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Report to the Chairman and Ranking Minority Member, Subcommittee on Readiness and Management Support, Committee on Armed Services, U.S. Senate

July 2000

DEFENSE ACQUISITIONS

Prices of Marine Corps Spare Parts Have Increased

GAO/NSIAD-00-123

Contents

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July 31, 2000

The Honorable James M. Inhofe, Chairman
The Honorable Charles S. Robb, Ranking Minority Member
Subcommittee on Readiness and Management Support
Committee on Armed Services
United States Senate

Because of concerns by military commands about increasing prices for spare parts, you requested that we examine spare part prices to determine whether they were increasing at a rate faster than inflation and the extent to which surcharges, suppliers' prices, and other factors contributed to price increases.

This is the first in a series of reports examining price trends of spare parts managed by the military services. This report contains information on reparable spare parts[1] the Marine Corps uses to maintain ground combat and support equipment such as vehicles, radars, and radio receivers. Specifically, it addresses (1) changes in the prices of reparable parts compared with the prices of similar items in the private sector and the reasons for the price changes and (2) the accuracy of prices set by the Marine Corps.

Defense pricing policy requires the Marine Corps to establish prices for spare parts it manages at the beginning of each fiscal year. The Marine Corps manages its reparable spare parts under a revolving stock fund and charges its field units and repair facilities (referred to as customers) for parts provided. A surcharge is added to the cost of the parts to cover the costs of managing, storing, and distributing the parts.

To determine whether prices of Marine Corps spare parts were increasing at a rate faster than inflation, we examined the price trend for the 703 different parts the Marine Corps managed from fiscal year 1995 through 1999.[2] Of these 703 parts, the Marine Corps sold 313 to customers during

[1] Reparable spare parts are parts that can be economically repaired, whereas consumable parts are expendable items such as paint, fuel, and supplies.

[2] These 703 parts were the only ones the Marine Corps managed over the entire period.

fiscal years 1997-99. We reviewed the prices of these 313 parts to determine the reasons for price changes. To review spare part prices, we examined the procedures and methods the Marine Corps used to compute prices. Specific information on our scope and methodology is in appendix I.

Results in Brief

Prices of the 703 parts we examined increased by an average of about 14 percent over the 4-year period from fiscal year 1995 through 1999, while prices for similar items sold in the private sector dropped by 0.2 percent over the same period. Prices for these 703 parts fluctuated during this 4-year period, dropping by about 10 percent during the first 2 years and increasing by about 27 percent during the last 2 years. Prices of the 313 parts sold to customers followed the same pricing pattern. The major cause of the sharp price increase during the latter years was increases in surcharge rates. The cost of procuring the parts from suppliers influenced the price of only 26 parts.

The Marine Corps did not follow Defense pricing regulations in setting prices and, as a result, the prices of most parts sold to Marine Corps customers were not correct. In particular, the approach used to adjust prices of repaired parts from year to year was not consistent with Defense regulations. The Marine Corps' approach led to wider price fluctuations than the approach called for in Defense pricing regulations. Moreover, prices for many parts were higher than they would have been had repair costs been used to set prices. Mathematical and computer program errors were also made. These problems contributed to the Marine Corps having an accumulated gain of about $48 million from the sale of spare parts at the end of fiscal year 1999. Defense policy requires revolving funds to operate with the long-term objective of breaking even.

The Marine Corps has initiated actions to correct its method for setting prices. We are recommending that the Marine Corps prepare an action plan for completing corrections so that changes will be incorporated in fiscal year 2001 prices. In written comments on a draft of this report, the Department generally agreed with our findings and recommendation but took exception to the use of the term "profit" in our draft report to describe the Marine Corps' accumulated gain from supply operations. To avoid any misunderstanding, we substituted the term "accumulated gain" for "profit" to describe the position of the fund.

Background

The Marine Corps stocks different types of reparable spare parts, ranging from diesel engines to electronic components. Each year the Marine Corps purchases a few new parts from suppliers but obtains most of the parts needed to support its operations by refurbishing broken ones that customers turn in for repair. Between July 1, 1996, and June 30, 1998, for example, the Marine Corps purchased only 61 different parts from suppliers. These parts included items such as circuit card assemblies, diesel engines, and radio frequency amplifiers.

In the late 1980s, the Department of Defense concluded that the military services should manage reparable spare parts using revolving stock funds. The primary goal of a revolving fund is to focus attention on the total costs of operations in order to provide goods and services at the lowest costs. A revolving fund is intended to operate much like a commercial business, procuring inventory to satisfy customer needs, stocking it until sold, and using the cash from sales to pay for all associated operating costs, including procurement of replacement inventory. Generally, a revolving fund relies on sale revenues to finance its operations and is not intended to make a profit over the long term.

In fiscal year 1994, the Marine Corps placed 890 different parts—less than one-third of the parts it was managing at that time—into the stock fund and started charging its customers for the parts. The Marine Corps placed the remainder of its reparable parts into the stock fund in fiscal year 1998 and began charging customers for them in fiscal year 2000. In fiscal year 1999, the Marine Corps was managing 3,200 different reparable spare parts with a total inventory value of $480 million. These parts are stored in depots[3] until a Marine Corps customer needs them. Figure 1 shows parts in storage at the Albany, Georgia, depot.

[3] The Marine Corps has two depots—one at Barstow, California, the other at Albany, Georgia. The Defense Logistics Agency operates these depots and distributes spare parts for all types of Marine Corps ground combat and support equipment.

Figure 1: Marine Corps Logistics Base, Albany, Georgia

Source: Marine Corps.

The Marine Corps establishes a price—called a standard price—for each of its reparable spare parts and uses these prices to charge customers for parts they order. Defense pricing procedures require that standard prices be set by taking the most recent purchase price and adding a surcharge. The surcharge is designed to recoup supply management costs such as salaries, obsolescence, and storage expenses. The Marine Corps revises standard prices annually by using one of two approaches. If a part has been procured recently,[4] the Marine Corps applies a surcharge to the purchase price to establish a standard price for the following fiscal year. If a part has not been procured recently, the Marine Corps revises the price of the part by applying a price change rate[5] to the current standard price of the part. Both the surcharge and price change rate vary from year to year (see table 1).

[4] Recently procured parts are those that have been purchased during a specific 12-month period. The 12-month procurement window for fiscal year 1999, for example, was July 1, 1997, through June 30, 1998.

[5] The Marine Corps computes the price change rate by calculating the percentage difference between the current and prior fiscal year surcharge rates (adjusted for inflation).

Table 1: Marine Corps Surcharge and Price Change Rates

(in percent)

Fiscal year	Surcharge rate	Price change rate
1995	44.01	0.70
1996	39.50	-9.10
1997	24.59	-10.69
1998	43.75	19.17
1999	45.83	3.61

Source: Marine Corps.

Appendix II contains a discussion of these rates, including how they are computed.

When a customer orders a part, the Marine Corps charges the standard price if the customer does not return a broken part that can be economically repaired. When a broken part is returned, however, the Marine Corps charges the customer an exchange price, which is less than the standard price. Most Marine Corps sales are made at the lower exchange prices, which are set using 57 percent of a part's standard price.

Prices Increased in Response to Changes in Surcharge Rates

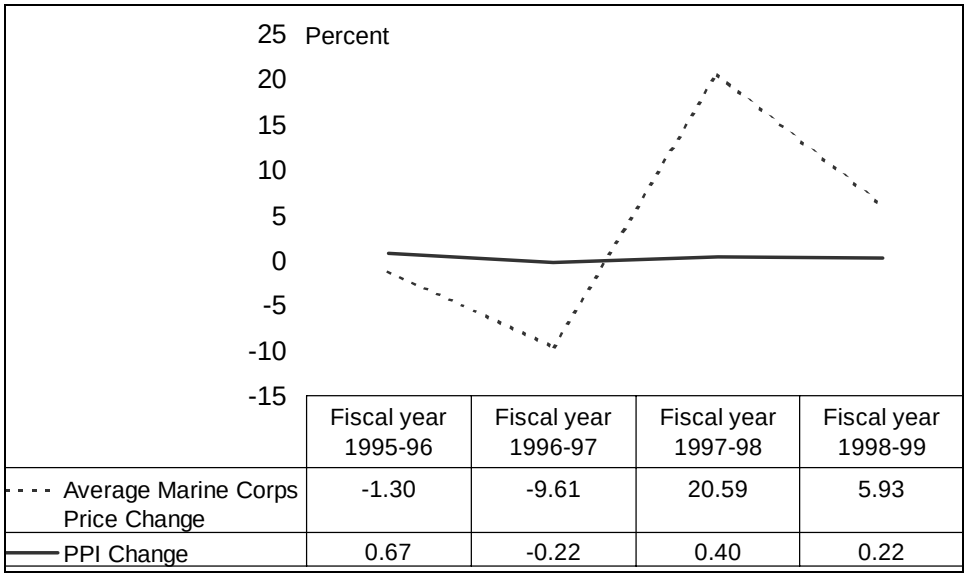
Prices of the parts we examined fluctuated during the 4-year period from fiscal year 1995 through 1999, dropping during the first 2 years and increasing sharply during the last 2 years. Prices for the 313 parts sold to customers followed the same pricing pattern. Increases in surcharge rates caused the major part of the sharp price increase during the latter 2 years. These surcharges recover the costs of managing, storing, and distributing parts.

Prices of 703 Parts Increased About 14 Percent in Fiscal Years 1995-99

From fiscal year 1995 through 1999, prices of the 703 parts we examined increased by an average of about 14 percent, or about 3 to 4 percent annually. The producer price index we used showed that prices for similar items sold in the private sector dropped by about 0.2 percent during the

same period.[6] Figure 2 compares the changes in the prices of these 703 parts with changes in the prices of similar items in the private sector.

Figure 2: Changes in Marine Corps Prices Compared With Changes in Prices of Similar Items in the Private Sector



	Fiscal year 1995-96	Fiscal year 1996-97	Fiscal year 1997-98	Fiscal year 1998-99
Average Marine Corps Price Change	-1.30	-9.61	20.59	5.93
PPI Change	0.67	-0.22	0.40	0.22

Source: our analysis of Marine Corps data.

Prices of the 703 parts fluctuated considerably during the 4-year period, dropping by about 10 percent during the first 2 years and increasing by about 27 percent during the last 2 years. Appendix III shows the average percentage price change for these 703 parts.

The Marine Corps sold 313 of the 703 parts for $38 million during fiscal years 1997-99. The price changes for these parts followed the same pattern as the price changes for all 703 parts—dropping during the first 2 years and

[6] There is no inflation index that directly relates to Marine Corps spare parts. To approximate inflation for these parts, we used the producer price index, which is a family of indexes that measures average changes in the selling prices received by domestic producers of goods and services. We selected the index for the commodity group Intermediate Materials and Components for Manufacturing less Foods and Feed. We used the subgroup Materials and Components for Manufacturing, which includes items such as motor vehicle parts, electronic components and accessories, motors, and generators. These items are similar to the Marine Corps spare parts we examined.

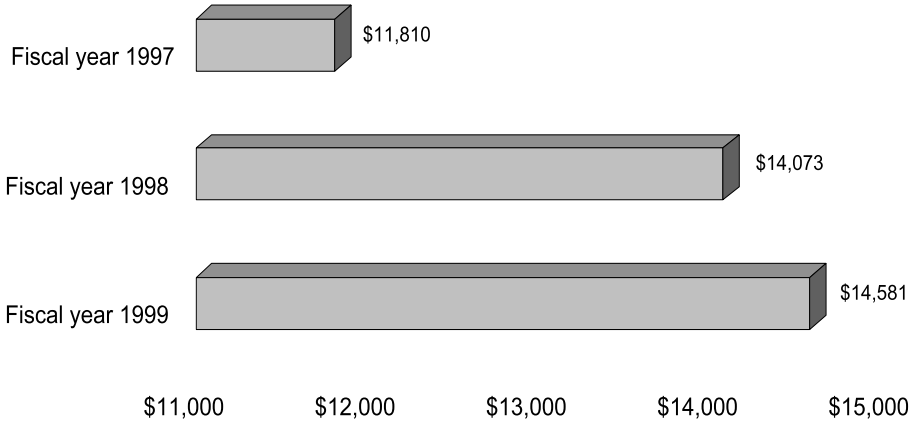
increasing during the last 2 years. Appendix IV shows the average price change for the 313 parts.

Increases in Surcharge Rates Were Major Cause of Price Increases

Marine Corps customers were affected far more by price increases resulting from changes in surcharge rates than by changes in procurement prices. Of the 313 parts sold to Marine Corps customers, prices for 273 of these parts increased primarily because of the price change rates applied to standard prices. The price change rate is derived from the same elements used to compute the surcharge and is essentially the difference between the current and prior year's surcharge rate. The 273 parts accounted for about 88 percent of the $38 million in sales to Marine Corps customers.

The Marine Corps' pricing of a communication terminal illustrates how the price of that part increased during fiscal years 1997-99 as a result of increases in the price change rates (see fig. 3).

Figure 3: Effect of Annual Price Adjustments on the Price of a Communication Terminal



Source: our analysis of Marine Corps data.

As shown by figure 3, the price of the communication terminal increased from $11,810 in fiscal year 1997 to $14,581 in fiscal year 1999, an increase of $2,771. To compute the fiscal year 1998 price, the Marine Corps applied the 19.17-percent price change rate to the part's fiscal year 1997 price. To compute the fiscal year 1999 price, the Marine Corps applied the

3.61-percent price change rate to the part's fiscal year 1998 price. In total, the Marine Corps increased the price of this part by about 23 percent by applying the price change rates for fiscal years 1998 and 1999 as shown in table 1. The Marine Corps increased the prices of the other 272 parts in the same manner.

Prices for the remaining 26 parts[7] changed in response to changes in the cost of procuring the parts from suppliers. Prices for these parts increased by an average of 68 percent in fiscal years 1997-99.

Marine Corps Errors in Pricing Spare Parts

Defense financial management procedures require the military services to calculate standard prices for spare parts annually. These procedures stipulate that the revenue from sales is not to exceed the costs of supplying the parts over the long term. However, the Marine Corps has not followed Defense procedures in calculating spare part prices, resulting in prices that were higher or lower than they should have been. Prices for some spare parts were unrealistic because the Marine Corps did not compute prices on the basis of actual repair costs.[8] In addition, some prices computed by the Marine Corps were incorrect because of mathematical mistakes, computer program flaws, or other errors. These conditions contributed to the Marine Corps reporting an accumulated gain of about $48 million at the end of fiscal year 1999 from the sale of spare parts in fiscal years 1994-99. In addition, the Marine Corps regulation containing policies and procedures for pricing spare parts is outdated.

Computation of Standard and Exchange Prices

Defense Financial Management Regulation 7000.14-R requires the military services to compute two different prices for reparable spare parts each fiscal year. One of these prices is called a standard price. Regulations stipulate that the standard price consist of the most current procurement price paid plus a surcharge. The second price is the exchange price. This is used when customers turn in a reparable item. Regulations provide that the

[7] We excluded 14 parts from our analysis because the Marine Corps did not change the price of the parts in at least 1 year, made a mathematical error in pricing the part, or did not have a procurement history for the part.

[8] It should be noted that our financial statement audits have highlighted the Department's continuing problems in capturing and accurately reporting full costs. See *Department of Defense: Progress in Financial Management Reform* (GAO/T-AIMD/NSIAD-00-163, May 9, 2000), p. 31.

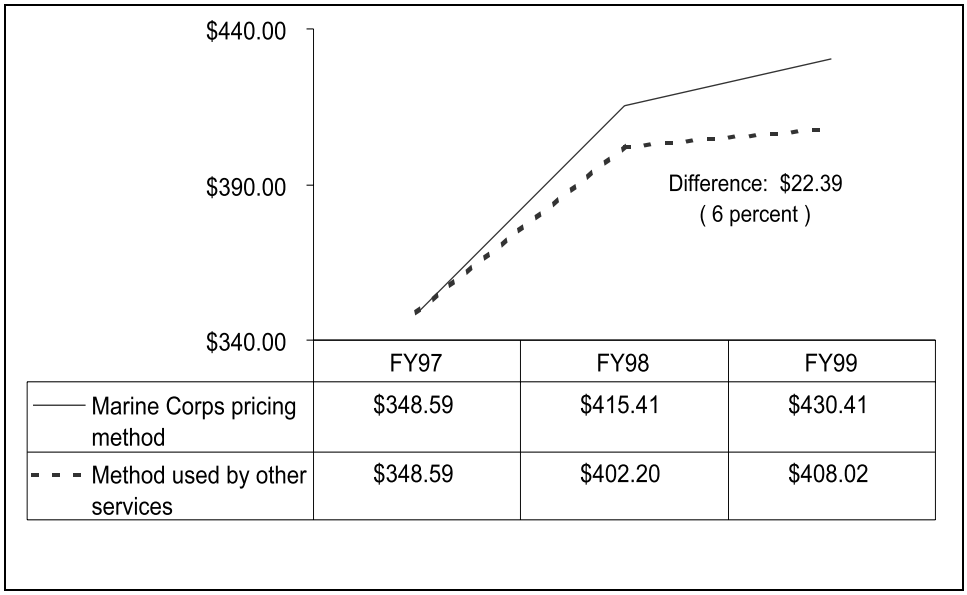
exchange price be computed by either adding a surcharge to a part's repair costs or taking a percentage of a part's standard price. The regulations require that an exchange price be set for groupings of similar parts.

The Marine Corps revises standard prices each fiscal year by using one of two approaches. If a part has been procured recently, the Marine Corps applies a surcharge rate to the procurement price to establish a standard price for the following fiscal year. If a part has not been procured recently, the Marine Corps applies a price change rate to the standard price to establish a new standard price for the next fiscal year. The Marine Corps' use of the price change rate to compute standard prices has caused prices to be overstated in some years and understated in others.

In their annual pricing process, the other military services comply with Defense pricing procedures by removing the current year's surcharge from the standard price—thus leaving the latest procurement price—and then adding the next year's surcharge. The Marine Corps' approach, however, is completely different. The Marine Corps adds the price change rate to a part's current standard price to compute the next year's standard price.

To illustrate the effect of the Marine Corps' methodology, we used both approaches to compute prices for a driveshaft assembly the Marine Corps purchased at a unit price of $279.79 in fiscal year 1996. The Marine Corps' approach resulted in a fiscal year 1999 standard price that was about 6 percent higher than it would have been had the price been computed in accordance with regulations (see fig. 4).

Figure 4: Example of Setting Part Prices



	FY97	FY98	FY99
Marine Corps pricing method	$348.59	$415.41	$430.41
Method used by other services	$348.59	$402.20	$408.02

Source: our analysis of Marine Corps data.

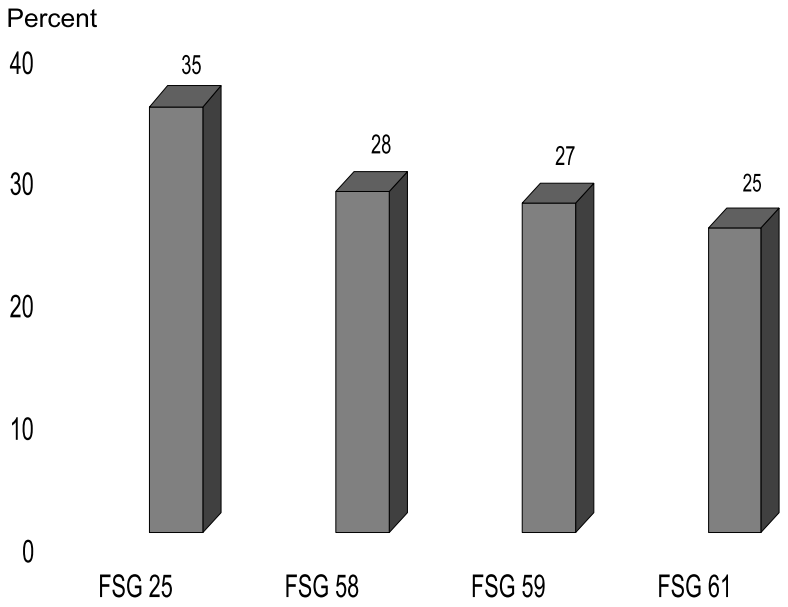
In addition to standard prices, exchange prices established by the Marine Corps are higher than they would have been had actual repair costs been used to compute them. In fiscal year 1997, the Marine Corps began calculating exchange prices for parts by charging customers 57 percent of the standard price. Marine Corps officials told us that they developed the factor using the average repair costs of a random number of parts, but they were unable to provide documentation showing how they arrived at the 57-percent factor.

We obtained the Marine Corps' recorded repair costs of 65 different parts refurbished in 1998. Of these 65 parts, 58 (about 89 percent) were in four federal supply groups.[9] We calculated average exchange prices by groups on the basis of repair costs provided by the Marine Corps. As shown in figure 5, the exchange prices we computed using reported repair costs ranged between 25 and 35 percent of the standard prices for parts in these groups and averaged 33 percent of standard prices of all parts. Because the

[9] The federal supply classification system is used to classify supply items identified under the federal cataloging program. A federal supply group is used to group similar items (including spare parts) into broad commodity categories for management purposes.

Marine Corps computes exchange prices at 57 percent of standard prices, the prices charged to customers were 22 to 32 percentage points higher than they should have been.

Figure 5: Reported Repair Costs as a Percentage of Standard Prices



FSG 25: Vehicular equipment components
FSG 58: Communication, detection, and coherent radiation equipment
FSG 59: Electrical and electronic equipment components
FSG 61: Electric wire and power distribution equipment

Source: our analysis of Marine Corps data.

After we presented our analysis to Marine Corps officials, they agreed that the standard 57-percent factor was not the most equitable way to compute exchange prices.

Errors in Calculating Standard Prices and Billing Customers

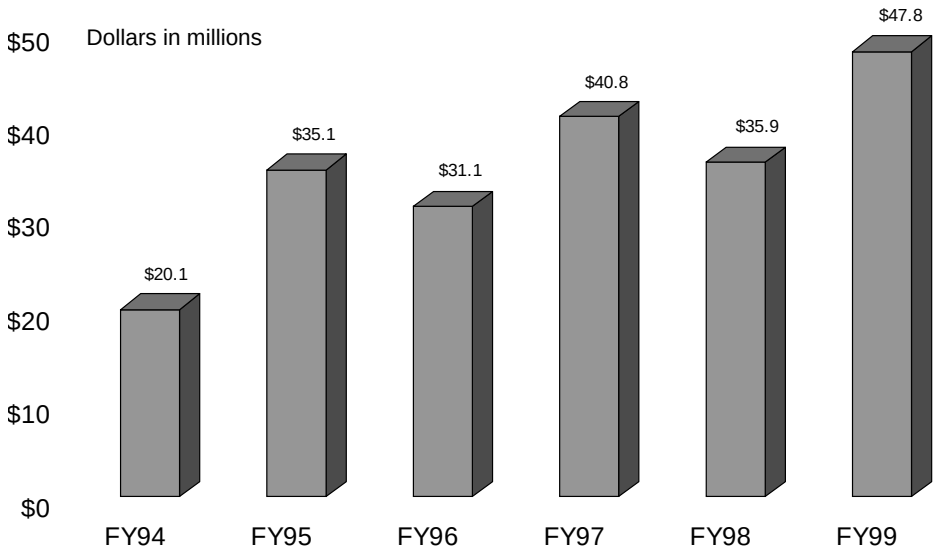
In some cases, the Marine Corps established incorrect standard prices for parts because of mathematical mistakes, computer program flaws, or oversights. These problems included the following:

- The price change rate for fiscal year 1999 was 3.61 percent, but the Marine Corps added 36.1 percent to the prices of its reparable spare parts to establish fiscal year 1999 prices. The Marine Corps charged its customers these erroneous prices from October 1 through December 31, 1998. After recognizing the error, the Marine Corps repriced the parts and refunded customers about $2.4 million in overcharges. We brought to the Marine Corps' attention 16 additional parts that had not been repriced at the time of our review.
- The Marine Corps did not compute standard prices using the most recent procurement prices when it placed the remaining parts in the stock fund in fiscal year 1998. We noted 20 instances in which the most recent procurement prices were not used. As a result, 14 parts were underpriced by $330 to $28,832 and 6 parts were overpriced by $31 to $15,750 in fiscal year 1999.
- The Marine Corps calculated standard prices for at least 88 parts placed in the stock fund in fiscal year 1998 by using a price change rate of 19.17 percent. It should have used the 43.75-percent surcharge rate, as directed by Marine Corps headquarters. As a result, 86 of these parts were underpriced by $15 to $83,769 in fiscal year 1999.
- The Marine Corps computed some prices in fiscal years 1998-99 on the basis of outdated procurement prices. As a result, prices for some parts were incorrect.
- The Marine Corps used a 19.17-percent price change rate to calculate fiscal year 1998 standard prices for parts not recently procured. We recalculated the price change rate and found that it should have been 17.77 percent.
- The Marine Corps was not billing customers for parts purchased from contractors and shipped directly to customers. This practice is contrary to Defense Financial Management Regulation 7000.14-R, which requires that customers be billed for the acquisition cost of a part plus an appropriate surcharge. The Marine Corps agreed that it had not billed customers for direct-shipped parts, but was unable to provide the dollar value of these parts.

Sales Revenues Exceeded Costs in Fiscal Years 1994-99

Marine Corps budget documents showed an accumulated gain of about $48 million at the end of fiscal year 1999 (see fig. 6). The flawed processes used by the Marine Corps to price parts, coupled with the pricing errors and oversights previously discussed, contributed to this condition.

Figure 6: Accumulated Gains by Fiscal Year



Source: our analysis of Marine Corps data.

Defense Financial Management Regulation 7000.14-R states that revolving funds are expected to operate on a break-even basis over time—that is, not make a profit or incur a loss but simply recover all costs.

Marine Corps Regulation for Pricing Spare Parts Is Outdated

The Marine Corps does not have an up-to-date regulation for pricing reparable spare parts that are managed by the stock fund. The latest regulation containing pricing guidance is in Marine Corps Order 4443.8F, dated July 6, 1989, before the Marine Corps placed reparable spare parts in the stock fund and began charging customers for them. The Marine Corps did issue a logistics bulletin in April 1994 that discussed stock fund pricing matters, but the bulletin was not a regulation. The Marine Corps has no written guidance setting out current policies and procedures concerning such matters as how standard and exchange prices are to be developed.

Corrective Actions Initiated by the Marine Corps

After reviewing our findings, officials from the Office of the Assistant Secretary of the Navy (Financial Management and Comptroller) and the Marine Corps agreed to update the Marine Corps pricing regulation. They

also agreed to review and correct the prices of all reparable spare parts managed by the Marine Corps. In addition, they agreed to

- discontinue using the price change rate to compute standard prices for parts not recently procured and to use the approach prescribed by Defense regulations;
- discontinue use of the standard 57-percent factor to compute exchange prices and use repair costs plus a surcharge or, when repair costs are not available, a percentage of parts' standard prices calculated by groupings of similar parts;
- establish procedures to prevent the future occurrence of the pricing errors we found; and
- make an assessment to determine whether the Marine Corps should reduce its surcharge, resulting in lower prices and in turn bringing the accumulated gain closer to zero.

Conclusions

Actions being taken by the Marine Corps should correct the pricing problems we found. If properly implemented, these corrective actions should significantly improve the accuracy of Marine Corps spare part prices, reduce the amount of accumulated gains on the sales of parts, and provide procedures for use by Marine Corps personnel in managing stock fund operations. These actions should be implemented so that prices established for fiscal year 2001 are correct.

Recommendation

We recommend that the Secretary of Defense direct the Commandant of the Marine Corps to prepare an action plan with target dates for completing corrective actions so that changes are incorporated in fiscal year 2001 prices.

Agency Comments and Our Evaluation

In written comments on a draft of this report, the Department of Defense generally agreed with our recommendation and principal findings. However, the Department objected to our use of the term "profit" when discussing the accumulated gains[10] from supply operations, saying it believed the term "profit" was misleading. In support of that point, the

[10] The Department uses the term "accumulated operating result."

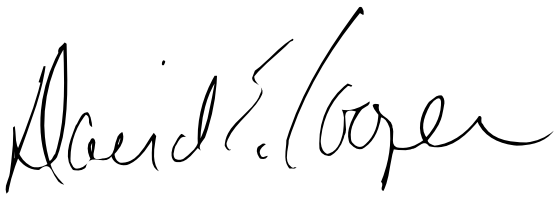
Department provided a cash flow analysis from fiscal year 1995 through 1999 that shows cash collections exceeded disbursements by $68.5 million during that time period. In addition, the Department stated that from fiscal year 1992 through 1994, disbursements exceeded collections by $103.8 million, leaving a net loss of $35.3 million over the entire period of fiscal year 1992 through 1999. Accordingly, the Department requested the word profit be removed from our report.

We do not agree that the cash flow analysis (showing collections and disbursements) presented by the Department is a more appropriate measure of the accumulated operations of the Marine Corps supply management system than accumulated gains or losses. Federal accounting standards require agencies to prepare reports on the results of operations on an accrual rather than cash basis because an accrual basis provides a better matching of an entity's use of resources with the period of concern. Cumulative accrual-based information (shown as accumulated gains or losses) will be considerably different than cumulative cash-based data if, as happens in the stock fund, the Marine Corps pays for repair of an item and holds the item in inventory for several years before selling it to its customers. On a cash basis, disbursements for repairs will be recorded when payment for the repair is made, usually in the year repaired. On an accrual basis, repair expenses will be recognized and revenue recorded in the year the item is sold. In accordance with Defense regulations, the Marine Corps has reported the operating position of the fund on an accrual basis. In February 2000, the Marine Corps reported an accumulated gain of $48 million and that result is presented in this report. However, to avoid any confusion, we have used the term "accumulated gain" rather than "profit" to describe the position of the fund.

The Department also provided technical comments, which we have incorporated where appropriate. The Department of Defense's comments appear in appendix V.

We are sending copies of this report to the appropriate congressional committees; the Honorable William S. Cohen, Secretary of Defense; the Honorable Richard Danzig, Secretary of the Navy; General James L. Jones, Commandant of the Marine Corps; and the Honorable Jacob J. Lew, Director, Office of Management and Budget.

GAO contacts and major contributors to this report are listed in appendix VI.



David E. Cooper
Defense Acquisitions Issues

Scope and Methodology

To determine changes in the prices of Marine Corps reparable spare parts, we first reviewed the historical pricing of the 890 parts initially placed in the stock fund to identify those that remained in the fund during the 5-year period of fiscal years 1994-99. For the 703 parts we identified as remaining in the stock fund throughout the 5-year period, we used simple averages to compute both the annual price changes and the average price change in fiscal years 1995-99. We averaged the percentage changes in the standard prices to compute the price change for each year. We were unable to compute price trends for the entire 5-year period because neither the Marine Corps nor the Defense Logistics Information Services[1] could provide fiscal year 1994 standard prices. We also identified those parts sold between October 1, 1996, and April 25, 1999. We computed the average price change for these parts and analyzed these changes in detail.

To establish an inflation index for these price trends, we used the producer price index commodity group Intermediate Materials, Supplies, and Components minus Foods and Feeds. This tracks partly processed commodities that require further processing to reach the finished goods stage. To eliminate such items as processed fuels, we used the subgroup Materials and Components for Manufacturing. This includes items such as motor vehicle parts, electronic components and accessories, motors, and generators. We judged the items in this subgroup to be the most similar to those managed by the Marine Corps. We did not use the consumer price index because it focuses on consumer goods and does not contain items similar to Marine Corps reparable spare parts.

To evaluate the processes the Marine Corps uses to price spare parts, we examined the practices it uses to compute standard and exchange prices. We also examined Defense Financial Management Regulation 7000.14-R, which contains pricing guidance and establishes the benchmark against which stock fund performance is to be measured. Specifically, it sets the accumulated operating result, that is, accumulated gain or loss, as the standard for breaking even. We used those figures, provided in the President's Budget, to determine whether the Marine Corps was complying with Defense policy. We also reviewed procurement prices paid, surcharges added, and repair costs of parts. We compared the Marine Corps' processes with those the other services use to establish standard and exchange prices. We also examined the Marine Corps' calculations of surcharges and

[1] The Defense Logistics Information Services, part of the Defense Logistics Agency, maintains logistics data, including standard prices for all the military services.

the price change rates and their application to procurement and standard prices. In addition to determining whether the Marine Corps was setting prices as it intended, we examined the prices the Marine Corps actually charged its customers.

While we did not validate or verify computer-generated data, we obtained information from Marine Corps officials showing how the data was generated and used in the annual pricing processes to establish prices. We compared computer-generated data with information from other sources, when available, and made Marine Corps officials aware of instances in which data was questionable or wrong. In those instances, we attempted to determine whether the errors were caused by what the Marine Corps actually did by comparing the questionable data with information obtained from other sources such as the Defense Logistic Information Services. We also provided details of questionable transactions to Marine Corps officials and requested that they review the information to determine its accuracy.

We performed our work at Marine Corps Headquarters and at the Marine Corps Logistics Base, Albany, Georgia; the Office of the Assistant Secretary of the Navy (Financial Management and Comptroller); and the Office of the Under Secretary of Defense (Comptroller) and discussed various aspects of the pricing of Marine Corps reparable spare parts with officials there.

We performed our work between February 1999 and May 2000 in accordance with generally accepted government auditing standards.

Marine Corps Surcharge and Price Change Rates

This appendix discusses changes in the Marine Corps' surcharge and price change rates in fiscal years 1997-2000. We did not include information on fiscal year 1996 rates because problems with Marine Corps supply management systems caused some of the data for this year to be wrong. We included information on the fiscal year 2000 rates because the data was available.

For parts that have been procured recently, the Marine Corps adds a surcharge to the acquisition costs to establish standard prices. For parts that have not been procured recently, the Marine Corps adds a change rate—the customer price change rate—to the existing standard prices to establish standard prices for the next fiscal year. The price change rate is computed by using the surcharge rates.

Surcharge Rates

To compute the surcharge rate, the Marine Corps estimates the costs of its supply management operations and projects the amount of anticipated sales in the next fiscal year. The Marine Corps divides the estimated costs by the projected sales to arrive at the surcharge rate. Changes in either estimated costs or projected sales would cause the surcharge rate to change from year to year. Table 1 shows the elements the Marine Corps used to compute surcharge rates in fiscal years 1997-2000.[1]

[1]We did not validate the estimated costs or projected sales the Marine Corps used to compute the rates. However, we reported in May 1999 that the Department of Defense had long-standing problems accumulating and reporting the full costs associated with working capital fund operations. These problems have resulted in large fluctuations in surcharge rates and, therefore, in the prices charged to customers. See *Status of Financial Management Weaknesses and Actions Needed to Correct Continuing Challenges* (GAO/T-AIMD/NSIAD-99-171, May 4, 1999).

Table 2: Elements Used to Compute Marine Corps Surcharge Rates, Fiscal Years 1997-2000

(dollars in millions)

	Fiscal year			
Element	**1997**	**1998**	**1999**	**2000**
Estimated cost of operations				
Supply operations[a]	$4.0	$4.3	$3.5	$4.4
Distribution depots[b]	1.3	1.6	2.4	5.2
Depot washout[c]	1.0	1.0	1.0	1.3
Obsolescence/losses[d]	0.2	0.2	0.2	0.2
Transportation[e]	0.1	0.2	0.1	0.1
Prior year gains/losses[f]	(2.2)	-	(0.9)	0.3
Cash recovery[g]		1.6	0.5	-
System sustainment[h]	-	-	2.0	1.4
Total	**$4.4**	**$8.9**	**$8.8**	**$12.9**
Projected sales	$17.9	$20.3	$19.2	$35.10
Surcharge rate (percent)	24.59[i]	43.75i	45.83	36.75

[a]Managing reparable spare parts (includes estimated costs for labor, utilities, and base support).
[b]Operating storage depots.
[c]Replacing parts that can no longer be repaired.
[d]Replacing parts that were lost or became obsolete.
[e]Transportation for part shipments.
[f]Adjustments for prior years' gains or losses in supply operations.
[g]Costs added to recover cash for Navy stock fund losses.
[h]Costs of operating automated information systems.
[i]Will not compute due to rounding.

Source: Marine Corps.

The fluctuation in surcharge rates responded, in large part, to changes in certain cost elements. For example, in some years, part of the prior year gain was applied to reduce the costs of operations—in fiscal year 1997 this element reduced costs by one-third. In other years, no reduction took place. Other charges affecting the cost of operations, and therefore, surcharge rates, included a charge to recover cash for Navy stock fund losses and a charge for operating the automated information system.

Fiscal Years 1997-98

In fiscal years 1997-98, the surcharge rate increased from 24.59 percent to 43.75 percent. Table 2 shows the estimated costs and projected sales the Marine Corps used to compute the surcharge rates for these fiscal years.

Table 3: Estimated Costs and Projected Sales, Fiscal Years 1997-98

(dollars in millions)

	Fiscal year		
Element	**1997**	**1998**	**Difference**
Estimated cost of operations			
Supply operations	$4.0	$4.3	$0.3
Distribution depots	1.3	1.6	0.3
Depot washout	1.0	1.0	0.0
Obsolescence/losses	0.2	0.2	0.0
Transportation	0.1	0.2	0.1
Prior year gains/losses	(2.2)		2.2
Cash recovery		1.6	1.6
System sustainment			
Total	**$4.4**	**$8.9**	**$4.5**
Projected sales	$17.9	$20.3	$2.4
Surcharge rates (percent)	24.59[a]	43.75[a]	19.16

[a]Will not compute due to rounding.

Source: our analysis of Marine Corps data.

In fiscal year 1998, estimated costs more than doubled (from $4.4 million to $8.9 million) while projected sales rose only 13.4 percentage points. Two elements accounted for most of the increase in estimated costs. First, in fiscal year 1997, the Marine Corps lowered estimated costs by $2.2 million to return to customers gains from prior years' supply management operations (shown in table 2 as prior year gains/losses). In 1998, the Marine Corps made no adjustment for this item. Second, the Marine Corps contributed $1.6 million to the Navy stock fund in fiscal year 1998 because of the fund's financial difficulties (shown in table 2 as cash recovery).[2] There was no charge for this item in fiscal year 1997.

[2] This was the first time since spare parts were initially placed in the stock fund in fiscal year 1994 that the Department of Defense directed the Marine Corps to contribute cash to the Navy's portion of the stock fund.

Fiscal Years 1998-99

In fiscal years 1998-99, the surcharge rate experienced a more modest change, increasing from 43.75 percent to 45.83 percent. Table 3 shows the estimated costs and projected sales the Marine Corps used to compute the surcharge rates.

Table 4: Estimated Costs and Projected Sales, Fiscal Years 1998-99

(dollars in millions)

	Fiscal year		
Element	**1998**	**1999**	**Difference**
Estimated cost of operations			
Supply operations	$4.3	$3.5	$(0.8)
Distribution depots	1.6	2.4	0.8
Depot washout	1.0	1.0	0.0
Obsolescence/losses	0.2	0.2	0.0
Transportation	0.2	0.1	(0.1)
Prior year gains/losses		(0.9)	(0.9)
Cash recovery	1.6	0.5	(1.1)
System sustainment		2.0	2.0
Total	**$8.9**	**$8.8**	**$(0.1)**
Projected sales	$20.3	$19.2	$(1.1)
Surcharge rates (percent)	43.75[a]	45.83	2.08

[a]Will not compute due to rounding.

Source: our analysis of Marine Corps data.

Despite the small change in the surcharge rate, there were large changes in the estimated costs of several elements:

- A $2-million charge was added to maintain automated information systems previously managed by the Defense Logistics System Center (shown in table 3 as system sustainment).
- The charge for operating distribution depots increased by $800,000 because the Defense Logistics Agency increased its charges.
- A $500,000 charge for cash recovery was added to contribute to the solvency of the Navy stock fund.
- Costs were decreased by $900,000 for prior year gains to return those gains to customers.

Fiscal Years 1999-2000

In fiscal years 1999-2000, the surcharge rate dropped from 45.83 percent to 36.75 percent. Table 4 shows the estimated costs and projected sales the Marine Corps used to compute the surcharge rates for these fiscal years.

Table 5: Estimated Costs and Projected Sales, Fiscal Years 1999-2000

(dollars in millions)

	Fiscal year		
Element	**1999**	**2000**	**Difference**
Estimated cost of operations			
Supply operations	$3.5	$4.4	$0.9
Distribution depots	2.4	5.2	2.8
Depot washout	1.0	1.3	0.3
Obsolescence/losses	0.2	0.2	0.0
Transportation	0.1	0.1	0.0
Prior year gains/losses	(0.9)	0.3	1.2
Cash recovery	0.5		(0.5)
System sustainment	2.0	1.4	(0.6)
Total	**$8.8**	**$12.9**	**$4.1**
Projected sales	$19.2	$35.1	$15.9
Surcharge rates (percent)	45.83[a]	36.75	9.08

[a]Will not compute due to rounding.

Source: our analysis of Marine Corps data.

The surcharge rate dropped primarily because of a sharp increase in projected sales. This increase came about because the Marine Corps began charging customers for more than 2,000 additional parts it added to the stock fund in 1998. Before fiscal year 2000, customers were not charged for these parts, and the costs to manage them were funded through direct appropriations.

There were changes in cost elements as well:

- Costs for supply operations, distribution depots, and depot washout rose by $4 million primarily to support the increased number of parts managed by the fund.
- $300,000 was added for prior year gains/losses to recover from customers prior years' fund losses, whereas $900,000 was returned to customers in fiscal year 1999 for prior years' gains.
- Costs for system sustainment decreased.
- There was no cash recovery assessment for the Navy's portion of the stock fund.

Price Change Rate

Defense Financial Management Regulation 7000.14-R requires that a customer price change rate be computed each fiscal year. Office of the Secretary of Defense and Navy officials told us that the price change rate should be used to make adjustments to the amount of appropriated funds requested by customers to purchase spare parts. If the price change is a negative percentage, the customer's budget request is reduced. If the price change is a positive percentage, the customer's budget request is increased. Although the Marine Corps is using the price change rate to compute standard prices, this rate was never intended to be used for this purpose. Table 5 shows the rates the Marine Corps computed for fiscal years 1997-2000.

Table 6: Customer Change Rates, Fiscal Years 1997-2000

(in percent)

Fiscal year			
1997	**1998**	**1999**	**2000**
(10.69)	19.17[a]	3.61	(5.14)

[a]The rate should have been 17.77 percent in fiscal year 1998, as explained in the report.

Source: Marine Corps.

The price change rate is derived from the same elements (estimated costs and projected sales) used to compute surcharge rates and is essentially the percentage difference between the current and prior fiscal year surcharge

rates (adjusted for inflation). If there are large changes in surcharge rates between fiscal years, there will be large changes in the price change rates.

Average Percentage Changes in Standard Prices, Fiscal Years 1995-99 and 1997-99

Federal supply group[a]	Number of parts	Total price change percentage 1995-99	Total price change percentage 1997-99
10 – Weapons	17	76.5	19.0
12 – Fire control equipment	21	7.1	31.9
23 – Ground effect vehicles, motor vehicles, trailers, and cycles	4	57.3	33.2
25 – Vehicular equipment components	45	12.9	30.9
28 – Engines, turbines, and components	23	11.3	20.9
29 – Engine accessories	4	71.3	23.5
39 – Materials handling equipment	2	0.2	23.5
43 – Pumps and compressors	4	0.2	23.5
48 – Valves	1	72.2	23.5
49 – Maintenance and repair shop equipment	11	46.0	77.5
58 – Communication, detection, and coherent radiation equipment	128	13.7	31.2
59 – Electrical and electronic equipment components	316	9.5	23.1
60 – Fiber optics materials, components, assemblies, and accessories	2	0.2	23.5
61 – Electric wire, and power and distribution equipment	52	8.4	29.9
66 – Instruments and laboratory equipment	38	4.6	24.1
70 – Automatic data processing equipment, software, supplies, and support equipment	26	17.4	28.4
81 – Containers, packaging, and packing supplies	9	41.5	23.5
Totals/averages	**703**	**13.6[b]**	**26.8**

[a]The federal supply classification system is used to classify supply items identified under the federal cataloging program. A federal supply group is used to group similar items (including spare parts) into broad commodity categories for management purposes.

[b]The average annual price increase for these parts was 3.4 percent.

Marine Corps Sales and Average Percentage Price Increases by Federal Supply Group, Fiscal Years 1997-99

Federal supply group	Number of parts	Sales value	Percentage of total sales value	Average percentage price increase 1997-99
10 – Weapons	13	$1,932,867.00	5.1	17.6
12 – Fire control equipment	12	2,999,853.00	7.9	38.2
23 – Ground effect vehicles, motor vehicles, trailers, and cycles	1	196,304.00	0.5	23.5
25 – Vehicular equipment components	31	3,429,578.00	9.0	34.3
28 – Engines, turbines, and components	13	4,224,967.00	11.1	13.0
29 – Engine accessories	2	836,926.00	2.2	23.5
43 – Pumps and compressors	2	175,058.00	0.5	23.5
49 – Maintenance and repair shop equipment	4	82,310.00	0.2	172.2
58 – Communication, detection, and coherent radiation equipment	77	18,817,272.00	49.6	35.2
59 – Electrical and electronic equipment components	123	3,757,243.00	9.9	22.7
60 – Fiber optics materials, components, assemblies, and accessories	1	2,432.00	0.0	23.5
61 – Electric wire, and power and distribution equipment	14	870,637.00	2.3	39.5
66 – Instruments and laboratory equipment	7	248,509.00	0.7	22.7
70 – Automatic data processing equipment, software, supplies, and support equipment	8	56,985.00	0.2	23.0
81 – Containers, packaging, and packing supplies	5	319,359.00	0.8	23.5
Totals/averages	**313**	**$37,950,299.00[a]**	**100.0**	**29.6**

Note: Sales are for October 1, 1996, through April 25, 1999.

[a]Total does not add because of rounding.

Comments From the Department of Defense

OFFICE OF THE UNDER SECRETARY OF DEFENSE
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COMPTROLLER
(Program/Budget)

JUN 26 2000

Mr. David E. Cooper
Associate Director
Defense Acquisition Issues
National Security and International
Affairs Division
U. S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Cooper:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report on Defense Acquisitions, "Prices of Marine Corps Spare Parts Have Increased," dated May 19, 2000 (GAO Code 707388, OSD Case 2012). The Department generally concurs with the findings and recommendation contained in the draft report.

Specific comments on the findings and recommendation contained in the GAO draft report are provided in the enclosure. The Department appreciates the opportunity to comment on the draft report.

John M. Evans
Director for Revolving Funds

GAO DRAFT REPORT DATED May 22, 2000
(GAO Code 707388) OSD Case 2012
"Prices of Marine Corps Spare Parts Have Increased"

DEPARTMENT OF DEFENSE COMMENTS

The GAO report used the term, profit, throughout the report as shown in the following excerpts:

GAO report, p.10, paragraph 2. "However, the Marine Corps has not followed Defense procedures in calculating spare part prices, which has resulted in prices that are higher or lower than they should have been. Prices for some spare parts are unrealistic because the Marine Corps did not compute prices based on actual repair costs. In addition, some prices computed by the Marine Corps have been incorrect because of mathematical mistakes, computer program flaws, and using incorrect surcharge rates. These conditions have contributed to the Marine Corps realizing an accumulated profit of about $48 million at the end of fiscal year 1999 from the sale of spare parts during fiscal years 1994-1999."

Now on p. 14.

GAO report, p. 15, before Figure 6. "Marine Corps budget documents showed that it had an accumulated operating result or profit of about $48 million at the end of fiscal year 1999 (see figure 6),"

Deleted from report.

GAO report, p.15, after Figure 6. "The Marine Corps is retaining the $47.8 million profit in its stock fund."

GAO report, p. 16, conclusion. "If properly implemented, these corrective actions should significantly improve the accuracy of Marine Corps spare part prices, reduce the amount of accumulated profit on the sales of parts, and provide procedures for use by Marine Corps personnel in managing stock fund operations."

Now on p. 23.

GAO report, Appendix II, page, 21. "For example, in some years, the accumulated profit (operating result) was applied to reduce the costs of operations—in fiscal year 1997 this element reduced costs by one-third."

DoD Response: The Department of Defense concurs generally with the GAO report.

The Department nonconcurs with the use of this term since it is misleading and could lead to the erroneous conclusion that an asset was available to satisfy other requirements. The GAO report details the inaccuracies in the Marine Corps pricing and indicates that the true cost of

selling Marine Corps spare parts is unknown because of the pricing inaccuracies. The track of collections and disbursements over the past five years (FY 1995 through FY 1999) show the following operating results over these years:

	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	Total
Collections	242.9	235.8	205.5	146.9	171.3	
Disbursements	216.2	233.8	175.4	161.8	147.1	
Difference	+26.7	+2.0	+30.5	-14.9	+24.2	68.5

However, during the period from FY 1992 through FY 1994, disbursements exceeded collections by $103.8 million, leaving a net loss over the entire period from FY 1992 through FY 1999 of $35.3 million. Instead of a net gain of $47.8 million, therefore, in the accumulated operating result, there is really a net loss of $35.3 million.

Accordingly, the Department requests that the word profit be removed from the report and replaced with the words, accumulated operating result.

Two other factors should be noted. Although separate prices were set for the Marine Corps supply management, the Navy supply management and Marine Corps activity groups were not treated as separate business areas until the FY 1998/FY 1999 President's Budget. Therefore, any gain or loss in either business area was considered in the context of the business health of both businesses.

Additionally, the Navy Working Capital Fund has been experiencing cash problems for several years. Late last August, Navy reported to OSD and the Congress a $400 million potential cash shortage in the Navy Working Capital Fund due to losses being experienced across the fund. It was in this context that Navy and OSD made the decision to retain the $48 million accumulated operating result being reflected in the Marine Corps business area as a hedge against potential FY 2000 cash shortfalls.

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