six classifications. Two represent required stocks held to meet war reserve and peacetime operating stocks. Four classifications represent unrequired stocks. Three of the four represent stocks that DOD holds for potential future requirements and contingencies, but has no need to buy. The fourth classification represents stocks whose retention cannot be justified for either economic or defense reasons.

Under the Defense Inactive Item Program, the Navy reviews its inventory once a year to identify inactive items for possible elimination from the inventory. Items are identified as inactive when they have (1) been on the master data file for seven years, (2) had no demand in the last two years, (3) no current requirement, and (4) no current application.

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## Results in Brief

In 1988, 40 percent (\$3.7 billion) of the Navy's inventory of ship and submarine parts was unrequired. GAO sampled the 183,000 items that include such stocks and found that the major causes for the unrequired inventory were requirements that did not materialize, deactivation of older ships, and replacement and phasing out of equipment. However, GAO could not determine why unrequired inventory exists for over half the sample items, since (1) documents justifying past procurement decisions are not available, (2) the Navy has no record of events affecting

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the demand for these items, and (3) sometimes the managers are not familiar with the procurement or demand history of their items.

Unrequired inventory can be minimized by ensuring that items being replaced or phased out are not purchased or repaired unnecessarily.

GAO estimates that 109,000 ship and submarine parts which have unrequired inventory have little potential for future use because the items have no users, past demands, or forecast demands. These parts meet some, but not all four of the DOD's criteria for being considered for elimination from the inventory. GAO believes the requirement to meet all four criteria is too restrictive.

GAO also estimates that another 31,000 ship and submarine items for which the Navy has unrequired stocks, meet current Defense Inactive Item Program criteria for possible elimination from the inventory, but few items are being considered. The Navy's last inactive item review eliminated about 1,500 items and a special project eliminated another 3,200 items.

GAO estimates that the Navy is spending \$24 million annually to store and manage these 140,000 items which may be of no use.

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## Principal Findings

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### Reasons for Unrequired Stock

GAO identified the causes of unrequired inventory for 45 of 100 randomly chosen items. GAO could not determine why an additional 54 sample items had unrequired inventory (one item was determined not to have unrequired inventory). Either records were not available or item managers were not sufficiently familiar with the 54 items to explain why the items had unrequired inventory.

Based on its sample, GAO estimates that about \$900 million of the unrequired inventory resulted from requirements that changed. Reasons for the changes included planned program requirements and demands that changed or did not materialize. GAO also estimates that about \$1.7 billion of unrequired inventory resulted from the Navy's fleet modernization efforts, which included replacing and phasing out equipment and deactivating ships.

GAO estimates that the Navy would not be able to explain why about \$1.2 billion worth of the inventory was unrequired. The Navy does not require item managers to keep records justifying purchase decisions beyond when the material is received. In addition, many item managers have been responsible for their items for only a short period of time. As a result, information is not available to identify the basis for past purchases or to identify events causing items to have unrequired inventory.

GAO believes that the lack of information can hinder item managers in that they are not aware of why items were purchased, why the items have unrequired inventory, or even why the items are being retained. Having such information could help item managers to recognize causal factors and thus minimize the purchase of items that could become unneeded, and would help them to decide which items should be retained.

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### Minimizing Unrequired Inventory

GAO found that the Navy does not systematically notify inventory control points that items are being replaced or phased out. Even when notified, inventory records often contained no information to alert the responsible item managers that items are being replaced or phased out. GAO believes that procedures to disseminate and record data on items being phased out are necessary to keep unrequired inventory to a minimum.

The purchase of one GAO sample item was finalized after the inventory control point was notified that the item was obsolete. GAO believes that terminating that contract effort before the contract was finalized would have avoided acquiring unneeded inventory.

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### Inactive Items

In 1988, the Navy only eliminated about 1,500 items under the Defense Inactive Item Program and another 3,200 under a special project.

GAO's sample included 57 items that did not meet all four DOD criteria for being considered inactive for elimination, but had one or more characteristics that indicate little potential for future use. For example, 15 items had no users, 45 items had no demands in the past 2 years, and 33 items had no forecast demands. GAO estimates that of the 183,000-item population, about 109,000 items, valued at \$2.3 billion could be evaluated for elimination if items did not have to meet all four criteria to be considered inactive.

GAO found that 11 sample items met all four DOD criteria for being classified inactive and should be considered for elimination from the inventory. GAO estimates that an additional 31,000 items should be considered under existing criteria.

Based on DOD cost estimates, GAO estimates that it costs the Navy \$24 million to store and manage items that meet criteria to be considered for elimination and that could be considered if fewer criteria were required.

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## Recommendations

GAO recommends that the Secretary of Defense direct the Secretary of the Navy to:

- Require item managers to retain summary data for major items showing the basis for an item's most recent procurement and events affecting the item.
- Establish procedures to inform inventory control points about systems being phased out or replaced, require inventory records be coded to identify the items, and ensure that purchases of such items are made only for immediate needs.
- Begin systematically identifying and evaluating all inactive items, and eliminate those with no potential for future use.

GAO also recommends that the Secretary of Defense expand the defense inactive item program criteria to allow classifying items as inactive so that more items with little potential for future use can be evaluated.

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## Agency Comments

The Department of Defense agreed with GAO's findings and recommendations (see app. IV). In its response, the Department provided information on actions it will take to correct the problems noted in this report.

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**Abbreviations**

|      |                            |
|------|----------------------------|
| DOD  | Department of Defense      |
| GAO  | General Accounting Office  |
| SPCC | Ships Parts Control Center |



# Introduction

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The Department of Defense (DOD) classifies its material inventories as principal items, such as aircraft, tanks, and ships; or secondary items such as aircraft parts, ship and submarine parts, construction materials, clothing and textiles, and medical and dental supplies.

The value of DOD's secondary inventory grew from about \$43 billion in 1980 to about \$103 billion in 1988, an increase of about \$60 billion, or 138 percent. About \$9.3 billion of DOD's 1988 inventory was in ship and submarine parts. The value of ship and submarine parts increased \$6.6 billion, or 249 percent, between 1980 and 1988. About \$3.7 billion of ship and submarine parts in 1988 was in unrequired stocks, an increase of about 226 percent.

The Navy Supply Systems Command administers the Navy's supply system and provides supply management policies and procedures to its inventory control points. The Ships Parts Control Center (SPCC) is the Navy's inventory control point primarily responsible for the ship and submarine inventory.

At the inventory control points, item managers are primarily responsible for ensuring that needed items are available to the Navy fleet when and where needed. An item manager's tasks include determining when and how many items to repair or purchase, positioning items at supply centers to meet demands, disposing of excess items, and ensuring that budgets reflect material needs.

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## The Stratification Process

DOD has established a stratification process to match its secondary inventory, by item, to types of requirements. The process forecasts the requirements and determines if enough material will be available to satisfy them. Requirements and inventory summaries are used for such supply management activities as budgeting, procurement programming, and determining the supply system's readiness and financial status.

To satisfy the multiple uses of the stratification process, inventory data are computed, arranged, and displayed in several ways. Four comparisons are used for budgeting purposes. An opening status compares on-hand and due-in inventory to current requirements. Forecasts of

requirements and inventory are also made to show the inventory available to meet current, apportionment, and budget years needs.<sup>1</sup>

A fifth comparison measures readiness by showing items on hand to satisfy requirements as of the stratification date. A final comparison shows the reasons for retaining items. This comparison provides the basis for inventory information reported to the Congress.

Nineteen categories specify why inventory is retained and the twentieth category is for potential excess. DOD budgets for 15 of the categories and considers them to be requirements. DOD does not budget for an additional four categories, but sets allowed retention levels so that items which are on hand will be retained (see app. I).

The first 15 categories represent the approved force acquisition objective. The approved force acquisition objective includes operating stocks for the current, apportionment, and budget years; and additional stocks to cover safety levels, lead time (time needed to purchase items), and war reserves.<sup>2</sup>

The next requirement is for approved force retention stocks, which are not funded for purchase but may be retained if already on hand. These stocks equip and support the U.S.-approved forces from the day war begins until production equals demand. In this report, approved force acquisition objective and approved force retention stocks are called required stocks (see app. I).

Three additional categories may also be retained if already on hand. These are called economic, contingency, and numeric retention stocks (see app. I). The Navy does not use the numeric retention category in stratifying its ship and submarine parts.

Stocks which exceed all the above categories are identified as potential excess because their retention cannot be justified for defense or economic reasons.

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<sup>1</sup> The current year represents the remainder of the fiscal year in progress at the time of the stratification report. The apportionment year consists of the 12-month period after the current year, and the budget year consists of the 12-month period after the apportionment year.

<sup>2</sup> War reserves are stocks that are stored in peacetime to satisfy increased wartime consumption, they are intended to sustain operations until resupply takes place.

In this report economic, contingency, and numeric retention stocks and potential excess are called unrequired stocks. Although DOD has justified holding retention stocks, it does not have a current requirement to buy the material.

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## The Supply System Inventory Report

The National Security Act of 1947 requires the Secretary of Defense to report annually to the President and the Congress on DOD's stored supplies, including principal and secondary item inventories. DOD reports the inventories by service and by material categories, such as aircraft parts and ship and submarine parts. Each category is reported by approved force acquisition objective; approved force, economic, contingency, and numeric retention stock; and potential excess.<sup>3</sup>

Navy financial inventories do not account for approved force acquisition objective, retention, and potential excess stocks. The Navy uses its stratification summaries to develop ratios for the inventory in the various categories. It applies the ratios to the financial inventory to estimate amounts reported in the supply system inventory report.

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## Objectives, Scope, and Methodology

The Chairmen, Senate Committees on the Budget and on Governmental Affairs, requested us to study the growth in DOD's secondary inventories. They asked that our work include a macro-analysis of growth and aspects of the growth not related to increases in military capability.

In July 1988, we issued a briefing report analyzing the areas of inventory growth (e.g., aircraft parts and ship and submarine parts) and types of inventory growth (e.g., required and unrequired stocks).<sup>4</sup> We reported that DOD's secondary item inventory increased about \$51 billion between 1980 and 1987. Required stocks grew about \$27 billion, while stocks in excess of requirements grew about \$19 billion. About \$5 billion of the inventory was in-transit stocks. We reported that aircraft parts represented about \$31 billion of the \$51 billion in inventory growth

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<sup>3</sup>DOD also reports unstratified stocks. According to a DOD official, unstratified stocks represent items in transit between supply points and between supply points and customers.

<sup>4</sup>Defense Inventory: Growth in Secondary Items (GAO/NSIAD-88-189BR, July 19, 1988).

between 1980 and 1987, and that ship and submarine parts represented about \$9 billion.<sup>5</sup>

This report addresses the growth in Navy ship and submarine parts, especially increases not related to military capability. Our objectives were to (1) detail the major causes for unrequired inventory, (2) determine whether opportunities exist to minimize growth in unrequired stock, and (3) determine if, in addition to unrequired inventory, the inventory contained items with little potential for future use. We are issuing a separate report<sup>6</sup> to address the growth in aircraft parts.

We performed our work at the Office of the Assistant Secretary of Defense (Production and Logistics), the Navy Supply Systems Command, and the Ships Parts Control Center, Mechanicsburg, Pennsylvania.

We obtained an SPCC inventory report as of March 31, 1988, listing 183,435 ship and submarine consumable and depot level repairable items having unrequired stock (on hand or due in) in the economic retention, contingency retention, and potential excess categories. The total dollar value of the unrequired stock was \$3.5 billion.

We determined the total dollar value of unrequired stock for each item, examined frequency distributions of the total dollar values, and divided the population into five different dollar strata. Since we had no basis to provide criteria for stratum sizes, we selected and analyzed a preliminary random sample of 50 items. Based on the results of the preliminary sample, we selected a final sample size of 100 items. The final sample accounted for \$31.6 million in unrequired stock, about 1 percent of the population.

We reviewed the sample items to identify the causes for the items being in an unrequired status, and to determine if the items should be retained in the inventory.

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<sup>5</sup>The figures reported in our 1988 report were based on DOD's supply system inventory reports. During our recent analysis of Navy data, we determined that inventory presently being reported as ship and submarine inventory was reported in such other categories as missile and electronics parts in 1980. Using comparable figures, between 1980 and 1988 the ship and submarine inventory increased from \$2.7 billion to \$9.3 billion.

<sup>6</sup>Defense Inventory: Growth in Air Force and Navy Unrequired Aircraft Parts, (GAO/NSIAD-90-100, Mar. 1990).

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To identify the causes for the items being in an unrequired status, we analyzed information from consolidated stock status reports, cyclic data sheets, stratification reports, and procurement and transaction histories for each sample item. We also discussed the item's status with responsible item managers and branch chiefs.

To assess if items should be classified as inactive for deletion from the inventory, we compared them to SPCC criteria for the Defense Inactive Item Program. To determine if the Navy should evaluate additional items for possible elimination from the inventory, we reviewed item applications, users, past demands, and forecasted demands, and considered the reasons for the items being in the unrequired category.

We conducted our review from July 1988 to May 1989 in accordance with generally accepted government auditing standards. The Department of Defense provided written comments on a draft of this report. These comments are presented and evaluated in chapters 2, 3, and 4 and are included in appendix IV.

# Reasons for Unrequired Inventory

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Between 1980 and 1988, the Navy's unrequired ship and submarine parts inventory increased by about \$2.6 billion (from about \$1.1 billion to \$3.7 billion). The \$3.7 billion represented 40 percent of the Navy's \$9.3 billion ship and submarine parts inventory as of September 30, 1988.

Out of our statistical sample of 100 items, we determined why 45 items had unrequired inventory. The most common reasons identified were requirements that did not materialize and efforts to modernize the fleet, e.g., deactivating older ships and phasing out or replacing equipment.

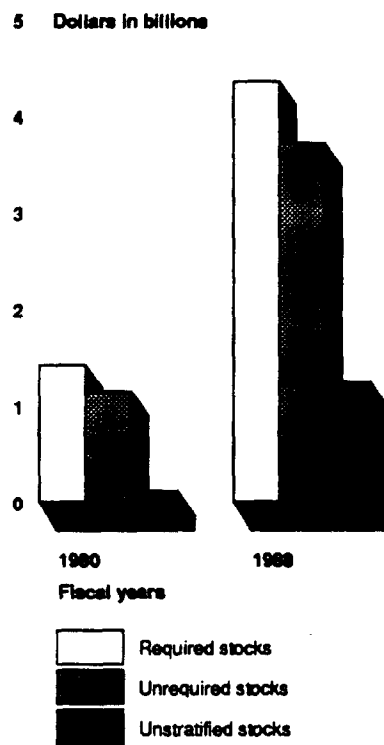
We could not identify why 54 items had unrequired inventory because records were not available and item managers were not familiar with the items' histories. Projected to the population of unrequired ship and submarine parts, the 54 items represent about 117,500 items with unrequired inventory valued at about \$1.2 billion. Documents justifying the items' last procurement or repair contracts were not available and many item managers had not been responsible for the items when SPCC procured the unrequired stock.

Appendix II lists the 45 items for which we identified reasons for unrequired inventory, the 54 items for which we could not identify reasons, and the 1 item for which inventory was overstated and the item was consequently erroneously reported as having unrequired inventory.

## Growth in Ship and Submarine Secondary Inventory

The Navy's ship and submarine parts inventory increased 249 percent between 1980 and 1988, from \$2.7 billion to about \$9.3 billion. Figure 2.1 shows the inventory growth.

**Figure 2.1: Required, Unrequired, and Unstratified Ship and Submarine Parts Inventory (1980 and 1988)**



The unrequired ship and submarine parts inventory increased 226 percent, from \$1.1 billion to about \$3.7 billion. According to a Navy official, the large amount of unstratified stocks is due to items awaiting delivery to deployed ships.

## Reasons for Unrequired Inventory

The two major reasons identified for unrequired inventory were that (1) requirements changed or did not materialize in 19 cases and (2) items were replaced, phased out, or ships deactivated as part of fleet modernization efforts in 23 cases.

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## Requirements Changed

We found that 19 items had unrequired inventory because the need for the items changed or item use was lower than expected. We estimate that this caused about \$900 million worth (about 27,000 of the 183,435 items) of inventory to be unrequired.<sup>1</sup> Requirements that changed include planned program requirements and demands that did not materialize, overstated replacement factors, and items that were purchased before the systems they supported were activated.

Planned program requirements are requirements to support one-time activities such as outfitting or altering ships. We identified 10 items for which delayed or canceled planned program requirements contributed to unrequired inventory. For example, SPCC had 17 rotor assemblies for a pump. Thirteen of the assemblies were unrequired and had a value of about \$1.5 million. SPCC awarded a contract to repair 6 of the assemblies in 1985. According to the item manager, planned requirements for the assemblies had been dropped. In October 1987, the item manager attempted to terminate the contract to repair the 6 assemblies, but decided that the termination costs would be too high because the contract was almost completed.

In four cases, the demands for the items decreased. For example, in March 1988 SPCC had 60 machine-threaded plugs used on a check valve. Ten of the plugs, valued at about \$190, were unrequired. According to the item manager, the demand for the item had dropped since the item was last purchased in 1987. The item manager could not explain the drop.

The replacement factor, which represents an item's expected average annual use, was overestimated for three items. For example, SPCC reported having 102 amplifiers for a radar system in stock in March 1988. Eighty-six of the amplifiers were unrequired and had a value of about \$780,000. SPCC had contracted for 62 of the assemblies in 1986 and 1987. According to the item manager, the anticipated replacement rate had been overestimated. As a result, too many items were purchased.

In two cases, SPCC inventory included on-order items for systems that were not yet operational. In one case, SPCC terminated the order for two resistor assemblies when installation of the sonar they supported was

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<sup>1</sup> We computed the estimates at the 95-percent level of statistical confidence. That is, we are 95 percent certain that the true number of items with unrequired inventory because of changed requirements is between 12,800 and 41,800 items and that their value is between \$154 million and \$1.7 billion.



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delayed. SPCC's March 1988 inventory showed two resistor assemblies on order. SPCC had awarded a contract for two assemblies to support a sonar, initially scheduled to be activated in 1991 or 1992. According to the item manager, the sonar will not be installed until at least 1995.

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### Fleet Modernization

Causes related to fleet modernization contributed to 23 items with unrequired inventory in our sample. We estimate that about \$1.7 billion worth (about 32,000 of the 183,000 items) of inventory was unrequired as a result of fleet modernization efforts.<sup>2</sup> The items were unrequired because equipment was being phased out or replaced, and ships were deactivated. The unneeded items were not removed from the inventory and their components were sometimes used on other equipment.

### Equipment Phaseouts and Replacements

We identified 17 items with unrequired inventory because the equipment that used the items was being phased out or replaced. For example, in March 1988 SPCC had 65 circuit card assemblies for submarine sonar communications sets, and 62 valued at about \$44,000 were unrequired. According to the item manager, the communications set was being replaced. As the communications sets are replaced, they are returned to the inventory and their components are used as needed on other equipment. This circuit card assembly cannot be used on other equipment and will eventually be scrapped. SPCC records show 59 of the assemblies as potential excess.

Two items that had been replaced could be upgraded to the new items. For example, SPCC had 21 circuit card assemblies for a sonar receiver in its March 1988 inventory. One of the assemblies was ready for issuance and 20 needed repairing. Four of the assemblies, valued at about \$7,500, were unrequired. The item manager explained that all the assemblies would eventually be unrequired because the item had been replaced. Since it is less expensive to upgrade the old item than to buy a new one, the old item will be retained.

### Deactivated Ships

Three of the items were unrequired because the ships that used the items were deactivated. For example, SPCC had 31 radar antenna mounts in its March 1988 inventory. Thirty of the mounts were unrequired inventory valued at about \$1.2 million. Twenty-two of the mounts could

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<sup>2</sup>Based on statistical sampling, we are 95 percent certain that the true number of items with unrequired inventory because of fleet modernization is between 16,500 and 48,300 and their value is between \$726 million and \$2.7 billion.

Items Not Removed From the Inventory

not be issued because they needed repairing. SPCC officials found that the ships using the fire control system had been deactivated.

Three items were unrequired because they had not been eliminated from the inventory after equipment they supported were removed or their stock number canceled. For example, in March 1988 SPCC had two scale dials valued at \$15 each used on a fire control system. One of the dials was reported as required stock and the other as unrequired. The uses for this item had been eliminated in 1984. According to the item manager, since the uses had been eliminated, the item had no further requirement and could be eliminated.

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Other Causes

Complying with minimum order value purchase requirements, buying above the authorized quantity, and buying the wrong item were additional causes of unrequired inventory. Because of the infrequency of these causes of unrequired inventory, we did not project their occurrence to the population.

SPCC has established a minimum order value purchase requirement so that the cost to process a purchase request is not more than the item's value. In one instance, one dial was needed; however, SPCC purchased 25 dials to meet the \$250 minimum order purchase value.

In another case, SPCC authorized 400 anchor shackles, but procured 720. The item manager could not explain the overprocurement but believed that an initial provisioning order for 300 may have been lost and then a second order of 420 to cover the authorized quantity was awarded. Both orders were subsequently delivered.

In another instance, a Navy shipyard ordered a centering magnet which it thought was an assembly that included the needed part. (A clamp which was needed was not listed as a separate item in the inventory system.) When the order arrived, they found that it was not an assembly or the needed part.

One sample item, a circuit card assembly, was not actually in an unrequired status. The number of items due in from repair and procurement contracts were overstated. Removing the overstated due-in stocks caused the item to no longer be in an unrequired status.

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## Reasons Why About Half the Items Had Unrequired Stock Could Not Be Determined

We could not determine why 54 of 100 items had unrequired stock because records supporting past decisions were unavailable and/or the item managers were not sufficiently familiar with the items. We estimate that reasons for unrequired inventory could not be identified for items valued at about \$1.2 billion, or about 117,500 of the 183,000 items with unrequired inventory.<sup>3</sup> For these items such key information as the items' users, past demands, or forecast demands used to justify the last purchase was not available. Additionally, in many cases, the current item manager had been responsible for the item for only a short period and did not know about the item's history.

For example, SPCC had 53 reactor assemblies for a sonar system in its March 1988 inventory. Fifty-one of the assemblies were unrequired and were valued at about \$160,000. The most recent delivery involved five of the items that were contracted for in 1985 and delivered in July 1986. As of September 1988, neither the item manager nor the branch chief had records to show why the items were ordered or were currently in the unrequired category.

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## Justification Documents Not Retained After Material Is Received

SPCC policy requires item managers to submit documentation supporting purchases over \$25,000 for approval by higher authority. The documents include the item's consolidated stock status report, cyclic data sheet, requirements evaluation forms, and other supporting data. These documents provide such information as past and forecasted demands, lead time, and users. The policy requires the item managers to retain the documents until the material is received, but not after receipt.

According to SPCC officials, documentation supporting purchases are not required to be retained after the material is received because of the large volume of paper involved. The officials stated that the Navy's Uniform Inventory Control Program, a computer system which provides automated support to the Navy's inventory control points, is being updated. The final stage of the update, which is scheduled to be completed in late 1993, will provide an archive file for retaining information used to make procurement decisions.

According to a Naval Supply Systems Command official, the Navy does not have any additional retention requirements besides SPCC's. He said

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<sup>3</sup>We computed the estimates at the 95-percent level of statistical confidence. That is, we are 95 percent certain that the true number of items for which reasons for unrequired inventory could not be identified is between 97,600 and 137,400 items and that their value is between \$733 million and \$1.7 billion.

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that acquisition regulations require retention of procurement documents for 3 or 6 years, depending on the size of the contract. However, he said that procurement documents are sent to storage and are generally not available for item managers' day-to-day use.

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### Many Item Managers Not Familiar With Items

We interviewed item managers 5 to 8 months after the date of the inventory report from which we took our sample. We found that for 13 of the 54 items, responsibility for the items had already changed. For an additional 18 items, item managers had been responsible for the items for less than 2 years.

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### Conclusions

Item managers were unfamiliar with over half the sample items because they had recently assumed responsibility for the items and documents explaining past decisions or events resulting in unrequired inventory were unavailable. We believe that the lack of information can hinder item managers in that they are not aware of why items were purchased, why items had unrequired inventory, or why the items are retained.

We believe that SPCC's plans for a computerized archive file of procurement decision information will help item managers to better manage their inventories and to identify the causes of unrequired inventory. We also believe that records of events affecting the status of an item would also be beneficial. Such events could include replacement notifications, elimination of applications or users, ship deactivations, and program delays.

Until a computerized archive file is implemented, we believe that summary data showing the justification of procurement decisions and events affecting major items should be kept. Setting a minimum contract value or time limit for retaining information would help keep the item managers' work loads to a reasonable level.

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### Recommendation

We recommend that the Secretary of Defense direct the Secretary of the Navy to require item managers to retain summary data on major items showing the basis for each item's most recent procurement and events affecting the item.

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## Agency Comments and Our Evaluation

DOD concurred with our findings and recommendation. DOD said that the Navy's automated data processing modernization planned for implementation in fiscal year 1994 would provide the necessary information. In the interim, the Navy will explore the feasibility of a manual system to retain the information.

Because of the potential slippage of the 1994 implementation of the automated data processing modernization, we believe that priority should be given to the manual system to retain an understanding of the bases for procurement decisions and events affecting the item.

# Minimizing the Acquisition of Unrequired Inventory

Some unrequired inventory may be the unavoidable result of fleet modernization activities. The Navy has also made efforts to minimize acquiring unrequired inventory. A major cause of unrequired inventory that we identified is changes and cancellations of planned program requirements. SPCC's efforts to provide item managers with the status of the requirements may reduce the amount of unrequired inventory resulting from this cause.

Although SPCC has made efforts to minimize the acquisition of unrequired inventory, we identified instances where more could have been done. We identified instances in which items being phased out or replaced were being repaired or additional items were being purchased. In another case, SPCC purchased an obsolete item. We believe that these examples unnecessarily added to the unrequired ship and submarine parts inventory.

## Navy Efforts to Minimize Unrequired Stocks

To control unnecessary inventory growth, the Navy consolidated its inventory management efforts in an inventory management improvement program in January 1989. The program's objective is to develop an approach for controlling factors contributing to growth in the secondary item inventory. The Navy has undertaken initiatives in 73 areas to control inventory growth. The initiatives include reviewing economic order quantity policies, minimizing reliance on purchases to last the life of equipment, ensuring that all such buys are fully justified, and developing a comprehensive effort to review planned program requirements.

In addition to its own efforts to reduce unrequired inventory, SPCC is participating in about half of the above inventory management improvement program initiatives. For example, SPCC officials periodically review selected items that have unrequired inventory. Between March and September 1988, SPCC reviewed 166 items that had purchase requests or contracts, valued at about \$301 million, and also had unrequired inventory. As a result of their reviews, SPCC initiated the termination of 62 contracts or purchase requests and corrected the records (e.g., entered requirements and changed demands or lead times) of other items.

Also, in 1988 SPCC item managers were given termination authority for items that have unneeded stock on order above requirements. According to SPCC, it terminated the largest number of contracts ever in fiscal year 1988. Between September 1988 and February 1989, SPCC terminated 7,279 purchase requests valued at \$191 million and about 700 contracts valued at about \$50 million. According to SPCC, it reduced the number of

contracts for unrequired inventory from about 17 percent of all contracts in 1986 to about 5 percent in 1988.

Additionally, SPCC has designated a project officer to form and chair a working group aimed at reducing purchase requests and contracts for unrequired inventory. The group's tasks include surveying and consolidating existing initiatives and information on items with unrequired inventory on order, and making recommendations on additional corrections.

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### Some Unrequired Inventory Is Unavoidable

Phasing out and replacing old equipment resulted in unrequired stock for 15 of the 45 items for which we identified causes. The 15 items had \$6.4 million and \$16.2 million in required and unrequired stock, respectively. These processes naturally occur as a result of fleet modernization, and in many cases they unavoidably result in inventory items that are no longer needed.

For example, one of our sample items was a submarine power supply. The Navy had nine of the power supply units valued at about \$343,000 each. None of the units could be issued because they needed repairing. According to the item manager, the power supply unit had been replaced, and the old units could not be modified or substituted for the new one. As the old units were removed from submarines, they accumulated as unrequired inventory (see ch. 4).

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### Efforts to Reduce Unrequired Inventory Resulting From Planned Program Requirements

Planned program requirements that are delayed or terminated contributed to unrequired inventory for 10 of the 45 items for which we identified causes of unrequired inventory. Because SPCC item managers are now receiving more timely information on delayed and cancelled planned requirements, SPCC may be able to reduce the amount of unrequired inventory resulting from this cause.

Planned program requirements represent anticipated one-time demands, such as outfitting or altering of ships. Hardware systems commands, such as the Naval Sea Systems Command, generate program requirements. The requirements are provided to the inventory control points, such as SPCC, through program support data. SPCC officials estimate that about \$840 million of its \$1.2 billion 1988 budget to procure items to support the fleet was based on planned program requirements

According to SPCC officials, the Center previously adjusted its requirements program as many as four times a year based on program support data changes obtained from hardware systems commands. However, SPCC now has on-line access to the hardware systems commands' program support data which will permit the timely adjustment or cancellation of purchases.

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### Some Unrequired Stock Can Be Minimized

We identified instances in which items were unnecessarily repaired or purchased after SPCC was notified that the items were being replaced or phased out. In those instances, SPCC's inventory records did not identify the items being replaced or phased out. Furthermore, the Navy informs SPCC of systems being replaced informally, rather than through a systematic procedure.

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### Contracting for Items Being Phased Out or Replaced

We found three instances in which repair or procurement contracts for items being phased out or replaced resulted in unrequired inventory. For example, SPCC officials told us that they were informed in the early 1980s that a radar unit that used a preregulator assembly was being replaced. (The officials could not provide a more accurate time for the notification because records were not available and the current item manager assumed responsibility for the assembly in June 1985.) In August 1985, SPCC contracted for 21 of the assemblies. Based on the item's lead time, we estimate that the contract was initiated in January 1985. As of March 1988, SPCC had 29 of the assemblies, valued at \$1,270 each, in its inventory. Twenty-two of the assemblies were unrequired.

SPCC assigns computer codes to items to identify restrictions that may apply when purchasing an item. The codes assigned to the three items did not restrict procurements. SPCC officials explained that items which are being phased out or replaced on selected ships cannot be coded to prevent procurement because SPCC must continue to support ships that still use the item. We agree that codes should not prohibit the purchase of items being phased out or replaced, but believe that such procurements should be carefully reviewed. Inventory records could be coded to alert item managers to items being replaced or phased out and to expect decreasing demands.

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### Obsolete Item Purchased

We also found an instance in which an obsolete item was purchased. The Navy had nine power transformers used on a sonar system. Eight of the transformers are unrequired. In April 1985, SPCC was notified that the



transformers were obsolete and were being replaced. In November 1985, SPCC contracted for three of the transformers at a cost of \$936. Based on the item's leadtime, we estimate that SPCC began contract procedures in April 1985. According to the item manager, the contract was not subsequently terminated because it was too far along. Because SPCC had been notified that the item was obsolete before the contract would have been issued, we believe that the contracting effort should have been stopped and the contract not issued.

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### SPCC Not Formally Notified of Item Replacements

The Navy has no formal procedures to notify SPCC of items being replaced or phased out. While attempting to determine when SPCC learned that items were being replaced, we found that program support data<sup>1</sup> did not provide information on systems being replaced. A branch manager said that the hardware systems command program managers for new and old systems are not always the same people. He explained that because SPCC item managers do not know that a replaced item's demand will decrease, they treat demand decreases as aberrations. He said that continued support under such conditions results in ordering unrequired items.

A Naval Supply Systems Command (the command responsible for program support data instructions) official agreed that program support data does not notify item managers of systems being replaced. The official stated that item managers at the inventory control points and program managers at the hardware systems commands communicate frequently. This informal communication helps to ensure that item managers are notified of a system's replacements. We recognize that there may be frequent communication between item and program managers. However, because of turnover in item managers, we believe that a formal system to inform SPCC of systems being phased out or replaced would help minimize unrequired inventory.

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## Conclusions

Although some of the Navy's unrequired inventory may be an unavoidable result of its fleet modernization efforts, we believe that steps can be taken to minimize unrequired inventory. We believe that systematic and timely information on the replacement and phase out of items is essential for item managers to efficiently manage inventory items and to keep unrequired stock to a minimum. Using codes to identify items to be

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<sup>1</sup>Program support data are documents provided by hardware systems commands to inventory control points. The documents provide information on the installation of new weapons systems.

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phased out or replaced would help to ensure that item managers are aware that items are being replaced or phased out and that demands may decrease. Additionally, acquisition efforts for replaced items can be abandoned to avoid the purchase of unneeded items, especially when the contracts are not yet issued.

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## Recommendation

We recommend that the Secretary of Defense direct the Secretary of the Navy to establish procedures to inform inventory control points about systems being phased out or replaced, require inventory records be coded to identify the items, and ensure that purchases of such items are made only for immediate needs.

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## Agency Comments and Our Evaluation

DOD concurred with our findings and recommendation. DOD said that procedures will be put in place to ensure continuity of program information on declining and inactive equipment and systems between hardware systems commands and inventory control points. The Department noted that the Navy's automated data processing modernization will provide information on events affecting items.

We agree with the Department's overall approach to solving problems associated with systems and equipment being phased out or replaced. However, because the timeframe for the automated data processing modernization is uncertain, we believe that the Navy should use its current system to identify such items. One possible approach would be to use a specific acquisition advice code to identify items being phased out or replaced.

# Inactive Items Contribute to Unnecessary Storage Costs

In identifying the causes of unrequired inventory, we noted that most items in our sample were generally inactive. We estimate that about \$2.4 billion worth of unrequired inventory is inactive and of questionable value to the Navy. The Navy stores and manages unrequired items in the hope that some will eventually be used. However, we believe that the Navy is needlessly using valuable resources to manage and store items of questionable value that may never be used.

We identified 57 items that did not meet all criteria for being considered inactive, but which we believe may be of little use to the Navy. We question the items' usefulness because they had no users, no demands in the past 2 years; no forecast demands, or were being replaced or phased out or were used on equipment being replaced or phased out. Analysis of each item is a prerequisite to a decision to eliminate an item. However, we believe that requiring items to meet all four program criteria before they are evaluated for elimination from the inventory is too restrictive because many inactive items are not being considered.

Also, we estimate that about 30,600 of the 183,000 items with unrequired inventory meet criteria for being classified inactive and should be evaluated for elimination from the inventory. The Navy's annual reviews to eliminate items are not keeping up with the workload—SPCC's last review eliminated less than 5 percent of the estimate, and a special project eliminated another 10 percent.

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## The Defense Inactive Item Program

DOD established the defense inactive item program to eliminate nonessential expenditures by purging inactive items from its supply system. According to DOD Directive 4140.32, inactive items are items for which no current or future requirements are recognized by users or item managers. Using DOD's specific criteria, SPCC identifies items as inactive when they have

- been on the master data file for 7 years,
- had no demand in the last 2 years,
- no current requirements, and
- no current applications.

SPCC's inactive item program objective is to dispose and decatalog the maximum number of inactive items possible while retaining only items with known current or future applications or requirements. SPCC stresses that item managers should not rely on file data alone to justify retaining or decataloging an item. For example, file data may indicate

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that an item has a valid application when the item has, in fact, been obsolete for years.

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## Many Items Have Little Potential for Future Use

We identified 57 items that did not meet all criteria for being considered inactive for elimination, but had characteristics that indicate little potential for future use by the Navy. For example,

- 15 items did not have users,
- 45 items had no demands in the past 2- or 5-year period,
- 33 items had no forecasted demands, and
- 38 of the items with unrequired inventory had no information available to identify why the inventory was unrequired. Because information was lacking on the items, we believe they warrant further review to determine if they represent valid assets.

Thirty-two of the items fell into at least 3 of the above categories. (A detailed listing of the 57 items is provided in appendix III.)

Nine of the 57 items had applications, but no users. The applications (uses for the items) appear to be invalid without users (ships or shore activities that use the item). The items also had no demands in the past 2 years and had been in the inventory for more than 7 years. For example, inventory records for an electric engine drive showed that the item had been in the inventory since 1952, had no demands during the past 5 years, and had no demands forecast. The item manager stated he could not explain why the item had unrequired stock.

In addition, 12 of the 57 items were being replaced or phased out or were used on systems being replaced or phased out. For example, the Navy had 65 circuit card assemblies used on a sonar that was being replaced. Although inventory records showed that the circuit card had applications and users, the item manager stated that the card had no other use and was being scrapped.

We estimate that about \$2.3 billion (about 109,600 of the 183,000 items) of unrequired items should be considered for deletion from the inventory rather than being retained for future use.<sup>1</sup>

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<sup>1</sup>We computed the estimates at the 95-percent level of statistical confidence. That is, we are 95 percent certain that the true number of items which could be considered to be inactive is between 88,900 and 130,300 items and that their value is between \$1.3 billion and \$3.3 billion.

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## Inactive Items Are Slowly Removed From the Inventory

Using the Navy's criteria for classifying items as inactive, we evaluated the 100 sample items and found that 11 of the items met the criteria for being classified inactive for elimination from the inventory. We estimate that about 30,600<sup>2</sup> of the 183,000 items with unrequired inventory would meet the Navy's criteria.

As a result of our initial discussions with item managers, the managers eliminated two of the items from the inventory. We subsequently followed up on the other nine items that met the criteria and found that three of them were not being considered for elimination. Item managers agreed that the items should be deleted, but could not explain why the items had not been. For the other six items, we found that three were being eliminated, and that three had been referred to other commands for review as the initial step in the process.

SPCC reviews items for elimination under the defense inactive item program once a year after the September stratification. According to an SPCC official, 1,428 items valued at about \$29 million were eliminated as a result of their last review.

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## Efforts to Delete Items

In 1985, the Combat Systems Department at SPCC initiated a program in its Major Caliber Gun Branch to reduce the number of items without designated uses. The branch identified approximately 13,000 items with no applications. These ordinance items had been transferred to SPCC's control when SPCC assumed responsibility for items previously managed by the Ordnance Supply Office. SPCC asked the Naval Ordnance Station, Louisville, Kentucky, to determine if the items had specific uses. In December 1985, the Ordnance Station said that it would take 13 to 14 staff years of intensive labor and would cost approximately \$500,000 to review the 13,000 items. The Ordnance Station proposed verifying designated uses for items with on-hand inventory. It also proposed that SPCC eliminate those items that had no stock on hand.

To ensure that items supporting active equipment were not eliminated, SPCC proposed a program to reduce the number of items without designated users in three phases. The first phase involved automatically deleting inactive items without applications. The second involved reviewing and eliminating, as appropriate, other inactive items. The

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<sup>2</sup>We computed the estimates at the 95-percent level of statistical confidence. That is, we are 95 percent certain that the true number of items that would meet criteria for being considered inactive is between 14,000 and 47,200 items.

third phase involved reviewing and eliminating active items that meet criteria for consideration. The Naval Sea Systems Command approved the plan in March 1986.

As of the end of fiscal year 1988, SPCC had deleted about 3,200 items and the Ordnance Station added applications for 900 additional items. Our 100-item sample included 7 items managed by the Major Caliber Gun Branch.

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## Cost of Holding Inventory

DOD defines storage costs as the costs incurred for material storage and the amortized costs of warehouses, and sets the annual storage cost at 1 percent of the inventory value. We estimate that the storage costs for the 30,600 items that currently meet the Navy's criteria for being considered for elimination from the inventory and the 109,600 items with little potential for future use is about \$24 million a year.

SPCC officials pointed out that such costs as warehouse depreciation do not represent actual cash outlays and that because of the need to store active inventory, in some cases few additional costs are incurred in holding inactive items.

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## Conclusions

The Navy could minimize its expenses and allow managers to better manage active items by deleting inactive items. Although DOD defines inactive items as those with no recognized current or future requirements, specific DOD and SPCC criteria appear to be more restrictive. SPCC guidance and our analysis indicate that requiring items to meet all four criteria before being considered for elimination does not recognize the possibility of inaccurate or incomplete data. Thus, the criteria prevent unneeded items from being considered for elimination from the inventory.

In addition, the Navy's current approach is not adequately deleting inactive items. The Navy's 1988 reviews eliminated items totaling less than 5 percent of the items meeting current criteria for consideration, and only 1 percent of those that we believe should be considered. We support continuing and strengthening the annual reviews. However, we also believe that a systematic approach for priority areas, such as is being used in the Major Caliber Gun Branch, is also needed.

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## **Recommendations**

We recommend that the Secretary of Defense expand the defense inactive item program criteria to allow classifying items as inactive so that more items with little potential for future use can be evaluated.

We also recommend that the Secretary of Defense direct the Secretary of the Navy to begin systematically identifying and evaluating all inactive ship and submarine items, and to eliminate those with no potential for future use.

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## **Agency Comments**

DOD concurred with our recommendations and said that expansion of the defense inactive item program would be discussed at the next quarterly meeting between DOD and the services. DOD also has authorized a pilot program which will allow more flexibility for the Navy to dispose of unneeded items.





# Types of Requirements Used in the Stratification Process

## I. Required stock

### Approved force acquisition objective

|   |   |
|---|---|
| Prepositioned war reserve, protectable              | War reserves are stocks that are stored in peacetime to satisfy increased wartime consumption. They are intended to sustain operations until resupply takes place. These items are funded.          |
| Other acquisition war reserve, protectable          | War reserves in addition to the prepositioned war reserves which are also funded.   |
| Due-out   | Material requisitioned by activities that is not available for issue, but is recorded as a commitment for issue or for purchase for direct delivery.  |
| Memo future issue requirements - current year       | Recurring and nonrecurring demands forecasted for the remainder of the current year.  |
| Memo future issue requirements - apportionment year | Recurring and nonrecurring demands forecasted for the apportionment year.   |
| Memo future issue requirements - budget year        | Recurring and nonrecurring demands forecasted for the budget year.  |
| Safety level  | Stock on hand to permit continued operation in the event of minor interruption of normal replenishment or unpredictable fluctuation in demand.  |
| Numeric stockage objective                          | Items that have intermittent demands, but because of essentiality of the items, unavailability of the items is unacceptable.  |
| Repair cycle  | Inventory required to satisfy demands from the time an item is received for repair until the time it is returned ready for issue.   |
| Administrative lead time                            | Inventory needed to satisfy demands between the time a procurement action is initiated and a contract is awarded.   |
| Production lead time                                | Inventory used to satisfy demands between the time a contract is placed and the time the first items are received under the contract.   |
| Procurement cycle                                   | Stock that may be on hand or on order to cover the period between purchases.  |
| Balance approved force acquisition objective        | Requirements needed to provided for a total issue period of 24 months.  |
| Balance, prepositioned war reserve                  | The unfunded balance of the prepositioned war reserve.  |
| Balance, other prepositioned war reserve            | The unfunded balance of the other prepositioned war reserve.  |
| <b>Approved force retention stock</b>               | The quantity of an item, in addition to the approved force acquisition objective, required to equip and support approved forces from the time war begins until production equals the item's demand. |

(continued)

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**Appendix I**  
**Types of Requirements Used in the**  
**Stratification Process**

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**II. Unrequired stock**

|                                    |  |
|------------------------------------|--|
| <b>Economic retention stock</b>    | Stock that has no requirement and normally would be potential excess. However, DOD has determined that it is more economical to retain the stock for future peacetime use instead of satisfying possible future needs through procurement. |
| <b>Contingency retention stock</b> | Stock that has no predictable demand or quantifiable requirement and normally would be in the Potential Excess category. However, DOD has decided to retain the stock for possible future needs.   |
| <b>Numeric retention stock</b>     | Stock for which disposal is currently infeasible or uneconomical, and management has decided to retain it in the supply system.  |

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# Reasons Why Sample Items Had Unrequired Stock

| National stock number          | Item name                   | Reason for unrequired stock   |
|--------------------------------|-----------------------------|---|
| <b>I. Requirement changes</b>  |                             |   |
| 4730012337914                  | Pipe elbow                  | Planned program requirements did not materialize.                             |
| 5905012583670                  | Resistor assembly           | The system using the item is not yet in use.                                  |
| 4470005225585                  | Seal ring, nuclear canopy   | Demands changed   |
| 1356011579433                  | Housing seal                | Planned program requirements did not materialize.                             |
| 4330010420950                  | Filter, fluid               | Planned program requirements did not materialize.                             |
| 5840011725836                  | Amplifier                   | The item replacement factor was overstated.                                   |
| 1440006248219                  | Amplifier                   | The item replacement factor was overstated.                                   |
| 5840004692557                  | Electronic component        | Planned program requirements did not materialize.                             |
| 4820009159333                  | Valve gate                  | The item replacement factor was overstated.                                   |
| 5840012282252                  | Amplifier switch            | Planned program requirements did not materialize.                             |
| 4320009104544                  | Rotor assembly, compressor  | Planned program requirements did not materialize.                             |
| 5845LLQ762127                  | Machine screw               | The system using the item is not yet in use.                                  |
| 5365011881252                  | Plug, machine thread        | Demands changed   |
| 5999012431717                  | Circuit card assembly       | Demands changed   |
| 5640010441978                  | Insulation pipe cover       | Demands changed.  |
| 1440010227280                  | Circuit card assembly       | Demands and/or planned program requirements did not materialize.              |
| 4820005424825                  | Stem, valve                 | Demands and/or planned program requirements did not materialize.              |
| 5845004611945                  | Circuit card assembly       | Demands and/or planned program requirements did not materialize.              |
| 4320011690912                  | Impeller, pump, centrifugal | Demands and/or planned program requirements did not materialize.              |
| <b>II. Fleet modernization</b> |                             |   |
| 1260000268225                  | Disk                        | Ships using the item were deactivated   |
| 6110003518707                  | Starter, motor              | The item or equipment that used the item was replaced or is being phased out. |
| 6130010226830                  | Power supply                | The item or equipment that used the item was replaced or is being phased out. |
| 5845010188505                  | Circuit card assembly       | The item or equipment that used the item was replaced or is being phased out. |
| 6605001108594                  | Circuit card assembly       | The item or equipment that used the item was replaced or is being phased out. |

(continued)

**Appendix II  
Reasons Why Sample Items Had  
Unrequired Stock**

| <b>National stock number</b> | <b>Item name</b>                | <b>Reason for unrequired stock</b>   |
|------------------------------|---------------------------------|--|
| 5840005674556                | Preregulator assembly           | The item or equipment that used the item was replaced or is being phased out |
| 1285010392576                | Switch, waveguide               | The item or equipment that used the item was replaced or is being phased out |
| 5935010884043                | Connector, plug, electric       | The item or equipment that used the item was replaced or is being phased out |
| 5845002840604                | Sonar set subassembly           | The item or equipment that used the item was replaced or is being phased out |
| 6125008969607                | Motor-generator                 | The item or equipment that used the item was replaced or is being phased out |
| 1285006511612                | Mount, radar antenna            | Ships using the item were deactivated  |
| 5865001404415                | Power supply                    | The item or equipment that used the item was replaced or is being phased out |
| 1020003800898                | Housing and valve block         | Ships using the item were deactivated  |
| 6605010501325                | Compass, gyro                   | The item or equipment that used the item was replaced or is being phased out |
| 6130010931407                | Power supply                    | The item or equipment that used the item was replaced or is being phased out |
| 5840005647959                | Shaft                           | The item or equipment that used the item was replaced or is being phased out |
| 5355001571144                | Dial, scale                     | Application removed or stock number was canceled.                            |
| 5999008362944                | Electronic component            | Application removed or stock number was canceled.                            |
| 5950009853226                | Power transformer               | The item or equipment that used the item was replaced or is being phased out |
| 5845010629031                | Circuit card assembly           | Item was replaced, but can be upgraded                                       |
| 1440010299764                | Circuit card assembly           | Item was replaced, but can be upgraded                                       |
| 1355008325696                | Torpedo depth adjustment wrench | The item or equipment that used the item was replaced or is being phased out |
| 6605009733978                | Periscope, optical              | Application removed or stock number was canceled.                            |
| <b>III. Other causes</b>     |                                 |  |
| 6625010928549                | Dial                            | Minimum order value was procured   |
| 5845LLQ775495                | Anchor shackle                  | Purchases were for more than authorized amount.                              |
| 5845010629509                | Circuit card assembly           | Item is not in unrequired category   |
| 5840004566233                | Magnet, centering               | Wrong item was purchased   |
| <b>IV. Reason unknown</b>    |                                 |  |
| 3040003200996                | Gear shaft, spur                |  |
| 1265003822727                | Lever                           |  |
| 5315002519350                | Pin tapered, plain              |  |
| 5962011101612                | Unknown                         |  |
| 1045001302855                | Clutch fork                     |  |

(continued)

**Appendix II  
Reasons Why Sample Items Had  
Unrequired Stock**

| <b>National stock number</b> | <b>Item name</b>             | <b>Reason for unrequired stock</b> |
|------------------------------|------------------------------|------------------------------------|
| 2920003340317                | Electric engine drive        |                                    |
| 5840005514463                | Observation window           |                                    |
| 2010007837747                | Coupling, quill, shaft       |                                    |
| 4470008966395                | Tool, crimp                  |                                    |
| 1285009317160                | Circuit card assembly        |                                    |
| 4935010799561                | Circuit card assembly        |                                    |
| 6105007997989                | Motor, alternating current   |                                    |
| 5820001100523                | Key adapter                  |                                    |
| 5307009444412                | Stud, continuous threaded    |                                    |
| 4320008883233                | Impeller, pump, center       |                                    |
| 1045005870119                | Roller, torpedo hand         |                                    |
| 1360002103164                | Depth setting mechanism      |                                    |
| 6110004072937                | Reactor, assembly            |                                    |
| 4320001035589                | Rotor, pump                  |                                    |
| 5815007893750                | Communication patching panel |                                    |
| 1285005031726                | Radar set                    |                                    |
| 6115006865115                | Generator set, steam         |                                    |
| 1210003815407                | Shaft                        |                                    |
| 1020001769878                | Plate                        |                                    |
| 6605003898669                | Actuator, switch, adaptor    |                                    |
| 5840003441214                | Grip assembly                |                                    |
| 5305012063451                | Screw, cap, socket, hex      |                                    |
| 2835010942653                | Handle                       |                                    |
| 5845LLQ722839                | Indicator bearing            |                                    |
| 5845LLQ721923                | Connector                    |                                    |
| 4820003806623                | Valve, check                 |                                    |
| 6210004125883                | Light, indicator             |                                    |
| 5845007846987                | Roller assembly              |                                    |
| 2825002673716                | Blading set, turbine         |                                    |
| 6930010985683                | Circuit card assembly        |                                    |
| 3020000456082                | Gear, spur                   |                                    |
| 5985004456480                | Attenuator, fixed            |                                    |
| 1220006554754                | Mirror, glass                |                                    |
| 5961006908467                | Semiconductor device         |                                    |
| 5930012432285                | Switch assembly              |                                    |

(continued)

**Appendix II  
Reasons Why Sample Items Had  
Unrequired Stock**

| <b>National stock number</b> | <b>Item name</b>             | <b>Reason for unrequired stock</b> |
|------------------------------|------------------------------|------------------------------------|
| 3120007721989                | Bearing, sleeve              |                                    |
| 1005001761558                | Pin                          |                                    |
| 5810001609267                | Printed wiring assembly      |                                    |
| 2825008638056                | Nozzle diaphragm turbine     |                                    |
| 4520006187393                | Seal plates                  |                                    |
| 1925LLQ755862                | Valve, solenoid              |                                    |
| 7050003272979                | Demodulator, phase sensitive |                                    |
| 1440007560597                | Main chassis                 |                                    |
| 1355010292538                | Circuit card assembly        |                                    |
| 6150010292481                | Cable assembly, special      |                                    |
| 5930010395286                | Switch assembly, wire        |                                    |
| 3010003010241                | Coupling shaft, rigid        |                                    |
| 5865010248413                | Converter, frequency         |                                    |
| 5845LLQ010608                | Spring and handle            |                                    |

# Items That Could Be Considered Inactive

| National stock number | Name                       | No users | No demands in |              | No quarterly demand forecast | Cause of unrequired inventory is unknown | Item being replaced/phased out |
|-----------------------|----------------------------|----------|---------------|--------------|------------------------------|--|--------------------------------|
|                       |                            |          | Last 2 years  | Last 5 years |                              |  |                                |
| 6625010928549         | Dial                       | X        | X             | X            | X                            |  |                                |
| 4730012337914         | Pipe elbow                 |          | X             | X            |                              |  |                                |
| 3040003200996         | Gear shaft, spur           |          | X             | X            | X                            | X  |                                |
| 1265003822727         | Lever                      |          | X             | X            | X                            | X  |                                |
| 5315002519350         | Pin tapered, plain         | X        | X             | X            | X                            | X  |                                |
| 1045001302855         | Clutch fork                |          | X             | X            | X                            | X  |                                |
| 1260000268225         | Disk                       |          | X             | X            | X                            |  |                                |
| 2920003340317         | Electric engine drive      | X        | X             | X            | X                            | X  |                                |
| 5845LLQ010608         | Spring and handle          |          | X             | X            | X                            | X  |                                |
| 1210003815407         | Shaft                      |          | X             | X            | X                            | X  |                                |
| 6605003898669         | Actuator, switch, adaptor  |          | X             | X            | <sup>a</sup>                 | X  |                                |
| 5840003441214         | Grip assembly              |          | X             | X            | X                            | X  |                                |
| 5305012063451         | Screw, cap, socket, hex    | X        | X             |              | <sup>a</sup>                 | X  |                                |
| 5845LLQ722839         | Indicator bearing          | X        | X             | X            | X                            | X  |                                |
| 5845LLQ721923         | Connector                  | X        | X             | X            | X                            | X  |                                |
| 6210004125883         | Light, indicator           | X        | X             | X            | <sup>a</sup>                 | X  |                                |
| 5845007846987         | Roller assembly            | X        | X             | X            | X                            | X  |                                |
| 6110003518707         | Starter, motor             |          | X             | X            |                              |  | X                              |
| 4935010799561         | Circuit card assembly      |          | X             | X            | X                            | X  |                                |
| 6105007997989         | Motor, alternating current | X        | X             | X            | <sup>a</sup>                 | X  |                                |
| 6130010226830         | Power supply               | X        | X             | X            | X                            |  | X                              |
| 5307009444412         | Stud, continuous threaded  |          | X             | X            | X                            | X  |                                |
| 5950009853226         | Power transformer          |          | X             | X            | X                            |  | X                              |
| 2825002673716         | Blading set, turbine       |          | X             | X            | <sup>a</sup>                 | X  |                                |
| 6930010985683         | Circuit card assembly      |          | X             | X            | X                            | X  |                                |
| 3020000456082         | Gear, spur                 |          | X             | X            | X                            | X  |                                |
| 5985004456480         | Attenuator, fixed          |          | X             | X            | X                            | X  |                                |
| 5961006908467         | Semiconductor device       |          | X             | X            | X                            | X  |                                |
| 5930012432285         | Switch assembly            |          |               |              | X                            | X  |                                |
| 5640010441978         | Insulation pipe cover      | X        |               |              | <sup>a</sup>                 |  |                                |
| 5845010188505         | Circuit card assembly      |          | X             |              | <sup>a</sup>                 |  | X                              |
| 5845LLQ775495         | Anchor shackle             | X        | X             |              | X                            |  |                                |
| 6605001108594         | Circuit card assembly      |          | X             | X            | X                            |  | X                              |
| 1045005870119         | Roller, torpedo hand       |          | X             | X            | X                            | X  |                                |
| 4330010420950         | Filter, fluid              | X        | X             | X            | <sup>a</sup>                 |  |                                |
| 1360002103164         | Depth setting mechanism    |          | X             | X            | X                            | X  |                                |
| 3120007721989         | Bearing, sleeve            |          | X             |              | X                            | X  |                                |
| 1005001761558         | Pin                        |          | X             |              |                              | X  |                                |

(continued)

**Appendix III  
Items That Could Be Considered Inactive**

| National stock number | Name                            | No users | No demands in |              | No quarterly demand forecast | Cause of unrequired inventory is unknown | Item being replaced/phased out |
|-----------------------|---------------------------------|----------|---------------|--------------|------------------------------|--|--------------------------------|
|                       |                                 |          | Last 2 years  | Last 5 years |                              |  |                                |
| 2825008638056         | Nozzle diaphragm turbine        |          | X             | X            | <sup>a</sup>                 | X  |                                |
| 4520006187393         | Seal plates                     |          | X             | X            | X                            | X  |                                |
| 1925LLQ755862         | Valve, solenoid                 |          | X             | X            | X                            | X  |                                |
| 1440007560597         | Main chassis                    |          | X             | X            | <sup>a</sup>                 | X  |                                |
| 1355010292538         | Circuit card assembly           |          |               |              |                              | X  |                                |
| 1355008325696         | Torpedo depth adjustment wrench |          |               |              | X                            |  | X                              |
| 6150010292481         | Cable assembly, special         |          |               |              |                              | X  |                                |
| 5935010884043         | Connector, plug, electric       |          |               |              |                              |  | X                              |
| 5845002840604         | Sonar set subassembly           |          |               |              |                              |  | X                              |
| 6125008969607         | Motor-generator                 |          | X             | X            | <sup>a</sup>                 |  | X                              |
| 6110004072937         | Reactor, assembly               |          |               |              | <sup>a</sup>                 | X  |                                |
| 4320001035589         | Rotor, pump                     |          | X             | X            | <sup>a</sup>                 | X  |                                |
| 5815007893750         | Communication patching panel    |          | X             | X            |                              | X  |                                |
| 1285005031726         | Radar set                       | X        |               |              | X                            | X  |                                |
| 1285006511612         | Mount, radar antenna            | X        |               |              | X                            |  |                                |
| 6115006865115         | Generator set, steam            |          | X             | X            | X                            | X  |                                |
| 5865001404415         | Power supply                    |          |               |              |                              |  | X                              |
| 6605010501325         | Compass, Gyro                   |          |               |              |                              |  | X                              |
| 6130010931407         | Power supply                    |          | X             | X            | <sup>a</sup>                 |  | X                              |

<sup>a</sup>This item is not managed based on demands and therefore has no demand forecast



# Comments From the Department of Defense

Note: GAO comments supplementing those in the report text appear at the end of this appendix.



PRODUCTION AND LOGISTICS

ASSISTANT SECRETARY OF DEFENSE  
WASHINGTON, D.C. 20301-8000

FEB 26 1990

(L/SD)

Mr. Frank C. Conahan  
Assistant Comptroller General  
National Security and International  
Affairs Division  
U.S. General Accounting Office  
Washington, DC 20548

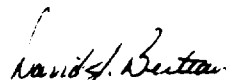
Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) Draft Report, "DEFENSE INVENTORY: Growth in Navy Ship and Submarine Parts," Dated January 5, 1990 (GAO Code 391619), OSD Case 8216. The Department concurs with the GAO findings and recommendations.

As discussed in the enclosure, the DoD is making progress in reducing inventory growth, but recognizes that further improvements are needed. The Department has an aggressive program underway for reducing unnecessary inventory growth. The Department has authorized a pilot program to execute a revised retention policy which has been initiated by the Naval Supply Systems Command. In addition, the Navy has initiated Automated Data Processing modernization to provide more accurate, complete and timely historical data for decisions. The Department and the Military Services will discuss, at their next quarterly meeting, improvements to the Defense Inactive Item Program.

The detailed DoD comments on the report findings and recommendations are provided in the enclosure. Several additional technical comments were provided separately to the GAO. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

  
David J. Berteau  
Principal Deputy

Enclosure

GAO DRAFT REPORT - DATED January 5, 1990  
(GAO CODE 391619) OSD CASE 8216

"DEFENSE INVENTORY: GROWTH IN NAVY SHIP AND SUBMARINE PARTS"

DEPARTMENT OF DEFENSE COMMENTS

\* \* \* \* \*

FINDINGS

- **FINDING A: Growth In Navy Ship And Submarine Secondary Items.**  
The GAO found that, between 1980 and 1988, the overall value of the DoD secondary inventory grew from about \$43 Billion to about \$103 billion--an increase of about 138 percent. According to the GAO, the value of ship and submarine parts increased \$6.6 billion, or 244 percent, during this period. The GAO also found that about \$3.7 billion, or about 40 percent of the Navy inventory of ship and submarine parts in 1988, was in unrequired stocks--an increase of about 226 percent since 1980. The GAO observed that the Navy Supply Systems Command administers the overall Navy supply system, while the Navy Ships Parts Control Center is the control point primarily responsible for the ship and submarine inventory. (pp. 2-3, pp. 11-14/GAO Draft Report)

**DOD RESPONSE:** Concur. It should also be recognized, however, that a significant portion of the increase can also be accounted for by price indexing, which created artificial growth in the inventory. There are significant price differences when comparing the FY 1980 inventory value with FY 1988.

- **FINDING B: Reasons For Ship And Submarine Unrequired Inventory.**  
To assess the causes for unrequired parts in the inventory, the GAO sampled 100 items having unrequired stock listed on the Ships Parts Control Center inventory report as of March 31, 1988. The GAO was able to identify reasons why 45 of the items had unrequired inventory. According to the GAO, the two most common reasons were that (1) requirements changed or did not materialize (in 19 cases), and (2) items were replaced, phased out, or ships deactivated as part of fleet modernization efforts (in 23 cases).

Of the 19 items where requirements changed, the GAO found that delayed or canceled planned program requirements contributed to the unrequired inventory in ten cases. The GAO also found that (1) the demands for the items decreased in four instances, (2)

ENCLOSURE

Now on pp. 2-3, 8-10.

See comment 1

the replacement factor was overestimated for three of the items, and (3) in two cases the inventory included on-order items for systems not yet operational. Based on its sample results, the GAO estimated that the change in requirements caused about \$900 million of listed items to be unrequired.

The GAO also found that 17 of the 23 items associated with fleet modernization involved instances where the equipment that used the items was being phased out or replaced. In addition, the GAO found that three of the items were unrequired because the ships that used the items were deactivated, while three other items were unrequired because they had not been eliminated from the inventory after equipment they supported was removed or the stock number canceled. The GAO estimated that overall, about \$1.7 billion of the listed items were unrequired as a result of fleet modernization efforts.

In addition, the GAO found that (1) complying with minimum order value purchase requirements, (2) buying above the authorized quantity, and (3) buying the wrong item were the causes of unrequired inventory for the other 3 cases. (p. 3, p. 5, pp. 17-23/GAO Draft Report)

Now on pp. 2-3, 13-17

**DOD RESPONSE:** Concur. The Navy has been taking significant steps in its attempts to understand the underlying causes of the "unrequired" items in inventory, and to improve the requirements determination and acquisition processes to minimize the possibility of procuring such material in the future. To this end, a Navy study of the top 50 line items for ship and submarine repairables and consumables was conducted after the March 1989 Secondary Item Stratification. This study included repairable items with \$297.5 million of value on hand in an "unrequired" (i.e. inapplicable to the Budget Year requirement) status, and \$70.8 million of consumable items.

See comment 2.

- Of the repairables, 39 line items had inapplicable assets, due to weapon system modifications and program decline. Total value was \$230.3 million, or 77.4 percent of the value in the sample.
- Nine repairable line items, with assets worth \$60.4 million (20.3 percent of the sample), were identified as resulting from unforecasted demand decreases, including items which had reduced demand due to reliability improvements.

On hand assets included items that were originally procured and installed on ship, but which were subsequently placed in the supply system after removal from the weapon platform. Examples of these include \$38 million in assets from the AN/ULQ-6 electronic warfare system, which was replaced by the AN/SLQ-32; \$29.9 million for the AN/SRC-20 UHF radio, which was the standard shipboard UHF radio from 1960 through 1980 before being replaced; and \$28.3 million for the Mark 46 Torpedo, which has undergone a number of modifications/upgrades.

The same two reasons dominated the shipboard consumables, but in the reverse order. Twenty-nine line items, worth \$43.1 million (60.9 percent of the consumable sample value), were due to unforecasted demand decreases and reliability improvements, and 17 line items, worth \$26.6 million (37.6 percent) were due to weapon system modifications and program decline.

To provide additional perspective on the meaning and magnitude of these numbers, three other points need to be kept in mind.

- It is Navy policy that equipment removed from ships, including supporting spares, be turned over to the supply system. This ensures the visibility and potential utilization of these items.
- There has been a conservative disposal policy in effect since 1984, so the large number items removed from ships during the Fleet Modernization Program remained in the supply system, slowly building the inventory value. Returned material frequently stratifies as "unrequired" because the demand for it drops as part of the action that returned it to the supply system. It was required before its return.
- The price increases from 1980 to 1988, discussed in FINDING A, inflated the "book value" of items, even if they really had little further use to the service.
- **FINDING C: Reasons Why Most Items Had Unrequired Stock Could Not Be Determined.** The GAO reported that it could not determine why 54 of the 100 items it sampled, valued at \$8.5 million, had unrequired stock. Overall, the GAO estimated that reasons for unrequired inventory could not be identified for about \$1.2 billion of the items listed with unrequired inventory. The GAO

observed that one reason it was unable to make the determination is that justification documents are not retained after the material is received. The GAO explained that supporting documentation provides needed information, such as past and forecasted demands, lead time, and users. The GAO found that under current Navy policies, documentation supporting purchases are not required to be retained after the material is received--because of the large volume of paper involved. The GAO noted, however, that the Navy Uniform Inventory Control Program, presently being updated, will provide an archive file for retaining information used to make procurement decisions.

The GAO also found that many item managers were not familiar with the item for which they had responsibility. The GAO reported that it interviewed item managers 5 to 8 months after the date of the 1988 inventory report used for its sample and found that for 13 of the 54 items, responsibility for the items had already changed. In addition, the GAO found that for 18 other items, item managers had been responsible for the items for less than 2 years. The GAO concluded that as a result, information is not available to identify the basis for past purchases or to identify events causing items to have unrequired inventory. The GAO observed that such lack of information can hinder item managers in that they are not aware of (1) why items were purchased, (2) why the items have unrequired inventory, or even (3) why the items are being retained. The GAO concluded that having such information could help item managers to recognize causal factors and thus minimize the purchase of items that could become unneeded--and would also help them to decide which items should be retained. (p. 3, pp. 5-6, pp. 23-25/GAO Draft Report)

Now on pp. 2-4, 18-19

**DOD RESPONSE:** Concur. The Navy will correct the problem of insufficient summary data on major items showing the basis for each item's most recent procurement and events affecting the item through Automated Data Processing modernization efforts currently underway. Resystemization of the Inventory Control Points will provide the capability to record in an historical data base, a snapshot of all the pertinent information on an item at certain key events, including those times when a recommendation for a buy has been initiated. The data base will include all information which led the inventory model to recommend a buy, as well as any manual intervention made by the item manager. The current plan calls for implementation of the modernized system in FY 1994. The actual implementation date of this system is uncertain at

See comment 3

this time, however, due to recently proposed DoD funding reductions. The Navy will also explore the feasibility of implementing an interim manual system for retaining this information by FY 1991. (See also the DoD response to Recommendation 1.)

- **FINDING D: Navy Efforts To Minimize Unrequired Stocks.** The GAO explained that some unrequired inventory may be the unavoidable result of fleet modernization activities. To control unnecessary growth, the GAO found that the Navy initiated an inventory management improvement program in January 1989, with an objective to develop an approach for controlling factors contributing to growth in the secondary item inventory. The GAO reported that the Navy has undertaken initiatives in 73 areas to control inventory growth, including--(1) the review of economic order quantity policies, (2) minimizing reliance on purchases to last the life of equipment, (3) ensuring that all such buys are fully justified, and (4) developing a comprehensive effort to review planned program requirements. The GAO further reported that the Ships Parts Control Center, in addition to its own efforts, is participating in about half of the Navy inventory management improvement initiatives, such as the periodic review of selected items that have unneeded stock on order above requirements--and has also designated a project officer to form and chair a working group to reduce purchase requests and contracts for unrequired inventory. (p. 6, pp. 26-28/GAO Draft Report)

Now on pp 4, 21-22

**DOD RESPONSE:** Concur. The Navy's Inventory Management Improvement Program is a formally structured program monitored by semi-annual flag level summits. The Inventory Management Improvement Program continues to make significant progress in identifying problems in inventory management and process improvements to overcome those problems. A second summit meeting was held August 28, 1989, and the next is scheduled to be held in April 1990. At each meeting, senior officers review problems and progress in different functional areas. These areas include new item entry through the provisioning process, determining requirements for inventory levels and replenishment, reduction of procurement lead times, timely termination of contracts, and disposal of items no longer needed.

Ships Parts Control Center personnel have actively worked in the Inventory Management Improvement Program, and they have been leading the way by developing their own initiatives for

identifying items that support declining programs and eliminate material procurements in support of those programs. They have established a Ships Decommissioning Project to identify items applicable to ships being removed from active service within the procurement horizon. Items unique to those ships have their requirements eliminated, and common items have demand forecasts reduced. Affected items are then reviewed to identify opportunities to delay or cancel procurement requests, or to terminate contracts for material already on order.

With regard to contract terminations, the Ships Parts Control Center has started a number of management initiatives to ensure more accurate identification of termination candidates and more timely processing after they are identified. These include development of standardized item manager procedures and training and establishment of a "Tiger Team" to expedite review and develop a tracking system to monitor termination with the goal of being better able to project good termination candidates and costs up front, thereby maximizing the potential success of termination efforts. This system was instrumental in enabling Ships Parts Control Center to process more than \$106 million in potential terminations in FY 1989.

- **FINDING E: Some Unrequired Stock Can Be Minimized.** The GAO identified instances where items were unnecessarily repaired or purchased after the Ships Parts Control Center was notified the items were being replaced or phased out, resulting in unrequired inventory. The GAO found that, although the Center assigns computer codes to items to identify restrictions that may apply when purchasing an item, the codes did not restrict procurements for the instances it found. The GAO reported that Center officials explained that items being phased out or replaced on selected ships cannot be coded to prevent procurement, because the Center must continue to support ships that still use them. The GAO agreed that codes should not prohibit the purchase of items being phased out or replaced, but observed that such procurements should be carefully reviewed. The GAO also cited one instance where the purchase was finalized after the inventory control point was notified the item was obsolete. The GAO concluded that terminating that effort before the contract was finalized could have avoided the acquisition of unneeded inventory.

According to the GAO, the Navy has no formal procedures to notify the Ships Parts Control Center of items being replaced or phased out. Instead, the GAO found that the Navy relies on informal communication between item managers at the inventory control points and program managers at the hardware systems commands. The GAO acknowledged that there may be frequent communication between item and program managers. The GAO concluded, however, that because of turnover in item managers, a formal system to inform the Ships Parts Control Center of systems being phased out or replaced would help minimize unrequired inventory. The GAO also concluded that using codes to identify items to be phased out or replaced would help increase item manager awareness that demands may decrease. The GAO further concluded that acquisition efforts for replaced items should be abandoned to avoid the purchase of unneeded items, especially when the contracts are not yet issued. (pp. 3-4, pp. 6-7, pp. 29-31/GAO Draft Report)

Now on pp 2-5, 23-24

**DOD RESPONSE:** Concur. The Navy does not knowingly procure material above requirements for items being replaced or phased out. There undoubtedly are cases where material was procured, when, in retrospect, it should not have been. Item managers have been sensitized to the need for close scrutiny of planned procurements in this regard.

Current Navy resystemization plans include a significant enhancement to configuration and program changes which are initiated by Design Change Notices. These enhancements are currently scheduled to be available in 1994. These automated tools do not obviate the need for close communication between inventory and program managers.

See comment 3

Ships Parts Control Center has proven procedures in place to adjust demand forecasts as well as procurements that are affected by ship and submarine decommissionings.

Naval Supply Systems Command Instruction 4420.36, "Program Support Data for Interim, Initial and Follow-Up Secondary Item Requirements," effectively applies to new and growing programs. The instruction requires program data submission for configuration alterations as well as new equipment and systems. Replacement items can be identified for alterations when program support data is coordinated with Design Change Notices. Additional guidance will be developed for decreasing equipment and systems not directly associated with alterations. The Naval



Supply Systems Command will coordinate actions with the Hardware Systems Commands to establish formal requirements to identify decreasing programs in Naval Supply Systems Command Instruction 4420.36, as well as continuing efforts to improve communications on program and configuration data in general. Initial guidance will be developed by October 1990. (See also the DoD response to Recommendation 2.)

- **FINDING F: Many Unrequired Items Are Inactive And Have Little Potential For Future Use.** The GAO explained that the DoD established the Defense Inactive Program to eliminate nonessential expenditures by purging inactive items from its supply system. According to the GAO, the Ships Parts Control Center identifies items as inactive when they have:

- been on the master data file for 7 years;
- had no demand in the last 2 years;
- no current requirements; and
- no current applications.

The GAO further explained that the Center's inactive item program objective is to dispose and decatalog the maximum number of inactive items possible--while retaining only items with known current or future applications or requirements. In addition, the GAO noted the Center also stresses that item managers should not rely on file data alone to justify retaining or decataloging an item. The GAO pointed out, however, that Center guidance indicates items are to meet all four inactive criteria before being considered for elimination.

The GAO identified 57 items in its sample that did not meet all the criteria for being considered inactive for elimination, but had characteristics that indicated little potential for future use. As examples, the GAO pointed out that: (1) 18 items in the sample did not have users, (2) 44 had no demands in the past 2 or 5 year period, (3) 32 had no forecasted demands, and (4) 40 had no information available to identify why the inventory was unrequired. The GAO also noted that 33 of the items fell into at least three of these categories. Based on its sample results, the GAO estimated that about 109,600 items of unrequired inventory, valued at about \$2.3 billion, is inactive and of

Now on pp. 2, 4, 26-27.

questionable value to the Navy. The GAO concluded that requiring items to meet all four inactive program criteria before they are evaluated for elimination from the inventory is too restrictive--resulting in many inactive items not being considered for elimination. (p. 3, p. 7, pp. 33-36, p. 38/GAO Draft Report)

**DOD RESPONSE:** Concur. The DoD concurs with continuing and strengthening Annual Defense Inactive Item Program. The DoD concurs with a review of current inactive item parameters to relax criteria for inactive item review. The DoD and the Military Services meet on a quarterly basis. At the next quarterly meeting, scheduled for February 28, 1990, Defense Inactive Item Program improvements will be discussed.

- **FINDING G: Inactive Items Are Removed Slowly From The Inventory.** The GAO evaluated the 100 items it sampled, using the Navy criteria for classifying items as inactive, and found that 11 met the inactive criteria for elimination from the inventory. The GAO reported that (1) item managers subsequently eliminated two of the items from the inventory, (2) three were in the process of being eliminated, and (3) three had been referred to other commands for review. The GAO further reported item managers agreed that the other three items should be deleted and could not explain why they had not been. Based on its sample results, the GAO estimated that about 30,600 of the universe of 183,000 items with unrequired inventory would meet the Navy criteria for elimination.

The GAO found that the Ships Parts Control Center reviews items for elimination under the inactive program once a year--after the September stratification process. The GAO reported that as a result of the 1988 review, the Center eliminated 1,428 items, valued at about \$29 million. The GAO also found that, in 1985, the Combat Systems Department at the Center initiated a program to reduce the number of items without designated uses. The GAO reported that, as of the end of FY 1988, about 3,200 of the 13,000 items originally identified for review had been deleted and applications for 900 other items had been added. The GAO concluded that, since the 1988 reviews eliminated less than 5 percent of the items meeting current criteria for consideration and only 1 percent of those the GAO believes should be considered for elimination, the current Navy approach is not adequately deleting inactive items. The GAO further concluded that the

Now on pp. 2, 4, 26, 29.

annual reviews should be continued and strengthened. The GAO also concluded, however, that a systematic approach for priority areas is also needed--such as that being used in the Major Caliber Gun Branch. (p. 4, p. 7, p. 33, pp. 37-38/GAO Draft Report)

**DOD RESPONSE:** Concur. Annual reviews for inactive items will be continued and strengthened by improved communication of program data on inactive and declining equipments and systems. The Navy's approach is to give priority attention to equipment and system rendered inactive by ships and obsolescence. To this end, the DoD and the Military Services meet on a quarterly basis. At the next quarterly meeting, scheduled for February 28, 1990, Defense Inactive Item Program improvements will be discussed.

- **FINDING H: Inactive Items Contribute To Unnecessary Storage Costs.** The GAO reported that the DoD defines storage costs as the costs incurred for material storage and the amortized costs of warehouses--and sets the annual storage cost at one percent of the inventory value. Based on its sample results, the GAO estimated that the storage costs for the 30,600 items that currently meet the Navy criteria for being considered for elimination from the inventory (see Finding G), and the 109,600 items with little potential for future use (see Finding F) is about \$24 million a year. The GAO noted that Ships Parts Control Center officials pointed out that such costs as warehouse depreciation do not represent actual cash outlays and that, because of the need to store active inventory, in some cases few additional costs are incurred in holding inactive items. The GAO nonetheless concluded, however, that the Navy is needlessly using valuable resources to manage and store items of questionable value that may never be used. (p. 4, p. 7, p. 33, pp. 37-38/GAO Draft Report)

Now on pp. 2, 4, 26, 29.

**DOD RESPONSE:** Concur. Although cost accounts do not facilitate an exact accounting of the costs incurred by holding inactive items, there is clearly an impact on total warehousing requirements. The Naval Supply Systems Command has initiated a pilot program to execute a revised retention policy. This pilot program has been authorized by Office of the Secretary of Defense. The previous Navy policy required retention of all assets with weapon system application, regardless of the quantity of material on hand or the population of the weapons system

supported. This pilot program will allow some flexibility on this particular requirement. The result is that Navy will move a significant amount of the potential excess material to the Defense Reutilization and Marketing Service in the near term. Those assets with potential interest to foreign governments will be offered to them through the Foreign Military Sales Program.

\* \* \* \* \*

**RECOMMENDATIONS**

- **RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense direct the Secretary of the Navy to require item managers to retain summary data on major items showing the basis for each item's most recent procurement and events affecting the item. (p. 8, p. 25/GAO Draft Report)

**DOD RESPONSE:** Concur. The long term solution lies in the Automated Data Processing Modernization efforts currently underway, which will provide the capability and capacity to efficiently archive records for later review. This modernized system is planned for implementation in FY 1994. In the interim, the Navy will also explore the feasibility of implementing a manual system for retaining this information by FY 1991. The concern is that an expanded paper archives will create a paperwork storage and retrieval burden that overwhelms the already crowded work place the item managers must deal with. If possible, an effective "middle ground" will be established that provides a sufficiently detailed picture of an item's requirements at the time of purchase to be able to understand why the decision was made, yet will limit the amounts of paper retained and the overhead associated with managing such a system.

- **RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense direct the Secretary of the Navy to: (1) establish procedures to inform inventory control points about systems being phased out or replaced, (2) require inventory records be coded to identify the items, and (3) ensure that purchases of such items are made only for immediate needs. (p. 8, pp. 32-33/GAO Draft Report)

Now on pp. 5. 19.

Now on pp. 5. 25.

**DOD RESPONSE:** Concur. The Naval Supply Systems Command will coordinate action with the Naval Sea Systems Command, as well as other Navy Commands, to improve procedures for communicating program data on declining and inactive equipments and systems. Procedures will be put in place to ensure continuity of information between the Program Support Inventory Control Point and the Program Manager in Hardware Systems Command.

The Navy will correct the problem of insufficient summary data on major items showing the basis for each item's most recent procurement and events affecting the item through Automated Data Processing modernization efforts currently underway. The current plan calls for implementation of the modernized system in FY 1994. The actual implementation date of this system is uncertain at this time, however, due to recently proposed DoD funding reductions. The Navy will also explore the feasibility of implementing an interim manual system for retaining this information by FY 1991.

It is Navy policy to replenish items for immediate needs, with obvious exceptions made for life of type buys and special circumstances where minimum buy quantities apply. To monitor this process, the Ships Parts Control Center has long had a hierarchal review chain that ensures higher dollar value procurements receive the attention they deserve. As part of this review, the most up-to-date program information is obtained to validate an item's requirements before any money is invested in it.

- **RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense expand the Defense Inactive Item Program criteria to allow classifying items as inactive so that more items with little potential for future use can be evaluated. (p. 8, pp. 38-39/GAO Draft Report)

**DOD RESPONSE:** Concur. The DoD and the Military Services meet on a quarterly basis. At the next quarterly meeting, scheduled for February 28, 1990, Defense Inactive Item Program improvements will be discussed, including expansion of the Inactive Item Program criteria.

- **RECOMMENDATION 4:** The GAO recommended that the Secretary of Defense direct the Secretary of the Navy (1) to begin systematically identifying and evaluating all inactive ship and

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submarine items and (2) to eliminate those with no potential for future use. (p. 8, p. 39/GAO Draft Report)

**DOD RESPONSE:** Concur. The DoD has authorized a pilot program to execute a revised retention policy, which has been initiated by Naval Supply Systems Command. The previous Navy policy required retention of all assets with weapon system application. This pilot program will allow some flexibility on this requirement. The result is that Navy will move a significant amount of the potential excess material to the Defense Reutilization and Marketing Service in the near term. The action has started and should be completed by FY 1995, with approximately \$9 Billion disposed of.

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The following are GAO's comments on DOD's letter dated February 26, 1990.

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## GAO Comments

1. In our previous report entitled Defense Inventory: Growth in Secondary Items, (GAO/NSIAD-88-189BR, July 19, 1988), we discuss the various factors that have contributed to the overall inventory growth including price indexing. However, this report focuses on the causes of unrequired inventory.
2. The Navy study corroborates the findings set forth in this report.
3. The timing for the implementation of Resystemization has slipped in the past and in light of the proposed funding reduction may slip beyond the current target date of fiscal year 1994. Therefore, adopting interim measures should be given priority to avoid unnecessary expenditures for unrequired items.

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# Major Contributors to This Report

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**National Security and  
International Affairs  
Division,  
Washington, D.C.**

Uldis Adamsons, Assistant Director  
Louis V. Modliszewski, Evaluator-in-Charge  
Gene H. Dechert, Evaluator

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**Philadelphia Regional  
Office**

Daniel R. Garcia, Regional Manager Assistant  
Donald R. White, Site Senior  
John M. Sabia, Evaluator





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