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Report to the Chairman, Subcommittee on Readiness, Committee on Armed Services, House of Representatives

July 1992

# NAVY SUPPLY

# Excess Inventory Held at the Naval Aviation Depots








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GAO

**United States**
**General Accounting Office**
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**National Security and**
**International Affairs Division**

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July 22, 1992

The Honorable Earl Hutto
Chairman, Subcommittee on
Readiness
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

In response to your request, we reviewed material management practices at the Naval Aviation Depots. We found excess and unrecorded inventory problems at the depots and identified needed management improvements.

We are sending copies of this report to the Chairmen, Senate and House Committees on Armed Services and on Appropriations, Senate Committee on Governmental Affairs, and House Committee on Government Operations; the Director, Office of Management of Budget; and the Secretaries of Defense and the Navy.

Please contact me on (202) 275-6504 if you or your staff have any questions concerning this report. Major contributors are listed in appendix II.

Sincerely yours,

Martin M Ferber
Director, Navy Issues

# Executive Summary

## Purpose

To provide materials for depot maintenance requirements, the six Naval Aviation Depots operate retail supply stores. At the end of fiscal year 1991, the supply stores held $144 million in inventory, including $40 million categorized as excess to depot needs.

At the request of the Chairman, Subcommittee on Readiness, House Committee on Armed Services, GAO reviewed depot material management practices to (1) evaluate depot efforts to minimize excess inventories and (2) determine whether the depots had complied with instructions prohibiting the accumulation of off-record, or unrecorded, inventory.

## Background

Depot material managers attempt to have parts available when needed for maintenance needs and at the same time minimize the financial investment in inventory. To meet this goal, depot supply stores are authorized to carry specific inventory levels based primarily on normal usage. According to Navy policy, any inventory quantity that is greater than 24 months of normal usage is excess and should either be returned to the wholesale supply system for possible redistribution to other customers or, if the wholesale system has no use for the material, be sent to disposal and written off the depot's records.

Navy policy also prohibits the depots from accumulating material that is not recorded on inventory records. Unrecorded material results when maintenance personnel retain material that was issued, but not used, to complete repair jobs. Unrecorded inventory weakens internal controls and results in waste when additional material is purchased to meet other requirements that could have been met with the unrecorded material.

## Results in Brief

Contrary to Navy guidance, the depots have generated and retained large inventories of excess material for many years. For fiscal years 1987 to 1991, annual excess inventory balances ranged from $40.1 million to $53.6 million. These large balances remained even though $138 million of excess material had been eliminated from depot records through write-offs during these years. The Navy has started several initiatives designed to improve depot material management and minimize the generation and retention of excess inventory.

Unrecorded material is a long-standing depot problem. GAO's limited test at three depots found over $3 million in usable material that was not shown

on any inventory records. The Navy could have saved $392,000 if some of the material had been used to satisfy other supply system orders.

# Principal Findings

## Depots Have Large Excess Inventories

Although the depots wrote off $138 million in excess material between fiscal years 1987 and 1991, they still retained large excess inventory balances. For example, during fiscal year 1991 the depots wrote off $54 million of excess material and turned in $10 million of excess material for credit. Yet, at the end of the year, the excess material balance was still $40 million, or 28 percent of the total inventory.

Excess inventory resulted because effective material management practices were not followed. For example, depot personnel ordered or manufactured more material than was needed to complete repairs. Factors outside of depot control, such as significant changes in ongoing or planned maintenance work load, also caused excess inventory.

Once generated, the depots did not follow Navy policy and eliminate all of the excess. Rather than incur the expense of writing off excess material not needed by the wholesale supply system, the depots generally retained most of it.

In response to a critical Naval Audit Service report, the Navy started several initiatives in fiscal year 1991 to improve depot material management and reduce excess inventories. Examples included developing an automated system that will validate material orders to prevent ordering excess material, increasing visibility of depot excess inventory so the material can be redistributed if needed elsewhere, and manually reviewing computer-generated material orders to reduce or cancel orders if work loads change.

## Unrecorded Material Continues to Be a Problem

Unrecorded material has been a long-standing depot problem. GAO performed a test at three depots to identify unrecorded material. Material was considered unrecorded if it was not shown on inventory records, was not required for any current repair job, and was in ready-for-issue condition.

GAO identified $3 million of unrecorded inventory that was stored in shop cabinets, lockers, and closets. The unrecorded inventory consisted of 465 different stock numbers and 7,284 individual items. The supply system could have saved $392,000 by using some of this unrecorded inventory to fill outstanding material orders. For example, GAO found 191 unrecorded guided missile support assemblies, costing a total of $157,000, in one depot while the supply system had outstanding orders for 1,468 of the assemblies.

The GAO test found significantly more unrecorded material at one of the three depots. At two of the depots, the commanding officers had given personal attention to the problem by making unannounced visits to maintenance shops to search for unrecorded material. The visits, although infrequent, had impressed maintenance personnel on the importance of returning unused material to the supply store.

## Recommendations

GAO recommends that the Secretary of the Navy direct the Commander, Naval Air Systems Command, to take steps to help ensure that unrecorded material is identified, returned to inventory control, and not permitted to accumulate. As one of these steps, GAO recommends that the Commander issue guidance requiring that top management at each depot make periodic spot checks for unrecorded inventory.

## Agency Comments

The Department of Defense agreed with GAO's findings and recommendations and stated that the Navy was undertaking several corrective actions to improve depot material management. (See app. I.) These actions include (1) implementing initiatives to prevent overordering material and, as a result, reduce the amount of material in the work area and (2) issuing a new instruction that will require periodic checks to identify and turn in any unrecorded material. The instruction will require top depot management involvement in these periodic checks for unrecorded material.

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## Abbreviations

| | |
|---|---|
| DOD | Department of Defense |
| GAO | General Accounting Office |
| NAVAIR | Naval Air Systems Command |
| NSN | National Stock Number |

# Introduction

The six Naval Aviation Depots overhaul, upgrade, and repair Navy aircraft such as the F-14 Tomcat, the A-6 Intruder, the F/A-18 Hornet, and the P-3 Orion. Operating under the Naval Air Systems Command (NAVAIR), the depots also perform maintenance on aircraft engines and avionics components and provide other engineering and logistics support services. The six depots employed about 22,000 civilians and incurred costs of about $2.1 billion in fiscal year 1991.

The depots operated as Navy industrial fund activities until fiscal year 1992, when they began functioning under the Defense Business Operations Fund. As such, the depots use working capital rather than direct appropriations to finance the cost of goods and services provided to customers. The customers use annual appropriations to reimburse the depots for work performed. The financial goal of the depots is to break even, that is, to cover costs without experiencing a gain or loss.

## Depot Material Management

The costs of material and supplies comprised a major portion of the total costs incurred by the depots. Table 1.1 shows that direct material costs accounted for $847.7 million, or about 41 percent, of the depots' total cost in fiscal year 1991.

**Table 1.1: Fiscal Year 1991 Depot Costs by Program**

Dollars in millions

| Program | Total cost | Material cost | Percent |
|---|---|---|---|
| Airframes | $474.5 | $113.6 | 23.9 |
| Engines | 254.1 | 165.0 | 64.9 |
| Components | 754.4 | 392.6 | 52.0 |
| Missiles | 6.3 | 1.2 | 19.0 |
| Other support | 575.4 | 175.3 | 30.5 |
| **Total** | **$2,064.7** | **$847.7** | **41.1** |

Each depot operates retail supply stores to provide the material and supplies that are needed for maintenance. The stores do not normally stock major components known as aviation depot level repairables, which are controlled by the Navy's inventory control point for aviation material, the Aviation Supply Office. The stores provide a full range of material management functions such as material ordering, receiving, storing, issuing, and accounting.

The goal of the stores is to balance two competing objectives: have parts available when needed for maintenance and minimize the financial investment in inventory. To meet this goal, the stores are authorized to stock an operating level of parts that is based on past usage requirements or on projected usage requirements for new depot work. Additional quantities can be authorized for order and shipping times and safety levels.

In response to a 1985 Department of Defense (DOD) memorandum concerning the premature disposal of weapon systems parts, the Comptroller of the Navy authorized the depots to hold up to 24 months of stock before disposing of the material. Inventory greater than a 24-month usage level is called "mandatory excess." This report uses the term "excess" to refer to inventory that exceeds 24 months of normal usage.

According to Navy policy, excess inventories should be returned to the wholesale inventory control points for possible resale to other customers. If the inventory control points cannot use the excess material, it should be sent to a disposal activity. The depots occasionally manufacture parts or locally procure parts that are unavailable through the wholesale supply system. Because these parts usually are not stocked by the wholesale level, they generally must be sent to disposal if they become excess.

Table 1.2 shows the value of the depots' retail store inventory at the end of fiscal year 1991.

**Table 1.2: Depot Material Inventory as of September 30, 1991**

| Dollars in millions | |
|---|---|
| **Depot** | **Inventory** |
| Alameda | $21.5 |
| Cherry Point | 28.7 |
| Jacksonville | 15.3 |
| Norfolk | 37.0 |
| North Island | 24.0 |
| Pensacola | 17.5 |
| **Total** | **$144.0** |

## Objectives, Scope, and Methodology

Because we have issued reports on the depots' aviation component and engine repair programs,[1] the Chairman, Subcommittee on Readiness, House Committee on Armed Services, requested us to review the depots' airframe repair program. We divided our review into two key areas affecting the program: public/private competition for depot maintenance work and material management practices. We reported on public/private competition on May 20, 1992.[2]

This report discusses material management practices that affect not only the airframe program but all depot repair programs. Our objectives were to (1) evaluate depot efforts to minimize excess material inventories and (2) determine whether the depots had complied with Navy instructions prohibiting the accumulation of off-record, or unrecorded, inventories.

We performed detailed audit work at the two organizations having management responsibility for depot material management policy: the Naval Air Systems Command, Washington, D.C., and its subordinate office, the Naval Aviation Depot Operations Center, Patuxent River, Maryland. We also performed detailed audit work at the Alameda depot in California, the Norfolk depot in Virginia, and the Pensacola depot in Florida to provide reasonable audit coverage. Statistical information was also obtained from the three depots not visited.

To evaluate Navy efforts to minimize excess material inventories, we analyzed changes in the depots' total and excess inventory balances for fiscal years 1987 through 1991. Our analysis focused on the inventory purchased and controlled by the depot retail stores. The analysis was based on data reported by the NAVAIR Industrial Material Management System, a standardized, automated inventory control system that provides official information on depot material operations. We did not assess the reliability of the data. We also reviewed documents, such as Naval Audit Service reports, and interviewed agency personnel to determine the causes for excess inventory and to identify Navy initiatives designed to reduce excess material.

[1]Navy Maintenance: Aviation Component Repair Program Needs Greater Management Attention (GAO/NSIAD-89-171, July 6, 1989) and Navy Maintenance: Improvements Needed in the Aircraft Engine Repair Program (GAO/NSIAD-90-193BR, June 18, 1990).

[2]Navy Maintenance: Public/Private Competition for F-14 Aircraft Maintenance (GAO/NSIAD-92-143, May 20, 1992).

To determine the depots' compliance with Navy instructions prohibiting the accumulation of unrecorded inventory, we made a test at each depot visited. We selected three maintenance shops within the avionics repair department at each depot and conducted a wall-to-wall search, along with depot maintenance personnel, to identify any unrecorded material. We considered material unrecorded if it was in its original packaging, not required for any current repair job, and in a ready-for-issue condition. For each item identified, we determined if the item was a standard part stocked by the wholesale supply system, and if so, we researched supply system records to determine if there were outstanding orders for the part. We also researched the records to determine the cost and on-hand quantities. We discussed test results with depot and headquarters officials to determine the reasons for unrecorded material and to identify any initiatives to eliminate such material. We did not project test results at each depot to estimate the total amount of unrecorded material because the test was limited and was not designed for statistical projections.

Our review was made between June 1991 and May 1992 in accordance with generally accepted government auditing standards.

# Depots Have Large Excess Material Inventories

Contrary to NAVAIR guidance, the depots have generated and maintained large inventories of excess material, which ties up financial resources and results in significant waste if the excess cannot be used by other activities and, therefore, must be sold for scrap. At the end of fiscal year 1991, about $40 million, or 28 percent, of the depots' inventory was excess. The $40 million excess inventory remained after the depots had eliminated almost $64 million of excess material during the fiscal year. Most of the material eliminated was returned to the wholesale supply system; however, about $22 million in excess material was sent to disposal because the supply system had no need for the material.

NAVAIR has begun several initiatives to improve depot material management and reduce the generation and retention of excess inventory. While these initiatives have potential, close management attention will be needed to ensure that they succeed.

## Excess Inventory Has Been a Long-standing Problem

Historical inventory data show that excess inventory has been a long-standing problem at the depots. Table 2.1 shows the amount of excess material on hand at the end of fiscal years 1987 through 1991.

**Table 2.1: Depot Excess Inventory Since 1987**

Dollars in millions

| | 1987 | 1988 | 1989 | 1990 | 1991 |
|---|---|---|---|---|---|
| Total inventory | $157.0 | $171.7 | $154.7 | $174.7 | $144.1 |
| Excess on hand at end of fiscal year | $40.8 | $50.7 | $51.4 | $53.6 | $40.1 |
| Percent excess | 26 | 30 | 33 | 31 | 28 |

The excess inventory at the end of each fiscal year was the balance after the depots had eliminated some excess material through write-offs. Excess material write-offs between fiscal years 1987 and 1991 totaled $138 million and ranged from $14.8 million to $54.2 million annually.

The following examples illustrate the excess inventories at the depots we visited.

- The Norfolk surface parts store had 59 ball screw actuators (NSN 1680-00-878-1261) on hand with a unit cost of $3,920. According to the normal usage rates for this A-6 aircraft part, this quantity represented over

5 years of supply. The total cost of the 33 units classified as excess was $129,360.

- The Alameda engine parts store had 21 turbine engine nozzle vanes (NSN 2840-00-670-8885) with a unit cost of $999. According to the normal usage rates for this T-56 engine part, this quantity represented about 57 years of supply. The total cost of the 19 units classified as excess was $18,981.
- The Pensacola dynamic component store had 16 free wheel gears (NSN 3020-00-943-7611) with a unit cost of $2,650. According to the normal usage rates for this H-3 helicopter part, this quantity represented over 7 years of supply. The total cost of the 11 units classified as excess was $29,150.
- The Norfolk avionics store had 3,152 linear microcircuits (NSN 5962-01-136-6619) on hand with no requirement for these F-14 aircraft parts. All of the microcircuits were classified as excess. With a unit cost of $403, the total cost of these parts was $1,270,000.

## Reasons for the Excess Inventory Problem

According to NAVAIR and depot officials, some excess material is a normal by-product of maintenance operations. They stated that in a repair environment, material forecasting is not precise and some excess will develop due to work load changes, equipment configuration changes, and forecasting and ordering errors. They noted that once material becomes excess, it takes time to pack and ship the material to the wholesale level or to dispose of the material.

NAVAIR officials, however, stated that the depots' excess inventory was greater than it should have been partly because of undisciplined material management practices. According to these officials, the excess inventory problem consists of two aspects: factors that contributed to the creation of excess material and factors that hindered the elimination of excess after it developed.

To minimize generation of excess inventory, NAVAIR material policy directs the depots to exercise effective material management practices. Such practices include limiting material orders to quantities justified by projected work load, manufacturing parts only when necessary and only in the quantity required, and maintaining accurate inventory accounting records.

NAVAIR and depot officials stated that excess inventories developed when effective material management practices were not followed. For example,

maintenance personnel ordered or manufactured more material than was required to complete repairs. The officials stated that excess inventory also was caused by factors outside of depot control. These factors included significant changes in ongoing or planned maintenance work load.

Regardless of the cause, Navy instructions require the depots to return excess inventory to the wholesale supply level if possible or send the excess to disposal. When the depots return excess material to the wholesale level, they receive a credit for the value of the material if the wholesale level has a need for the material. If the wholesale level already has sufficient on-hand quantities of the material, no credit is received and the depots must write off the value of the material.

The wholesale level only accepts current, normally stocked material from the depots. The supply system will not accept obsolete items or items not normally stocked, which includes most locally manufactured items. In these cases, the depots must send the material directly to a disposal activity and write off its value.

Depot officials stated that in the past they normally retained most excess inventory for which they would receive no credit. Consequently, only a portion of the excess was written off each year. Although contrary to policy, this practice helped the depots avoid reporting large inventory losses on their financial statements.

## Navy Efforts to Control Excess Inventories

The Naval Audit Service reported in September 1990 that contrary to NAVAIR policy the depots had accumulated large quantities of excess material. The report stated that the depots had retained the excess primarily because (1) no credit would be given for most of the material, (2) the parts had low value, and (3) the parts might be needed in the future. The audit service concluded that, although these reasons expressed legitimate concerns, they were not sufficient to override established material management policy. The report recommended that NAVAIR require the depots to turn in excess material in accordance with regulations.

NAVAIR concurred with the recommendation and initiated several corrective actions. For example, to overcome the depots' concern about the financial impact of writing off excess material when no credit is received, NAVAIR obtained special authority from the Comptroller of the Navy to write off up to $55.6 million of excess inventory as an extraordinary expense during fiscal year 1991.

The depots used this authority to help reduce their excess inventories. During fiscal year 1991, the depots eliminated about $64 million in excess inventory by turning in $10 million of excess material for credit and by writing off $54 million. Of the $54 million written off, $32 million of material was returned to the supply system for no credit and $22 million was sent to disposal.

Several other initiatives were started to improve depot material management and accountability, reduce the generation of excess inventory, and preclude the need for future large write-offs. These initiatives included the following:

- To prevent overordering of material by maintenance personnel, the depots began developing an automated system that will validate material orders and limit order quantities to the maximum number of parts that can be used on each unit scheduled for repair. This initiative is to be implemented by the end of fiscal year 1992.
- To increase visibility of excess inventory, the depots began implementing an automated system that will allow DOD and Navy inventory managers to identify and obtain needed material from depot excess inventories. Depot personnel can also use the system to identify and obtain needed parts from other depots. This initiative is to be completed by the end of fiscal year 1992.

In addition, to ensure that high dollar value material is replenished only when absolutely necessary, in October 1991 NAVAIR directed the depots to individually review orders that exceed $1,000 rather than allow the computerized system to automatically reorder the material. During the review, depot personnel are told to reduce or cancel an order if they know of any planned work load or other changes that will reduce future requirements for the material.

## Implementation of New Initiatives Will Not Be Easy

NAVAIR officials believe that, when fully implemented, the initiatives will correct material management problems that have contributed to large excess inventories. Our discussions with material managers at the Norfolk, Alameda, and Pensacola depots indicated they were working to implement the initiatives and believed that they could meet the target dates.

Successful implementation of the initiatives, however, will not be easy. An April 1991 NAVAIR memorandum to the depots recognized this difficulty and stated that the initiatives would not yield the desired results without

the dedication of all levels of NAVAIR and depot management. NAVAIR added that the depots did not want to waste additional resources by writing off another $55 million in excess material in 5 or 6 years.

Although NAVAIR stated that it did not want large inventory write-offs in the future, we believe that such write-offs will be required before the excess problem is brought under control. Although $64 million of excess material was eliminated during fiscal year 1991, the depots' excess inventory balance was still $40 million at the end of the year, a decrease of only $14 million from the beginning of the year. The balance remained high because an additional $50 million of material became excess during the year.

Navy officials stated that a declining work load contributed to the large amount of inventory that became excess during fiscal year 1991. In other words, primarily because of budget reductions, the depots repaired fewer airframes, engines, and components than originally planned. Thus, fewer parts were used and the on-hand and excess inventories increased.

Changes in the criteria that are used to determine authorized inventory levels also will add to the excess and require additional write-offs. NAVAIR officials decided in October 1991 to reduce the depots' authorized operating inventory level and change the criteria for how long the depots can hold material before it is classified as excess. Material quantities exceeding a 9-month supply, instead of a 24-month supply, will be classified as excess and must be returned to the wholesale level or sent to disposal.

While the goal of these changes is to reduce the depots' inventory investment, NAVAIR officials stated that such changes will cause additional material to be classified as excess in the short term, thus increasing the excess balance. Because no credit will be received for some of this material, additional write-offs will be necessary to eliminate the excess. NAVAIR has not estimated the size of the future write-offs or determined whether NAVAIR will request the Navy Comptroller to give special authority again to write off the excess as an extraordinary expense.

## Conclusions

Recognizing the excess inventory problem, NAVAIR has started several initiatives to improve depot material management practices and reduce the generation and retention of excess inventory. These initiatives have potential but implementation is key. Because of the long-standing nature of the problem at the depots and the changes in the criteria that are used to determine authorized inventory levels, close management attention is needed to ensure that the initiatives are fully implemented and result in minimizing excess inventory. Because the Navy initiatives are new, we have no recommendations now, but we will monitor their implementation.

# Unrecorded Material Continues to Be a Problem

Although unrecorded material has been a long-standing problem that has received management attention over the years, the problem continues to exist. Our limited test at three depots found over $3 million of ready-to-issue material that was not shown on any inventory records.

Unrecorded inventory weakens inventory management, compromises internal controls, and results in waste when additional material is purchased to meet requirements that could have been met with unrecorded material. Some of the unrecorded material we identified could have been used to satisfy $392,000 in outstanding material orders.

The solution to the unrecorded material problem rests largely with depot personnel who order, receive, and use material and who are responsible for returning unused material to the supply store. Greater efforts are needed to ensure that these personnel comply with instructions requiring the turn-in of all unused material.

## Instructions Prohibit Unrecorded Material

Unrecorded material is defined as any material that is not recorded on inventory records. Normally, material is controlled on inventory records until it is issued to maintenance personnel for use on a particular repair. Once issued, the material is deleted from the inventory records and its value is charged against the particular repair job for cost accounting purposes. Navy instructions require that any unused material be returned to the issuing store so that it can be added back on the inventory records and an accounting adjustment can be made to the repair.

Unrecorded material results when maintenance personnel do not return unused parts to the store but rather retain the material in the shop area for possible future use. No records are maintained on this material, which is usually stored on shelves or in lockers, cabinets, or closets in the maintenance area.

Navy instructions prohibit the accumulation of unrecorded material for several reasons. First, because unrecorded material is not visible to inventory managers, these managers could purchase additional material to meet needs that could be satisfied with the unrecorded inventory. Second, because written records do not exist, controls are not in place to protect unrecorded material from unintentional loss, obsolescence, or theft. Third, unrecorded material distorts inventory demand and cost accounting data because no record keeping is performed when unrecorded material is used to complete other repair jobs.

## Our Test for Unrecorded Material

We performed a limited test at three depots— Alameda, Norfolk, and Pensacola— to determine whether unrecorded material continued to exist in spite of Navy instructions prohibiting the accumulation of unrecorded inventory. Because the depots operated large avionics repair departments, we selected these departments for the test. As shown in table 3.1, we found $3 million in unrecorded inventory.

**Table 3.1: Results from Test for Unrecorded Material**

| | Norfolk | Alameda | Pensacola | Total |
|---|---|---|---|---|
| Shops in avionics department | 18 | 36 | 26 | 80 |
| Shops selected for test | 3 | 3 | 3 | 9 |
| Number of unrecorded items found | 5,410 | 1,275 | 599 | 7,284 |
| Value of unrecorded material found | $2,909,000 | $62,000 | $57,000 | $3,028,000 |
| Value of outstanding orders for material found | $368,000 | $4,000 | $20,000 | $392,000 |

Depot personnel told us that the unrecorded material we found had been retained in the shops for possible future use. However, they agreed that the parts should have been returned to the supply store. The following examples illustrate some of the 465 different stock numbers we identified.

- The ordnance and electronics shops at Alameda had 17 unrecorded aircraft weather equipment electrical connectors (NSN 5935-00-173-5906) costing a total of $7,584.
- The ordnance shop at Norfolk had 35 unrecorded F-14 aircraft machined sway braces (NSN 1680-01-041-6677) costing a total of $23,331.
- The instrument shop at Norfolk had 17 unrecorded variable transformers (NSN 5950-00-888-1217) costing a total of $12,279. The parts are used on P-3 and F-4 aircraft.
- The ordnance shop at Pensacola had 43 unrecorded A-7 aircraft assembly handle units (NSN 1680-01-010-0360) costing a total of $7,224.

We also found that the supply system had outstanding orders for many of the same parts. About $392,000 in outstanding orders could have been met through use of the unrecorded material we identified. The following examples illustrate such cases:

- The supply system had outstanding orders for 203 A-6 aircraft retainer assemblies (NSN 1095-00-484-4381) while the Norfolk ordnance shop had 336 of these assemblies costing $21,504.

- The supply system had outstanding orders for 1,911 A-4 aircraft housing assemblies (NSN 1680-00-138-7086) while the Pensacola ordnance shop had 20 of these assemblies costing $5,634.
- The ordnance shop at Norfolk had 191 unrecorded guided missile support assemblies (NSN 1440-00-466-2400) costing a total of $157,002. At the same time, the supply system had on order 1,468 of these assemblies, which are used on F-14 and F/A-18 aircraft.
- The instrument shop at Norfolk had three unrecorded F-14 aircraft torque motors (NSN 6105-01-009-1453) costing a total of $5,191. At the same time, the supply system had 62 of the motors on order.

## Reasons for Unrecorded Material

Although the instructions are clear, maintenance personnel told us that unused material often was retained in the shop because of a concern that the supply store might not have the material in stock the next time it was needed. They also stated that it often was easier to keep unused material rather than return it to the supply store and complete the required turn-in form.

NAVAIR officials and depot managers stated that overordering of parts was an additional factor contributing to unrecorded material. These officials stated that because many maintenance workers did not trust the supply system to have parts available when required, the workers frequently ordered more parts than needed for a particular repair. The workers then retained the extra parts for possible future use.

## Past Efforts to Address the Problem

Although the size of the unrecorded material problem is unknown, NAVAIR and depot managers agreed, and past audits have pointed out, that the problem is significant. To address the problem over the last several years, NAVAIR has issued memorandums and held discussions with depot officials to encourage compliance with instructions prohibiting the accumulation of unrecorded material. Depot managers, in turn, have issued local instructions and memorandums, discussed the problem with their employees, and periodically directed shops to search for and turn in all unrecorded material. At some depots, the commanding officer gave personal attention to the problem by visiting selected maintenance areas to search for unrecorded material.

NAVAIR managers have also responded to past audit reports that found unrecorded material to be a problem. For example, the Naval Audit Service reported in September 1990 that about $6 million in unrecorded material

had been identified at the Jacksonville, Norfolk, and Pensacola depots and that audits in 1987 and 1988 found similar problems that had not been corrected.

The 1990 report recommended that NAVAIR require the depots to return all unrecorded inventory to the supporting supply activity by the end of fiscal year 1990 and that NAVAIR include unrecorded material as a subject in its periodic command inspections. NAVAIR concurred and stated that the recommendations would be implemented.

NAVAIR followed up on this audit report in a February 1991 memorandum that instructed the depots to verify by April 30, 1991, that all unrecorded material had been turned in. In response, the depots informed NAVAIR that all unrecorded material had been returned to inventory. However, our test, which was conducted only a few months later, still found considerable amounts of unrecorded material at the three depots. Although we could not determine how long the material had been unrecorded, maintenance personnel told us that some of the material had been retained in the shop area for years.

## Depot Management Attention Can Make a Difference

The unrecorded inventory problem continues to exist in spite of Navy instructions prohibiting the accumulation of unrecorded inventory and memorandums encouraging compliance. As shown in table 3.1, we found significantly more unrecorded material at the Norfolk depot than at the Alameda and Pensacola depots, even though the shops were about the same size. To identify reasons for this disparity, we reviewed each depot's approach to dealing with the unrecorded material problem.

All three depots had sought to eliminate unrecorded material through instructions or memorandums. For example, in June 1991, Norfolk management wrote a memorandum to the avionics department supply store directing the turn-in of all unrecorded material in anticipation of an upcoming NAVAIR command inspection. The supply store manager stated that he told the department's shop supervisors to turn in all unrecorded inventory. The memorandum apparently had little impact because our test, conducted only 4 months later, identified considerable quantities of unrecorded material.

The one major difference between Norfolk and the two other depots in their approaches involved the level of attention given to the problem by the commanding officers. Depot officials told us that the commanding officers

at the Alameda and Pensacola depots had given personal attention to the problem by making a few unannounced visits to selected shops to search for unrecorded material.

Although the visits were limited, personnel at Alameda and Pensacola stated that the top management visits had made a significant impression. They told us that because of the attention, they were trying much harder to ensure that all unused material was returned to the supply store. Although top management at Norfolk also wanted to eliminate unrecorded material, the extra, personal step involving selected shop visits had not been taken.

## Conclusions

Because unrecorded inventory weakens inventory management, compromises internal controls, and results in waste when additional material is purchased to meet requirements that could have been met with the unrecorded material, NAVAIR and depot management have taken steps to minimize unrecorded inventory through instructions, memorandums, and discussions. Yet, unrecorded inventory continues to be a problem.

The problem was much less severe at depots where top management had visited shops to search for unrecorded material. This high-level attention appeared to convince maintenance personnel that unused material should be returned to the supply store. Thus, such personal, top management involvement at each depot offers significant potential for reducing unrecorded inventory.

## Recommendations

We recommend that the Secretary of the Navy direct the Commander, Naval Air Systems Command, to take steps to help ensure that unrecorded material is identified, returned to inventory control, and not permitted to accumulate. As one of these steps, we recommend that the Commander issue guidance requiring that top management at each depot make periodic spot checks for unrecorded inventory.

## Agency Comments

DOD agreed with our recommendations and stated that the Navy had undertaken several initiatives to improve depot material management and accountability. Some of the initiatives will prevent the overordering of material by maintenance personnel and, as a result, reduce the amount of material in the work area. Also, NAVAIR has issued a draft instruction on the management and control of depot inventories (NAVAIR Instruction 4400.5)

that requires the depots to make periodic checks to identify and turn in any unrecorded material.

DOD stated that NAVAIR will revise the draft instruction to require top depot management involvement in these periodic checks for unrecorded inventory and that this requirement will be emphasized at the quarterly depot board meetings. The material management initiatives are scheduled to be implemented by the end of fiscal year 1992, and the draft instruction is expected to be finalized by the end of fiscal year 1993.

# Comments From the Department of Defense

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-8000

PRODUCTION AND LOGISTICS

July 1, 1992

(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, "NAVY SUPPLY: Excess Inventory Held at the Naval Aviation Depots," dated May 19, 1992 (GAO Code 394474), OSD Case 9079. The Department concurs with the report findings and recommendations.

The actions being taken by the Navy in response to the recommendations are provided in the enclosure. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

Colin McMillan

Enclosure

GAO DRAFT REPORT - DATED MAY 19, 1992
(GAO CODE 394474) OSD CASE 9079

"NAVY SUPPLY: EXCESS INVENTORY HELD
AT THE NAVAL AVIATION DEPOTS"

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DEPARTMENT OF DEFENSE COMMENTS

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RECOMMENDATIONS

Now on pp. 4, 21.

- RECOMMENDATION 1: The GAO recommended that the Secretary of the Navy direct the Commander, Naval Air Systems Command, to take steps to help ensure the unrecorded material is (1) identified, (2) returned to inventory control, and (3) not permitted to accumulate. (p. 6, p. 33/GAO Draft Report)

  DOD RESPONSE: Concur. As documented in the GAO Draft Report, the Navy already has undertaken several initiatives to improve depot material management and accountability. Implementation of these initiatives is scheduled for the end of Fiscal Year 1992. The initiatives, while directed towards reduction or elimination of unneeded material in the depot supply stores, also will assist in the reduction of unrecorded material in the maintenance shops. One initiative will help ensure that unrecorded material is minimized by validating material orders and limiting the order quantity to the maximum that can be used on each unit scheduled for repair. Another is the manual review of orders that exceed $1,000 against planned work load or other changes that would reduce requirements for the material. The described initiatives will prevent the over-ordering of material by maintenance personnel--and, as a result, will also reduce the amount of material in the work area.

Now on pp. 4, 21.

- RECOMMENDATION 2: The GAO recommended that, as one of the steps to control unrecorded material, the Commander, Naval Air Systems Command, issue guidance requiring that top management at each depot make periodic spot checks for unrecorded inventory. (p. 6, p. 33/GAO Draft Report)

  DOD RESPONSE: Concur. The Naval Air Systems Command issued draft guidance, "Material Inventory Control Policy and Procedures," NAVAIR 4400.5, dated October 23, 1991, that requires periodic shop sweeps and the return of material to the supply stores. The Commander, Naval Air Systems Command, will

ENCLOSURE

require top depot management involvement in these shop sweeps and will emphasize that requirement at the quarterly Depot Corporate Board meetings. The guidance will be finalized by the end of Fiscal Year 1993.

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