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DEPOT MAINTENANCE

Issues in Management and Restructuring to Support a Downsized Military

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Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss defense depot maintenance issues. My testimony today will address several important questions, including:

-- To what extent does the current Department of Defense (DOD) depot maintenance system have excess capacity?

-- What is the basis for current DOD allocations of depot work between the public and private sectors?

-- Is the private sector's role changing in the performance of depot maintenance activities?

-- What is the status of the public-private competition initiative?

-- What needs to be done to ensure that future defense maintenance requirements can be managed more cost-effectively?

Before I discuss specifics, I'd like to summarize our observations with the caveat that the information we are presenting today represents the preliminary results of our ongoing review of the management of DOD's depot maintenance system.

First, our work shows that substantial excess capacity exists within DOD's depot maintenance system. Although we do not yet have a precise estimate, we believe the recent Joint Chiefs of Staff (JCS) Depot Consolidation Study's estimate of 25 to 50 percent is conservative. Because depot maintenance costs are significantly influenced by overhead, elimination of this excess capacity will be critical to reducing future depot maintenance costs.

Given the continued need to reduce additional excess capacity, we would caution DOD to closely review its capital equipment acquisitions before acquiring new or replacement capability for work load that may be allocated to the private sector or to enhance /depot capability for facilities that could be identified for closure during the next round of base closures. Congress may also wish to critically examine the Department's request for fiscal year 1994 funding for new capital investments at the government depots.

Second, cost-effective future management of the defense depot maintenance system is first dependent on determining what work load capability must be retained within DOD--commonly referred to as core requirements--and what can or should be contracted out to the private sector. While there has been a requirement that the services define their minimum essential core requirements for a number of years, the services have not yet done so. In effect, core requirements are currently defined by statute.

Third, in the past, the private sector's role in depot maintenance remained relatively consistent at about 33 percent of the annual

depot maintenance budget. With the end of the cold war and reduction in new procurements, commercial contractors have been increasingly interested in and are aggressively seeking additional work load. However, DOD does not have a comprehensive strategy for determining what depot maintenance work should be performed by the private sector.

Fourth, while public-private competition initiatives are underway, they have been implemented at varying degrees among the services. The Navy sea community has been the most active, accounting for 82 percent of DOD's competitions since the program's inception. The Army, Air Force, and Navy air community have done relatively few public-private competitions, but plan to increase their participation significantly during fiscal year 1993. The private sector has raised questions about the fairness of these competitions, and DOD has taken steps to address these concerns. Further, anticipated savings from public-private competition--projected to be about $1.79 billion--are not being achieved.

Lastly, the current DOD depot management structure does not appear to be conducive to making interservicing decisions that are essential to developing a more effective and efficient depot maintenance system. The failure to achieve interservicing goals during DOD's recent base closure and realignment process illustrates this problem.

BACKGROUND

With that as a summary, let me turn to my detailed remarks. Depot maintenance is a key part of the total DOD logistics effort and is a vast undertaking, supporting over 700,000 pieces of equipment, 36,000 combat vehicles, 660,000 wheeled vehicles, 450 ships, and 20,200 aircraft of over 100 different models. Depot maintenance requires extensive shop facilities, specialized equipment, and highly skilled technical and engineering personnel to perform major overhaul of parts, to completely rebuild parts and end items, or to modify systems and equipment by applying new or improved components.

DOD annually spends about $13 billion--or 5 percent of DOD's budget--on depot maintenance activities. About 67 percent of depot maintenance funds go to work accomplished in DOD facilities and the balance to work done by contractors. Table 1 provides a breakout of the fiscal year 1992 depot maintenance budget by military service, showing the estimated value of work within each military service that is performed by that service's own depots, the amount

that is interserviced[1] to the depots of another service, and the amount that is contracted to the private sector.

Table 1: Fiscal Year 1992 Depot Maintenance Program
(Dollars in millions)

Service	Inhouse		Interserviced		Contracted	
	Amount	Pct.	Amount	Pct.	Amount	Pct.
Army	$1,332	63	$ 7	1	$ 769	36
Navy aviation	1,252	64	74	4	626	32
Navy ships	2,257	62	0	0	1,409	38
Navy C3I	39	98	[a]	1	[a]	1
Air Force	2,848	68	125	3	1,201	29
Marine Corps	206	91	19	8	3	1
Total	$7,934	65	$225	2	$4,008	33

[a]While work load was interserviced and contracted to the private sector, the value of each was less than $1 million.

About 47 percent of the budget was for Navy systems and equipment, 34 percent Air Force, 17 percent Army, and 2 percent Marines. About 45 percent is associated with the repair of aircraft, 33 percent ships, 5 percent combat vehicles, 4 percent missiles, and 13 percent for other types of equipment.

[1]Interservicing involves transferring work on comparable systems to the depot of another service to take advantage of economies of scale and to avoid the cost of maintaining unnecessary duplicative capabilities.

The DOD depot maintenance system, which is actually comprised of four systems,[2] employs about 120,000 DOD civilian personnel and nearly 2,000 military personnel. This is a 23-percent reduction in the number of civilians relative to when the military depot system was at its peak in 1987. Currently, there are 30 major DOD depot maintenance facilities--Army depots, Air Force logistics centers, naval aviation depots, naval shipyards, naval electronic systems engineering centers, and Marine Corps logistics bases--that perform depot maintenance work.[3] Thousands of commercial contractors also perform depot maintenance activities, and many intermediate-level activities in the military services also have some depot maintenance capability.

Since the early 1960s--long before changed world conditions pointed to the huge excesses currently recognized in the defense depot maintenance system--the Congress, GAO, DOD, and others have documented problems and recommended numerous ways of improving depot maintenance effectiveness and economies of operation. Appendix I highlights selected management actions and study recommendations relating to DOD's depot maintenance activities.

SUBSTANTIAL EXCESS DEPOT MAINTENANCE CAPACITY CONTINUES TO EXIST

You asked that we address the issue of excess capacity in existing DOD depot facilities. The DOD depot system is now sized and organized to support a cold war threat. Sizing the depot system to accommodate this scenario has created excess capacity and unnecessary duplication. For example, this requirement resulted in the development of an Air Force depot system sized to support a sustained wartime or emergency surge to 160 percent of the peacetime work load. The long-standing excess capacity in the DOD depot system has been exacerbated by the end of the cold war, reduction of defense systems and equipment, retirement of less reliable and more maintenance-intensive systems, and the private sector's push for a greater share of the depot maintenance work load. It is important that the Department reduce excess capacity and eliminate duplication to the maximum extent practicable since

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[2]DOD Directive 5100.1, " Functions of the Department of Defense and Its Major Components," assigns the Army, Navy, Air Force, and Marine Corps, under their respective Secretaries, the responsibility for "providing logistic support for Service forces, including procurement, distribution, supply, equipment, and maintenance, unless otherwise directed by the Secretary of Defense." To meet the responsibility to maintain its equipment, each service operates a depot maintenance system.

[3]There are also 16 Army and 9 Navy facilities in the continental United States for weapons and munitions depot maintenance.

these excesses significantly increase the cost of the depot maintenance program.

The recently completed JCS depot consolidation study and DOD's depot evaluation during the base closure and realignment (BRAC) process have independently highlighted the large amounts of excess capacity. Table 2 highlights the excess depot capacity identified by the JCS study and by the services in the BRAC review. Our analysis indicates that with future maintenance work load reductions in combination with the availability of more depot capacity in the public sector and the private sectors, the JCS projections of excess capacity were conservative. We did not independently analyze the excess capacity projections identified by the services in the BRAC review.

Table 2: Estimated Excess Depot Capacity Compared to the Capacity in the Depots Recommended for Closure During 1993 BRAC Review

(Direct labor hours in millions)

Service	JCS estimate of excess capacity FY 87 Capacity	Service estimates of excess capacity (BRAC)	Total capacity of depots DOD proposed for closure
Army depots	10.2	9.4	4.8
Navy aviation depots	11.7	17.9	15.8
Navy shipyards	25.3	30.4	21.6
Air Force logistics centers	19.1	8.7	1.7[a]
Marine Corps logistics bases	0	0	0

[a]Although the Air Force recommended closing McClellan Air Force Base, California, DOD deleted the base from the list transmitted to the commission. McClellan has a total capacity of 6.3 million direct labor hours.

Source: JCS data from Depot Consolidation Study Report. BRAC data from service BRAC inputs.

JCS Study Results

The JCS analysis pointed out that consolidation could only be maximized by interservicing maintenance of similar work load and

eliminating duplicative capability. Principally because the Office of the Secretary of Defense (OSD) did not provide strong leadership, the services were not able to achieve this goal. Despite previous initiatives implemented within DOD to address recognized excess capacity and inefficiencies in the DOD depot system, the Chairman of the Joint Chiefs of Staff Report on Roles, Missions, and Functions[4] concluded the following:

-- The current DOD depot management structure has not substantially reduced depot capabilities or capacity. There is currently 25 to 50 percent more depot capacity[5] than will be needed in the future.

-- Unnecessary duplication exists throughout the individual service depots, especially when viewed across service boundaries.

-- Closure of 7 or 8 of the 30 military depots is the first step in reducing long-term costs.

-- The most effective way to consolidate and close depots is through the base realignment and closure process.

The Chairman's Depot Maintenance Study Group reviewed past, present, and projected DOD maintenance work load requirements by nine major commodity groups, such as aircraft, ships, and combat vehicles. Excess capacity was identified by subtracting the projected fiscal year 1995 work load from the fiscal year 1987 capacity at each depot.

The JCS study group examined seven ways in which the maintenance depots could be managed. They labeled these alternatives "A" through "G." The group viewed the alternatives simply as frameworks upon which to base comparative analyses. The following is a description of the seven alternative forms of depot management:

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[4]Title 10 U.S.C. requires the Chairman of the Joint Chiefs of Staff to report to the Secretary of Defense on the roles, missions, and functions of the armed forces. The Chairman convened a study group to evaluate the depot maintenance system and identify the best way to scale down excess capacity and reduce costs.

[5]DOD defines capacity as "the amount of work expressed in direct labor hours that a facility can effectively produce annually on a single shift, 40 hour week basis while producing the product mix that a facility is designed to accommodate." It is more a measure of a level of employment rather than of physical plant capacity.

1. Alternative A: The present system. Each service would retain its own depot operations. Some savings would be realized through current plans to increase interservicing, reduce management staffs, and increase competition.

2. Alternative B: Each service would retain its own depot operations, but repair of certain equipment would be consolidated into "Centers of Excellence" within the using service.

3. Alternative C: One service with "Centers of Excellence" would repair common or similar weapon system platforms, such as ships, fixed wing aircraft, and rotary wing aircraft.

4. Alternative D: Each service would retain "Centers of Excellence" for repairing weapon systems platforms. The repair of similar components and non-weapon system equipment would be consolidated in a single service's "Centers of Excellence."

5. Alternative E: A single executive agent would be responsible for the maintenance of common platforms and their components. For example, the Air Force might be designated the executive agent for all fixed wing aircraft.

6. Alternative F: All depot maintenance would be consolidated under a single organization external to the services. This could be a defense maintenance agency or a joint depot maintenance command.

7. Alternative G: All depot maintenance would be contracted to the private sector.

Alternatives C, D, and E provided varying degrees of single-service management in which the dominant service for a major weapon system would be responsible for depot maintenance for that system. Alternatives F and G would remove depot maintenance from direct service control and place all depot maintenance responsibilities under an organization external to the services, resulting in the maximum degree of interservicing and eliminating unnecessary duplication. The JCS study found Alternatives E and F to be the most cost-effective, but did not do a cost analysis of Alternative G. The results of the alternative analyses are shown in table 3.

Table 3: Alternative Depot Closures, Utilization Rates, and Savings

Alternative	Number of depots closed[a]	Utilization rate (Percentage)		Total savings after 10 years (Dollars in billions)	
		Before	After	Minimum	Maximum
B	7	64	82	$1.6	$6.7
C	6	64	88	1.3	5.1
D	6	64	87	1.5	8.1
E&F	10	64	95	1.8	9.2

[a]Does not include the consolidation of nine Navy ordnance depots into three under each alternative.

Source: Depot Maintenance Consolidation Study, January 1993.

Although the JCS used a different process in determining excess depot capacity than was used by the services in identifying their recommended closures as a part of the base closure process, the two independent processes reached similar conclusions. Table 4 shows the number of depots in each military service that were identified for closure as a result of the JCS within-service consolidation analysis (Alt. B), JCS cross-service analysis (Alt. E), and service base closure analyses.

Table 4: Depots the JCS Study and the Services Recommended for Closure

Service	Total number of maintenance depots[a]	Number the JCS study recommended for consolidation		Number the services proposed for closure or realignment in the 1993 BRAC process
		Alt.B	Alt.E	
Army depots	6	1	1	2
Navy aviation depots	6	2	4	3
Navy shipyards and other facilities	9	2	2	2
Air Force logistics centers (ALC) and other depot facilities	5 ALCs and 2 other facilities	1 ALC	1 ALC	1 ALC[b] 1 other[c]
Marine Corps logistics bases	2	1	2	0
Total	30	7	10	9

[a]These figures do not include the nine naval ordnance centers.

[b]McClellan Air Logistics Center.

[c]The Air Force recommended closing the Aerospace Guidance and Metrology Center at Newark Air Force Base, Ohio, a small specialized repair facility.

The JCS study group concluded that significantly greater savings would be possible if work load consolidations were done across service boundaries. However, despite the recommendations of the Chairman of the Joint Chiefs of Staff and the Deputy Secretary of Defense that the military services go beyond service boundaries, consider opportunities for interservicing, and submit integrated base closure proposals, the services prepared separate input that did not incorporate interservicing opportunities--foregoing the opportunity to garner the additional savings that could have been achieved by increased consolidation and further elimination of excess capacity and unnecessary duplication. In our recent report

on the BRAC recommendations and process,[6] we noted that while the services attempted to include some cross-servicing, these efforts ended in disarray. We reported that officials from all services stated that consideration of cross-servicing possibilities among the depots was impeded by the lack of strong OSD leadership and direction.

JCS Estimates Conservative

Our review of the JCS study indicates that the underlying analysis was limited by the quality and availability of data, which made it necessary to make many assumptions. Because of these limitations, the study was unable to precisely identify excess capacity or determine how much could be saved by depot closures. However, the study's conclusions were sound and properly highlighted the excess capacity and unnecessary duplication in the defense depot maintenance system.

In fact, the report's projections of excess capacity are conservative and understate the opportunity to consolidate similar work load within the military departments. For example, DOD work load projections for fiscal year 1995 are now lower than those used in the JCS study. In April 1993, Army officials told us their latest projections for 1995 work load show a reduction of 1.8 million direct labor hours--an 11-percent reduction from the number of projected work load hours used in the JCS analyses. Navy officials said they currently project a reduction of 1.7 million direct labor hours--12 percent less than the work load factor used in the JCS analysis. All services except the Marine Corps indicated they anticipate the future depot work load estimates will continue to decline.

The JCS study group's excess capacity projections were also conservative since the depot capacity estimates used in the analysis greatly understated the Department's ability to more cost-effectively use existing facilities and equipment to generate maintenance output. For example, the methodology used to define capacity (1) considered only the capability to conduct a single, 40-hour-per-week operation; (2) understated the ability of the gaining depots to absorb additional work load, given the movement of equipment from losing depots and potential productivity gains achievable by increasing available manpower; and (3) did not consider existing depot maintenance capacity in the private sector or in military units.

Additionally, after querying the services about increases in depot facilities and plant equipment since 1987, we found that overall

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[6]Military Bases: Analysis of DOD's Recommendations and Selection Process for Closures and Realignments (GAO/NSIAD-93-173, Apr. 15, 1993).

depot industrial capacity has increased. For example, based on information provided by the services, since 1987 DOD has added 5.6 million square feet in industrial maintenance square footage valued at $606 million and 31,563 pieces of equipment valued at $1.5 billion.

PRIVATE SECTOR SEEKS GREATER ROLE IN DEPOT MAINTENANCE

Now let me turn to the private sector's role in the DOD depot maintenance program. The private sector currently has about one-third of the Department's overall depot maintenance program--with the percentages varying among the services. Table 5 provides a historical comparison by military service of the depot-level maintenance work that is contracted to the private sector.

Table 5: Percentage of Depot Maintenance Budget Contracted With the Private Sector

Service	1985	1986	1987	1988	1989	1990	1991	1992
Army	N/A	39.2	42.0	42.0	41.1	38.7	41.8	36.5
Navy aviation	30.0	35.2	37.4	38.5	36.3	31.3	28.2	32.1
Navy ships	34.1	35.9	33.0	33.6	41.9	37.3	37.0	38.0
Navy C3I	N/A	1.9	2.0	1.7	1.0	1.4	1.7	1.4
Air Force	39.9	31.6	34.8	37.4	35.3	34.3	32.6	28.8
Marine Corps	1.5	30.7	3.2	5.7	3.5	5.7	2.4	1.2
DOD average	34.8	34.8	35.1	36.5	38.4	34.8	34.5	32.9

With the end of the cold war and reduction in new defense procurements, commercial contractors would like more of the depot maintenance business. Advocates of more private sector involvement argue that the private sector can provide depot maintenance at lower cost than the public sector and that a shift toward the private sector would help keep the production base healthy during a period of reduced new weapon procurement. There are, however, concerns within the military departments about the long-term implications of increasing the private sector's share of depot maintenance to support manufacturing skills. Additionally, the military believes that it must continue to maintain a core maintenance capability in government depots to ensure the ability

to surge quickly to meet immediate contingency requirements and to maintain long-term availability of essential repair capability.

The dominant role of the public sector in the conduct of depot maintenance stems from the U.S. experience in World War II, when private sector industrial capacity was fully employed for defense production purposes. At that time, a multi-level public depot maintenance system was created to provide support for a huge volume of materiel that was, by modern standards, maintenance-intensive and subject to considerable amounts of stress and battle damage. The resulting allocation of production work to the private sector and maintenance work to the public sector persisted throughout the cold war. The private sector showed less interest in depot maintenance work as long as there was sufficient demand for new production. But as procurement budgets have begun to decline and relatively few new systems are predicted in the near future, the private sector is now asking for an increased share of the DOD depot maintenance program.

Nonetheless, private sector involvement in depot maintenance activities is not new. Equipment manufacturers have traditionally performed depot maintenance for a number of years after a new weapon system was fielded--generally until the design was stabilized, depot plant equipment and technical drawings procured, spare and repair parts inventories established, maintenance manuals developed, and maintenance personnel trained. While the underlying premise of "interim contractor support" is that such contractor maintenance is to be temporary, for some systems it has been continued for many years. For example, on the B-1B, interim contractor support is expected to be continued for 17 or more years. For some systems such as for the C-9 and KC-10 aircraft, contractor maintenance was planned throughout the life of the system. Commercial contractors also perform other depot maintenance activities such as modifying and upgrading systems and equipment and repairing components of very complex systems and systems for which the equipment manufacturer owns proprietary rights to the technical data. Foreign contractors also perform depot maintenance and repair on some U.S. military systems and equipment overseas.

The defense industry points out that there has been a significant drop in major procurement programs, production in various industry sectors is shutting down, subcontractors are exiting the industry or going out of business, and these departures will escalate as defense cutbacks further affect production. Concurrently, industry groups noted, government maintenance facilities are investing in new capabilities even as industry downsizing eliminates these capabilities in the private sector, and that by allowing duplicative and excess capacity to continue to exist or to be expanded, costs are driven up.

As noted in table 5, in general, DOD has been relatively consistent in the amount of their depot maintenance program that has been contracted out in recent years. When questioned about their rationale for not contracting out more to the private sector, DOD officials noted that the Department is limited by law as to the amount of depot-level work that can be performed by nonfederal government personnel. They also expressed concern about how well the private sector can respond to short-notice crises and conflict requirements, and whether private contractors can indeed provide depot maintenance at a lower cost. These officials noted that there is not a significant amount of overlap between maintenance and manufacturing skills, and they are skeptical whether performing maintenance can support relevant manufacturing skills without significantly increasing the cost of repair. DOD officials also pointed out that equipment manufacturers who have been successful in the past competing with the public sector for depot maintenance work have often done so by establishing separate cost centers for their repair work to reduce the cost of overhead. They noted that contracting out more now when the government has large amounts of excess capacity will inhibit efficient downsizing efforts and increase depot maintenance costs.

Legal and Policy Requirements for Core Depot Maintenance Capability

Clearly defining core requirements is essential to making key decisions on the future of the depot maintenance system.[7] Our work shows that, despite DOD direction, the services have not yet made such a determination. However, there have been numerous legislative actions mandating specific criteria relating to the allocation of work load between the public and private sectors. Of particular importance among these is the requirement that not more than 40 percent of the depot-level maintenance work load be contracted out to private sector companies.

Legislative Requirements

An understanding of evolving legal and policy requirements--including the concept that DOD should maintain a core logistics capability, including repair--is essential to understanding the

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[7]The Defense Depot Maintenance Council Corporate Business Plan defines core requirements as an integral part of a depot maintenance skill and resource base that shall be maintained within depot activities to meet contingency requirements. It will comprise only a minimum level of mission-essential capability either under the control of an assigned or jointly determined DOD component where economic and strategic considerations warrant. Only the Navy's logistics core for sea systems includes private as well as government facilities and people.

roles of the public and private sectors in depot maintenance activities. Chapter 146 of title 10 of the U.S. Code limits the extent to which DOD can contract for commercial services under Office of Management and Budget (OMB) Circular A-76. It includes restrictions on DOD's contracting out for activities it has identified as necessary to maintain a core logistics capability and sets forth specific limits on depot-level maintenance activities.

10 U.S.C. 2464 provides that DOD activities maintain a logistics capability sufficient to ensure technical competence and resources necessary for an effective and timely response to a mobilization or other national defense emergency. Although the Secretary of Defense is required to identify the logistics activities necessary to maintain that capability, this has not yet been accomplished. The section further provides that those activities, as well as the depot-level maintenance of mission-essential material performed at the Defense depot activities identified in section 1231(b) of Public Law 99-145, may not be contracted out under OMB Circular A-76 procedures. The Secretary may, however, waive that prohibition when he determines that performance is no longer required for national defense reasons. Such a waiver does not take effect until 20 days after a report has been submitted to the congressional defense committees.

As early as 1974, Congress established legislative requirements regarding the allocation of depot work load between the public and private sectors. The Defense Appropriations Act of 1974 provided that of the total amount of the appropriation made available for the alteration, overhaul, and repair of naval vessels, not less than $851,672,000 should be conducted in naval shipyards and not less than $359,919,000 in private shipyards. Prior to 1982, DOD Directive 4151.1, "Use of Contractor and DOD Resources for Maintenance of Materiel," directed the services to normally plan for not more than 70 percent of their depot maintenance to be conducted in service depots in order to maintain a private sector industrial base. Revisions to this directive in 1982 continued the requirement that in-house work should be kept to the minimum necessary to meet military contingencies. It also stated that to the extent possible, a competitive commercial depot maintenance industrial base should be established. More specifically, it provided that prime consideration should be given to use of contractor support when such support would (1) improve the industrial base, (2) improve peacetime readiness and combat sustainability, (3) be cost-effective, or (4) promote contract incentives for reliability and maintainability. To some extent, this directive also retained the previously established 70/30 ratio.

In effect, this directive was superseded by a 1992 amendment to title 10 U.S.C. 2466 that prohibited the military departments from contracting out more than 40 percent of their respective depot

maintenance work for performance by the private sector.[8] Section 2466 provides that the respective military department secretaries and the Secretary of Defense may waive this restriction if the Secretary determines the waiver is necessary for national security reasons and notifies the Congress of the reasons for the waiver.

DOD Efforts to Develop Core Capacity Requirements

The implementation of current DOD and military service policies for maintaining a "core" in-service logistics capability will also affect the amount of depot maintenance that can be undertaken by the private sector. DOD Directive 4151.18, published August 12, 1992, establishes policy and assigns responsibilities for the performance of DOD materiel maintenance, including:

-- An integral part of a depot maintenance skill and resource base shall be maintained within depot activities to meet military contingency requirements.

-- A core maintenance capability shall comprise only a minimum level of mission-essential capability.

-- The head of each military component should (1) annually determine (using an approved methodology) the core capability necessary to perform mission-essential depot maintenance to meet the full range of military contingency and statutory requirements and (2) improve efficiency and effectiveness of DOD depot maintenance operations through depot maintenance interservicing of similar equipment and competition between depot maintenance activities and private entities.

While the military services indicate they are working on this issue, none has yet sought approval of a methodology for defining its core requirement. Although current statute does not specifically refer to a "core" capability, DOD's core work load is defined by the statutory requirement that no more than 40 percent of the depot-level maintenance work load be contracted out for performance by the private sector. Thus, any private sector

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[8]The fiscal year 1993 Defense Authorization Bill amended section 2466 by changing the prior requirement that not less than 60 percent of the funds available for depot-level maintenance in the Army and Air Force shall be used to perform maintenance by DOD employees. This was changed to state that no more than 40 percent of the depot-level maintenance work load could be performed by nonfederal personnel and added the Navy to this limitation. The 40-percent limitation applies to DOD with the following exception: the Secretary of the Army is required to provide Army aviation depot work to DOD employees of not less than 50 percent in fiscal year 1993, 55 percent in fiscal year 1994, and 60 percent in fiscal year 1995.

initiative to appreciably increase its current share of the depot maintenance work load could require a change to the statutory limitation. Nonetheless, we noted that based on the current allocation of about 33 percent of the depot work to the private sector, there are still opportunities to shift work to the private sector and still remain within the current legislated guideline.

Each of the military departments is currently involved in developing an assessment methodology and identifying core requirements. Only the naval aviation community is far enough along in this process to have developed a draft strategy. Based on our preliminary analysis, the Navy's evolving strategy appears to be a step forward in establishing an overall policy that may lead to (1) quantifying "minimum essential" core capability; (2) closing excess depots; and (3) sizing the remaining depots to perform core-related work. However, this strategy provides no mention of the potential to interservice core capability when appropriate as is provided for by current DOD guidance. For example, it may be that the Navy could achieve its operational objectives even if all depot-level engine repair were interserviced to the Air Force. Additionally, the naval aviation strategy provides for offering non-core work for private-private competition, but does not provide for using public-private competition. This strategy is being supported by the private sector, which generally believes that competition between private industry and government depots is unfair. However, it does not appear compatible with current legislative direction and DOD policy promoting public-private competition.

DOD PUBLIC-PRIVATE COMPETITION PROGRAM HAS HAD LIMITED SUCCESS

In recent years, DOD has placed increasingly greater reliance on the use of public-private competitions as a tool to allocate non-core work loads between the public and private sectors and reduce depot maintenance costs. However, while the military services have reported substantial savings from the competitions conducted thus far and are projecting even larger savings for the future, our preliminary review of their public-private competition programs indicates that

-- the military services have made overly optimistic assumptions about how rapidly they will be able to expand their programs;

-- these programs have achieved very little actual savings thus far and are unlikely to result in the savings that are being projected; and

-- private industry believes public-private competitions are not, and cannot be, conducted on a "level playing field."

Since we are still reviewing industry's concerns and evaluating the military services' competition programs, we have not reached any conclusions about whether the competitions are being conducted fairly. However, thus far we have noted that (1) based on congressional direction, DOD has taken action to ensure that these competitions are conducted on a level playing field; (2) the private sector has won 60 percent of the competitions for which there has been both a public and private bidder;[9] and (3) public-private competitions have caused only one work load to shift from the private to the public sector, and eight from the public to the private sector.

Origin and Status of Competition Initiative

The impetus for public-private competitions can be traced back to a 1984 study of the Navy's industrial activities. This study concluded that (1) the Navy's industrial activities, which include shipyards, aviation depots, and other shore installations vital to supporting the fleet, were not being run as efficiently as their counterparts in the private sector and (2) a lack of competition was a major contributor to the industrial activities' historical indifference to cost.

The 1985 DOD Appropriations Act[10] directed the Navy to test the feasibility of using competition between public and private shipyards as the basis for awarding a portion of the ship overhaul and repair work load. Additional competitions were authorized in subsequent legislation and, by the end of fiscal year 1987, public shipyards had won competitions for about $656.1 million worth of work on 16 vessels, while private shipyards had been awarded about $166.4 million worth of work on 15 vessels. In testimony before the Congress, the Navy indicated that its initial competitions had encouraged public shipyards to adopt a more businesslike approach to their work, and it reported that the competitions had reduced ship repair costs by about $200 million.

Because of the successes reported by the Navy on its ship competitions, the fiscal year 1987 Defense Appropriations Act[11] directed the Navy to expand the scope of its public-private competition program to include competitions between U.S. Navy aviation depots and private aircraft maintenance facilities. The

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[9]A total of 223 public-private competitions had been completed as of March 31, 1993, but a proposal was received from both the public and private sectors for only 107 of these.

[10]Public Law 98-473 (98 Stat. 1904, 1907).

[11]Public Law 99-591 (99 Stat. 3341-83, 334-86).

Navy's first public-private competition for an aircraft work load was completed in 1988.

The Defense Appropriations Subcommittees attempted to expand the public-private competition program to include the Army and Air Force as far back as fiscal year 1988, but this expansion was initially opposed by the Authorization Committees. However, the National Defense Authorization Act for Fiscal Year 1991[12] authorized the Army and Air Force to conduct a pilot program for fiscal year 1991. Section 314 (b) of the National Defense Authorization Act for fiscal years 1992 and 1993[13] authorized a new pilot program through fiscal year 1993, but this provision was subsequently repealed by section 354 of the National Defense Authorization Act for fiscal year 1993.[14]

The military services' current competition programs are being carried out under the authority and direction of various sections of the fiscal year 1993 National Defense Authorization Act, and the Defense Appropriations Act for fiscal year 1993. Basic authority for conducting the competitions is contained in section 9095 of the Appropriations Act. It states that, notwithstanding any other provision of law, the Secretary of Defense may use competition between DOD depot maintenance activities and private firms to acquire the modification, depot maintenance and repair of aircraft, vehicles and vessels, as well as the production of components and other Defense-related articles.

The fiscal year 1993 Authorization Act[15] (1) prohibits the military services from contracting out for the performance of more than 40 percent of the depot-level maintenance work load by nonfederal employees and (2) prohibits the services from changing the performance of a depot-level work load of $3 million or more that is being performed by a depot-level activity unless competitive procedures are used to make the change. While the legislative history of these provisions indicates that this requirement should only be applied in consideration of work load moving to the private sector, the statutory language is not so limited. This difference between the statute and the legislative history may warrant clarification, particularly in light of anticipated work load shifts required to implement base closure recommendations.

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[12]Public Law 101-510 (Sec. 922, 104 Stat. 1485, 1627).

[13]Public Law 102-190, (105 Stat. 1290, 1336).

[14]Public Law 102-396 (106 Stat. 1922, 1924).

[15]Public Law 102-484 (Sec. 351 through 354, 106 Stat. 2315, 2377).

As of March 31, 1993, the military services had completed 223 public-private competitions. As shown in table 6, competitions between public and private shipyards accounted for 183, or 82 percent, of the total.

Table 6: Completed Competitions for Fiscal Years 1985 Through 1993

Service	Fiscal year									
	1985	1986	1987	1988	1989	1990	1991	1992	1993	Total
Navy--shipyards	1	12	15	19	21	38	29	31	17	183
Navy--aircraft rework	0	0	0	2	0	2	0	0	0	4
Navy--component parts	0	0	0	0	0	0	0	2	0	2
Army	0	0	0	0	0	0	7	10	1	18
Air Force	0	0	0	0	0	0	5	3	2	10
Marine Corps	0	0	0	0	0	0	2	4	0	6
Total	1	12	15	21	21	40	43	50	20	223

Note: Through March 31, 1993.

It should be noted that while the Navy has been authorized to conduct public-private competitions for its aircraft work load since 1987, as of March 31, 1993, it had completed only four competitions. A 1992 Naval Audit Service report[16] (1) noted that these four competitions accounted for less than 2 percent of the funds potentially available for public versus private competition during fiscal years 1987-91, (2) concluded that the Naval Air System Command (NAVAIR) was not obtaining the full potential benefit of the competition program, and (3) attributed this condition to several factors, including a lack of NAVAIR guidance.

NAVAIR has subsequently initiated action that is expected to substantially increase the amount of work that is awarded through public versus private competitions. For example, NAVAIR initiated revised procedures for selecting work for public-private competition. Under these procedures, program managers are required to justify why their programs should not be considered for public-private competition whereas, in the past, NAVAIR relied on program managers to recommend their programs for such competitions. However, if NAVAIR implements its proposed new industrial strategy, public-private competitions may be eliminated.

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[16]Implementation of Competition for Aircraft Rework (044-C-92, Mar. 25, 1992).

Also noteworthy is the fact that, with the exception of Marine Corps and shipyard work loads, the number of competitions completed during fiscal year 1992 was considerably less than the number the services had hoped to complete. As shown in table 7, 21 of the 85 competitions initially planned for fiscal year 1992 were subsequently canceled, and 17 additional competitions had not been completed by the end of the fiscal year.

Table 7: Comparison of Planned and Actual Public-Private Competitions for Fiscal Year 1992

		Status as of October 1, 1992		
Service	Planned	Completed	Not completed	Canceled
Navy--shipyards	31	31	-	-
Navy--aircraft rework	5	-	3[a]	2
Navy--component parts	6	2	2	2
Army	28	10[b]	6	13
Air Force	12	3[b]	6[a]	4
Marine Corps	3	4b[b]	-	-
Total	85	50	17	21

[a]Includes one competition that was deferred.

[b]One of the competitions completed in fiscal year 1992 was not included in the initial plan.

Although our analysis of these competitions is not yet complete, our preliminary work indicates that (1) declining work loads are one of the primary reasons that competitions have been canceled and (2) delays in awarding work loads have been caused by such things as bid protests, difficulties in developing statements of work, and problems unique to public-private competitions (such as the need to ensure that competitions are conducted on a "level playing field").

As shown in table 8, with the exception of Marine Corps and Navy shipyard work, the military services plan to substantially expand the scope of their public-private competition programs during fiscal year 1993; however, we question whether these expansion plans are realistic, especially in view of the difficulties the services experienced with their competition programs during fiscal year 1992.

Table 8: Public-Private Competitions Completed During Fiscal Years 1991 Through 1993 (Dollars in millions)

Service	Fiscal year 1991		Fiscal year 1992		Fiscal year 1993	
	Number completed	Annual work load value	Number completed	Annual work load value	Number planned	Annual work load value
Navy--shipyards	29	$289	31	$375	22	$183
Navy-aircraft rework	-	-	-	-	7	$53
Navy--component parts	-	-	2	5	74	206
Army	7	27	10	20	24	101
Air Force	5	7	3	6	29	209
Marine Corps	2	2	4	5	1	2
Total	43	$325	50	$411	157	$853

[a]Data is actual for fiscal years 1991 and 1992 and planned for fiscal year 1993.

Competition Savings Have Been Less Than Expected

As part of their strategy to achieve the $6.3-billion reduction in fiscal year 1991-97 depot maintenance costs that was mandated by Defense Management Report Decision 908C, "Consolidating Depot Maintenance," the military services have developed plans to save about $1.7 billion by implementing a comprehensive public-private competition program. However, DOD audit agencies and we have not been able to substantiate much of the competition savings reported in the past. Furthermore, we question the services' ability to achieve future cost reduction goals, in part because actual events have not supported DOD's assumption that competitions between the public and private sectors will reduce depot maintenance costs by an average of 20 percent for each work load that is competed.

For example, in March 1987, the Navy estimated that it would save about $200 million as a result of its initial public-private shipyard competitions; however, in September 1990, we reported[17] that the Navy had overestimated the actual savings on these competitions because (1) the $200-million savings that were

[17]Navy Maintenance: Status of the Public and Private Shipyard Competition Program (GAO/NSIAD-90-161, Sept. 26, 1990).

initially reported had subsequently been partially offset by $145.5 million in cost increases, (2) some of the savings could have been due to other cost reduction efforts the Navy had underway at the time, and (3) the Navy's savings estimates improperly excluded some of the costs associated with implementing the program, such as the cost to develop and evaluate bid proposals.

Similarly, GAO and the Army Audit Agency have reported that the savings the Air Force and Army achieved from their fiscal year 1991 pilot competition programs were considerably less than the 20 percent savings that were expected. For example, in February 1992, the Army Audit Agency reported[18] that, instead of saving an average of 20 percent, the competitions in the Army's fiscal year 1991 pilot program were likely to result in a net cost increase of about 10 percent, or $1.9 million.

While we are still analyzing the results of the competitions that have been conducted to date, our preliminary work indicates that the military services' lower-than-expected savings can be attributed, to a large extent, to (1) declining work loads that have not only caused work loads to be eliminated from the program but also limited the amount of savings that were achieved on the work loads that remained in the program; (2) unanticipated cost increases; and (3) a certain amount of fixed costs that must be shifted to noncompeted work loads when a competition results in the transfer of a work load from the public to the private sector.

Private Sector Questions Whether the Playing Field Is Level

Structuring competition and developing a level playing field agreed to by both the private and the public sectors have been very contentious. In general, commercial contractors contend that because of inherent differences in the structure, processes, accounting systems, and regulatory requirements of both sectors, it is not possible to achieve cost comparability and make public-private competition fair. The private sector asserts that DOD should identify minimum essential core requirements and contract out the remainder of the depot maintenance work load to private industry through private-private competition.

Section 9095 of the Defense Appropriations Act for 1993[19] attempted to address the comparability issue by requiring that when DOD competes depot maintenance and the production of components between DOD activities and private firms, the Defense Contract Audit Agency

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[18]Review of Defense Management Report Decision 908 (Consolidation of Depot maintenance) (Information Memorandum Number 92-R3, Feb. 7, 1992).

[19]Public Law 102-396 (106 Stat. 1922, 1924).

must certify that successful bids include comparable estimates of all direct and indirect costs.

As implemented by the Department, certification is defined as an audit opinion that a proposal complies with the Cost Comparability Handbook issued by the Defense Depot Maintenance Council. The Handbook, which must be used by all depots when preparing proposals, requires the inclusion of all costs associated with proposed work. The objective of these audits is to detect material understatements as a result of noncompliance with the Handbook. The Handbook requires compliance with the DOD Accounting Manual, the cost accounting standards, and generally accepted accounting principles.

We are currently evaluating DOD's efforts to establish cost comparability through these procedures. It is too early in our work to have reached any conclusions. However, we have made some general observations about work load allocations as a result of the completed competitions. First, the private sector has won 64 of 107 competitions, or 60 percent, where both a public and private sector bid were received. The percentage of awards to the private sector varied by service--from 20 percent in the Marine Corps, 29 percent in the Army, and 38 in the Air Force, to 50 percent for Navy aircraft, 70 percent for Navy ships, and 100 percent for Navy component parts. Second, generally speaking, the public-private competitions have not resulted in any significant shift in work load from one sector to another. For example, of the 39 completed non-ship competitions, the work load moved from one sector to another nine times. However, eight of the nine work loads have shifted from the public sector to the private sector.

We have also noted that there is some question by the naval sea community as to whether or not public shipyards must prepare their bids in accordance with the Cost Comparability Handbook. Our analysis of the existing law and implementing procedures by the department indicates that since the 1993 Appropriations Act's provision on cost comparability applies to vessels as well as other equipment and the Department has chosen to use the handbook to achieve comparability, the same policies and procedures applied to other public-private competitions should be applied to Navy ship competitions.

CHANGES NEEDED IN MANAGING DEPOT MAINTENANCE

As noted in the JCS Depot Maintenance Consolidation Study, the current depot management structure in DOD and the services has not resulted in substantial competition, interservicing, or reduction of excess capacity and duplication of effort. There is nothing to indicate that continuing the current way of doing business will result in any significant departure from past performance.

The study group analyzed three alternative structures that might be used for organizing the Department's depot management structure in the future. The first is the establishment of executive agents for major commodity groups. For example, it might designate the Air Force as the executive agent for aircraft, the Navy for ships, and the Army for combat vehicles. The other two alternatives would remove direct control of depot maintenance from the services and place it in an organization external to the services. One centralization option is to create a defense maintenance agency, reporting to the Office of the Secretary of Defense, and the other is to create a joint depot maintenance command, reporting to the National Command Authority through the Chairman of the Joint Chiefs of Staff.

The JCS Depot Consolidation Study concluded that a joint depot maintenance command would produce the greatest opportunities for efficiency and matching depot capacity with future requirements. However, no decision has yet been made regarding how the Department's depot maintenance structure will be organized and managed in the future. The JCS Roles and Missions Report noted that the concept contained within the study group's recommendation--that of having a joint military command providing combat support to all military services and warfighting commanders-in-chief--would be explored in more depth in the next report to the Congress on combat support agencies due in 1993. In a letter forwarding this report to the Senate Armed Services Committee, the Secretary of Defense noted that the Office of the Secretary of Defense, assisted by the Joint Staff, will assess the merits of establishing an executive agent, joint command or defense agency for depot maintenance activities. He noted that the study will also examine possible further consolidation of depot activities and competitive bidding.

We are currently analyzing advantages and disadvantages to each of the proposed alternative structures. Our preliminary observation is that the historical difficulties in achieving cross-service cooperation suggest that the executive agency approach may not achieve the desired results. The services have had many opportunities to work cooperatively over the past 35 years, but have failed to do so. Thus, some form of centralized management external to the military services appears to be needed if the Department is to eliminate additional excess capacity and unnecessary duplication and more cost-effectively manage its depot maintenance operations. Additionally, strong, effective leadership will also be particularly critical as the department goes about making decisions on core requirements and work load transfers from depots that may be closed as a result of the 1993 base closure process.

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In conclusion, in light of the significant issues facing the DOD depot maintenance program over the next few years, there are a number of questions you may wish to consider during your deliberations on the DOD authorization bill:

-- Can DOD make sound depot maintenance budget plans without first defining its minimum essential core requirements?

-- Will changes in legislation be required to enable the optimal decisions to be made regarding minimum essential core requirements and work load allocation between the public and private sectors?

-- What is the most appropriate DOD depot management structure for making required capacity, core workload, and work allocation decisions to provide required depot maintenance at the least cost?

-- Should DOD postpone depot capital investments until after decisions are made on consolidation, closure, and public/private work load allocation?

As we continue our work on depot maintenance, we look forward to assisting you on these issues.

Mr. Chairman, this concludes my prepared statement. I would be pleased to answer questions at this time.

(709023)

CHRONOLOGY OF SELECTED KEY DEPOT MAINTENANCE DOD ACTIONS AND STUDY RECOMMENDATIONS 1958 THROUGH 1993

Date	Organization	Actions
1958	Department of Defense	Issued DODD 4000.19, Basic Policies and Principles for Interservice, Interdepartmental, and Interagency Support, which called on service commanders and directors to seek increased economies and effectiveness by cooperating with other services needing support, including maintenance and repair.
1963	Joint Logistics Commanders	Established the General Interservice Depot Maintenance Group to review depot maintenance work loads to ensure the highest possible degree of interservicing.
1969	Department of Defense	Published the Standard Integrated Support Management System manual, providing policies and procedures to standardize support management for multi-service aeronautical depot maintenance systems.
1970	Blue Ribbon Defense Panel	Recommended that DOD consolidate logistics services under a unified logistics command.
1973	General Accounting Office	Reported that each of the services had overemphasized developing its depot maintenance capability, rather than use the capability of the other services. Recommended that DOD establish a defense maintenance agency or single managers for specific commodities to increase interservicing. Potential for Greater Consolidation of the Maintenance Workload in the Military Services (B-178736, July 6, 1973).

Date	Organization	Actions
1974	Joint Logistics Commanders	Determined that an organization was needed in each service to serve as an advocate for interservicing. Established a Joint Technical Coordinating Group to develop an interservicing policy and implementation plan. Created a Maintenance Interservice Support Management Office in each of the services.
1978	General Accounting Office	Reported that DOD and service efforts to improve efficiency and eliminate duplication in aircraft depot maintenance had not been effective because depot maintenance was managed by each of the services and not at the DOD level. Recommended that DOD establish a single manager over aircraft depot maintenance that would be responsible for developing a master plan for eliminating unnecessary duplication. Aircraft Depot Maintenance: A Single Manager is Needed to Stop Waste (LCD-78-406, July 12, 1978).
1980	Joint Logistics Commanders	Established the Joint Aeronautical Depot Maintenance Action Group (JADMAG) to provide cross-service coordination and other advantages of a single manager, while retaining service control of the depots. Directed the JADMAG to resolve interservicing problems, analyze service work load capacity using standard procedures, and develop a DOD master plan for aircraft depot maintenance patterned after the GAO recommendation.

ATTACHMENT I

Date	Organization	Actions
1982	Joint Logistics Commanders	Established the Joint Depot Maintenance Analysis Group (JDMAG) from the merger of JADMAG and the Maintenance Interservice Support Group. Expanded JDMAG's charter to include commodities other than aircraft in its interservicing studies and master plan.
1983 March	General Accounting Office	Testified that DOD had not moved quickly to eliminate duplicate capability and excess capacity because of the (1) parochial interests of the services, (2) lack of central authority, and (3) absence of DOD wide planning. Recommended that DOD establish a single manager over aircraft depot maintenance that would be responsible for determining resource needs, sizing the depot complex, workloading the depots efficiently, and developing a master plan. Statement of Werner Grosshans, Deputy Director, GAO/PLRD, before the Subcommittee on Legislation and National Security, House Government Operations Committee (March 8, 1983).
1983 September	Joint Logistics Commanders	Reorganized JDMAG in an attempt to reduce the influence and constraints placed on the organization by the services.
1983 November	House Government Operations Committee	Recommended that DOD establish a single manager for aviation depot maintenance.

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Date	Organization	Actions
1984	DepAstSecDef /Logistics Systems Analysis Office	Concluded that 67 percent of JDMAG's interservicing decisions had no cost avoidance; more than 50 percent of the items considered for interservicing were not interserviced; and cost avoidance claimed from interservicing could not be verified.
1989	Deputy Secretary of Defense	Deferred issuing Defense Management Review Decisions (DMRD) 908 and 909, which would have (1) established single managers for aircraft, ground vehicles, and ships; (2) closed several depots; and (3) claimed $1.8 billion in savings over 5 years. Directed services to study the DMRDs along with other consolidation initiatives.
1990	Deputy Secretary of Defense	Directed the services to save $3.9 billion over the next 5 years through streamlining, increased interservicing, improved capacity utilization, and competition between and among DOD depots and private firms. These initiatives were included in DMRD 908. Established the Defense Depot Maintenance Council to provide the joint service strategy for achieving DMRD 908 savings.
1991	Deputy Secretary of Defense	Increased DMRD 908 savings to $6.4 billion to be achieved in fiscal years 1991 through 1997.

Date	Organization	Actions
1992	Deputy Secretary of Defense	Directed services to prepare integrated Base Realignment and Closure Commission proposals with cross-service inputs that support the following service leads for defense-wide depot maintenance: Army--ground weapon systems, Navy--ships, and Air Force--aircraft.
1993	Joint Chiefs of Staff	Concluded that DOD had 25 to 50 percent excess depot capacity, duplication existed throughout the services, closure of a significant number of depots would be necessary to reduce excess capacity, and the greatest cost savings would come from consolidating depot work load across service boundaries. Recommended that DOD establish a unified command for depot maintenance with authority to organize the current service depots as determined by the command, and as approved by the Joint Chiefs of Staff.
1993	Services	Submitted base closure proposals that fell short of the Deputy Secretary of Defense's directive by downsizing within services boundaries, rather than across the services.

[a]The Joint Logistics Commanders meet to discuss priorities for joint initiatives and efforts to improve depot maintenance. Current membership is the Commander, U.S. Army Materiel Command; the Commander, Air Force Materiel Command; the Deputy Chief of Naval Operations (Logistics); the Deputy Chief of Staff for Installations and Logistics, Headquarters, U.S. Marine Corps; and the Director, Defense Logistics Agency.

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