

GAO

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

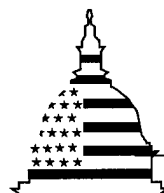
March 2000

DEPOT
MAINTENANCE

Future Year Estimates
of Public and Private
Workloads Are Likely
to Change



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GAO

Accountability * Integrity * Reliability

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Abbreviations

DOD Department of Defense
OSD Office of the Secretary of Defense



G A O

Accountability * Integrity * Reliability

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

National Security and
International Affairs Division

B-284415

March 1, 2000

The Honorable Herbert Bateman
Chairman, Subcommittee on Military Readiness
Committee on Armed Services
House of Representatives

Dear Mr. Chairman:

Since 1991, the Office of the Secretary of Defense has requested that the military departments annually provide information on their funds made available for depot maintenance work performed by the public and private sectors.¹ By law, the funding for work performed by the private sector in a given year may not exceed 50 percent of the total.² In fiscal year 1999, the Office of the Secretary of Defense asked the military departments to report on the allocation of funding for depot maintenance work performed in fiscal year 1998 and for estimates for fiscal years 1999 through 2005. As required, we reported to the defense authorization committees earlier on our review of the fiscal year 1998 data.³ You later requested that we report on the data for years after 1998. Thus, we analyzed the military departments' estimates of their depot maintenance funding used for depot maintenance work to be done by the public and private sectors during fiscal years 1999-2005 and identified limitations in the estimates.

¹ In each year, except one, since 1991, Congress has required the Department of Defense (DOD) to report depot maintenance workload distribution data. The request was made permanent by the National Defense Authorization Act for Fiscal Year 1998 (P.L. 105-85).

² 10 U.S.C. 2466.

³ *Depot Maintenance: Workload Allocation Reporting Improved, but Lingering Problems Remain* (GAO/NSIAD-99-154, July 13, 1999).

This report summarizes the results of our work as presented to your staff on December 14, 1999.⁴

Results in Brief

The estimated funding to be used for depot maintenance work performed by the private sector increases annually during fiscal years 1999-2005. The Army's and the Navy's estimates showed a slow, incremental increase in private sector maintenance work over this period, but the estimated private sector share remained below 50 percent. The Air Force did not report on its depot maintenance estimates for the period. However, preliminary data showed the Air Force's expenditures for depot maintenance workloads could exceed the 50-percent threshold between 2000 and 2003 unless actions are taken that would place additional work in the public sector. While considering several actions to address this situation, Air Force officials have recognized that they may not be able to manage the workload within the statutory limit during fiscal year 2000. In January 2000, the Air Force notified the Speaker of the House of Representatives and the President of the Senate that, as required by statute, the Secretary of the Air Force had approved a waiver of the 50-percent ceiling for fiscal year 2000.⁵

While the reported data provides a rough estimate of future workload allocation, the data has several limitations that affect its usefulness as a predictor of actual workload allocations. Portions of the data contained errors and inconsistencies; for example, relevant contract depot maintenance workloads were not included. Some of these errors and inconsistencies may be resolved with the Department's report on actual data for fiscal year 1999, which was issued February 4, 2000.⁶ Also, estimated data may vary significantly from actual experience because the

⁴ As discussed in greater detail in the objective, scope, and methodology section of this report, our analysis was based on budgetary data the military services and the defense agencies reported to the Office of the Secretary of Defense. While this data was the only data readily available to meet our audit objectives, it may be of limited reliability. Audits of budget information included in recent audits of DOD's financial statements have identified fund control weaknesses that adversely affect the Department's ability to reliably determine the amount of funds actually available for obligation. We address these issues in our report entitled *Department of Defense: Status of Financial Management Weaknesses and Actions Needed to Correct Continuing Challenges* (GAO/T-AIMD/NSIAD-99-171, May 4, 1999).

⁵ 10 U.S.C. 2466 (c) provides that the 50-percent limitation may be waived for a fiscal year, to a particular workload, or to a particular depot-level activity for reasons of national security.

⁶ We are currently reviewing the fiscal year 1999 data.

data are developed from budget estimates and future years' defense requirements change over time. For example, the Army estimated that 40 percent of its fiscal year 1999 depot maintenance funding would be for work done by the private sector. However, actual 1999 data showed that 46 percent of the funding for that year's depot maintenance work went to the private sector. Air Force actual depot maintenance workload funding allocations for 1999 were not available; however, other records indicated the potential for variance between planned and actual funding. For example, during the first month of fiscal year 2000, the dollar amount of Air Force depot maintenance workload on contract was about \$74 million higher than estimated. At the same time, the dollar amount of the depot maintenance workload performed in public depots was \$175 million below the estimated amount for that same month. Also, pilot programs to reengineer weapon system support activities are under way in each of the services and are shifting responsibility for more depot maintenance to the private sector. However, the data estimates do not yet fully reflect the future consequences of these actions.

Background

DOD annually reports expenditures of about \$14 billion on depot maintenance—the overhaul, repair, upgrade, and rebuilding of military systems, subsystems, assemblies, and parts at military depots, other government facilities, and private sector contractor sites. Section 2466 of title 10 United States Code prohibits a military department or defense agency from using more than 50 percent of funds appropriated annually for depot-level repair and maintenance done by contractor personnel. For oversight purposes, on November 23, 1998, the Office of the Principal Deputy Under Secretary of Defense for Acquisition and Technology asked the military departments and defense agencies to report by May 3, 1999, on the estimated funds to be used for performing depot maintenance by public and by private sector personnel for fiscal years 1999-2005. While in the past the services developed future year estimates and provided the data to us, 10 U.S.C. 2466 did not at that time require congressional reporting of such data. The National Defense Authorization Act for Fiscal Year 2000 amended 10 U.S.C. 2466 to require reports to Congress on future year estimates.⁷ Because that change would not be in effect until the Department's review and analysis of fiscal year 2000-2006 data, the Chairman of the Subcommittee on Readiness, House Committee on Armed Services, asked

⁷ PL. 106-65, section 333. DOD's initial report of estimates under this legislation is required to be submitted by April 1, 2000. As required by section 333, we will assess that report.

that we review the estimated data based on the prior reporting period—fiscal years 1999-2005 data. The Army and the Navy reported this data to the Office of the Secretary of Defense (OSD) as requested, but the Air Force did not. The Air Force collected preliminary data for 1999-2005 and analyzed it internally but did not have final data. We examined the preliminary data, and we discuss it in this report.

Growth in Private Sector Share of Depot Workload Funding Continuing

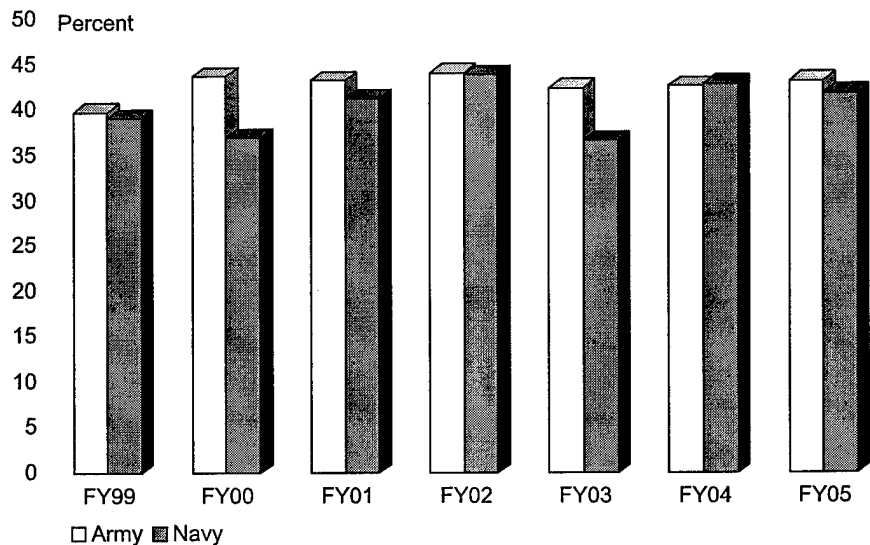
After the 1998 amendment to 10 U.S.C. 2466 increased the amount of depot maintenance workload that can be performed by private contractors from 40 to 50 percent, an increase in the amount of private sector work was expected.⁸ Our recent review of DOD's depot maintenance data showed that the percentage of the funding for depot maintenance work assigned to the private sector has increased, consistent with DOD's plans, revised logistics policies, and reform initiatives. The estimated workload funding data for fiscal years 1999-2005 indicates that the trend will continue. Army and Navy future year data reported to OSD shows small increases in the private sector share, but the percentage remains below the 50-percent ceiling. However, preliminary Air Force data shows that the Air Force will exceed the 50-percent ceiling by fiscal year 2003, if not sooner, depending on program decisions. On January 11, 2000, the Air Force, as required by statute, notified the Speaker of the House of Representatives and the President of the Senate that the Secretary of the Air Force had approved a waiver of the 50-percent ceiling for fiscal year 2000.

Incremental Increases Shown in Army and Navy Private Sector Workloads

The depot maintenance data submitted by the Army and the Navy for fiscal years 1999-2005 are shown in figure 1. This data generally shows small, incremental increases—with some fluctuation—in the annual percentage of depot workload expected to be performed in the private sector.

⁸ The 1998 DOD Authorization Act also contained a new provision, 10 U.S.C. 2460, which defined depot maintenance and repair workloads. The provision specified that depot maintenance 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 and contractor logistics support to the extent they involve depot-level maintenance and repair services. The provision also specified that all depot-level maintenance and repair were to be included regardless of the funding source and location of the work performed.

Figure 1: Estimated Funding for Army and Navy Depot Maintenance Work to Be Performed by the Private Sector



Source: Army and Navy data submissions to OSD in May 1999.

Both the Army and the Navy reported that they expected the private sector's share to be in the low 40-percent range through fiscal years 2005. This is an increase from the preceding 5-year period, when private sector funding allocations were typically in the 30- to 40-percent range. However, as discussed later, more recently reported actual data for fiscal year 1999 showed greater increases in the private sector workload than estimated in May 1999.

Preliminary Air Force Data Indicates Compliance Challenges

The Air Force did not finalize or submit depot maintenance estimates for fiscal years 1999-2005 to OSD. However, preliminary data was prepared by Headquarters, Air Force Materiel Command, and submitted to the Air Staff in June 1999. That data showed that the Air Force could exceed the 50-percent limitation between fiscal years 2000 and 2003, based on assumptions used to estimate funding allocations and the amount considered necessary to retain as a reserve. An October 1999 briefing to the Secretary of the Air Force showed the Air Force very close to, but below, the 50-percent limitation through fiscal year 2003. Air Force officials said that the Department is attempting to manage its depot maintenance

workload within statutory constraints. To do so, the Air Force has embarked on several courses of action, including

- exerting more control over and management attention to the assignment of work to the public and private sectors for repairs to new and modified systems and components,
- review work that is currently on contract for possible performance in a public depot,
- increasing attention to the impact of future depot workloads in the acquisition process when depot support strategies are discussed, and
- continuing mid-year assessments and actively monitoring programs for workload shifts and changes in scope.

Despite these actions, as permitted by 10 U.S.C. 2466, on January 11, 2000, the Secretary of the Air Force notified the President of the Senate and the Speaker of the House of his waiver of the 50-percent limitation for fiscal year 2000. According to the Air Force, this waiver is necessary to ease the transition of workload as a result of closing two Air Force depots. Without a waiver, the 50-percent limitation would inhibit the effective use of contracts to bridge the gap during the transition and would have an unacceptable impact on Air Force readiness.

Additionally, DOD officials have proposed revising the current 50-percent limit with congressional staff. Possible changes they proposed involved (1) excluding private sector workloads won in depot competitions and excluding data related to intelligence and special access programs; (2) considering all repairs on foreign military sales items as public sector workload; and (3) considering all work performed by contractor employees at government-owned depots, including contractor augmentees and contractor personnel at government-owned, contractor-operated sites, as public sector workload. In commenting on a draft of this report, DOD officials said the Department had withdrawn their legislative proposal for this year.

Future Year Data Are Rough Estimates and Are Likely to Change

The future year data should be considered as only a rough estimate of the workload funding split between the public and private sectors. The data have limitations that can significantly affect their accuracy, and the numbers are likely to change. First, as indicated in our prior depot workload reports, portions of the data continue to contain errors and inconsistencies. Also, in contrast with prior submitted data that were intended to portray actual obligations for the preceding fiscal year, the data

are budgetary estimates that by their nature will change. Additionally, defense policies, plans, and management initiatives call for more contractor involvement in future logistical support of new, modified, and fielded weapon systems. The data estimates do not yet fully reflect the consequences of these actions in the future.

Errors and Inconsistencies

The Army and the Navy data on estimated future workload contain errors and inconsistencies that were similar to the errors we identified in our earlier report on the fiscal year 1998 actual data. In making these estimates, the military departments compiled the data using the same procedures and guidance used to report the fiscal year 1998 workload information. DOD officials said that they planned to implement some of our recommendations and other identified improvements in the fiscal year 1999 workload reports to Congress. Data problems we identified included the following:

- While the Naval Air Systems Command reported, as required, the estimated costs of installing modifications⁹ (\$150 million and \$250 million per year), the Naval Sea Systems Command did not report its installation costs, which were estimated at about \$175 million annually.
- Because of confusion over reporting responsibilities, the Navy double-counted public sector maintenance workloads at the Pearl Harbor shipyard by about \$193 million and \$253 million for fiscal years 1999 and 2000, respectively.
- Neither the Army nor the Navy reported all depot-related costs for remanufacturing¹⁰ programs. These costs were estimated at \$130 million for upgrades to the Army's Apache helicopter, Abrams tank, and Bradley fighting vehicle systems and about \$33 million for the Navy's AV-8B aircraft remanufacturing.
- The Army over reported some contractor logistics support costs for National Guard aircraft by \$35 million to \$53 million annually and underreported the costs of government-furnished materials for Aviation Missile Command systems by \$12 million annually.

⁹ Installation refers to the labor required to install a modification kit or perform the required change in the system.

¹⁰ Remanufacturing involves an upgrade or conversion of a weapon system or end item that changes or improves performance and that typically results in a new model and serial number.

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- The Navy continued not to report any depot maintenance costs for its Trident submarine fleet at its two refitting facilities.

Budget Estimates Subject to Change

The services used future years' budget and programming data to estimate depot maintenance workload funding and percentages. Budget plans frequently change, and the actual workload mix may be significantly different than planned. Budget and programming estimates do not include new requirements that have not yet been officially approved. Additionally, a clear shift in policy that would increase the role of the private sector in future year estimates was not reflected in the preliminary Air Force data.

Experiences in the Army and the Navy illustrate how actual workload data can vary from budget estimates. The estimated data for fiscal years 1999-2005 indicates the private sector share to be fairly consistent, in the low 40-percent range. However, the 1999 actual data reported for the Navy was about 44 percent for the private sector, or about 5 percent higher than the projection about 8 months earlier. The actual versus estimated private sector share for the Army increased by about 6 percent (40 to 46 percent) over the same period. Defense officials stated that budget data do not provide very reliable estimates of the balance of depot maintenance workloads. Army officials said the increased contracting work could be largely attributed to increased reporting of Apache disassembly costs, more contract maintenance resulting from Kosovo operations, and additional helicopter inspections due to safety concerns. Decreased public sector work resulted from funding reductions. While we have not yet analyzed these changes, we plan to do so as a part of our mandated reviews of the 1999 actual data and estimates for 2000-2004.

Air Force budget estimates did not reflect future maintenance costs for systems and components that were under review for assignment. Through the assignment process, the Air Force determines whether depot maintenance on new and modified systems should be performed by the private or public sector. For maintenance on systems under review in June 1999, the recommended—but not yet finally approved—sources of repair favored the private sector about four to one (dollar value) over the public sector for fiscal years 1999-2004. If the Air Force approves these sources of repair, the percentage of funds expended in the private sector would increase about 1/2 percent annually. Also, Air Force data indicates that for the first month of fiscal year 2000, actual workload accomplished by the private sector exceeded the estimated contract amount by about \$74 million while the actual workload performed by the public sector was

\$175 million less than it had been estimated to be. While this data represents only 1 month, and we cannot predict the impact of programming changes for the entire year, it does show a significant variance from the estimate. This data also agrees with previous trends showing further increases in the amount of contract depot maintenance work. In waiving the 50-percent requirement for fiscal year 2000, the Air Force said that temporary depot maintenance contracts were required to ease the transition of work from two closing depots. We did not analyze the data used to support the waiver.

**DOD Maintenance
Initiatives to Increase
Future Contract Repair
Beyond Future Year
Estimates**

For several years, defense policies, plans, and management initiatives have emphasized moving more depot maintenance and sustainment activities to the private sector. We reported in March 1998 that about 72 percent of 46 new defense acquisition programs that had already decided who would provide repair and overhaul support planned to use the private sector.¹¹ As a result of various initiatives under way, some programs that had planned to use the public sector have recently made decisions that will increase the amount of repair work to be performed by the private sector. Consequently, unless some workloads currently on contract or planned for contract repair are moved to a public depot, these changes will increase the future private sector share.

The Air Force recently revised a prior decision to have the Oklahoma City Air Logistics Center install a major cockpit avionics upgrade to the Air Force's C/KC-135 aircraft while the aircraft are undergoing programmed depot maintenance. Through this upgrade, the Air Force is replacing over 30 components with commercial off-the-shelf components to improve reliability. A recent decision to have this modification done by a private sector firm will impact earlier assessments of the public and private sector mix. The planned public sector depot workload for fiscal year 2000 will be reduced by about \$11.9 million and for the following year by about \$5.1 million. Air Force documents indicated that using a contractor for this modification, as it ultimately decided to do, would reduce the value of workload contracted out without exceeding the 50-percent ceiling to about \$50.8 million in fiscal year 2000 and to about \$4.3 million for fiscal year 2001.

¹¹*Defense Depot Maintenance: DOD Shifting More Workload for New Weapon Systems to the Private Sector* (GAO/NSIAD-98-8, Mar. 31, 1998).

Likewise, changes in the maintenance support strategy for the Joint Surveillance Target Attack Radar System could reduce the amount of repair work done by the Warner Robins depot. The fiscal year 1999 depot maintenance workload for this system totaled about \$83 million: \$31 million, or 38 percent, for repair in the depot and \$52 million, or 62 percent, for the private sector. A new support strategy called Total System Support Responsibility is scheduled to begin in July 2000. It will transfer responsibility for support to the contractor. According to program officials, this new strategy will not have an immediate effect on the maintenance work being done at the Warner Robins depot. However, future work could shift more to the private sector as a result of source-of-repair decisions for system upgrades and modifications. They said that a workload shift to the private sector is expected for fiscal years 2000-2006 as more commercial, off-the-shelf items are introduced into the system.

Finally, under a program called Product Support for the 21st Century, each military service is implementing pilot programs and other initiatives that will likely increase the amount of logistics support work to be performed under contract. This program is designed to reengineer the product support process to use best commercial practices, competitively source product support, modernize the equipment by installing improved spare parts, and greatly expand prime vendor and virtual prime vendor programs.¹² These initiatives are likely to affect the planned mix for public-private sector depot repair work. However, defense officials said that they plan to encourage private firms to make partnership arrangements with military depots to do some of the repair work.

Conclusions

Future estimates provide a rough estimate of the split between the amount of funding used for public and private sector depot maintenance workloads. However, the data has significant limitations because of errors, the inherent nature of budget estimates, and potential management actions that were not considered. As a result, actual data will likely be significantly different from the estimates. Given available information, the likely changes reflect a greater use of the private sector. This is particularly the case as it relates to the Air Force, where management actions or additional waivers will be needed to meet the 50-percent statutory limitation.

¹² The prime vendor and virtual prime vendor initiatives are designed to allow the use of a single contractor to supply parts to repair shops and depot maintenance facilities.

Agency Comments

DOD officials, including the Assistant Deputy Under Secretary of Defense (Maintenance Policy, Programs, and Resources) and the Air Force Deputy Division Chief for the Maintenance Management Division, Air Force Headquarters, provided oral comments on a draft of this report. OSD officials agreed with the report findings and conclusions. Air Force officials generally concurred with the report, while expressing some concern about our use of the Air Force's preliminary estimates.

Air Force officials noted that no law required them to submit depot maintenance funding estimates for fiscal years 1999-2005. Further, the Air Force did not finalize preliminary estimates because the information was significantly outdated due to changes in the planned workload resulting from the closure of the Sacramento Air Logistics Center and the realignment of the San Antonio Air Logistics Center. Air Force officials also expressed concern that we had not considered the Air Force's latest strategies for managing depot maintenance workloads within legislative constraints.

While we agree that there was no statutory requirement for the Air Force to report data for fiscal years 1999-2005, the Office of the Secretary of Defense requested out-year estimates from each service, and the Subcommittee on Readiness requested our review of the data. This report acknowledges that the Air Force data had limitations because it was not finalized. Nevertheless, the data we obtained was the best data available and was reviewed by the Air Force Audit Agency to ensure its accuracy. This report recognizes the actions the Air Force has undertaken to manage its future depot maintenance workloads within the statutory requirements of 10 U.S.C. 2466, but there are significant challenges. A recent Air Force Materiel Command memorandum on the waiver issue recognized that the Air Force has a large problem trying to comply with section 2466 and that this problem extends beyond fiscal year 2000. The memorandum states, "Our efforts need to focus on reconciling the contradiction between the move towards increased contract workload in general with the requirements for Section 2466 compliance."

Scope and Methodology

To analyze the public-private depot maintenance workload funding mix for fiscal years 1999-2005, we reviewed the Army's and the Navy's data submissions to OSD and selected supporting details. The data was derived from funding estimates in the fiscal year 2000 President's budget and the services' programming database. For those departments, we reviewed a

limited number of specific workload items in more detail to understand the sources of information and the assumptions used in projecting data. Because the Air Force did not officially submit data to OSD, we obtained and reviewed preliminary data, briefing documents, and other reports that provided some insights into the Air Force's issues and problems but were incomplete. We discussed with DOD officials the management processes used to request, collect, aggregate, and report depot data. We analyzed the processes used to collect and report workload data as they relate to title 10 provisions that define depot maintenance for reporting purposes and DOD's internal data collection guidance.

On the basis of supporting details, discussions with officials, reports on the public-private mix, and our prior audits, we identified specific cases where the reported data was inaccurate, incomplete, and/or inconsistently reported within and between the military departments. We used OSD and supplementary service guidance as criteria to evaluate and determine problem reporting areas and areas where there were differences in interpreting and applying the guidance. We obtained officials' views to determine the rationale they used in deciding whether and how much to report. We also discussed their perspectives on subjective and challenging areas to report.

We interviewed officials and examined documents at the Office of the Secretary of Defense and Army, Navy, and Air Force headquarters, Washington, D.C.; the Army Materiel Command, Alexandria, Virginia; the Naval Air Systems Command, Patuxent River, Maryland; the Naval Sea Systems Command, Arlington, Virginia; and the Air Force Materiel Command, Dayton, Ohio.

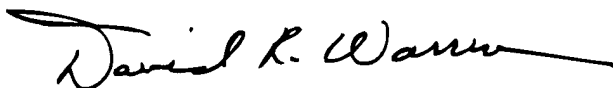
We conducted our review from July to December 1999 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Honorable John W. Warner, Chairman, and the Honorable Carl Levin, Ranking Minority Member, Senate Committee on Armed Services; the Honorable Solomon P. Ortiz, Ranking Minority Member, Subcommittee on Readiness, House Armed Services Committee; the Honorable William S. Cohen, Secretary of Defense; the Honorable F. Whitten Peters, Secretary of the Air Force; the Honorable Louis Caldera, Secretary of the Army; the Honorable Richard Danzig, Secretary of the Navy; and the Honorable Jacob J. Lew, Director of

Management and Budget. We will also make copies available to others on request.

Please contact me or Julia Denman at (202) 512-8412 if you or your staff have any questions concerning this letter. Key contributors to this assignment were Bruce Fairbairn, Raymond Cooksey, and Andrew Marek.

Sincerely yours,

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 Issues

Related GAO Products

Depot Maintenance: Workload Allocation Reporting Improved, but Lingering Problems Remain (GAO/NSIAD-99-154, July 13, 1999).

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

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

Defense Depot Maintenance: DOD Shifting More Workload for New Weapon Systems to the Private Sector (GAO/NSIAD-98-8, Mar. 31, 1998).

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

Defense Depot Maintenance: Uncertainties and Challenges DOD Faces in Restructuring Its Depot Maintenance Program (GAO/T-NSIAD-97-111, Mar. 18, 1997, and GAO/T-NSIAD-97-112, May 1, 1997).

Defense Depot Maintenance: DOD's Policy Report Leaves Future Role of Depot System Uncertain (GAO/NSIAD-96-165, May 21, 1996).

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

Defense Depot Maintenance: Privatization and the Debate Over the Public-Private Mix (GAO/T-NSIAD-96-146, Apr. 16, 1996, and GAO/T-NSIAD-96-148, Apr. 17, 1996).

Depot Maintenance: Issues in Allocating Workload Between the Public and Private Sectors (GAO/T-NSIAD-94-161, Apr. 12, 1994).