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

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FINANCIAL MANAGEMENT

Navy Industrial Fund Has Not Recovered Costs

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

Dear Mr. Chairman:

This report responds to your request that we review the Navy industrial fund, which has been incorporated into the Defense Business Operations Fund.

The Navy industrial fund has not been recovering the costs it incurred in providing goods and services to customers. For fiscal years 1989 through 1991, the Navy industrial fund reported operating losses totaling over $794 million. Our report discusses the reasons for this revenue shortfall, including several factors influencing the pricing structure, and contains recommendations for corrective actions.

We are sending copies of this report to the Secretary of Defense, the Acting Secretary of the Navy, the Director of the Office of Management and Budget, and interested congressional committees. Copies will also be made available to others upon request.

This report was prepared under the direction of David M. Connor, Director, Defense Financial Audits, who may be reached at (202) 512-9095 if you or your staff have any questions. Other major contributors are listed in appendix II.

Sincerely yours,

Donald H. Chapin
Assistant Comptroller General

Executive Summary

Purpose

The Department of the Navy operated 51 of the Department of Defense's 77 industrial fund activities, which were consolidated into the Defense Business Operations Fund (DBOF) in October 1991. For fiscal years 1989 through 1991, the Navy industrial fund activities reported sales of about $49 billion. While some of the fund's activities earned profits, the fund reported overall net operating losses of over $794 million over this period. The aviation depots and the shipyards incurred most of these losses. The Chairman, Subcommittee on Readiness, House Committee on Armed Services, asked GAO to (1) determine why the Navy industrial fund had incurred operating losses and (2) assess the appropriateness of fiscal year 1993 pricing practices. GAO has performed similar reviews of the industrial funds operated by the other military services, and has monitored DBOF's implementation and operations since its inception.

Background

The Navy industrial fund provides various services, including depot maintenance for ships, aircraft, and transportation services to its customers who consist primarily of Defense organizations, but who also may include other federal agencies and foreign governments. Government revolving-type funds, such as the Navy industrial fund, are provided initial working capital through appropriated funds at the time they are established. After that, they are supposed to operate similarly to a business, generating sufficient revenues to cover the costs and expenses incurred in their operations. However, industrial funds are also expected to operate on a break-even basis over time—that is, not to make a profit nor incur a loss, but simply to recover all costs.

Industrial funds generate revenues by billing customers at predetermined prices as they perform specifically agreed upon work for those customers. The prices are to be based upon anticipated actual costs. Payments from customers replenish the funds' working capital, which is used to finance subsequent operations, and industrial fund activities are expected to operate within the revenues generated. Conceptually, this provides an incentive to control costs and maximize efficiency. Also, because the funds' customers purchase services with moneys appropriated to them, the funds' predetermined prices provide a basis for deliberations and decision-making during the appropriation process.

Results in Brief

For fiscal years 1989 through 1991, the Navy industrial fund's shipyards and aviation depots incurred operating losses for several reasons:

- the volume and composition of work load changed,
- guidance followed by the shipyards and aviation depots resulted in charging prices lower than those required to recover estimated costs,
- work load carried over from one fiscal year to the next was billed at the generally lower prices in effect when the work was ordered, and
- prices were developed with outdated work standards.

In addition, some Navy activities used an inappropriate accounting method which delayed the recognition of revenue and expenses. GAO identified about $71 million that would have been recorded and reported as a loss in fiscal year 1991 and prior years if the Navy had recognized revenue when earned and expenses when incurred.

The industrial fund's pricing practices, as established by Defense, allowed inappropriate costs to be charged to customers. Defense directed the Navy to include about $515 million for the recovery of prior year losses and depreciation expense for military construction facilities in the fiscal year 1993 rate structure. Raising prices to cover past years' losses distorts financial reports on current year operations. In addition, including depreciation expense for military construction facilities in calculating rates was inappropriate because these facilities were financed by the military construction appropriation and thus were not a cost of operating the Defense Business Operations Fund.

The industrial fund's continuing losses clearly indicate that it has not operated as intended when it was established. The fact that the fund is able to compensate for such losses by increasing subsequent years' prices and other means diminishes the incentives for efficiency and economy. Moreover, when prices for specific work reflect factors in addition to the actual cost of that work, these prices are of reduced use for rational budget decisions.

Principal Findings

Incurred Costs Not Recovered

The aviation depots and shipyards reported losses of about $294 million and $591 million respectively for fiscal years 1989 through 1991. Since the aviation depots and shipyards are now part of DBOF, the extent to which DOD can change this trend of continuing losses will be an important performance measurement of DBOF's effectiveness.

According to accounting, budget, and program officials, these losses can be attributed to several factors. Because prices charged customers are based on projected work load, fluctuations in the type of work (composition) and the amount of work (volume) had an adverse impact on the financial results of the industrial fund. GAO's analyses of budgeted and actual direct labor hours for fiscal year 1991 for the aviation depots and shipyards showed that the actual direct labor hours charged to work orders were 435,000 less and 767,000 less, respectively, than the budgeted hours. Such changes in work load can result in higher overhead rates, reduced efficiency, and schedule delays.

In addition, the prices charged customers were not set at levels needed to recover the industrial funds' estimated costs. For example, for fiscal year 1990 the North Island aviation depot billed customers about $61 for each direct labor hour for engine work. However, the depot estimated it should have billed about $77 for each labor hour to recover all incurred costs. According to Navy officials, the difference in billing rates occurred because the Naval Air Systems Command did not include overhead costs in determining the billing rate.

Further, work started in one fiscal year and completed in another fiscal year also impacted on the ability of the activities to recover the costs incurred. Defense pricing policies required the industrial fund to charge customers the prices in effect when the work was ordered and prevented it from passing on cost increases, such as pay raises, that occurred in subsequent years.

Outdated work standards also contributed to the industrial fund's inability to generate sufficient revenue to cover its cost. Work standards define the number of labor hours required to perform a specific type of repair. However, the standards did not always consider all of the work needed to return items to fully serviceable condition. As a result, even though depots sometimes exceeded the authorized repair time in performing additional necessary work, they were not authorized to bill customers for the extra hours. In fiscal years 1990 and 1991, North Island and Alameda aviation depots reported about $17 million in such unreimbursed work.

Since the mid-1970s, the Navy has used various means to lessen the financial impact of the industrial fund losses. During fiscal years 1975 through 1984, surcharges were used to adjust prices for the past year's profit or loss. In fiscal year 1985, the Navy began to transfer appropriated funds to industrial fund activities to compensate for prior year losses.

During fiscal years 1989 through 1991, such direct transfers to Navy industrial fund activities totaled about $1.6 billion.

Industrial Fund Activities Delayed Recognition of Losses

Generally accepted accounting principles require using the percentage-of-completion method for income recognition for long-term projects such as repair work performed by industrial fund activities. This method allows income and related expenses to be recognized in the accounting period in which the work was performed and provides a more accurate reporting of operating results by fiscal year.

GAO identified about $71 million of unreported incurred costs at the end of fiscal year 1991 that were applicable to fiscal year 1991 and prior years. This occurred because some of the industrial fund activities did not report revenue and expenses until projects were completed. As a result, the accumulated operating loss as of the end of fiscal year 1991 was understated. In January 1992, Defense's Office of the Comptroller directed that the percentage-of-completion method of revenue recognition be used for year-end reporting.

Fiscal Year 1993 Prices Include Inappropriate Charges

Defense directed Navy industrial fund activities to increase fiscal year 1993 prices to eliminate accumulated operating losses by the end of fiscal year 1993. To accomplish this, Defense added a surcharge to the fiscal year 1993 prices to recover the estimated accumulated operating loss of about $360 million at the end of fiscal year 1992. Increasing prices to cover past losses makes it difficult to evaluate and monitor the status of DBOF and is inconsistent with DBOF's operating principle that prices charged customers should reflect the cost incurred in providing the goods and services. GAO has previously recommended that Defense be required to seek the recovery of any prior year losses through the appropriations process so that the Congress would have an opportunity to review DBOF's operations and determine the reasons for the losses. Defense also directed that the fiscal year 1993 prices be increased to include depreciation expense of about $156 million for military construction facilities, even though these facilities were financed by the military construction appropriation.

While these pricing practices will increase the budgetary resources of DBOF, Defense had not determined whether additional working capital was needed to operate DBOF on a sound basis. Defense has recognized the need for, and is developing, a cash management policy for DBOF, but as of December 1992 the policy had not been finalized.

Recommendations

GAO is recommending that the Secretary of Defense direct the Defense Comptroller to (1) set prices based on realistic estimates of the costs that will be incurred in providing the goods and services to Navy industrial fund customers and (2) adjust prices only by factors directly related to the costs expected to be incurred.

GAO also recommends that the Secretary of Defense direct the Secretary of the Navy to review and update work standards used in developing prices charged customers.

GAO further recommends that the Secretary of Defense direct the Defense Comptroller to develop a cash management policy that specifies the amount of working capital needed to operate the Defense Business Operations Fund.

Agency Comments

As requested by the Chairman's office, GAO did not obtain comments on a draft of this report. GAO did, however, discuss its contents with cognizant Defense and Navy officials, and their views have been incorporated where appropriate.

Contents

Abbreviations

DBOF	Defense Business Operations Fund
DOD	Department of Defense
GAO	General Accounting Office

Introduction

Department of Defense industrial funds are used to finance the operations of industrial and commercial type activities that provide common services within Defense. Depot maintenance (for ships, aircraft, combat vehicles, and other items) and transportation services (airlift, sealift, and traffic management) are examples of these common services. The Chairman, Subcommittee on Readiness, House Committee on Armed Services, requested that we review Defense's management of the industrial funds.

This report discusses the operation of the Navy industrial fund. The Department of the Navy operated 51 of Defense's 77 industrial fund activities, which were incorporated into the Defense Business Operations Fund (DBOF) in October 1991. During fiscal years 1989 through 1991, the Navy industrial fund reported sales of about $49 billion. For the same 3-year period, the Navy industrial fund also reported losses of over $794 million.

We have previously reported on Air Force industrial fund operations[1] and have a separate review of the Army underway. Over the years, we have issued numerous reports on Defense's management of its industrial fund operations. Currently, we are monitoring Defense's implementation of DBOF. The National Defense Authorization Act of 1993 requires that we evaluate and report to the Congress by February 15, 1994, on Defense's progress in implementing DBOF.

Why Industrial Funds Were Established

During the 1940s, the Hoover Commission, while studying abuses in government operations, found that the military budget and appropriation processes were highly inefficient. For example, the Commission found that managers at industrial activities did not know the cost of individual jobs and therefore concentrated on obtaining funds to support their existing programs rather than on improving the efficiency of their operations. Similarly, the Commission found that because industrial activities' customers were not charged for the work performed, they were seldom constrained by financial considerations.

To correct problems such as these, the Congress, in 1949, amended the National Security Act of 1947 to authorize the establishment of industrial funds. In establishing the funds, the Congress intended to introduce the discipline and incentives of private industry and commerce to industrial activities and their customers. Industrial funds were expected to improve

[1]Air Force Depot Maintenance: Improved Pricing and Financial Management Practices Needed (GAO/AFMD-93-5, November 17, 1992).

government operations by establishing a buyer-seller relationship between fund activities and their customers. The fund activities would be financially dependent upon obtaining orders and matching costs with reimbursements. Consequently, they would be motivated to improve cost estimates and controls and identify and correct inefficiency and waste. Customers would pay for services rendered and would, therefore, be motivated to order only necessities.

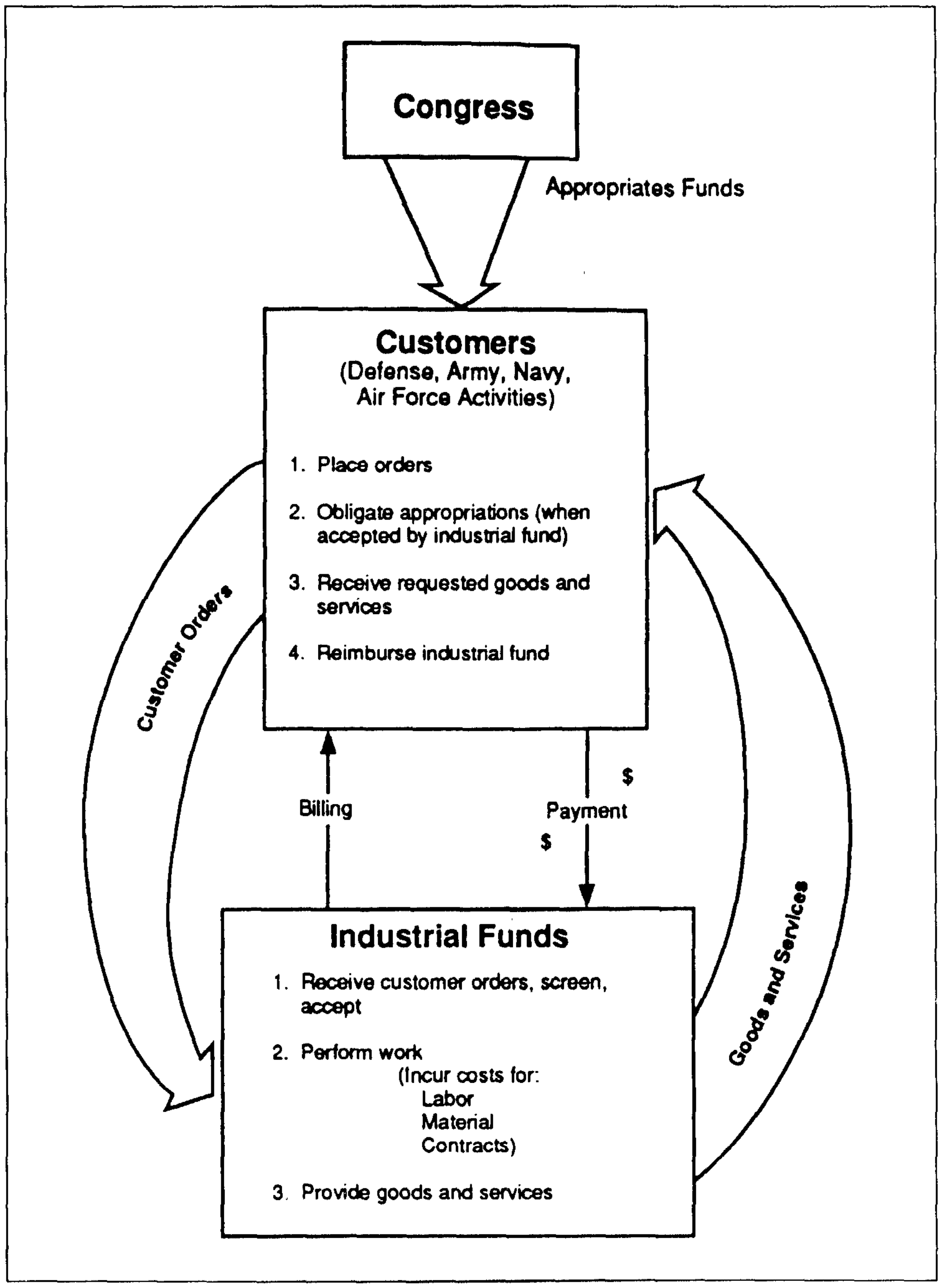
How Industrial Funds Operate

Industrial funds receive their initial working capital through either a congressional appropriation or a transfer of resources from existing appropriations or funds. They use these resources to finance the initial cost of providing the goods and services that are ordered by their customers. Thereafter, as the industrial funds do work and incur costs, they bill customers on the basis of predetermined prices commonly referred to as stabilized prices. Payments from customers are then used to finance subsequent operations.

Once established, industrial funds have a financial objective to be self-sustaining and to operate on a break-even basis over the long-term. To accomplish this objective, industrial fund activities are to set their sales prices at a level that will allow them to recover their expected operating costs. These stabilized prices remain in effect for the entire fiscal year.

Because industrial funds are complex and generally do not receive annual appropriations, the Congress has frequently expressed concern about its limited ability to subject industrial fund operations to close scrutiny. However, the Congress can directly affect industrial funds through the establishment or prohibition of specific policies or practices. For example, the Congress recently directed Defense to use a separate subaccount to collect depreciation charges that will be used to finance future capital asset acquisitions for DBOF. In addition, the Congress exercises indirect oversight through the authorization and appropriation processes, which permit it to adjust resource and program levels of industrial fund customers. The operation of industrial funds is illustrated in figure 1.1.

Figure 1.1: Illustration of How Industrial Funds Operate



Implementation of the Defense Business Operations Fund

In October 1991, Defense implemented the Defense Business Operations Fund, which consolidated the existing industrial and stock funds and five other Defense activities—Defense Finance and Accounting Service, Defense Commissary Agency, Industrial Plant Equipment Services, Defense Reutilization and Marketing Service, and Defense Technical Information Service. Under Public Law 102-484, Defense must maintain the separate identity of these activities, including the Army, Navy, and Air Force industrial funds, as part of DBOF. In addition, the rate setting and budgeting process will remain the same. Defense has estimated that DBOF will have revenue of about $81 billion in fiscal year 1993.

According to Defense, a primary goal of DBOF is to encourage support organizations, such as maintenance facilities, to provide quality goods and services at the lowest cost. DBOF is intended to improve the incentives and tools to manage existing resources with greater efficiency by identifying the total cost of operations, such as for a fighter squadron, and highlighting the cost implications of management decisions. DBOF's customers can be charged for products or services based on the total cost of providing them. Through this new structure, Defense intends to link support costs with customer funding.

Objectives, Scope, and Methodology

Based upon your request and subsequent discussions with your office, the objectives of our review were to (1) determine the reasons why the Navy industrial fund has incurred operating losses and (2) assess the appropriateness of fiscal year 1993 pricing practices.

To determine the reasons for the reported operating losses, we limited our review primarily to the aviation depots and the shipyards because they represented the majority of the losses. We (1) analyzed financial data for fiscal years 1989 through 1991, (2) reviewed explanations of the losses that were contained in the industrial fund budget documents and Financial and Operating Statements, and (3) discussed these losses with officials and budget analysts at Navy headquarters and at the aviation depots and shipyards. We judgmentally selected 37 customer orders with cost overruns or losses and discussed them with industrial fund officials to identify the specific factors that contributed to the overruns and losses.

To assess the appropriateness of pricing practices on fiscal year 1993 prices, we reviewed the DBOF overview book for fiscal years 1992 and 1993. We also reviewed information on pricing policies in the May 1992 Defense Business Operations Fund Implementation Plan and discussed these policies with the Office of the Secretary of Defense (Comptroller) personnel.

We performed work at the Office of the Secretary of Defense, Office of the Navy Comptroller, naval shipyards, naval aviation depots, naval ordnance stations, and Navy research and development laboratories. Appendix I presents the locations where audit work was conducted. Our review was performed from June 1991 through September 1992 in accordance with generally accepted government auditing standards.

As requested by the Chairman's office, we did not obtain comments on a draft of this report. We did, however, discuss its contents with cognizant representatives from the Office of the Secretary of Defense-Comptroller, the Office of the Navy Comptroller, the Naval Air Systems Command, and the Naval Sea Systems Command. Their views have been incorporated where appropriate.

Aviation Depots and Shipyards Did Not Recover All Costs

During fiscal years 1989 through 1991, the Naval aviation depots and shipyards reported revenue of about $17 billion and losses of about $885 million.[1] These continuing losses suggest that the Navy industrial fund has not achieved the objectives DOD intended in establishing the fund. The magnitude of these losses should have served as a performance indicator to management that the industrial fund was not operating as intended and corrective actions were needed.

Our analyses showed that the losses resulted because (1) changes in the volume and composition of work load hindered the operating efficiencies of the industrial fund, (2) pricing guidance followed by the shipyards and aviation depots resulted in charging less than the estimated costs, (3) work load carried over from one fiscal year to the next was billed at generally lower prices in effect when the work was ordered, and (4) customers were not billed for all work performed because the work standards used to develop prices were not current.

Further, at the end of fiscal year 1991, about $71 million of incurred cost applicable to fiscal year 1991 and prior years had not been properly recorded and reported. This occurred because some industrial fund activities used the completed contract method of revenue recognition rather than the percentage-of-completion method.

Industrial Fund Budget and Rate Setting Process

The industrial fund's budget and rate setting process begins about 21 to 24 months before the prices go into effect, with each industrial fund activity—for example, an aviation depot or a shipyard—developing revenue and work load projections for the budget year. After the industrial fund activities estimate their work load, they (1) use productivity projections to estimate how many people will be needed to accomplish the work, (2) prepare a budget that identifies labor, material, and other expected costs, and (3) develop prices that, when applied to the projected work loads, will recover operating costs from their customers. The prices are to be set so that the fund will incur neither a gain nor a loss.

The industrial fund activities' budget estimates are reviewed and consolidated by the parent commands—for example, the Naval Sea Systems Command or the Naval Air Systems Command. The consolidated estimates are reviewed by the Office of the Naval Comptroller and Office

[1]The combined losses from the aviation depots and shipyards is greater than losses incurred by the entire Navy industrial fund because during the 3-year period, some of the fund's activities, such as the Military Sealift Command, had a profit.

of the Secretary of Defense and then submitted to the Congress as part of the President's budget request.

Navy Has Used Various Means to Recover Incurred Costs

Prior to fiscal year 1975, industrial funds were permitted to adjust the prices charged customers on a quarterly basis for cost increases. Frequent changes in the industrial fund's prices made it difficult for customers to budget effectively because they were not certain what the industrial fund would charge for the goods and services provided. Since the customers had to estimate their overhauls and repair work approximately 21 to 24 months before the work was to be performed, price increases decreased the amount of repair work that customers could order and led to requests to the Congress for additional funds.[2]

Defense established the price stabilization policy in fiscal year 1975 to protect customers from unforeseen inflationary increases and other cost uncertainties. The intent of the policy is to ensure that customers will not have to reduce their work orders because of higher than expected prices. This policy also allows customers to provide more reliable work load estimates to industrial fund activities which, in turn, should allow the industrial fund activities to better plan for the efficient use of their resources. Although the customer may have been protected, the industrial fund did not always recover all incurred costs.

According to a Navy official, in fiscal year 1985 the Navy began to use passthroughs and transfers to deal with prior year losses and profits, respectively. Passthroughs are appropriated funds which the Navy provides to help the industrial fund activities reduce prior years' losses. Transfers represent funds provided by the industrial fund activities to the Navy, which may redistribute the funds to customers. Transfers occur when an industrial fund activity has made a profit; that is, the revenue received for providing goods and services exceeds the related cost incurred. For fiscal years 1989 through 1991, the Navy industrial funds received passthroughs totaling about $1.6 billion to help recoup their losses from prior years.

[2]Melville Joseph Walters, III, Rate Stabilization and Its Impact on U.S. Naval Shipyards, Naval Post Graduate School, September 1979, pages 19 and 20.

Aviation Depot and Shipyard Losses Have Multiple Causes

The aviation depots and shipyards had losses from operations totaling about $294 million and $591 million respectively for fiscal years 1989 through 1991. The aviation depots' and shipyards' inability to recover all costs incurred in providing goods and services to their customers was due to numerous factors:

- The volume and composition of work load changed.
- Guidance followed by the shipyards and aviation depots resulted in charging prices lower than those required to recover estimated costs.
- Work load carried over from one fiscal year to the next was billed at the generally lower prices in effect when the work was ordered.
- Prices were developed with outdated work standards.

Unexpected Work Load Changes

Prices charged customers are based on planned work load; therefore, changes in the planned volume and composition of the work load can have an adverse effect on the financial results of industrial funds operations. For example, reductions in work load may result in the approved prices being too low to cover the actual cost incurred by the industrial fund activities. Because work load reductions could result in some employees being idle, overall productivity could be affected adversely. In addition, per unit overhead costs would increase if an industrial fund activity performed less work than anticipated.

Fluctuations in the volume and composition of the work load were beyond the control of the depots. Depot officials stated that such changes affected staffing requirements and the ability of the depots and each of their programs to plan and execute work load in future quarters. To adjust for work load changes, the depots were required to move and retrain people within programs and sometimes from program to program. Such unexpected changes can result in higher overhead costs, critical skills imbalance, reduced efficiency, and schedule delays. In turn, the industrial fund activities may not be able to generate the revenue required to cover the costs incurred. Our analyses of the budgeted and actual direct labor hours for fiscal year 1991 for the aviation depots and shipyards showed that actual direct labor hours charged to work orders were 434,582 (2 percent) and 767,000 (1 percent) less than the budgeted hours.

Changing the mix of the work also affected the work force requirements and the usefulness of historical data in setting such requirements. At the Puget Sound shipyard, for example, the mix of the work began changing in mid-1989 and was not reflected in the fiscal year 1991 approved rates.

Submarine overhaul work had been replaced almost entirely with surface ship work. At the time of our review, staffing levels were higher than needed for the work load, but some critical skills were in short supply. However, Puget Sound could not hire the necessary personnel because of a hiring freeze.

Decisions the fleets made also contributed to the problems shipyards had in scheduling work. According to a Naval Sea Systems Command official, Mare Island Naval Shipyard experienced a submarine cancellation in both fiscal year 1991 and 1992. Mare Island had planned to use 300,000 workdays for each submarine.

Pricing Guidance Resulted in Lower Prices

Prices charged by the industrial fund are intended to enable them to recover their expected costs of operations from customers. However, subsequent actions resulted in the aviation depots and shipyards charging lower prices than those required to recover estimated costs. For example, in developing the fiscal year 1990 prices for engine repair work, the aviation depots were directed by the Naval Air Systems Command to use their fiscal year 1989 stabilized billing rate and increase it by 3.2 percent. At the North Island aviation depot the fiscal year 1989 stabilized hourly rate was $59.48. Following the pricing criteria, the stabilized billing rate for fiscal year 1990 was $61.38 per direct labor hour. However, according to documentation obtained from the aviation depot, the billing rate to recover all incurred costs should have been $77.04 per direct labor hour.

A Naval Air Systems Command official stated that the aviation depots were directed to increase the 1989 stabilized rate by 3.2 percent because of pricing guidance from the Navy. However, this resulted in a rate that was below the depots' break-even rate because the Command did not include overhead costs. Although this problem should have been identified during the budget review process, it was not discovered until the fiscal year 1990 President's Budget had been submitted and billing rates were finalized. When this problem was discovered, the Naval Air Systems Command recomputed its break-even rate and requested a change in the billing rate. The change was not approved by the Office of the Navy Comptroller. The Naval Air Systems Command was instructed to reduce costs as much as possible and was informed that an adjustment would be made to the fiscal year 1991 rates to compensate for losses that occurred in fiscal year 1990.

In addition, the North Island aviation depot had estimated that their fiscal year 1991 break-even rate for engine repair work was $85.13. However, in an October 1990 memorandum to the Commander, Naval Air Systems Command—North Island's parent command—the Commander, Naval Sea Systems Command stated that the fiscal year 1991 billing rate was too high and would result in the fiscal year 1991 engine overhaul program being reduced by 11 engines. In January 1991, the Commander, Naval Air Systems Command, requested the North Island aviation depot to bill the engine work at the lower of its (1) calculated fiscal year 1991 break-even rate or (2) fiscal year 1990 stabilized rate escalated by 20.5 percent. The fiscal year 1990 rate, increased by the escalation factors, was the lower rate. A North Island engine program official estimated that this price reduction would cause the aviation depot to lose about $350,000 for work performed in fiscal year 1991.

Further, as discussed in greater detail in chapter 3, the fiscal year 1992 industrial fund prices were decreased to compensate for the potential excess cash that resulted from advance billing of customers during fiscal year 1991. According to a Naval Sea Systems Command memorandum dated February 22, 1991, this adjustment resulted in the shipyards' labor rate being reduced by about $17 per workday.

Work Load Carryover

Losses can also occur when work is carried over from one fiscal year to the next. Defense pricing policies require the industrial fund to charge customers the prices in effect when the work is ordered, and prevents it from passing on cost increases that occur in subsequent years.

One element of cost increases related to work load carryover is pay raises. In a May 1990 letter to the Comptroller of the Navy, the Commander of the Navy Sea Systems Command stated that when work is carried over from one fiscal year to the next, the price charged each succeeding year contains the same pay raise as the year the work was accepted for repair. The letter also stated that since pay levels usually increase from the previous year, each subsequent fiscal year has a built-in loss. For example, in fiscal year 1989, the budgeted pay raise of 2 percent actually turned out to be 4.1 percent. The shipyard received additional funding to cover the shortfall in fiscal year 1989, but carryover work performed in subsequent fiscal years was underpriced by at least 2.1 percent.

The letter further points out that over $40 million in losses associated with shipwork ordered in fiscal year 1986 continued through fiscal year 1990. This occurred because, in fiscal year 1986, the Office of the Secretary of Defense directed a 5 percent reduction in the estimated pay rate that was one of the factors used to develop the prices charged customers for the goods and services provided. The prices were set incorporating the reduction and were not adjusted when actual pay rates were higher. Each ship accepted for repair in fiscal year 1986 had this reduction included in its repair price and the last fiscal year 1986 ship was not completed until February 1990.

Outdated Work Standards

Another cause of the losses is the use of outdated work standards in developing the prices to charge customers. Work standards show the number of labor hours required to perform a specific type of repair. Each work standard is composed of a number of separate, detailed steps, which define the entire repair process. Industrial fund activities use these work standards to develop their rates.

According to North Island and Alameda officials, after the work standards are developed, additional work requirements for individual types of repairs are often identified by the depots or their customers. However, the work standards for the repairs often are not updated. In these cases, although the added work must be performed, the depots are not reimbursed for the additional work.

During our visit to North Island, officials there agreed that outdated work standards are a problem. They said that many of the work standards for aircraft and engine programs are not updated in a timely manner. One official stated that the standards used to develop fiscal year 1991 prices were developed around fiscal year 1989.

For the customer orders we reviewed covering fiscal years 1990 and 1991, we found North Island and Alameda performed over $17 million of work for which they did not receive reimbursement because the work standards were not current. For example, in fiscal year 1990 Alameda lost about $2.5 million on the repair of 22 P-3 aircraft because of outdated work standards. Similarly, in fiscal year 1991, North Island incurred a loss of about $434,000 on the repair of 180 T-64 engines because outdated standards were used in developing the prices.

Further, in July 1989, we reported[3] that depots did not have adequately supported component repair prices, did not maintain auditable backup documentation for work load standards, and did not analyze variances

[3]Navy Maintenance: Aviation Component Repair Program Needs Greater Management Attention (GAO/NSIAD-89-171, July 6, 1989).

between actual and billed labor hours. In response to our report, the Naval Air Systems Command initiated the Variance Improvement Program for Expenditure Reconciliation for reviewing work standards. Under this program, each Naval aviation depot is to perform engineering reviews of 20 components' work standards each quarter (the top 10 over- and top 10 underexpended). The program was implemented at both North Island and Alameda. However, the Defense Inspector General reported in January 1991[4] that the program was not being implemented as intended. For example, the Alameda aviation depot planned to review only 10 components' work standards per year instead of 20 each quarter, as intended by the Naval Air Systems Command.

Recognition of Operating Losses Deferred

Some of the Navy industrial fund activities we visited used the completed contract method of revenue recognition. As a result, these industrial fund activities did not recognize income earned or loss incurred in the accounting period in which they occurred. Therefore, their financial reports did not accurately disclose the financial results of operations for each fiscal year. Generally accepted accounting principles require the use of the percentage-of-completion method for long-term projects such as repair work performed by Navy industrial fund activities, which in some cases extends for several years. Under the percentage-of-completion method, income is recognized in the accounting period in which the work was performed, regardless of when the customer is billed or revenue is received.

Because the completed contract method was used, about $71 million of incurred cost was classified as work-in-process, which is an asset, on the activities fiscal year 1991 financial reports. This amount represented cost incurred by the industrial fund that would not be recovered because it exceeded the value of the contract. Because activities used the completed contract method of revenue recognition, they deferred recognizing revenue and related expenses until the work was completed. If the percentage-of-completion method had been used, the revenue and expenses would have been recorded earlier—in the fiscal year in which they occurred. Because the completed contract method permits the recognition of losses to be deferred, the accumulated operating results at the end of fiscal year 1991 were understated by about $71 million.

[4]Management of Labor Standards For Airframes at Aeronautical Depots (Department of Defense, Office of the Inspector General, Report No. 91-039, January 31, 1991).

In an October 1991 letter to the Comptroller of Defense (GAO/AFMD-92-5ML), we recommended that Defense revise its DOD Accounting Manual to require that industrial fund activities recognize income under the percentage-of-completion method in accordance with generally accepted accounting principles and related guidance. In January 1992, Defense's Office of the Comptroller directed that industrial fund activities must use the percentage-of-completion method of revenue recognition when work is expected to be completed in a fiscal year other than the fiscal year in which the work is started. This policy was effective for the June 1992 DBOF financial statements.

Conclusions

A basic premise underlying the establishment of the industrial fund was that all incurred costs would be recovered through the prices charged the customer. However, for fiscal years 1989 through 1991, the Navy aviation depots and shipyards incurred significant losses because the prices charged were not commensurate with the costs incurred. This can be attributed to several factors, some of which were beyond the activities' control. In some cases, pricing guidance followed by industrial fund activities resulted in prices that were too low to recover estimated costs. Changes in workload were another factor beyond the activities' control. However, factors such as the use of outdated work standards to develop the prices were within their control. Losses related to outdated work standards could have been minimized if the activities had reviewed and updated the standards to reflect the work being performed on a regular basis.

Recommendations

We recommend that the Secretary of Defense direct the Defense Comptroller to (1) set prices based on realistic estimates of the costs that will be incurred in providing the goods and services to Navy industrial fund customers and (2) adjust prices only by factors directly related to the costs expected to be incurred.

We also recommend that the Secretary of Defense direct the Secretary of the Navy to review and update work standards in accordance with the Variance Improvement Program for Expenditure Reconciliation.

Fiscal Year 1993 Prices Include Inappropriate Charges

The Defense Office of the Comptroller directed the Navy to increase its fiscal year 1993 prices to eliminate all of the industrial fund's accumulated operating losses by the end of fiscal year 1993. Defense estimated that as of September 30, 1992, the Navy's industrial fund accumulated loss was about $360 million. This directive, however, is inconsistent with a basic tenet of DBOF—that prices should reflect the actual cost incurred in providing goods and services to DBOF customers. Further, increasing prices to cover past losses diminishes the incentive for DBOF to operate efficiently and makes it difficult to evaluate and monitor DBOF's status.

The proposed fiscal year 1993 prices also included about $156 million of depreciation expense for military construction facilities. Including depreciation expense for these facilities was inappropriate because they were financed by the military construction appropriation, and accordingly, were not a direct cost of operating the DBOF.

Use of Surcharges to Recover Prior Year Losses Distorts Financial Reports

In August 1991, Defense directed all DBOF business areas, with the exception of supply operations, to set their prices to achieve a zero accumulated operating balance by the end of fiscal year 1993. Because five of the six types of Navy industrial fund activities had negative accumulated operating results, this action will result in surcharges for all activities except transportation. To cover these higher prices, the customers will need additional funding to pay for the work they had planned for fiscal year 1993. Table 3.1 shows the estimated accumulated operating balance by industrial fund activity.

Table 3.1: Estimated Accumulated Operating Balance by Navy Industrial Fund Activity as of September 30, 1992

Dollars in millions

Activity	Amount
Transportation	$ 231.1
Depot maintenance[a]	(283.2)
Research and development	(229.5)
Public work centers	(46.3)
Information services	(30.3)
Printing	(1.3)
Total	**$ (359.5)**

[a]Depot maintenance includes aviation depots, shipyards, and ordnance stations.

Source: Data from Defense Business Operations Fund Overview Amended FY 1992/FY 1993 Biennial Budget, February 1992.

In our April 1992 testimony[1] before the Subcommittee on Readiness, House Committee on Armed Services, we questioned Defense's use of surcharges to eliminate the accumulated prior years' operating losses. We have previously stated that prices charged customers should not be adjusted by factors such as surcharges that are not directly related to anticipated costs.[2] Charging customers prices that reflect only the cost expected to be incurred for that period in providing the goods and services will better allow Defense and the Congress to determine the cost of each year's operations and measure the performance of DBOF's activities for that period.

Charging for Military Construction Facilities Is Inappropriate

The Navy's prices for fiscal year 1993 include about $156 million of depreciation expense for military construction facilities that were financed by the military construction appropriation. Defense, in its original proposal to establish DBOF, envisioned that the service's industrial fund military construction projects would be funded by including depreciation expense in calculating prices charged to the customers. However, in authorizing amounts for DBOF for fiscal year 1992, the Congress reiterated its intent that DBOF-related military construction facilities continue to be financed through the military construction appropriations.

Nevertheless, in developing the fiscal year 1993 prices, Defense included depreciation expense for military construction facilities. According to the Defense Business Operations Fund Implementation Plan dated May 1992, Defense included depreciation expense in the rates so that industrial fund activities' cost estimates would contain the same components as cost proposals from private contractors who bid against them for work.

Although including depreciation expense in competitive bids would be appropriate to achieve comparability among prices, including it in the prices charged customers will result in DBOF being paid for construction-related costs even though it did not finance the construction and, under existing policies, will not finance future facilities.

[1] Financial Management: Defense Business Operations Fund Implementation Status (GAO/T-AFMD-92-8, April 30, 1992).

[2] Defense's Planned Implementation of the $77 Billion Defense Business Operations Fund (GAO/T-AFMD-91-5, April 30, 1991).

Cash Management Policies and Practices Raise Concerns

In our April 1992 testimony,[3] we noted that while Defense had made progress in developing the policies to govern DBOF's operations, it had not developed a cash management policy. Defense has recognized this need and has been developing the policy for DBOF. However, as of December 1992 the policy had not been finalized.

The House Armed Services Committee expressed concerns about Defense's management of DBOF's cash. The Committee's May 1992 report (House Report 102-527) on the National Defense Authorization Act for Fiscal Year 1993 states that a cash management policy is needed to prescribe the minimum and maximum amounts of cash DBOF needs to operate efficiently. We are also concerned about Defense's cash management practices because Navy and Defense officials acknowledged that the recovery of prior year losses will result in DBOF having about $360 million in additional budgetary resources.

One instance we identified illustrates how the lack of a cash management policy can lead to erratic billing and pricing practices. In fiscal year 1990, the Navy became concerned that its industrial fund did not have sufficient cash to operate and that it would violate the Antideficiency Act by spending more money than it had available. To alleviate this problem, selected depot maintenance facilities were directed to advance bill customers about $870 million during the first quarter of fiscal year 1991. Navy Comptroller officials stated that the Office of the Secretary of Defense concurred with the action. According to Navy comptroller officials, the Office of the Secretary of Defense later discovered that the cash balance was in excess of what was required to operate the industrial fund and adjusted the industrial fund prices downward for fiscal year 1992. The adjustment to the prices was estimated to result in the fiscal year 1992 revenue being reduced by about $241 million.

Conclusions

Defense's fiscal year 1993 pricing practices are inappropriate. Adjusting the prices charged customers through use of a surcharge for prior year losses or profits distorts the annual results of operations and diminishes the incentive for DBOF to operate efficiently. Further, including depreciation expense for military construction facilities is inappropriate because the costs of these projects are not being incurred by DBOF, rather they are financed through the military construction appropriation. Determining DBOF's cash needs and developing a cash management policy

[3] See footnote 1.

is an important step in establishing the discipline needed to operate DBOF and measure its performance.

In our recent report on the Air Force's depot maintenance industrial fund,[4] which, like the Navy industrial fund, has been incorporated into DBOF, we recommended that the Secretary of Defense direct DBOF activities to discontinue the practice of using surcharges to recoup prior year operating losses. This recommendation would also apply to Navy activities within DBOF.

Recommendations

We recommend that the Secretary of Defense direct the Comptroller of Defense to

- implement a policy stating that the prices charged by the Defense Business Operations Fund are not to include depreciation expense for military construction facilities, which are financed by appropriated funds, and
- develop a cash management policy that prescribes the minimum and maximum amount of cash the Defense Business Operations Fund needs to operate.

[4]Air Force Depot Maintenance: Improved Pricing and Financial Management Practices Needed (GAO/AFMD-93-5, November 17, 1992).

Locations Where Audit Work Was Conducted

During our audit, we conducted fieldwork at the following locations:

Office of the Secretary of Defense, Washington, D.C.
Office of the Navy Comptroller, Washington, D.C.
Naval Sea Systems Command, Arlington, Virginia
Naval Air Systems Command, Arlington, Virginia
Naval Research Laboratory, Washington, D.C.
David W. Taylor Naval Research and Development Center, Bethesda, Maryland
Norfolk Naval Shipyard, Norfolk, Virginia
Philadelphia Naval Shipyard, Philadelphia, Pennsylvania
Puget Sound Naval Shipyard, Bremerton, Washington
Naval Weapons Station, Yorktown, Virginia
North Island Aviation Depot, North Island, California
Alameda Naval Aviation Depot, Alameda, California

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