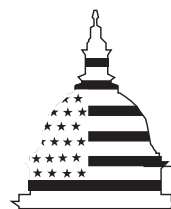
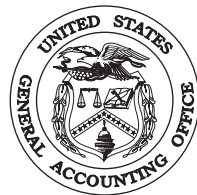


July 1999

# DEPOT MAINTENANCE

## Workload Allocation Reporting Improved, but Lingering Problems Remain



G A O

Accountability \* Integrity \* Reliability

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United States General Accounting Office  
Washington, D.C. 20548

National Security and  
International Affairs Division

B-282668

July 13, 1999

The Honorable John Warner  
Chairman  
The Honorable Carl Levin  
Ranking Minority Member  
Committee on Armed Services  
United States Senate

The Honorable Floyd Spence  
Chairman  
The Honorable Ike Skelton  
Ranking Minority Member  
Committee on Armed Services  
House of Representatives

On February 5, 1999, as required by 10 U.S.C. 2466 (e)(1), the Department of Defense (DOD) submitted a report to Congress on the distribution of depot maintenance workloads for fiscal year 1998. The statute provides that not more than 50 percent of the funds made available in a fiscal year to a military department or defense agency for depot maintenance and repair can be used for performance by contractors. As required by 10 U.S.C. 2466 (e)(2), we reviewed DOD's report on the percentage of depot maintenance funding used by the public and private sector activities. This report (1) sets forth our view on DOD's compliance with the percentage requirement in 10 U.S.C. 2466; (2) compares the results of DOD's recent report of fiscal year 1998 workload with prior years' reports; (3) discusses continuing weaknesses in the accuracy, completeness, and consistency of reported data; and (4) discusses improvements in DOD's guidance, data collection processes, oversight, and opportunities to further improve the quality of future reports.

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## Results in Brief

As submitted, DOD's report covering fiscal year 1998 depot workloads would indicate that each of the covered military departments and the one reporting defense agency are in compliance with the 50-percent ceiling set by section 2466. However, because of errors and inconsistencies in reporting, we could not determine whether DOD's departments and agencies were in compliance with the 50-percent ceiling for private sector performance. Further, consistent with DOD's stated plans, the private

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sector's portion of such work is continuing to increase. DOD is collecting projected out-year obligation data that likely would have provided a more definitive outlook for future workload allocations, but has not yet completed its data collection and analysis of this data.

Notwithstanding limitations in DOD's data, its report covering fiscal year 1998 depot workloads was more comprehensive than prior years' reports because of improved guidance and, in the case of the Air Force, use of its audit agency to review its data. DOD reported obligating a total of \$14.1 billion for depot maintenance in fiscal year 1998—about 37 percent more than was reported for fiscal year 1997. The percentage reported going to the private sector increased from 37 to 42 percent between fiscal year 1997 and 1998, with much of the increase resulting from contractor logistics support and interim contractor support.

The Office of the Secretary of Defense (OSD), the Air Force, and the Army have provided improved guidance and oversight for this year's report, and these actions resulted in more comprehensive reporting. However, reporting requirements are unclear in certain areas such as distinctions between depot and other levels of maintenance and repair activities. Also, problems occurred in this reporting cycle because guidance was not communicated to and understood by all organizational levels responsible for reporting. Further, data were not always reviewed for consistency and completeness within each service prior to submission to the OSD. Even once these issues are addressed, some subjectivity would likely continue because of difficulties in categorizing certain maintenance repair actions.

This report includes some recommendations for improving the quality of DOD's public-private sector workload reporting.

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## Background

DOD spent about 5 percent of its \$272 billion fiscal year 1998 budget on depot maintenance activities. Depot-level maintenance involves the overhaul, repair, upgrade, and rebuilding of military systems, subsystems, parts, and assemblies and requires extensive shop facilities, specialized equipment, and highly skilled technical and engineering personnel. Traditionally, public sector maintenance activities have been performed at

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22 major government-owned and -operated depots<sup>1</sup> and a number of other government-owned facilities, including post-production software support activities, naval warfare centers, and Army arsenals. According to DOD officials, private sector maintenance and repair are conducted at about 1,100 contractor-operated facilities at various geographic locations. However, current DOD guidance calls for increasing reliance on the private sector to meet support needs to the extent authorized by law.

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### Legislative Requirements on Public and Private Sector Workload Distribution

Section 2466 of title 10 of the United States Code governs the allocation of depot maintenance workload between the public and private sectors. The statute provides that not more than 50 percent of funds made available in a fiscal year to a military department or defense agency for depot-level repair and maintenance can be used to contract for performance by nonfederal personnel. This percentage applies to each individual military department and defense agency.

The statute also requires that the Secretary of Defense submit to Congress a report concerning performance during the preceding fiscal year and that we report our views on whether DOD complied with the public-private sector percentage requirements. Congress has required DOD to report public and private sector distribution data in all years except one since 1991, and the reporting requirement was made permanent by the National Defense Authorization Act for Fiscal Year 1998 (P.L. 105-85) as codified at 10 U.S.C. 2466. Results of our reviews of DOD's public-private sector workload allocation reports for fiscal years 1995, 1996, and 1997 are discussed in appendix I.

The 1998 legislation further provided a new provision, 10 U.S.C. 2460, which defined depot-level maintenance and repair workloads. The provision specified that depot-level maintenance and repair includes (1) overhaul, upgrading, or rebuilding of parts, assemblies, or subassemblies; (2) testing and reclamation of equipment; (3) all aspects of software maintenance classified by DOD as depot maintenance as of July 1, 1995; and (4) interim contractor support (ICS) and contractor logistics support (CLS) to the extent they involve depot-level maintenance services. The provision also specified that all depot-level maintenance and repair

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<sup>1</sup>Major depots employ at least 400 personnel. Two major Air Force logistics centers (San Antonio and Sacramento) are in the process of closing and a naval warfare center (Keyport) is being downsized to less than 400 employees.

workloads were to be included, regardless of funding source and location where the work was performed. It excluded from counting as depot-level maintenance workload the (1) nuclear refueling of aircraft carriers, (2) procurement of major modification or upgrades of weapon systems that are designed to improve program performance, and (3) procurement of parts for safety modifications but included the installation of parts for safety modifications.

Before 10 U.S.C. 2460 was enacted, depot-level maintenance and repair had not been defined in statute. Working definitions were provided in a variety of DOD directives, regulations and publications. The services applied these definitions using ad hoc procedures to prepare the prior-year reports.

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## Uncertainty Exists Over Compliance With Ceiling on Private Sector Work, Even Though Reporting Is More Comprehensive Than Ever

DOD's report, as presented, indicates that each of the covered military departments and the one reporting defense agency were in compliance with the statute; each reported that less than 50 percent of its depot workload was performed by contractors. However, as discussed later, because of errors and inconsistencies in reporting, we were unable to fully validate the data. Consequently, we could not determine whether DOD's departments and agencies were in compliance with the 50-percent ceiling for private-sector performance. Notwithstanding limitations in DOD's data, its March 1999 report was more comprehensive than previous ones. On the other hand, consistent with its stated policies and plans, DOD appears to be moving toward increased reliance on the private sector for depot maintenance support. DOD is working to develop future projections of its depot workload allocations, but it had not completed its efforts to obtain this information at the time we completed our report.

## DOD's Fiscal Year 1998 Report Is More Comprehensive Than Before

For fiscal year 1998, DOD reported total obligations of \$14.1 billion for depot maintenance and repair. This is a 37-percent increase over the \$10.3 billion reported for fiscal year 1997. Much of the increase resulted from reporting CLS and ICS. DOD has collected this information before for internal management purposes, but this was the first time it was included in the annual congressional report. In addition, more organizations and weapon system acquisition offices are now reporting depot maintenance workloads. For example, the number of Army major commands reporting increased from 4 to 11, the TRICARE Management Activity reported this year for the first time, and the U.S. Special

Operations Command<sup>2</sup> expanded its reporting to include reparable components funded through the service stock funds.

DOD submitted its workload report for fiscal year 1998 to Congress on February 5, 1999. The amounts and percentage distributions between the public and private sectors reported by DOD organizations are shown in table 1.

**Table 1: Reported Fiscal Year 1998 DOD Depot Maintenance Workload Distributions**

Dollars in millions

	<b>Total fiscal year 1998 obligations</b>	<b>Public sector total</b>	<b>Public sector percent</b>	<b>Private sector total</b>	<b>Private sector percent</b>
Army	\$1,729.4	\$941.2	54.4	\$788.2	45.6
Navy (and Marine Corps)	6,430.9	3,748.2	58.3	2,682.7	41.7
Air Force	5,736.8	3,328.6	58.0	2,408.2	42.0
Defense Intelligence Agency	0.061	0.061	100.0	0	0
U.S. Special Operations Command	195.4	137.2	70.2	58.2	29.8
TRICARE Management Activity	30.7	0	0	30.7	100.0
<b>Total DOD</b>	<b>\$14,122.4</b>	<b>\$8,155.3</b>	<b>57.7</b>	<b>\$5,968.0</b>	<b>42.3</b>

Source: DOD's Feb. 5, 1999, report to Congress.

As discussed more fully later, we found numerous errors, omissions, and inconsistencies in the records supporting this report; consequently, we were unable to fully validate the data and determine whether or not DOD's departments and agencies were complying with the 50-percent ceiling. The types of errors and omissions we identified indicated that in some instances DOD underreported the amount of funded depot maintenance work and understated the amount performed by the private sector. In other instances, the errors overstated the amount of funded depot maintenance. The errors and omissions were such that we sometimes

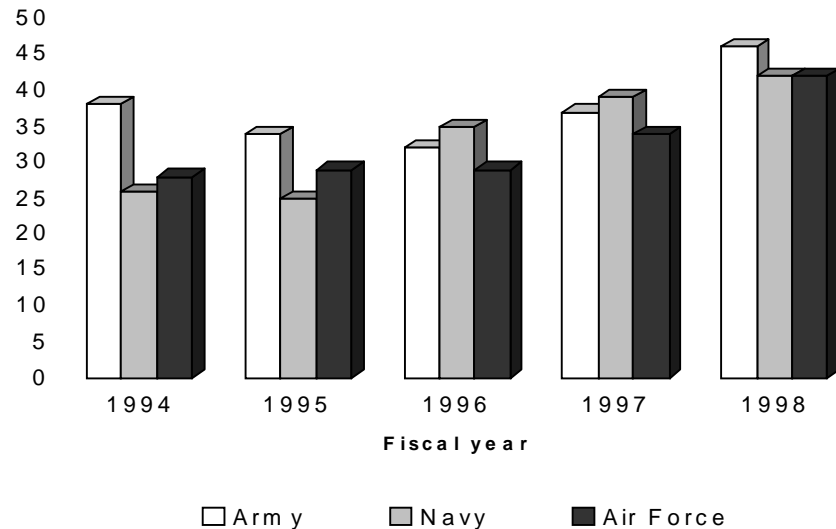
<sup>2</sup> Because DOD does not consider them military departments or defense agencies, these two organizations are not subject to the 50-percent ceiling for private sector workloads. TRICARE Management Activity provides operational support for the military services in managing and administering portions of the defense health program. It funds maintenance on aeromedical evacuation aircraft. The U.S. Special Operations Command is a unified combatant command responsible for ensuring special forces are combat ready and mission capable. It receives its own funds for acquisition and support for special operations-peculiar equipment, while the military services are responsible for funding items that are not special operations-peculiar.

could not differentiate whether the amounts pertained to work performed by the public or private sectors. As a result, the net effect was unclear.

### While Precise Data Are Lacking, Available Information Indicates Growth in Private Sector Workloads

We cannot be sure of the precise amounts of depot workloads being performed by government and private sector employees. However, DOD reports an increasing trend among the services in relying on the private sector for this work. For DOD in total, the percentage reported for the private sector was 42 percent for fiscal year 1998, up from 37 percent reported for fiscal year 1997. Figure 1 shows changes in reported percentages of DOD depot maintenance workloads performed by contractor personnel from fiscal years 1994 through 1998 for the military departments. The reporting baseline has changed over this period, consequently, the data are not directly comparable. The reports reflect changes in the data as reported under the guidelines in effect in each year.

**Figure 1: Percentage of DOD Depot Maintenance Workloads Performed by Contractors (by dollar value)**



Source: DOD data.

Note: While the data provide indication of a general trend toward increased contractor performance, it is subject to some imprecision due to periodic changes in reporting requirements.

Despite data limitations, the trend data indicate that the military departments continue to move toward the 50-percent ceiling on private sector workloads. DOD's report for fiscal year 1998 indicated that, with the



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exception of TRICARE, which reported all its maintenance in the private sector, no organization exceeded the ceiling on private sector workloads. This trend toward greater reliance on the private sector is consistent with DOD's plans to move in this direction.

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## Future Projections

Although not required by 10 U.S.C. 2466, DOD is developing data to make future projections of depot maintenance workloads in the public and private sectors. However, at the time of our report, DOD was still developing the data.

Data on the prior year's workload percentages are important, but, by themselves provide only a retrospective, point-in-time measure. Projections of future years' workloads and the percentage allocations between the two sectors provide a valuable perspective for internal management and congressional oversight. This data could highlight trends in the size and flow of workload and help judge the likely impact of current policies and acquisition program decisions on future allocations.

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## Errors, Inconsistencies, and Uncertainties Continue, but the Net Effect Is Unclear

Our review this year, as in prior years, found numerous instances of inaccurate and inconsistent reporting of depot workloads and in designating whether it was performed by the public or private sector, making it unclear whether DOD departments and agencies were within the stated 50-percent ceiling. Of those problem areas where we could quantify or reasonably estimate, we found errors and inconsistencies amounting to about 10 percent of the total dollars of workload reported by DOD.<sup>3</sup> Many of these problems were specific to types of workloads and systems but also involved difficulties distinguishing between depot and nondepot workloads at some locations. Other problems were of a more miscellaneous nature. We could not determine the net effects of these problems on workload totals and percentages because of limitations in the data and because some were difficult to quantify. The major reporting problems are summarized below, and discussed more fully in appendix II.

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<sup>3</sup> This figure, however, is based on our work primarily at headquarters locations and limited visits to field locations where data were obtained from the services.

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## Key Problems Identified

DOD's report on fiscal year 1998 workloads contained varying degrees of underreporting, over-reporting, and inconsistent reporting of depot maintenance workloads. An example of inconsistent and possible underreporting involves installations of major upgrade and remanufacturing programs.<sup>4</sup> The Army reported about \$70 million for costs of disassembling systems at both public and private facilities. However, the Navy did not report any of its \$10.4 million for disassembly workload. Neither service reported the installation costs incurred in the upgrade process in the private sector, considering these to be more production in nature rather than depot maintenance. Estimated installation costs for the Army were about \$130 million and the Navy \$30 million. OSD guidance specifies that installation and depot-level costs on major performance upgrades and other modifications should be reported.

Another example of inconsistent and underreporting of workloads involves installation of other modifications by the Navy. The Naval Air Systems Command reported \$217 million for installation of modifications by both the public and private sectors, but the Naval Sea Systems Command did not report \$176 million for installation work. A Sea Systems Command official decided installation of modifications was not depot maintenance. However, one program within the Naval Sea Systems Command did report \$62 million for public and private sector installations of modifications. This problem can affect both public and private workloads because installations are being done by both sectors.

In commenting on a draft of this report, Navy officials said that funds spent for disassembly are paid for with Aircraft Procurement Navy dollars and are not required to be reported. OSD officials, however, agreed with us that it is not the source of funds but the nature of the work that would be the determining factor in whether work should be considered depot work. They also agreed that disassembly, reclamation, preparation, and recovery work are depot maintenance functions, regardless of where this work is performed or the source of funds paying for it.

Underreporting was caused by the inability to distinguish whether work on depot maintenance workloads obtained through interservice agreements

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<sup>4</sup> A modification or upgrade is the alteration, conversion, or modernization of an end item of investment equipment which changes or improves the original purpose or operational capacity in relation to the effectiveness, efficiency, reliability or safety of that item. If the modification involves a remanufacture, the process typically results in a new model number and serial number of the modified system.

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was actually completed in the public or private sector. For example, the Army and the Naval Air Systems Command reported that all interservice workloads—\$11 million and \$116 million, respectively—were performed in the public sector, even though some workloads were actually performed by private contractors. The U.S. Special Operations Command, which reports separately from the services, did not determine where work was performed and reported its entire amount obligated for Air Force reparable—\$97 million—as public sector obligations, even though the Air Force, in total, contracts out more than one-third of its reparable workloads. This problem would understate contract workloads.

The inability to distinguish depot workloads from other work performed by the services at below-depot level maintenance organizations resulted in inconsistent reporting. The Army performed depot maintenance tasks at field level activities that were not completely reported because these activities did not consider the work they did depot maintenance, even though some of this work meets the depot maintenance definition established in legislation. Several Army commands inconsistently collected and reported depot data. In addition, a recent internal study by the Army, as well as our ongoing review of Army maintenance, suggests that there is a proliferation of depot workloads performed in nondepot locations and the total amount, unknown at this time, is higher than reported. Further, the Navy maintains its Trident submarines at refit facilities but reported no depot maintenance. Navy officials have different opinions about whether some of the work done on the Trident is depot maintenance. The total maintenance expenditure in fiscal year 1998 was an estimated \$158 million. The problem of identifying depot workload in nondepot activities could affect reported amounts for both public and private sectors.

Errors resulting from clerical and transcription errors and other problems, including differences in interpreting reporting guidance, also resulted in underreporting. The Navy, for example, inadvertently reversed its public-private data for the Atlantic and Pacific Fleets and reported a \$267,000 expenditure as \$267 million; the net effect of both errors resulted in an underreporting of the public sector obligations. The Air Force added \$24 million in estimated costs of government contract management to public sector obligations and subtracted the costs from private sector obligations. This latter area is not clearly dealt with in existing guidance.

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## Net Impact of Reporting Problems Is Unclear

The net effect of DOD's reporting problems on depot workloads and the public-private percentages is not clear due to data limitations, limited time available for our review, and our inability to quantify or project some data. The total amount of errors and inconsistencies that was quantifiable represented about 10 percent of the total dollars DOD reported. Some errors involved underreporting, while others involved overreporting or resulted in adding to one sector while subtracting the same amount from the other sector. Further, although we could quantify or use officials' estimates to quantify the majority of the problems, we found other problems were not easily quantified, and there are lingering uncertainties whether some types of workload should be reported. Some discrepancies were not readily distinguishable as to whether they affected the public or private sector. As a result, we could not accurately determine how much the reporting errors affected the overall percentages assigned to the public and private sectors. Thus, we could not definitively determine compliance with the 50 percent ceiling for the private sector.

At some locations, we found personnel responsible for providing information on depot workloads had not received the reporting guidelines necessary to provide accurate and complete information on depot workloads. Thus, although the services had issued guidance regarding what and how maintenance should be reported, in these instances this information never reached the personnel responsible for collecting it. Also, in some cases, reporting officials at locations where both depot and nondepot level maintenance work was being performed found they were making subjective determinations that could easily have been made differently by someone else.

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## Improvements Made in Guidance and Reporting for 1998, but Additional Improvements Are Needed

Compared to prior years, DOD improved its reporting on the distribution of depot maintenance funds between the public and private sectors for fiscal year 1998. This most recent report shows that the services are reporting more dollars, on more types of maintenance, and from more activities. Two services improved their respective processes for collecting data. Yet, based on data deficiencies identified, additional improvements are needed. However, to what extent additional efforts can eliminate all reporting problems is questionable, given the sheer size and extent of data collection efforts and the reporting uncertainties that persist.

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## Improved Guidance and Data Collection

Workload reporting guidance and implementation strategies for collecting and reporting the fiscal year 1998 workload data were generally better, more systematic, and more comprehensive than in prior years. OSD provided increased top-level guidance and taskings to the appropriate organizations. The Air Force and the Army took several steps to improve their data collection and reporting processes, but we found little indication that the Navy had.

The OSD Maintenance Policy, Programs, and Resources Office assembles DOD's report to Congress from the data aggregated by the military departments and the defense agencies. Responding to a recommendation in our July 1998 report, OSD issued guidance stating that the military departments and defense agencies should establish and document internal operating procedures for collecting data and reporting public and private sector depot-level workloads. It also stipulated that the procedures should clearly (1) identify the specific commands and activities responsible for submitting data and (2) describe the records and systems from which documentation would be pulled and the minimum documentation to be retained. It defined depot maintenance consistently with 10 U.S.C. 2460, added new reporting requirements for ICS, CLS, and similar contracts, and included some narrative to help clarify new reporting requirements and approaches.

OSD tasked the military departments and the defense agencies to report and required a response in the negative from those agencies having no depot maintenance. Seven defense agencies submitted negative responses. The Defense Intelligence Agency was the only agency to report some depot maintenance, and that amount was minimal. Although not defense agencies, the U.S. Special Operations Command and TRICARE Management Activity also reported some depot maintenance workloads. OSD does not consider these two organizations to be military departments or defense agencies as defined in 10 U.S.C. 101 and, consequently, it does not believe these organizations are subject to the 50-percent limitation. We found no basis to disagree with that view. However, OSD rightly included these organizations in the report to ensure more complete reporting of the source of repair of DOD depot maintenance work. These organizations do manage depot maintenance funds and own equipment items that are maintained in DOD depots and by contractors.

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Air Force

Air Force officials initiated the following key actions that substantially improved its reporting process and results from prior years.

- Issued additional instructions to supplement the OSD guidance, expanding on the directions for reporting ICS, CLS, and other maintenance reporting categories that had proven troublesome in the past or which required some interpretation.
- Held a widely attended kick-off meeting to explain and revise the guidance and to discuss reporting issues with representatives of the air logistics centers, acquisition program offices, and Headquarters, Air Force Materiel Command (AFMC).
- Provided electronic templates to help ensure comprehensive and standardized reporting.
- Designated focal points that worked with reporting entities to answer questions and summarize data.
- Used the Air Force Audit Agency to verify data and validate the collection process. Auditors, along with officials from AFMC headquarters and the Air Staff, reviewed major portions of the workload estimates initially submitted by logistics centers and acquisition offices and made substantial revisions to improve the accuracy and comprehensiveness of the data reported to the Congress.

Army

The Army also issued supplemental instructions to expand upon the OSD guidance, provide more details, and accommodate Army-unique programs. Officials based the instructions on the findings and recommendations resulting from last year's evaluation by the Army Audit Agency and our work. The instructions were disseminated to 11 major commands, and each command headquarters distributed the guidance to lower organizational levels and generally tasked appropriate offices for reporting. Every command subsequently reported depot maintenance obligations for fiscal year 1998 while only four commands reported last year. Officials, however, did not always ensure that all reporting offices had received and understood the guidance, which led to some reporting errors and inconsistencies discussed later in this report. Responding to the problems we identified in last year's report,<sup>5</sup> the Army Audit Agency reviewed the results of the Army's 1997 data collection and reporting, and made recommendations for improving Army procedures. An official said the

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<sup>5</sup> Defense Depot Maintenance: Public and Private Sector Workload Distribution Reporting Can Be Further Improved (GAO/NSIAD-98-175, July 23, 1998).

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auditors may be called in again to review the 1998 results, depending on the kinds and extent of problems we identified in this year's report.

Navy

Navy officials did not (1) issue additional instructions, (2) ensure that the OSD guidance was distributed to all appropriate offices, and, (3) in general, exercise the degree of management oversight of the data collection process, as did the other services. The Navy basically distributed the data call to nine commands and relied on their responses with little internal or external review. The Naval Audit Service was not tasked to verify data and validate the process. The Navy's approach resulted in differing interpretations of OSD guidance and questionable data gathering practices at two of the three commands we visited. For example, one command reported obligations for installing modifications as stated in the OSD guidance while another one did not, based on an official's determination that such expenses were not maintenance and were therefore not reportable. Neither the Naval Air Systems Command nor Naval Sea Systems Command sent the OSD guidance and taskings to all weapon systems program officials who were in the best position to determine applicability of reporting requirements to their programs. In commenting on a draft of this report, Navy officials said they had (1) obtained copies of newly drafted 50-50 data collection and implementation guidance from both the Army and the Air Force to take advantage of their "lessons learned" and (2) initiated plans to use the Naval Audit Service to help improve the Navy's 50-50 data gathering and reporting.

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**Further Improvements Can Be Made**

In the current environment, where the distinction between depot and other types of maintenance is becoming more blurred due to the various factors noted, identifying and reporting all obligations for depot maintenance is an increasingly complex process. Some situations will likely continue to require some subjective judgments regarding whether and how much to report. However, some of the errors we found were administrative and clerical and could be eliminated through reviews of data before they are forwarded to higher levels, improving DOD guidance, and providing more management oversight. Also, we identified some opportunities for process improvements that could help to improve the quality of DOD's public-private sector workload reporting.

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**Distinctions Between Depot and Other Types of Workload Are Increasing Reporting Challenges and Will Likely Require Additional Guidance**

Since the early 1990s, the distinction between depot-level maintenance and other levels of maintenance and manufacturing work has become increasingly vague as the services move depot workloads to operating locations, redefine required levels of maintenance, and consolidate maintenance organizations. This vagueness could require additional guidance on how to distinguish between depot and other workloads when depot and other maintenance levels have been consolidated.

While depot-level maintenance workloads continue to be performed at traditional depot activities, they are also performed by civilian and active-duty military personnel in military units and by contractors at various field locations. Funds for depot-level maintenance activities come principally from operations and maintenance appropriations but also procurement and research, development, testing, and evaluation appropriations. The public depots are primarily financed with working capital funds, whereas other facilities providing maintenance are financed through direct appropriation.<sup>6</sup>

Each of the military services is consolidating and streamlining some maintenance activities, which can present future reporting challenges. Thus, each of the military service headquarters may need to add guidance specific to its initiative, but some subjective judgments and differences in interpretation are likely when depot work is consolidated with other maintenance activities.

An Army initiative—the Sustainment Maintenance program—will collapse the current four-level maintenance system into a two-level system. Still in the early policy formulation stage, the two-level system will combine field and sustainment levels of maintenance at the same location. The current depot and general support levels will be combined and relabeled as sustainment maintenance workload—tasks that involve repairing, overhauling, rebuilding, and testing items. Sustainment maintenance will be accomplished both at the established Army depots and at local repair and maintenance activities. The Army plans to issue a new national maintenance policy later this year to consolidate the maintenance levels, and it will then begin revising field level instructions and technical orders in preparation for implementing the sustainment maintenance program.

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<sup>6</sup>A working capital fund is a revolving fund in which depots earn revenues through sales of maintenance services to customers, who reimburse the fund with appropriated monies. Nonworking capital funded maintenance facilities are financed through direct appropriations and their customers are not charged on a per item basis as they are for operations funded through the working capital fund.



The Navy's regionalization of maintenance plans is consolidating depot-level and below-depot levels of maintenance on a geographic basis. For example, the Navy has implemented a pilot project consolidating the operations and management of its Pearl Harbor Naval Shipyard and its nearby intermediate maintenance facility. This pilot project is testing the regional maintenance concept that integrating intermediate and depot maintenance activities would result in greater efficiency and lower overall costs than maintaining maintenance facilities within a single, geographic area. The Navy decided the consolidated activity at Pearl Harbor would use a single financial system and use mission funding rather than the Navy Working Capital Fund. Fiscal year 1999 is the first year operating under the new organization. The impact on the 50-50 reporting of merging both the operational and financial aspects of the two levels of maintenance reporting is uncertain, but an official told us the combined activity could have difficulty determining what work should be included in the Navy's 2466 report to Congress next year.

Similarly, the Air Force's recent transition from three to two levels of maintenance and changes in the location of work present some difficulties in reporting depot-level maintenance. Under two levels of maintenance, some workloads that had been accomplished at intermediate facilities transitioned to depots, while some devolved to base maintenance activities. Those workloads that went to depots should be included in the report to Congress, consistent with the OSD guidance that all workloads performed at depots should be counted as public sector workloads. The Air Force's experience in reporting C-5 engine maintenance suggests that additional guidance may be needed in this area because the same or similar tasks may not be consistently reported and could change from year to year depending on the location where work is performed. The Air Force initially pushed intermediate-level C-5 engine workloads to the San Antonio Air Logistics Center, where they were reported as public depot workloads. The Air Force later decided to move these same workloads to operating bases, where they were not included in this year's depot workload report.

**Continue to Improve Other Guidance and Ensure It Is Adequately Communicated to Key Reporting Levels**

The errors, inconsistencies, and uncertainties we found indicated that implementing guidance could be improved with further clarifications of reporting requirements in problem areas discussed in this report and with greater emphasis on ensuring that reporting guidance is disseminated to and understood by those charged with reporting. The experiences in the Air Force and the Army demonstrate that continuing to hone guidance and tailor it to service specific issues and programs pays off. Once improved, management must then direct and coordinate its release and provide the

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oversight necessary to ensure comprehensive and consistent results. On this point, the Army fell somewhat short in ensuring instructions were distributed and understood, especially in those commands that had not previously been tasked to report depot maintenance. Also, as discussed earlier, the Navy did not exercise much central direction and oversight of data collection to ensure all appropriate offices received guidance and had a common understanding of reporting requirements.

Responding to a recommendation in our July 1998 report, OSD stated in its guidance that the military services and defense agencies were to establish and document internal operating procedures for collecting data and reporting public and private sector depot-level workloads. The procedures are to clearly identify the specific commands and activities responsible for submitting data and describe the records and systems from which documentation will be pulled and the minimum documentation to be retained. The OSD guidance clearly specified reporting conventions and organizational responsibilities, while Army and Air Force supplemental instructions provided more specific details tailored to service issues and programs. For example, the Air Force guidance for CLS and ICS programs included a helpful list of tasks to assist program officials in determining which program costs should be counted as depot and which should not be. Each year, DOD can build upon lessons learned to further improve guidance for the following year and to include new issues that emerge—for example, reporting maintenance warranty costs and the challenges posed by the services' consolidations and changes in maintenance levels.

#### Align Internal Definitions With Statutory Requirements

Because of the new statutory definition of depot maintenance in 10 U.S.C. 2460, the services need to ensure that their own regulations and internal operating processes are consistent with the statute. This appears to be more of a problem in the Army than the other services. The Army's primary regulation on maintenance—Army Regulation 750-1—establishes policies and procedures for determining the appropriate level and subsequent classification of maintenance. The statutory definition encompasses a substantial portion of general support-level maintenance that is currently not recognized by the Army regulation as depot maintenance. As a result, field maintenance and program officials used definitions and maintenance classifications established pursuant to the regulation in determining whether and how much depot maintenance should be reported and did not report some workloads that appear to meet the definition in the statute. Army officials are revising this regulation to be more consistent with the statute. The Army, however, will also have to revise other operating instructions at the field and depot levels. Next year, the Army will need to

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ensure that, when completed, the revised regulation is understood and used in the field to report depot maintenance workload.

### Maintain Auditable Records

OSD guidance requires that the military services and the defense agencies maintain the detailed supporting data used to develop the submission for use by us. For CLS, ICS, and similar contractor support, the guidance specifies that records are to be maintained on the amounts included in workload totals and that estimating techniques and rationales are to be explained and documented. Our review, however, showed that complete records, accessible and understandable to a third party, were not always maintained. Army units in Korea, for example, maintained rather poor documentation and some records had been disposed of. The Navy did not maintain comprehensive central records to show how obligations had been accumulated. Air Force programs did not always have documentation to show how CLS costs were computed and what assumptions and estimating methodologies were used. Good records, documentation of processes followed, and identification of data sources used are important not only for audits and management oversight but also for use as a historical record that can be followed by newly assigned staff to assist in data collection and by new weapon system programs.

In commenting on a draft of this report, Navy officials said that the Defense Contract Management Command (DCMC) maintains information about depot maintenance contracts, including a complete history of obligations. While this may be true, DCMC does not provide a separate accounting of contract maintenance data. Additionally, our comment regarding the Navy not maintaining comprehensive records was intended to refer to all types of Navy depot-level maintenance, including that provided by Navy depots, other service depots, as well as the private sector. In later discussions with Navy officials, they agreed with our observations regarding the need to maintain better records in the future.

### Consider Expanded Use of Auditors to Verify Data and Validate Processes

The Air Force has demonstrated the value of employing its audit agency as a third party, "honest broker," to verify data and validate the data collection and reporting processes. The Army made limited use of its auditors last year to identify problems and to prepare instructions to supplement the OSD guidance. The Navy did not employ its audit agency to assist in this process. Additional use of service audit agencies could improve the quality and consistency of reported workload data.

The Air Force called on the Air Force Audit Agency for both the 1998 and 1997 report cycles. Numerous reporting officials cited the Air Force Audit

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Agency's work as extremely valuable in improving report accuracy and consistency. Auditors reviewed about \$4.8 billion (85 percent) of the fiscal year 1998 workloads reported by the air logistics centers and acquisition program offices and identified an error rate of 3 percent, or \$198 million (absolute value). These errors were corrected before the Air Force finalized its data and submitted the Air Force report to OSD. As a result, we found fewer reporting problems in the Air Force than in the other services.

The Army used its audit agency to review data after the 1997 report had already gone to Congress, but its findings and recommendations were useful to improving the Army's process and issuing supplemental instructions. If the Army had used its auditors to verify data before submitting its report to OSD, fewer problems would likely have gone undetected in the report that went to Congress. And, given the magnitude of errors identified in the Navy's report, use of its audit service could have been very beneficial. Use of statistical sampling techniques could also be helpful in this regard.

## Report Out-year Data and Project Future Allocations

As noted, while not required by law, this year's data call from OSD continued the prior practice of having components report projected workloads and percentage distributions for future years, in addition to current year reporting. OSD tasked the services to project workload data for fiscal years 1999 through 2005. The fiscal year 1999 and 2000 workloads were to use data submitted in the 2000 President's budget and the funded workloads for the remaining years were to reflect the most recent Program Operating Memorandum submission. DOD had not completed its efforts to obtain this information at the time we completed our report. Having this information, along with reporting on the results of the preceding year, would be beneficial.

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## Conclusions

DOD improved the results and the processes used to generate the report for fiscal year 1998. The report indicates that the military departments and defense agencies complied with the legislative requirement on depot maintenance funding allocation. However, we could not fully validate the data and determine whether the military departments and defense agencies were complying with the 50-percent ceiling for private sector performance under 10 U.S.C. 2466. Many of the reporting problems relate to uncertainties regarding what is and is not reportable and inconsistent interpretation of requirements between and among the services. Problems

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also resulted from personnel not receiving or being fully aware of reporting requirements. Further, some problems were exacerbated by the lack of retention of documentation pertaining to workload allocations, or insufficient management oversight to ensure accuracy and completeness of the data.

Despite data limitations, available information indicates that DOD, consistent with its policies and plans, is moving toward greater reliance on private-sector repair capabilities. DOD's report presents data for the most recent reporting year. DOD is in the process of developing projections of future year workload allocations. Such information is necessary to make a complete analysis of funding trends.

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## Recommendations

To improve the data collection and reporting processes, we recommend that the Secretary of Defense, in conjunction with the secretaries of the military departments and commanders of the defense agencies and activities, (1) provide additional clarifying guidance in areas of uncertainties such as those involving warranties that include the performance of maintenance, remanufacturing, and consolidation of depot and nondepot work at individual locations; (2) increase management emphasis and oversight to ensure reporting requirements are adequately communicated to all organizational levels responsible for providing workload reporting data; (3) consider greater involvement of service audit agencies and statistical methods, as appropriate, to verify workload reporting data before the data is submitted to OSD; (4) ensure retention of necessary documentation to verify workload allocations; and (5) provide future years' projections along with the prior-year data, or as otherwise required by Congress.<sup>7</sup>

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## Agency Comments

DOD officials provided oral comments on a draft of this report. They concurred with the first four recommendations and agreed to take actions such as issuing additional guidance in areas of uncertainty, including remanufacturing and consolidation of depot and nondepot work, and increasing the use of service audit agencies to review reported depot maintenance workload data. While concurring with the intent of our fifth recommendation, the officials said it is not practicable to submit future

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<sup>7</sup>H.R. 1401, section 334.

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years' projections of depot workloads at the same time as prior-year data. These officials said that if DOD is to submit out-year projections, the budget update scheduled at the end of March would provide a better baseline than out-year projections estimated using data developed in September of the previous year. Thus, because of the timing of the update, they said that May 1 is the earliest the future-year data can be submitted. We agree that the later information should be more current. However, using projections determined by the end of March or later as the basis for developing a report to Congress may not accommodate congressional review during the defense authorization process. Noting that Congress is considering requiring that out-year data be provided based on a different schedule than the prior data, we revised our recommendation to reflect this.<sup>8</sup>

As discussed below, officials also commented on various findings related to DOD's reporting on depot workloads.

DOD officials agreed that the Department's fiscal year 1998 depot workload report had significant errors and inconsistencies, but they noted that none were of sufficient magnitude to cast reasonable doubt that the military departments and the defense agencies were in compliance with the 50-percent limitation. As our report points out, given the numbers and types of errors and inconsistencies identified, we could not determine whether the required reporting activities were or were not in compliance for fiscal year 1998.

Army and Navy officials stated that the Army and the Navy were correct in not reporting certain costs associated with remanufacturing programs because these costs involve production, not depot maintenance. We noted that the Army did include the costs associated with disassembly and preparation, which are a part of the remanufacturing process, while the Navy did not. DOD officials agreed that reporting guidance relative to remanufacturing and major upgrade programs should be clarified. The statutory definition of depot maintenance includes certain aspects of weapon system and component upgrade and rebuild. We acknowledge that this is a difficult area to report on. However, we believe our recommendation is still merited and additional guidance and attention is warranted to ensure reporting is done consistently and in accordance with congressional guidelines.

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<sup>8</sup> H.R. 1401, section 334.

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Navy officials disagreed with our statements that the Navy should have reported funds associated with depot-like work performed at the Trident Refit Facilities. They said that these facilities are not considered depot-level facilities; no depot maintenance work is performed there; and to accommodate the Trident's unique operational schedule, depots are used only for extended refit periods and extended refueling overhauls. These facilities, however, were developed with extensive industrial capability, generally not authorized at intermediate repair facilities, to accommodate depot repair of the submarines' critical components to support the Trident's operational schedule. Further, in accordance with congressional and OSD guidelines, it is not the location of the work but the content that should determine whether it is depot-level work. Also, as previously noted, DOD guidance provides that depot maintenance includes overhaul, upgrading, or rebuilding of parts regardless of the source of funds for the work. We continue to believe it is not reasonable to conclude that these extraordinary industrial facilities perform no depot maintenance work in light of the capabilities of the industrial equipment located at the facilities and the content, complexity, and cost of the repair work performed there. Our 1998 report recommended that the secretaries of the military departments develop methodologies for aggregating and reporting depot-level work accomplished at nonworking capital funded repair sites—including the Trident repair facilities. We continue to believe that additional efforts in this area are needed to ensure that depot work is reported, regardless of location or funding source.

While our report states the Air Force may have underreported maintenance warranty costs, Air Force officials commented that all warranty costs related to depot-level maintenance were included in the report to Congress. However, Air Force Audit Agency officials initially raised the issue that warranty costs appeared to be underreported and, in their report comments, Air Force officials said that operating procedures would be expanded for warranty costs. Our report did not state that amounts were incorrectly reported but that a warranty is another reporting category that could be clarified in future guidance. Consequently, we left this example in the final report. Because warranties are widely employed and encouraged by DOD reform initiatives, it will be more important for OSD and the military departments to expand and clarify reporting guidance in this area. Therefore we have revised our recommendation to specifically reflect this category.

Agency officials also provided technical comments which we incorporated where appropriate.

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## Scope and Methodology

To validate DOD's reported amounts and percentage allocations to the public and private sectors, we reviewed DOD's fiscal year 1998 report and the supporting details (summary records, accounting reports, budget submissions, and contract documents) at the departmental headquarters, major commands, and selected maintenance activities. We discussed with officials the processes used to request, collect, aggregate, and report depot data and the management controls to oversee and validate results. We compared the processes against title 10 provisions on reporting requirements and definitions and the internal guidance used to guide this year's report. We selected certain programs and maintenance activities for more detailed review based on several factors, including relative size, OSD's areas of interest, and our past experience as to problem reporting areas. We evaluated procedures used and the results to ensure accurate and complete data and to identify errors, omissions, and inconsistencies in the reported area. We discussed audit findings and reconciliations made by the Air Force Audit Agency in its review of Air Force data and reviewed Army Audit Agency findings from last year.

To compare this year's report to prior years, we used information that we had developed in past years, supplemented by newer data, to compare and contrast total amounts reported, workload compositions by maintenance categories, and individual reporting organizations. We did this to identify major changes in the amounts and composition as well as commonalities between this and previous reporting periods. However, a complete comparison is not possible because of changes in reporting guidance. We developed trend data to show the annual percentage allocations between the public and private sectors for the military departments and for DOD as a whole, from 1994 to 1998.

Based on the supporting details backing up each organization's report, discussions with officials, and our analysis of selected programs, we identified specific examples where the reported information was not accurate, was incomplete, and/or was inconsistently reported within and between organizations. We used OSD and service supplemental guidance as criteria to evaluate and determine problem reporting areas and areas where there are differences in interpreting and applying the guidance. We obtained officials' views to determine the rationale they used deciding whether and how much to report and their perspectives on subjective and challenging areas of reporting.



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Building on what we had learned about both the positive actions taken by DOD this year, as well as continuing problem areas, we identified process improvements that could lead to improved future years' reports. We also identified where DOD had already taken action to improve this year's guidance, data collection processes, and oversight. We received comments and perspectives from officials at OSD, department headquarters, major commands, and maintenance activities regarding lessons learned and lingering areas of concern.

We interviewed officials and examined documents at OSD, Army, Navy, and Air Force headquarters, the Defense Intelligence Agency, and TRICARE Management Activity, all in Washington, D.C.; the U.S. Special Operations Command at MacDill Air Force Base, Florida; Army Materiel Command in Alexandria, Virginia; Air Force Materiel Command, Dayton, Ohio; Naval Sea Systems Command, Arlington, Virginia; Naval Air Systems Command, Patuxent River, Maryland; Air Force Audit Agency, Dayton, Ohio; Army Tank Automotive Command and the Program Executive Office for Ground Combat and Support Systems, Warren, Michigan; Army Aviation Missile Command and the Program Executive Office for Aviation, Huntsville, Alabama; Oklahoma City Air Logistics Center, Tinker Air Force Base, Oklahoma; Warner Robins Air Logistics Center, Robins, Georgia; and several field locations of the Eighth U.S. Army, Korea.

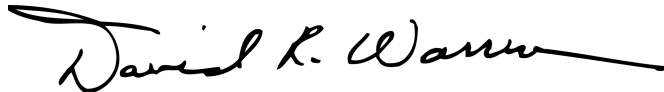
We conducted our review from February to May 1999 in accordance with generally accepted government audit standards.

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We are sending copies of this report to the Honorable William S. Cohen, Secretary of Defense; the Honorable F.W. Peters, Acting Secretary of the Air Force; the Honorable Louis Caldera, Secretary of the Army; the Honorable Richard Danzig, Secretary of the Navy; the Honorable Jacob J. Lew, Director, Office of Management and Budget; and interested congressional committees and members. We will also make copies available to others upon request.

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Please contact me at (202) 512-8412 if you or your staff have any questions concerning this report. Points of contact concerning this report and other key contributors are listed in appendix III.

A handwritten signature in black ink that reads "David R. Warren". The signature is written in a cursive style with a long horizontal flourish extending to the right.

David R. Warren, Director  
Defense Management Issue



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**Abbreviations**

AFMC	Air Force Materiel Command
CLS	contractor logistics support
DCMC	Defense Contract Management Command
DOD	Department of Defense
ICS	interim contractor support
NAVAIR	Naval Air Systems Command
O&M	operations and maintenance
OSD	Office of the Secretary of Defense
USSOCOM	U.S. Special Operations Command

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# GAO Reports Concerning Public and Private Sector Workload Distribution Reporting

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In May 1996, we reported<sup>1</sup> that the Department of Defense's (DOD) report of public and private sector depot maintenance workload allocations did not provide a complete, consistent, and accurate picture of depot maintenance workloads. DOD's report did not include funding for interim contractor support (ICS), contractor logistics support (CLS), labor for installation of modification and upgrade kits and software maintenance. In that report, we suggested that Congress might wish to consider requiring that these workload categories be included in future workload reports, regardless of funding source.

Similarly, in January 1998, we reported<sup>2</sup> that DOD's approach for collecting information on public and private sector depot maintenance workload allocations did not provide complete and consistent reporting for the same workload categories. We noted that DOD's guidance to the military departments was imprecise, leaving room for varying interpretations on data to be reported. To improve upon the accuracy of future workload distribution reports, we recommended that DOD develop a standardized methodology for annually collecting depot maintenance funding data for the public and private sectors, including specific definitions of the types of workloads and defense activities that should be reported. Responding to an earlier draft of our January 1998 report, Office of the Secretary of Defense (OSD) issued guidance in December 1997 that addressed many of our concerns regarding how the workload distribution data should be collected and aggregated to provide more complete and consistent reporting.

In July 1998, we reported<sup>3</sup> that the military departments had not developed complete and consistent workload distribution information in their February 1998 reports on the fiscal year 1997 workload. This resulted in underreporting about \$300 million for public sector workloads and \$1.6 billion for private sector workloads. We identified several reasons for this underreporting. First, OSD guidance continued to leave room for varying interpretation of reporting requirements. Second, the military

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<sup>1</sup>Defense Depot Maintenance: More Comprehensive and Consistent Workload Data Needed for Decisionmakers (GAO/NSIAD 96-166, May 21, 1996).

<sup>2</sup>Defense Depot Maintenance: Information on Public and Private Sector Workload Allocations (GAO/NSIAD-98-41, Jan. 20, 1998).

<sup>3</sup>Defense Depot Maintenance: Public and Private Sector Workload Distribution Reporting Can Be Further Improved (GAO/NSIAD-98-175, July 23, 1998).

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**Appendix I**  
**GAO Reports Concerning Public and Private**  
**Sector Workload Distribution Reporting**

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departments had not developed internal procedures and systems for accurate and timely reporting. Third, the military departments had not resolved questions on the inclusion of some depot-level workloads. We recommended that the Secretary of Defense direct that the secretaries of the military departments (1) establish and document internal operating procedures for collecting data and reporting public and private sector depot-level workload distribution and (2) develop methodologies for aggregating and reporting the amount of funding for depot-level work at nonworking capital funded repair sites. We also recommended that the Secretary establish milestones for issuing clarifying instructions and for resolving questions on responsibilities for reporting depot-level maintenance for selected maintenance.

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# Problems Found in DOD's Report on Fiscal Year 1998 Depot Workloads

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As in prior years, our review of selected data continued to find inaccurate and inconsistent reporting. Some errors are attributable to simple transcription and clerical mistakes, but many result from failure to follow guidance, unclear instructions, inadequate management oversight, lack of visibility of the data, and use of prospective and budgetary data rather than actual recorded obligations. Major upgrades, installation of modifications, interservice work (work performed by one service but funded by another), CLS, and maintenance performed at nondepot locations are more likely than others to experience reporting problems. There are also questions and uncertainties about reporting certain workloads and other areas that require judgment. In addition, the line separating depot-level maintenance from lower levels of maintenance is becoming increasingly blurred as the services move depot and depot-type workloads to operating locations, redefine required levels of maintenance, and consolidate maintenance organizations.

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## Major Upgrades and Remanufactured Systems

We determined that the Army and the Navy did not consistently report workload data in the 2466 report and may have underreported the use of funds for installation and related workloads on several major upgrade and remanufacture programs. Service officials said these programs were to improve performance and were production in nature and not reportable as depot maintenance. OSD guidance, however, includes overhaul, upgrading, and rebuilding in its definition of depot maintenance and specifically directs that the installation of performance upgrades and other modifications be reported, regardless of the source of funds and location of the work. The Army's supplementary instructions also state that the installation of major modifications or upgrades of weapon systems that are designed to improve performance are reportable and that, if rebuild or overhaul is performed in conjunction with the modification, the full cost of the rebuild or overhaul is reportable as well as the cost to install the modification kit. The Army instructions cite one upgrade program in question as an example of reportable costs. Because of the differences in opinion and inconsistent application of guidance, this area is one where DOD needs to clarify reporting requirements.

The Army did not report obligations for depot-level installation workloads for the Abrams Tank, the Bradley Infantry Fighting Vehicle, and the Longbow Apache Helicopter upgrade programs funded by the procurement appropriation. More than \$1.3 billion in procurement funds were available to these programs during fiscal year 1998. A DOD official estimated that about 10 percent, or \$130 million, was for installation. Army officials



believed that these kinds of performance upgrades and remanufacturing actions were not reportable as depot maintenance. They consider these actions more like new production because the upgraded systems receive new model numbers and serial numbers. However, the Army did report the depot-level obligations for the disassembly of components and premodification work performed at Army depots and contractor facilities on these weapon systems. For example, the Army reported obligations totaling \$38.5 million for the operations and maintenance (O&M) funded disassembly of the Longbow Apache. Of this total, \$30.2 million was for contract obligations and \$8.3 million was for work performed at an Army depot. For the Abrams and Bradley disassembly and premodification work, the Army reported procurement funded obligations totaling \$32.2 million (\$24.5 million for workload at Army depots and \$7.7 million for contractor workloads).

The Navy's AV-8B (Harrier) remanufacture program modifies selected day attack Harriers to a radar/night attack capability. Aircraft are disassembled at the Cherry Point Naval Aviation Depot in North Carolina, with specific parts being shipped to the contractor facility to be used in the new configuration. Navy officials did not report any funds for installing the new configured parts at the contractor facility, nor did they report \$10.4 million in obligations for disassembly work at Cherry Point. The total program cost in fiscal year 1998 was \$327 million; using the estimate that installation costs account for about 10 percent of program costs would indicate that about \$32.7 million was not reported. Program officials said that they did not believe these kinds of costs were reportable under the depot maintenance workload requirement because the remanufactured aircraft will be a totally new system and that the Navy lacks the capability to do the remanufacture. Program officials had not received OSD's reporting guidance this year and had not been tasked to report by Navy headquarters. The OSD guidance specifies that all work performed at a DOD depot should be reported.

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## **Other Modification Work**

On other modification work, two naval commands did not report installations consistently and one underreported its work. The Naval Air Systems Command (NAVAIR) reported \$217.4 million for aircraft modification installations, but the Naval Sea Systems Command did not report about \$176 million for installations. The Sea Systems official responsible for data collection decided that installation of modifications should not be reported because it was not "maintenance" and verbally instructed her staff accordingly. However, that instruction apparently was

not passed to program officials in the nuclear area because they reported \$62 million for installation of nuclear equipment modifications. As discussed previously, the OSD guidance states that installations on both performance upgrades and other modifications should be reported as depot maintenance.

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## **Interservice Workloads**

The Army and NAVAIR reported fiscal year 1998 interservice depot workloads of \$11 million and \$116.4 million, respectively.<sup>1</sup> Both assumed that DOD employees would accomplish all this work, and they did not attempt to determine whether the work was actually accomplished by a contractor. Available data indicate that some of this interservice work was performed in-house and some was contracted out. DOD reported that, in fiscal year 1997, 21 percent of interservice workloads were accomplished by contractors.

The Air Force, in contrast to the other services, queried its program managers and officials responsible for managing interservice workloads to determine the ultimate source of repair for the workloads it interservices to the Army and the Navy. Its report to Congress included \$170.7 million in workload accomplished at Army and Navy depots by government employees and \$14 million accomplished by contractors (7.6 percent of the total interservice). There are, however, conflicting data on the interservice workload. The above amounts included a total of \$174.9 million that was financed through the revolving depot fund; the remaining amounts were directly funded. The 1998 annual financial statement of the Air Force revolving fund reported only \$121.5 million for interservice workloads. Air Force Materiel Command financial and depot maintenance staff could not reconcile the two numbers. In commenting on a draft of this report, Air Force officials said financial records do not provide sufficient detail to report the ultimate source of repair for all interserviced workloads. Thus, Air Force officials said they obtained source-of-repair data for interserviced workloads from the individual centers. However, they provided no data to reconcile the two data sources.

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<sup>1</sup>Depot workloads funded by one service but performed either at another service's depot or by the other service's contractor are called interservice workloads. OSD guidance requires that the military department or defense agency that manages the funding, or which owns the equipment being repaired, should report the workload for the purposes of this report. OSD guidance also requires that depot work will be reported according to who does the actual work, regardless of the location of the work. Air Force supplemental guidance elaborates that the program manager or production specialist responsible for the interservice workload will report whether the other service is repairing the asset organically or by contract.

U.S. Special Operations Command (USSOCOM) is not required to report under 10 U.S.C. 2466. It does not have its own depots and, similar to interservice arrangements, obtains depot maintenance from the services on a reimbursable basis. For the fiscal year 1998 report, USSOCOM officials allocated depot-level workloads on reparable parts to the public and private sources for work sent to the Army and the Navy but were not able to do so for the Air Force. An official said that he lacked visibility into the Air Force's stock fund to determine who performed the work. Consequently, USSOCOM reported all \$97 million in its Air Force reparable workload as public sector workload. USSOCOM and Air Force officials could not determine for us the ultimate sources of repair for this diverse workload, but it appears that this assumption may have significantly understated the private sector workload and overstated the public work by the same amount. The Air Force's fiscal year 1998 financial statement shows that about 35 percent of depot-level reparable funds in total went to private contractors. For another point of comparison, we obtained data from the Warner Robins Air Logistics Center directorate that manages special operating force programs. This data suggest an even more pronounced private sector involvement. The center directorate determined that \$24.4 million of its fiscal year 1998 reparable workload was accomplished by contractors and only \$2 million by the government. This workload consisted of maintenance on both USSOCOM and Air Force owned equipment.

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## CLS and ICS

In reviewing contract and financial records and through discussions with officials, we identified several instances where program officials overstated contract obligations because they did not separate depot-related costs from the costs of other nondepot services provided by contractors. We also identified a few programs that incorrectly reported obligations through misinterpreting guidance or reporting outdated data.

Although DOD had collected information on CLS and ICS<sup>2</sup> for weapon systems in prior years, its report on fiscal year 1998 depot maintenance was the first year it had reported to Congress in the current format. Efforts to

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<sup>2</sup>CLS is designed to be a lifetime support concept in which the contractor may provide some or all logistics support for an operational weapon system or major component. In addition to depot maintenance, support may include intermediate and base level maintenance, supply operations, engineering services, and program management. ICS is an interim arrangement, part of the acquisition strategy for new systems and subsystems, in which a contractor provides depot maintenance and, sometimes, other support services.

obtain and report data on CLS and ICS depot workloads can be somewhat more difficult than for other types of maintenance because these often require subjective judgments on the part of reporting officials to isolate depot-related cost items from nondepot-related items. For ICS programs, OSD guidance requires the services only to report depot maintenance on weapon systems that have passed their initial operating capability dates.<sup>3</sup> The ease and exactness in isolating appropriate depot costs partly depend upon how a contract is structured and how easy it is to clearly identify depot tasks within the contract line items. If it is not practical to determine the amount to be reported based on specific contract line items or other direct means, the guidance permits the use of algorithms or estimation formulas to determine the portion to be reported. When other than actual obligations are reported, the military department or defense agency is required to maintain records on the amount of CLS and ICS reported and to describe and explain any algorithm or estimation formula used in making the projections.

Although DOD does not consider TRICARE to be a defense agency subject to the 50-50 limitation, DOD wanted to include this activity's depot maintenance data in the 2466 data call for completeness. The TRICARE Management Activity overreported CLS depot maintenance work by about \$7 million by including some tasks that are not considered to be depot maintenance. OSD guidance tasked the TRICARE Management Activity to report depot maintenance and repair for the C-9A medical evacuation aircraft funded by the Defense Health Program. The TRICARE reporting official used records available to him and reported \$30.7 million in depot maintenance obligations for fiscal year 1998. This amount represented the total annual program obligations for CLS contracts. We reviewed contract records and budgetary data and determined that \$23.7 million should have been reported for depot maintenance during fiscal year 1998. In addition to valid depot workload for programmed depot maintenance, engine overhauls, and other depot-level tasks, the total amount included base supply activities, engineering support, contractor management costs, and other nondepot-related items. The Air Force flies and maintains the C-9 fleet for the Defense Health Program. We understand that DOD plans to transfer reporting responsibility to the Air Force starting with the fiscal year 2001 workload.

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<sup>3</sup>Initial operating capability refers to the date when the service determines that a new system has been fielded in sufficient numbers at its first operating base.

USSOCOM reported the entire amount—\$106.8 million—obligated on its numerous CLS and ICS contracts. It did not identify only the depot maintenance portions. Reporting officials did not readily have information to identify the reportable depot portions but, to the extent those contracts also funded nondepot tasks, depot maintenance obligations would be overstated.

The Army National Guard overreported depot-level maintenance obligations on CLS contracts for fixed winged aircraft by about \$40.3 million. An official reported total obligations on contracts for fiscal year 1998 rather than only the depot-related obligations because he had not received the Army's 1998 instructions and reported total obligations as was done for the 1997 report. We determined that the total obligations reported included \$40.3 million for base operations, flying hours, and other nondepot related costs. By excluding those items, we identified the \$40.3 million overreporting. An Army program official said that it is difficult to distinguish between depot-level and nondepot activities for these fixed winged aircraft. The contracts for logistics support did not separately identify the depot maintenance portion of the workload. The program office had received training and guidance on making these judgments, but the Guard had not received the guidance nor the training.

We found several instances of misreported and questionable amounts in the Air Force data. For example, two programs had reported outdated budgetary estimates rather than actual obligations, which were higher by about \$5 million in total. Officials in one of those programs also misinterpreted the instructions for reporting software maintenance, which resulted in further underreporting CLS obligations by \$500,000. A third program overstated obligations by \$1 million by including some nondepot maintenance items. A fourth CLS program, which serves many DOD customers at hundreds of worldwide sites, primarily relied on the contractor's estimate of depot costs. This program reported only 5 percent of its total program as depot related, which was very low compared to other CLS programs.

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## Difficulties in Distinguishing Depot Work From Other Maintenance Performed at Nondepot Locations

The distinction between depot-level maintenance and other categories of maintenance is becoming increasingly blurred as the services move depot workloads to operating locations, redefine required levels of maintenance, and consolidate maintenance organizations. Traditionally, DOD has not considered these field activities and activities funded by direct appropriation, rather than through the working capital fund, as depot maintenance providers. OSD guidance now requires the services to report maintenance work funded by all funding sources, regardless of the location where work is performed. Based on problems we identified at the limited locations contacted, we believe that the services may have underreported significant amounts of work at facilities that do both depot level and other levels of maintenance work.

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### Army

For the fiscal year 1998 workload report, the Army reported \$112 million in depot-level work completed by local repair and maintenance organizations operating at various field locations. However, the approach and methodology that the field activities used for collecting and accumulating workload data were inconsistent. Officials at some field-level maintenance and repair activities owned, managed, and funded by the Army's major operational commands, said they did not know that they had to report maintenance activities as depot maintenance since they were not performed at a depot. Although the Army's reporting guidelines follow the definitions in 10 U.S.C. 2460 and OSD guidance for identifying depot maintenance workloads, personnel who were assigned to the operating commands and who were responsible for accumulating data for inclusion in the report did not fully understand the requirements. Consequently, several major operating commands applied different data collection methodologies that led to inaccurate and inconsistent reporting. For example, the Training and Doctrine Command reported labor and materials obligations for only the depot-level tasks associated with items for which the command had obtained a special repair authority<sup>4</sup> from Army headquarters, while the European Command reported all depot level and general support tasks. Reporting officials at the Eighth Army in Korea were new to the reporting requirements and had some difficulties interpreting and applying the guidance.

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<sup>4</sup>A special repair authority is a one-time or continued authority granted by Army headquarters that allows a field location to perform specified depot-level maintenance.

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**Total Amount of Depot  
Maintenance Conducted at  
Army Field Locations  
Cannot Be Determined**

As directed by the House Committee on National Security, the Army recently completed a study of the proliferation of depot-maintenance type activities.<sup>5</sup> The Army's April 1999 report concluded that it currently lacks information to accurately determine the total amount of depot maintenance and similar work being conducted at field activities. The Army's maintenance manuals and policy statements have not been updated to reflect the depot maintenance definitions enacted by Congress and codified under 10 U.S.C. 2460. Maintenance manuals and policy statements currently reflect a four-level system consisting of unit level, direct support, general support, and depot level.<sup>6</sup> In discussing the Army's study, Army headquarters officials told us they plan to revise their maintenance manuals and policy statements to redefine levels of maintenance. The current depot and general support levels will be combined and relabeled as sustainment maintenance workload--tasks that involve overhauling and rebuilding items—and should be reported as depot level in future workload reports. Army officials believe these changes will enable commands to develop more complete and consistent workload data for future reporting cycles.

The Army's depot proliferation report states that the total amount of depot-level maintenance work conducted at field locations is unknown. It stated that field level activities completed 40 staff years of depot-level work at a reported cost of \$17.6 million under special repair authorities granted by Army command headquarters. The report also provided information indicating that unknown resources were expended overhauling and rebuilding various Army equipment—work that the Army's maintenance classification and reporting procedures did not recognize and categorize as depot-level workload, but which could be considered as depot maintenance under the 10 U.S.C. 2460 definition. The report also stated that the workload allocation reporting process did not accurately reflect the total dollar value of the depot workload performed in field locations. The workload was overreported in some cases and underreported in others. The report concluded that reporting problems were largely attributed to (1) differing interpretations of the OSD guidance and 10 U.S.C. 2460 and OSD definitions of depot-level maintenance, especially with

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<sup>5</sup>Directed by H.R. 105-532 on the Defense Authorization Act for Fiscal Year 1999, the completed "Study of the Proliferation of Depot Maintenance-Type Activities" was submitted to Congress on April 14, 1999.

<sup>6</sup>Unit and direct support maintenance is generally conducted by deployable military units. General support and depot maintenance generally is conducted by personnel working in fixed industrial-like facilities.

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respect to rebuilding, remanufacturing, and specialized repair type work, and (2) reporting officials lacking effective systems to facilitate timely and accurate reporting. We are currently completing a separate review on this issue.

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**Navy**

The Navy did not report any of the \$158 million it expended on maintenance support at the Trident Refit Facilities in Bangor, Washington, and Kings Bay, Georgia. While some officials labeled them as intermediate-level maintenance and repair facilities, the activities were specifically designed to provide incremental depot overhaul and repair of the Trident submarine fleet and depot-level repair of Trident equipment. The facilities also provide routine services and perform emergency and emergent voyage repairs to other submarine units. Navy documents cite extensive facility capabilities, dry-dock, and equipment that indicate a depot capability. The refit facilities performed depot overhauls on some smaller surface vessels to better utilize their facilities. However, in their official comments to our July 1998 report, the Navy stated that no depot-level maintenance is performed at the refit facilities. Other Navy officials told us that the refit facilities are the only locations where any Trident maintenance is done. This raises a question how submarines that have been in service for at least 15 years can have no depot maintenance performed on them.

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**Additional  
Miscellaneous Errors  
and Omissions**

Our review of financial records, summary spreadsheets, and other materials supporting DOD's workload report, and discussions with officials identified a wide variety of other errors and reporting uncertainties.

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**Navy**

In the workload numbers reported to Congress (table 1), the Navy reversed its public-private workload figures for the Atlantic and Pacific fleets and misreported \$267,000 as \$267 million. The net effect of these two errors decreased the Navy's total workload and its private sector workload, increased the public sector workload, and changed the public-private sector allocation percentages from the reported 58/42 to 65/35.



Based on work we reported<sup>7</sup> in February 1999, we believe that the public workload numbers reported by the Atlantic Fleet included some amount that was contracted to the private sector. In general, for the workload that is sent to the public shipyards, government employees do most of the major overhaul work while the ship is in drydock. Private sector employees, either on the shipyard or at private facilities, however, accomplish some work. Fleet officials reported the entire workload as accomplished in the public sector. We reported that about \$30 million of the \$538 million of work sent to the Norfolk Naval Shipyard in fiscal year 1998 was contracted to private firms. It is likely that some funds also flow through the other public shipyards to contractors but we did not make an effort to identify comparable situations.

The Navy made two additional errors that resulted in overstating contract obligations by \$41.5 million. Obligations for nonequipment ship alterations were double-counted, and estimated costs for installations had been reported based on a budget figure, which turned out to be greater than actual obligations for the year.

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## Air Force

The Air Force adjusted its workload figures to transfer \$24 million from private sector obligations to the public sector. Officials subtracted 1.5 percent of its total contracted workload that is funded through the depot maintenance revolving fund and added that amount to the public sector amount. The 1.5-percent figure is based on an element in the pricing structure for contracted items that estimate the salaries for government personnel charged with contract management. The Air Force maintains that this should be reported as a public sector government workload to be consistent with 10 U.S.C. 2466 that specifies the reporting of government employee costs as public sector obligations. This area is not clearly dealt with in existing guidance.

The Air Force may have underreported maintenance warranty costs by an undetermined amount. Officials did report warranty costs of \$3.4 million for four programs, but Materiel Command officials and the auditors believe that more programs could have reportable warranty costs. For example, one product center reported \$1.2 million, the fiscal year 1998 portion of a 10-year extended warranty for the AGM-130. Other programs at the

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<sup>7</sup>Navy Ship Maintenance: Allocation of Ship Maintenance Work in Norfolk, Virginia, Area (GAO/NSIAD-99-54, Feb. 24, 1999).

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**Appendix II  
Problems Found in DOD's Report on Fiscal  
Year 1998 Depot Workloads**

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product center, including Joint Direct Attack Munitions, Advanced Medium Range Air to Air Missile, and sensor fused weapon, have similar warranties but no depot costs were reported for these programs. Warranties may be another reporting category that could be clarified in future guidance. In commenting on a draft of this report, Air Force officials said that costs occurring prior to initial operating capability would not meet the 10 U.S.C. 2460 definition of depot-level maintenance and would not be included in the Air Force submission. However, both they and other officials agreed that additional guidance will be provided in the future regarding the applicability of warranty costs to 2466 reporting.

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**Army**

At the Army's Aviation and Missile Command, program officials did not coordinate data collection actions with officials at the integrated maintenance center. This resulted in double counting some items, which overstated obligations by \$1.8 million. Also, two program offices reported their budgeted programs rather than actual obligations, overstating reported workload by \$600,000.

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**U.S. Special Operations  
Command**

An error in the computation formula used by the Special Operations Command to report its depot workload resulted in a \$69-million understatement in both the total amount and the private sector amount. Correcting this changes the public-private sector percentages from the reported 70/30 to 58/42.

# GAO Contacts and Staff Acknowledgments

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## GAO Contacts

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# GAO Related Products

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Army Logistics: Uncertainties Surrounding Proposed Support Plan for Apache Helicopter (GAO/NSIAD-99-140, May 25, 1999).

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