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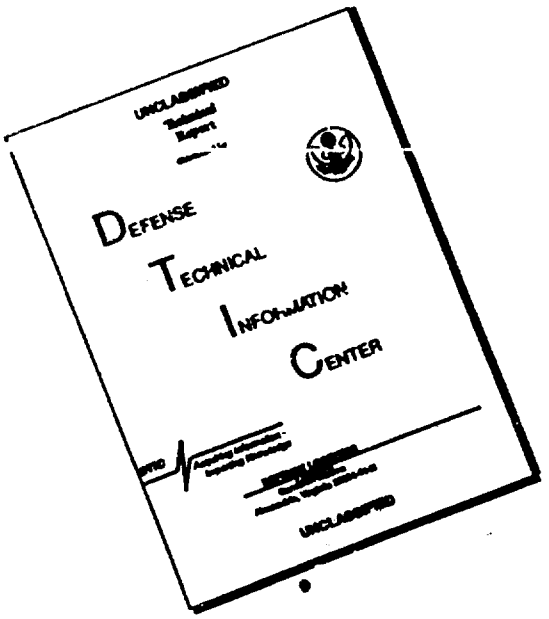

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United States General Accounting Office

GAO

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

ne 1993

OPERATION DESERT SHIELD/STORM

Impact of Defense Cooperation Account Funding on Future Maintenance Budgets

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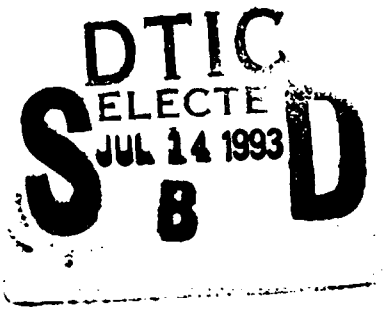
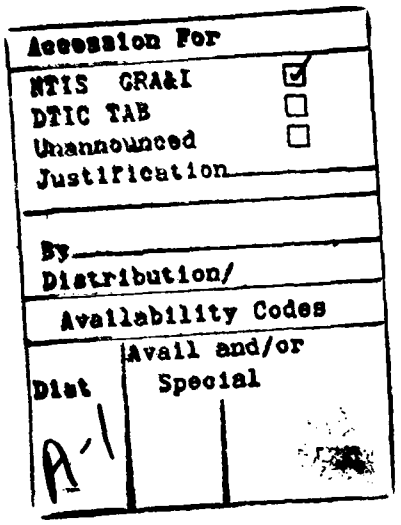




The Honorable Earl Hutto
Chairman, Subcommittee on Readiness
Committee on Armed Services
House of Representatives

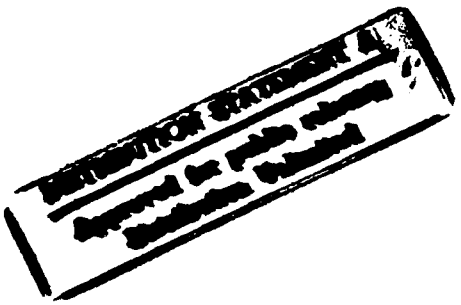
Dear Mr. Chairman:

This report is a follow-up to our previous reports[1] on the costs of Operation Desert Shield/Storm (ODS). In those reports, we stated that the Department of Defense's (DOD) estimates of ODS-related equipment maintenance funding requirements may have been overstated. We noted that early inspections found that equipment initially returning from ODS was in good condition and would require minimal additional maintenance beyond normal planned and budgeted levels. However, subsequent DOD reports indicated that the equipment returning later was in considerably worse condition than the equipment that preceded it.

This report addresses the nature and extent of damage sustained by the military's equipment in the operation, the cost of maintaining and repairing equipment that was in the operation, and the degree that such costs are covered by contributions from our allies to the Defense Cooperation Account (DCA).

Background

In its April 1992 final report to Congress on the conduct of the Gulf War, DOD reported that it deployed to the Gulf region over 3,100 aircraft and 77,000 ground systems—including tanks, amphibious assault vehicles, and High Mobility Multipurpose Wheeled Vehicles ("Humvees"). In addition, six aircraft carriers and numerous other ships, such as mine countermeasures ships, were deployed.



In fiscal year 1991, Congress established DCA, which received contributions from foreign countries to defray ODS costs. A total of nearly $48.1 billion in cash was received from our allies, deposited into the DCA, and appropriated by Congress. The services spent about $10.6 billion of this amount for equipment maintenance. Of the $10.6 billion, approximately $7.22 billion (68 percent) was spent by the Army, $2.17 billion (21 percent)

[1]Operation Desert Shield/Storm: Update on Costs and Funding Requirements (GAO/NSIAD-92-194, May 8, 1992) and Operation Desert Shield/Storm: Costs and Funding Requirements (GAO/NSIAD-91-304, Sept. 24, 1991).

by the Navy, $857 million (8 percent) by the Air Force, and $315 million (3 percent) by the Marine Corps.

Maintenance includes, among other things, inspecting, testing, repairing, and rebuilding equipment to ensure that it can meet operational readiness demands. Within DOD, maintenance is generally performed at one of three levels—organizational, intermediate, or depot. Organizational maintenance is usually performed by equipment operators and consists of upkeep and minor repairs to equipment. Intermediate maintenance is usually performed at base shops in direct support of the using organization and includes actions such as replacing components and assemblies and calibrating equipment. Depot maintenance—mostly conducted by civilian personnel who are part of a major logistics agency within a service—includes such actions as overhauling, rebuilding, and modifying equipment. Generally, organizational maintenance is the simplest and least expensive, followed by intermediate maintenance, and then depot maintenance, which is the most complex and expensive.

Results in Brief

The condition of equipment returning from ODS and hence its maintenance requirements varied considerably. Generally, equipment that was operated far in excess of peacetime rates and was exposed to desert conditions for extended periods required more than normal levels of maintenance and repair. However, DOD officials stated that it is very difficult to clearly identify or distinguish incremental ODS-related maintenance requirements from the wear and tear that occurred before ODS or from what would have occurred under peacetime operating conditions. Accordingly, DOD officials considered most maintenance and repair to equipment returning from the operation as incremental ODS-related maintenance costs and have financed these costs with DCA funds.

The services cannot account for exactly how DCA funding was spent on organizational- or intermediate-level maintenance. According to Army and other service officials, their budgeting and accounting systems do not track how maintenance funding to individual units is spent. The systems, however, do provide information on how depot-level maintenance funding is spent.

Unlike the other services, the Army allocated most of its DCA maintenance funding—75 percent, or $4.2 billion through fiscal year 1992—to individual units for organizational- and intermediate-level maintenance. The other services spent most of their DCA maintenance funding—about 91 percent

combined through fiscal year 1992—on depot-level repairs, which can be accounted for. Army officials stated that its ODS equipment required mostly cleaning, painting, basic maintenance, and minor repairs, which could be performed at the organizational and intermediate level. They also noted that the high maintenance cost was due to the large amount of Army ground combat and support equipment involved in ODS.

The use of DCA funds combined with annually appropriated maintenance funding has permitted the services to accelerate maintenance schedules and perform additional preventive maintenance that could reduce future maintenance requirements.

DOD officials stated that reduced requirements resulting from DCA funding does not necessarily mean that future annual maintenance funding should be reduced. They believe that any additional funding can be used to reduce unfunded requirements, such as backlogs at the depots. We question whether additional funds should be used to reduce equipment maintenance backlogs below usual levels, given (1) the limited impact such reductions would have on readiness and (2) planned reductions in forces and equipment.

Nature and Extent of ODS Maintenance Requirements

The condition of equipment returning from ODS and hence its maintenance requirements varied considerably. Some did not require maintenance beyond what would have been required under normal peacetime operating conditions. This included equipment that (1) experienced little additional wear and tear beyond normal training and use, (2) was well-maintained and cared for during its deployment, and (3) had minimal preexisting wear and tear. However, according to service officials, some equipment will require more than normal maintenance. This equipment was (1) operated far in excess of peacetime rates and exposed to desert conditions for extended periods, (2) not well-maintained and cared for, and/or (3) scheduled for maintenance before being deployed and experienced additional wear and tear while deployed.

Photographs on the following page(s) show the types of damage some equipment incurred resulting from ODS. Equipment repair needs shown in the following photographs are being addressed as depot-level maintenance requirements.

Figure 1: Corroded Humvee Returned From ODS

Figure 2: Corroded Humvee Returned From ODS

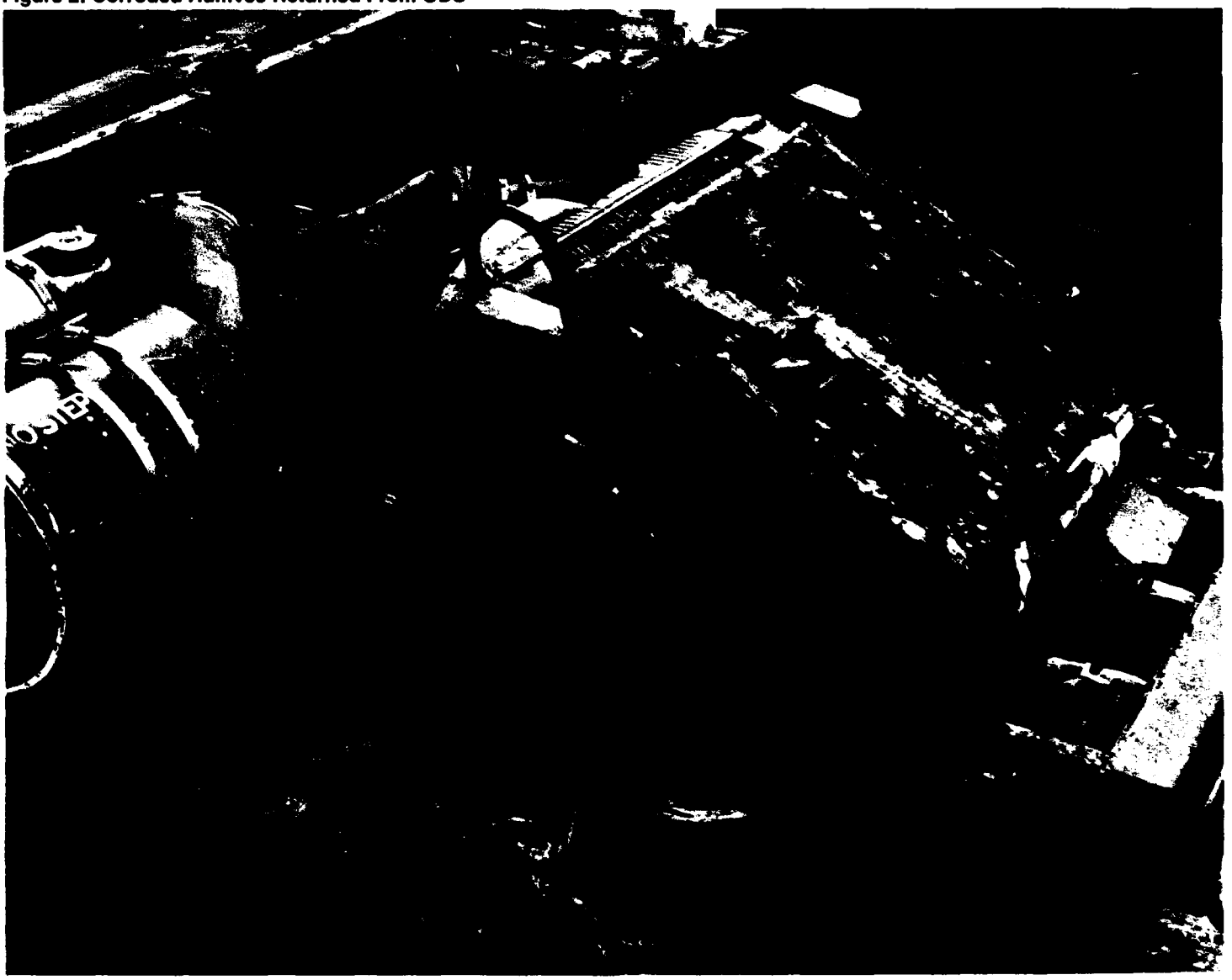


Figure 3: Damaged Amphibious Assault Vehicle Returned From ODS

Above Normal Usage Rates and Exposure to Adverse Desert Conditions

Some fighter and cargo aircraft and various wheeled and tracked vehicles, such as transport trucks and amphibious assault vehicles, operated far in excess of their normal peacetime rates. According to Army officials, transport trucks and recovery vehicles were in that category because the

limited road network in the region required operating over far longer distances than normal.

Navy officials cited a broad array of equipment requiring more maintenance than normal due to increased operating tempos. Primary among these were some aircraft and related equipment. Other ship systems requiring additional maintenance included propulsion equipment, minesweep cables, radars, sonars, and guns.

According to Air Force officials, from August 1990 through July 1991, C-5 and C-141 transport aircraft flew three to four times their normal peacetime number of flying hours.

According to the Marine Corps, some 5-ton trucks, normally driven approximately 200 miles per vehicle per month during peacetime operations in the United States, were driven an average of 5,000 to 8,000 miles per vehicle per month during ODS—approximately 25 to 40 times the normal number of miles. In addition, during ODS, some amphibious assault vehicles were operated about 10 times the normal peacetime rate.

Equipment that was deployed during the first few months of ODS and remained in the Gulf region through the entire war was exposed longer to the harsh desert conditions and therefore, was more likely to have environmental damage. Army officials stated that a portion of their maintenance requirements can be attributed to sand in internal components, such as transmissions. Air Force officials cited engine and radar maintenance problems with some F-15s due to the sand, salt, and heat.

Equipment Not Well-Maintained

According to Army and Marine Corps officials, at the end of the conflict as troops returned home, much of the equipment was left unattended and unprotected from the desert conditions. Moreover, according to Marine Corps officials, nearly all of the Corps' equipment returning on its 13 maritime prepositioned squadron (MPS) ships was washed down with saltwater before being placed on the ships. Consequently, it rusted and corroded en route to the United States. They also cited extensive damage to some amphibious assault vehicles caused when they were prepared to be shipped back to the United States. According to officials, heavy armor and other hardware was dumped into vehicles being prepared for

shipment back to the United States, causing extensive damage to the insides.

Army officials also cited corrosion problems caused by washing equipment with saltwater. They told us that the majority of the "visual" damage to wheeled vehicles—damage to external areas of equipment, such as body and fender dents and collapsed cab tops—was caused by improper handling during shipment back to the United States. Air Force officials stated that many of their cargo aircraft had corrosion problems due to the lack of aircraft wash facilities during ODS.

Existing Equipment Wear and Tear or Damage Before ODS

Nearly all equipment end items—large, major systems like vehicles and aircraft—sent to the Gulf region had some preexisting maintenance need that was exacerbated during ODS.[2] For example, the Air Force's C-141 cargo air fleet had wing cracks before being flown in ODS. Although they were flown with less cargo and at restricted altitudes during ODS, the cracks in the wings worsened.

According to Marine Corps officials, many of their amphibious assault vehicles and light armored vehicles were due in for depot inspection and repair just before ODS. However, according to the Director of the Mobile Equipment Ordnance Division, Marine Corps Logistics Base, Albany, Georgia, the Corps was unable to get them overhauled because of ODS and unrest in other areas of the world during the same time frame—most notably, the Philippines. Equipment that was overdue for maintenance could not be brought in and consequently its condition worsened.

According to Army officials, although they attempted to get the most modern systems—including Bradleys, Humvees, and M1A1 tanks—into the hands of deployed forces, many units, especially combat support and combat service support units, deployed with older equipment. According to officials, the 600 M1 tanks deployed were between 6 to 9 years old and few, if any, had been in the depot for overhaul. As a result, some maintenance requirements existed before deployment.

Navy officials stated that some ship maintenance requirements that had been scheduled before ODS were canceled due to ODS deployments. Consequently, current ODS maintenance requirements are the result of ships and related systems operating for longer periods of time than usual between maintenance cycles.

[2]At a minimum, equipment had already been used in peacetime deployments and training exercises.

ODS Maintenance Funding

According to DOD officials, it is very difficult to clearly identify or distinguish incremental ODS-related maintenance and repair requirements from the wear and tear that occurred before ODS or from what would have occurred under peacetime operating conditions. Therefore, DOD officials considered maintenance and repairs performed on equipment that operated in ODS as ODS costs and are financing those costs primarily with DCA funds.

DCA funding is in addition to that provided for normal maintenance and repair funding. Although all four services stated that they will be able to obligate both the additional DCA maintenance and repair funding and their annual maintenance and repair funding by the end of fiscal year 1993, they noted that many repairs would not be completed for a couple of years.

Table 1 shows both total DCA maintenance funding by maintenance category for each service and its normal annual maintenance funding appropriated by Congress.

Table I: Total DCA Funding for Maintenance in Fiscal Years 1991-93, and Total Annual Maintenance Funding for Fiscal Years 1991-93

Dollars in millions

	Total DCA funding (1991-93)	Total annual maintenance funding (1991-93)
Army		
Depot	$1,787	$2,852
Intermediate/ organizational[a]	5,436	[b]
Subtotal	**7,223**	
Navy		
Depot	1,866	13,903
Intermediate	112	[b]
Organizational	188	[b]
Subtotal	**2,166**	
Air Force		
Depot	857	5,442
Intermediate	0	[b]
Organizational	0	[b]
Subtotal	**857**	
Marine Corps		
Depot	301	221
Intermediate/ organizational[a]	14	[b]
Subtotal	**315**	
Total	**$10,561**	**$22,418**

[a]The Army and Marine Corps provided combined intermediate and organizational maintenance DCA obligation figures.

[b]The services accounting systems could not provide this data.

Large Amounts of Maintenance Spending Cannot Be Tracked

The services' financial accounting systems do not differentiate between organizational- or intermediate-level maintenance obligations. Nor do they break down exactly what maintenance actions the funds were spent on. However, their systems do detail depot-level expenditures.

Unlike the other services, the Army allocated a much higher percentage of its DCA maintenance funding to individual units for organizational- and intermediate-level maintenance. The Army allocated about 75 percent, or $4.2 billion, of DCA funding obligated through 1992 to units for organizational and intermediate maintenance. The other services' spent

most of their DCA maintenance funding—about 91 percent combined through 1992—on depot-level repairs, which can be separately accounted for.

Army officials stated that DCA funding was used to bring all of the returning equipment up to normal operating standards. They stated that the ODS equipment required mostly cleaning, painting, basic maintenance, and minor repairs, which could be performed at the organizational and intermediate level. They noted that the high maintenance cost was due to the large amount of Army ground combat equipment involved in ODS.

Normal amounts of organizational- and intermediate-level maintenance are performed by military personnel assigned to the units. According to Army officials, because of the high volumes of maintenance to be performed, much of this additional money was spent on spare parts, civilian contract labor, and component repairs completed at and by commercial firms. Army officials stated that by contracting out, the Army was able to have the large amount of communications equipment and wheeled and tracked vehicles inspected and maintained.

DCA Funding Reduces Future Maintenance Requirements

According to DOD officials, the combination of normal maintenance funding combined with DCA funding could reduce future maintenance requirements. DCA funding has enabled the services to

- repair equipment that operated in the Gulf region that normally would have been scheduled for future repair with annual maintenance funding,
- repair both preexisting equipment wear and tear or damage and ODS damage, and
- perform preventive maintenance that could reduce future requirements.

Impact of DCA Funding on Army Maintenance

DCA funded maintenance could reduce normal maintenance requirements in the near term. According to Army officials, the $4.2 billion in DCA funding allocated to units through fiscal year 1992 for organizational- and intermediate-level maintenance was used primarily to bring ODS equipment—mostly wheeled and tracked vehicles and helicopters—up to normal operational standards. Many of these maintenance costs would have been required under normal operating conditions although the need for such maintenance may have been greater because of desert conditions, high operating tempos, and postponement of previously scheduled maintenance.

DCA funding of depot-level inspect and repair programs could reduce some future maintenance costs. Approximately 1,198 M1 tanks[3] and 640 Bradleys[4] are going through a DCA-funded Reliability Centered Inspect and Repair Only as Necessary program. Under this inspect and repair program, the Army (1) inspects and tests components on an operationally ready vehicle and identifies deficiencies that could result in impending failures and (2) extends reliability, improves readiness, and corrects the deficiencies before failure. This program is also being used to address "delayed desert damage"—damage that they were unable to detect during initial inspections following ODS.

According to a January 1991 Army study conducted on tanks from the Army's National Training Center, the inspect and repair program could avoid at least $700,000 in costs per tank over its 20-year life cycle assuming that the tank is inducted into the depot every 4,250 to 5,667 miles over the 20 years. Other benefits cited in the study are reductions in mission failures by 23 percent, improved readiness of vehicles, and 56 percent less parts and maintenance costs. According to an official from the Army's Tank Automotive Command, the estimated savings of sending the 1,198 tanks from the Gulf region through the inspect and repair program has yet to be determined because the original study was based on tanks from the National Training Center, not the Gulf region. However, he added that it seems logical that similar savings would accrue and those 1,198 tanks will be less of a maintenance burden to the users and, therefore, result in lower costs in the future.

Anniston depot officials stated that they cannot determine which repairs under the program are the direct result of ODS. Accordingly, it is difficult to determine how much of the cost is directly related to ODS or previous wear and tear. The depot officials stated, however, that the cost of inspecting and repairing an M1 returning from the Gulf region is the same—around $170,000—as repairing one from the Army's National Training Center, where desert exercises are conducted.

The Army has a similar inspect and repair program at the intermediate level for aircraft such as Apache and Blackhawk helicopters. The Army

[3]This represents 38 percent of the tanks that were deployed during ODS. There were a total of 3,130 M1 tanks (all versions) deployed during the operation. They are being maintained at Anniston Army Depot, Anniston, Alabama.

[4]This represents 28 percent of the Bradleys deployed during the operation. The Bradleys are being repaired at Red River Army Depot, Texarkana, Texas.

estimated the cost of this Special Technical Inspection and Repair program at about $280 million.

The Army plans to reduce its annual depot maintenance budget by roughly 20 to 25 percent from fiscal year 1992 to fiscal year 1997.[5] According to Army officials, decreases in depot-level funding between fiscal years 1993 and 1994 are the result of reduced prices in the Defense Business Operations Fund[6] and force structure reductions. The Army has not made any adjustments to its planned program to account for the DCA funding provided.

The Army obligated nearly $1.4 billion in DCA funds through fiscal year 1992 for depot maintenance which, among other things, was used to finance the inspect and repair program. The Army plans to spend about $500 million in DCA funds beyond fiscal year 1992 for depot-level programs, including inspection and repair of its two principal combat vehicles—M1 tanks and Bradley Fighting Vehicles.

In addition to DCA maintenance funding, fiscal year depot maintenance funding was $1.7 billion in 1989, $1.7 billion in 1990, $1.2 billion in 1991, and $872 million in 1992.[7] The Army could not provide prior annual costs for organizational- and intermediate-level maintenance.

Impact of DCA Funding on Navy Maintenance

According to Navy officials, some of its ODS requirements may have occurred under normal operating conditions and are the result of longer periods between maintenance cycles.

The Navy obligated approximately $1.83 billion in DCA funds, during fiscal years 1991 and 1992, to maintain and repair equipment returning from the Gulf region. Approximately $1.58 billion (86 percent) was for depot maintenance, the remainder for organizational and intermediate maintenance. The Navy stated that an estimated $75 million in fiscal year 1993 costs is related to ship maintenance activities, including nearly

[5]These levels are in then-year dollars.

[6]The Defense Business Operations Fund, created in fiscal year 1992, incorporates selected revolving funds previously called the stock and industrial funds. This new fund finances the business operations of industrial, commercial, and support activities.

[7]The substantial reduction in fiscal years 1991 and 1992 depot maintenance funding is due to the impact of transferring funding responsibility for the repair of Army depot-level reparables to the Defense Business Operations Fund.

$31 million for miscellaneous maintenance, such as interim drydockings, battery renewals, and service craft overhauls.

The Navy plans to reduce its annual depot maintenance spending in fiscal year 1993 and then steadily increase spending by a total of roughly one-fourth through 1997.[8] However, it is unclear whether planned annual budget levels account for any of the DCA funding provided to address the ODS work load.

In addition to DCA funding, the Navy's annual depot-level maintenance budgets from fiscal years 1989 through 1992 have been in the range of about $4.1 billion to $4.6 billion. The Navy could not provide prior annual costs for organizational- and intermediate-level maintenance.

Impact of DCA Funding on Air Force Maintenance

According to Air Force officials, much of its ODS-funded maintenance could have been required under normal operating conditions although the need may have been greater because of the desert conditions, high operating tempos, and postponement of previously scheduled maintenance.

The Air Force obligated approximately $857 million from DCA, during fiscal years 1991-92, to perform depot maintenance to equipment returning from the Gulf region. The Air Force identified incremental depot requirements from fiscal year 1993 through fiscal year 1996 totaling about $270 million.

The Air Force plans to use the majority of its DCA funding to accelerate the repair of cargo aircraft damage. For example, the Air Force has identified a need for $78.2 million in DCA funds to address one of its highest ODS maintenance priorities—repairing wing cracks on 213 C-141 aircraft. According to Air Force officials, the cracks were identified before ODS and a 5-year plan was developed to repair them using Air Force depot maintenance funding. However, according to Air Force officials, the cracks worsened during ODS due to high aircraft usage, even though the C-141s were purposely flown at restricted altitudes and at less capacity to minimize wing damage. Because of the worsening condition of the cracks and the availability of DCA funds to address this problem, the Air Force accelerated the schedule for repairing the C-141 wings from 5 years to 2 years. In addition to the $78.2 million in DCA funding, the Air Force also plans to spend approximately $28.2 million—or 27 percent of a total $106.4 million—from its own budget to fix the cracks.

[8]These levels are in then-year dollars.

The Air Force's highest cost ODS maintenance program involves repainting cargo aircraft—126 C-5s, 554 C-130s, and 225 C-141s—over a 5-year period, beginning in fiscal year 1992. According to an Air Force depot maintenance official, typically, planes are repainted every 10 years. The Air Force plans to spend over $200 million in DCA funds to strip and repaint these planes to address corrosion problems caused by the intense heat, sand, salt, and oil imbedded in the paint, and the lack of facilities to wash the aircraft during ODS. In addition to DCA funding, the Air Force also plans to spend about $112 million from its own budget to repaint them. According to the Air Force, the C-5s and the C-141s in the Gulf region generated between 3 to 4 years of flying hours in 11 months.

It is unclear whether reductions in planned annual budget levels were made due to any of the DCA funding provided to address the ODS work load. The Air Force has plans to maintain a relatively constant budget level for its annual depot maintenance program from fiscal year 1994 through fiscal year 1999.[9]

The Air Force's annual depot-level maintenance budget, by fiscal year, was $2.9 billion in 1989, nearly $2.9 billion in 1990, about $2.4 billion in 1991, and about $1.7 billion in 1992.[10] The Air Force could not provide prior annual costs for organizational- and intermediate-level maintenance.

Impact of DCA Funding on Marine Corps Maintenance

DCA funding has enabled the Marine Corps to reduce maintenance requirements for fiscal years 1993 through 1995. According to Marine Corps officials, they have decreased their maintenance budgets for these years to reflect reduced maintenance requirements. According to Marine Corps officials, the top maintenance priority is to complete inspection and repair of all equipment returning on its 13 MPS ships by April 1994. The Corps plans to send through its Inspect and Repair Only as Necessary program[11] basically all of the major end items deployed in the Gulf region—a total of over 5,400 items including, among other things, amphibious assault vehicles, light armored vehicles, Humvees, 5-ton trucks, and logistics vehicle systems.

[9]These are in then-year dollars.

[10]The substantial reduction in fiscal years 1991 and 1992 depot maintenance funding is due to transferring funding responsibility for the repair of Air Force depot-level reparables to the Defense Business Operations Fund.

[11]The Corps' Inspect and Repair Only as Necessary program is similar in concept to the Army's.

Marine Corps officials stated that in prior years, a sample of items on returning MPS ships was taken to determine which types of items needed maintenance and how much. However, as a result of ODS, essentially all items aboard returning MPS ships are being unloaded and repaired, primarily to address the Corps' most widespread maintenance problem—corrosion—and to repaint the equipment. According to Marine Corps officials, it is very difficult to identify the portion of corrosion attributable to ODS versus what would have occurred during peacetime operations on items, such as amphibious assault vehicles that normally operate at sea. According to Marine officials, projections made before ODS showed that both amphibious assault vehicles and light armored vehicles were soon due in to the depot for maintenance anyway.

According to Marine Corps officials, the Corps has used and continues to use most of its regular annual maintenance budget in addition to DCA funding to maintain and repair equipment returning from ODS. They stated that if a maintenance requirement had already been identified as part of their annual budget, even though the item was subsequently used in ODS, they did not identify that requirement again for supplemental funding and are, therefore, paying for such repairs out of their regular budget. For example, officials stated that repairs made in 1991 to most of the light armored vehicles were paid for with both regular budget funds and DCA funds.

DCA funding of the Marine Corps' Inspect and Repair Only as Necessary program could reduce some future maintenance costs. According to Marine Corps officials, the program should enable them to avoid some future costs by extending the life of equipment and preventing catastrophic equipment failures.

The Marine Corps obligated approximately $168 million from DCA through fiscal year 1992 to maintain and repair equipment returning from the Gulf region. Approximately $154 million (92 percent) of the total obligations for maintenance through fiscal year 1992 were for depot maintenance. The Marine Corps' current cost estimate for incremental ODS maintenance requirements for fiscal year 1993 is $234 million for depot maintenance, of which $147 million has been funded.

In addition to DCA funding, the Marine Corps' annual depot maintenance budget, by fiscal year, was $72 million in 1989, $95 million in 1990, $91 million in 1991, and $99 million in 1992. Accordingly, the Corps spent more DCA funds for depot maintenance in fiscal year 1992 than it did in

annually appropriated funds to address non-ODS requirements. A Corps official stated that they were able to double their work load capacity by hiring hundreds of temporary employees to make needed repairs. According to Marine Corps officials, although they will be able to obligate all fiscal year 1993 DCA funds provided, some of the ODS repairs may not take place for a couple of years.

According to planning data, the Marine Corps plans to reduce its annual depot maintenance budgets significantly over the next several years. According to Marine Corps officials, the Corps has reduced its depot maintenance funding in fiscal year 1993 and its planned funding for fiscal years 1994 and 1995 in order to complete the DCA-funded ODS work load. The Corps has requested $30.6 million in 1993 and plans to request $44.2 million in 1994 and $51.5 million in 1995.[12] Marine Corps officials stated that such reductions will increase maintenance backlogs. Depot maintenance funding levels over the past several years have ranged from $91 million to $99 million, while those planned for the future by the Corps range from about $44 million in fiscal year 1994 to about $100 million in fiscal year 1999. The Corps could not provide prior annual costs for organizational- and intermediate-level maintenance.

Funding Impact of Reduced Future Maintenance Requirements

DOD maintenance officials stated that reduced future maintenance requirements do not necessarily mean that future funding levels should be reduced. They also stated that they would prefer to reduce maintenance backlogs. Backlogs are maintenance requirements for which there is sufficient industrial capacity but insufficient funding. We question whether limited future defense resources should be spent reducing backlogs considering (1) the limited impact, if any, a backlog reduction would have on current readiness levels and (2) the end of the Cold War and DOD's ongoing efforts to reduce U.S. forces, including reductions in equipment that would need maintenance.

Backlog Impact on Readiness

According to DOD officials, historically, the military services have identified equipment maintenance requirements that they were unable to fund. Although each currently has a depot maintenance backlog, given current peacetime funding levels, these backlogs are, for the most part, remaining stable and are not resulting in reduced readiness levels of front-line troops. All of the service personnel, with the exception of the Marine

[12]These funding levels are in then-year dollars.

Corps, told us that current peacetime funding levels are sufficient to maintain high levels of readiness.

According to Army officials, Army active forces are currently not affected by the amount of equipment in need of repair. However, they said that Guard and Reserve units will have a decrease in readiness levels because they will be required to operate and maintain older systems, such as M60A3 tanks, for several more years until repairs to newer systems, such as M1 tanks, are completed. The Army's policy of equipping its forces is based on the notion that units expected to deploy earliest in a conflict should have the most modern and capable equipment. In turn, remaining available equipment—which includes a smaller portion of modernized systems—is allocated to later deploying units. The vast majority of reserve units receive new and redistributed equipment later than active units by virtue of their later expected deployment dates.

According to Navy officials, overall Navy funding for depot maintenance ensures that backlogs will be kept at a manageable level and therefore, will have a minimal effect, if any, on readiness levels. Air Force officials also agreed that their present peacetime maintenance funding amounts are adequate to maintain acceptable readiness levels. Marine Corps officials stated that if increases in the maintenance backlog are not addressed, they will ultimately degrade readiness.

Defense Downsizing Impact on Maintenance

As a result of the end of the Cold War and major reductions in the U.S. force structure, including equipment levels, all of the military services are making extensive efforts to retire as many unneeded systems as possible. For example, since ODS, the Marine Corps has permanently removed its M60 tanks and many of its older forklifts from service. Also, the Navy has since removed Shrike missiles and fuel air explosive weapons from its inventory and has also decommissioned a number of ships. As a result, no further maintenance on these systems will be needed.

Matter for Congressional Consideration

Congress should require DOD to report on the impact that DCA funding has had on each of the services' organizational-, intermediate-, and depot-level maintenance needs in the fiscal year 1994 budget and in the Future Years Defense Plan. To the extent maintenance funding requirements have been reduced, appropriate budget reductions or reallocations should be made.

Scope and Methodology

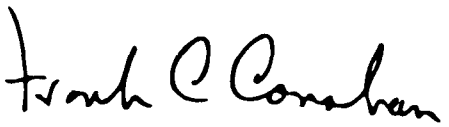
To obtain an understanding of the Army's ODS-related maintenance requirements, we interviewed officials from the Army's Deputy Chief of Staff for Operations, Deputy Chief of Staff for Logistics, and the Army Materiel Command in Washington, D.C. We also visited and interviewed officials from the Anniston Army Depot, Anniston, Alabama. Estimated maintenance costs and funding needs were obtained from the Assistant Secretary of the Army's (Financial Management) Budget Office in Washington, D.C.

We obtained Air Force data from the headquarters Air Force Deputy Chief of Staff for Logistics and the Air Force Budget Office in Washington, D.C. We also interviewed officials from Warner Robins Air Logistics Center in Warner Robins, Georgia. We obtained Marine Corps data from headquarters officials and visited and interviewed officials at the Marine Corps Logistics Base and depot in Albany, Georgia. We obtained Navy data from interviews with officials from the Navy Comptroller's Office, the Naval Air Systems Command, and the Naval Sea Systems Command in Washington, D.C.

We conducted our review from May 1992 to December 1992 in accordance with generally accepted government auditing standards. To make this report available in time for congressional decisions on DOD's fiscal year 1994 budget, we did not obtain formal agency comments. However, we discussed our report with officials from the Army, Air Force, Navy, Marine Corps, and DOD Comptroller's office and have incorporated their comments where appropriate. DOD officials generally concurred with the report's findings.

This report was prepared under the direction of Paul F. Math, Director, Acquisition Policy, Technology and Competitiveness Issues, who may be reached on (202) 512-4587 if you or your staff have any questions. Major contributors to this report were Michael Motley, Associate Director; James Wiggins, Assistant Director; and Randy Holthaus, Evaluator-in-Charge.

Sincerely yours,



Frank C. Conahan
Assistant Comptroller General