United States General Accounting Office

GAO

Report to Congressional Committees

September 2001

DEFENSE LOGISTICS

Air Force Lacks Data to Assess Contractor Logistics Support Approaches

GAO

Accountability * Integrity * Reliability

GAO-01-618

Contents

Letter 1

Results in Brief 2
Background 4
Data to Assess Contractor Logistics Support Approaches Are Insufficient 5
Data Are Insufficient to Compare Depot Maintenance Performed by Contractors With Maintenance Performed by Military Depots 11
Major Commands' Concerns About Expansion of Contractor Logistics Support Have Not Been Fully Addressed 14
Conclusions 17
Recommendations for Executive Action 17
Agency Comments and Our Evaluation 18
Scope and Methodology 20

Appendix I **Recent Department of Defense Studies on Logistics Restructuring** 23

Appendix II **Details on the Air Force's B-2 Source of Repair Decision** 26

Appendix III **Comments From the Department of Defense** 29

Appendix IV **Staff Acknowledgements** 33

Tables

Table 1: Contractors' Overall Performance Ratings From 1994 Through 1999 9
Table 2: Workload Placement for B-2 Depot Support Based on DOD's February 1995 Report to Congress 26

Figures

Figure 1: Comparison of Contractors' and Military Depots' Performance in Meeting Air Combat Command Spare Parts Standards for 16 Aircraft Systems, Fiscal Years 1990-2000 10
Figure 2: Comparison of Average Airframe Overhaul Prices for KC-135 Aircraft as Performed by Air Force Depots and Contractors, Fiscal Years 1996-2000 12

Abbreviations

DOD Department of Defense
GAO General Accounting Office

G A O
Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

September 7, 2001

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

The Honorable Bob Stump
Chairman
The Honorable Ike Skelton
Ranking Minority Member
Committee on Armed Services
House of Representatives

Since the end of the Cold War, the Department of Defense (DOD) has dramatically reduced its fighting forces and logistics infrastructure. At the same time, the armed services have significantly reduced their procurements of new weapons systems and are now keeping their weapons longer. The Department estimates that it is spending about $59 billion a year on logistics support to operate and sustain weapons systems[1] but believes that it could reduce these costs by 20 percent or more by adopting a variety of different logistics support practices. DOD has directed the services to pursue logistics "reengineering" efforts to achieve these savings. To this end, the Air Force has several efforts under way that involve commercial best practices and have, as a key feature, increased reliance on private-sector capabilities for logistics support.[2]

The Air Force's acquisition process provides for developing a system's logistics support concept prior to completing the production of a weapon system. DOD and Air Force policy provide a preference for using long-

[1] DOD does not routinely capture these costs in its accounting and estimating systems. However, beginning in 1999, the Undersecretary of Defense for Acquisition and Technology hired a contractor to estimate the amount of funds that DOD spends annually on logistics support.

[2] The Air Force uses different terms to describe logistics support provided by the private sector, including "contractor logistics support," "total system performance responsibility," "total system sustainment responsibility," "total system support," and "flexible sustainment."

term contractor logistics support. Nonetheless, the process for making logistics support decisions involves conducting an analysis comparing whether the private sector or Air Force activities will provide the most cost-effective and technically sound logistics support approach. These initial cost and performance expectations form the basis for the Air Force's decision to rely on a contractor, the government, or some combination of the two for support. If a contractor logistics support approach is selected, the Air Force develops and implements its contracting strategy, which includes an analysis of what performance and costs the Air Force expects from the selected contractor. After selection, the Air Force monitors the contractor's performance against the negotiated performance and cost expectations, not against the initial cost and performance estimates that led to the decision to use contractor logistics support.

Your committees have expressed concerns about the cost-effectiveness of these new contractor logistics support approaches and the management challenges that these approaches may create for major commands. As agreed with your office, we reviewed the Air Force's practices because the Air Force has had broader experience with contractor logistics support than the other services. You asked us to (1) analyze the differences between the cost-effectiveness estimates for proposed contractor logistics support approaches and actual implementation experience, (2) compare the performance of contractors and Air Force depots in terms of cost and responsiveness for the same or similar work, and (3) determine to what extent the Air Force has addressed concerns raised by major commands regarding the increased use of long-term contractor support. We will address the Army's and Navy's experience with contractor logistics support approaches in a subsequent report. DOD is currently engaged in a strategic review of its war-fighting goals, objectives, and capabilities, which could influence the way it approaches its use of contractor logistics support when completed.

Results in Brief

In general, it is impossible to determine whether the cost-effectiveness estimates for proposed contractor logistics support approaches are being achieved during implementation because the Air Force does not have the data required to do so. Consequently, the Air Force may be testing and adopting support approaches without sufficient information to assess whether expected readiness improvements and cost-reduction goals are being met. The Air Force established and retained documentation supporting proposed contractor logistics support approaches for only 2 of the 35 systems we reviewed (the C-17 and the B-2 aircraft). Data for the

C-17 do not permit a comparison between the proposed approaches and the contractor's actual performance, while the available cost data for the B-2 indicate a significant cost increase over the Air Force's initial estimate. The Air Force's analysis shows that while a portion of this increase was due to changes in work requirements, the large majority was due to the contractor's cost omissions and cost increases. Furthermore, the Air Force's 10 ongoing pilot programs—which are intended to provide a basis for evaluating new contractor logistics support approaches—are unlikely to provide the information needed to evaluate the cost-effectiveness of these approaches. The Air Force does have data to compare the contractor's performance with the criteria established in the contract and with the weapons systems' performance standards set by operating commands. These data indicate that contract requirements are being met.

A comparison of the same or similar depot maintenance work performed by Air Force depots and contractors does not provide a sufficient basis for determining the most cost-effective option. Available cost data indicate that Air Force depots were more cost-effective than contractors in overhauls of the KC-135 and B-1 aircraft, while Air Force depots and contractors were equally cost-effective in repairing various aircraft components. Nonetheless, the Air Force's limited experience to date in repairing the same aircraft and components in both the public and private sectors and the lack of comparable and reliable historical financial data make it difficult to assess the cost-effectiveness of private versus public repair facilities. Consequently, the Air Force does not have the data to assess whether greater reliance on the private sector will help it achieve the Department's goal of a 20-percent reduction in logistics support costs.

Major commands have raised concerns about the impact of the increased use of contractor logistics support on the management of their day-to-day operations that have not been fully addressed. Operating commands are especially concerned that the increased use of contractor logistics support may limit their funding flexibility. According to the Air Force, past experience has shown that the operating commands have had adequate flexibility with contractor-provided logistics support. The officials noted that this past experience has not been on the same scale as might occur under current logistics reengineering plans and therefore may indeed constrain the funding flexibility of operating commands. According to operating command officials, such constraints eventually may affect their ability to support missions by committing large amounts of funds to previously established support agreements. The Air Force has taken actions in response to other concerns raised by major commands—about possible reductions in their ability to perform essential logistics

management functions and possible reductions in their command authority, and about the lacking availability of technical data—but all issues have not been fully addressed.

We are making recommendations aimed at improving the Air Force's ability to assess the cost-effectiveness of contractor logistics support approaches and to address the management concerns raised by major commands that are associated with these approaches. In commenting on a draft of this report, DOD generally concurred with our recommendations.

Background

The Department of Defense is moving to greater reliance on the private sector for the logistics support of new weapons systems and major upgrades.[3] For example, DOD has 30 pilot programs under way to test various logistics support reengineering concepts that place greater reliance on the private sector. At the same time, defense manufacturers are increasingly interested in expanding their participation in weapons systems support.

Various DOD studies—including the 1995 Commission on Roles and Missions and Defense Science Board reports, and the 1997 Defense Reform Initiative and Quadrennial Defense Review reports—discussed the adoption of long-term contractor logistics support to improve logistics processes and achieve savings. (See app. I for details of these studies.) Generally, each study focused on increasing reliance on the private sector to meet DOD's logistical support needs as well as on making greater use of improved technologies, new business processes, and commercial transportation.

However, as we have previously reported, the support for these projected savings contained little substantive data to support their savings projections or they made inaccurate assumptions about how experiences in the private sector might relate to depot maintenance activities. For example, DOD used projected savings from the outsourcing of commercial-type activities as the basis for its estimated savings of 20 percent or more for outsourcing logistics support activities. However, the projected savings were based on conditions that do not currently exist for

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

most military depot maintenance work.[4] The commercial-type activities are unlike military depot maintenance in that they involve relatively simple, routine, and repetitive tasks that do not generally require large capital investment or highly skilled and trained personnel. Additionally, the commercial activity contracts were awarded in a competitive environment—a condition not generally present for depot maintenance contracts. As a result, projected savings generally resulted from competition rather than from contractor performance, whereas most DOD depot maintenance contracts are not competitively awarded.

Data to Assess Contractor Logistics Support Approaches Are Insufficient

The Air Force has not routinely captured the data necessary to assess contractor logistics support approaches for sustaining weapons systems against actual experience. Furthermore, those limited cases where data are available show mixed results. The available data are not sufficiently detailed or reliable to provide the basis for evaluating the cost of support approaches for certain weapons systems. Also, the Air Force's ongoing pilot programs have a similar limitation and are unlikely to provide the data needed to assess the support approaches' expectations against actual results. DOD does assess contractors' performance against contract requirements. With regard to contract performance standards, available indicators show that contractors have met or exceeded the contract criteria and supply performance standards established by operating commands.

The Air Force Does Not Have Sufficient Data to Assess the Cost-Effectiveness of Proposed Approaches

The Air Force either did not perform a cost benefit analysis or did not retain information on the analysis that was used to support its decisions to use the private sector to support weapons systems. Consequently, it cannot determine whether contractor logistics support approaches have performed better or worse than initially expected.

The Air Force's program offices are responsible for analyzing the cost-effectiveness of contractor logistics support approaches in developing life-cycle support plans. These analyses are supposed to form the basis for deciding to what extent the private and public sectors will be relied upon to provide logistics support. However, program offices have not generally

[4] See *Defense Depot Maintenance: Commission on Roles and Mission's Privatization Assumptions Are Questionable* (GAO/NSIAD-96-161, July 15, 1996) and *Outsourcing DOD Logistics: Savings Achievable but Defense Science Board's Projections Are Overstated* (GAO/NSIAD-98-48, Dec. 8, 1997).

retained the initial cost and performance estimates used to make these contractor logistics support approach decisions. The Air Force does not have an established requirement to assess the cost-effectiveness of these decisions after they are implemented. Air Force Instruction 63-107, which provides guidance on logistics support decisions for weapons systems, does not require assessing the cost-effectiveness of these decisions after they are made against initial expectations. While the instruction requires the documentation of the analyses supporting the logistics support approach decisions for weapons systems, the instruction does not specify retention requirements for the documentation. Once a contractor support decision has been made, the contractor's performance is measured against the contract—not the initial expectations supporting the decisions. As a result, the Air Force has not had sufficient data to determine whether the logistics support provided by contractors achieved the cost and performance expectations that initially supported the logistics support approach decisions. A recently added provision to Air Force Instruction 63-107 requires that program managers review how effectively their sustainment strategy for weapons systems is working and, if needed, adjust the strategy to improve performance and cost-effectiveness.[5] However, the instruction does not require program managers to compare actual logistics sustainment performance with initial cost and performance expectations.

Thirty-three of the 35 contractor-supported systems that we reviewed did not retain sufficient historical data to compare estimated cost and performance expectations with implementation results. Seventeen of these systems had no documentation of original cost and performance expectations, 8 had incomplete documentation, and 8 had not developed any cost or other performance expectations. The only systems that had established expectations and retained supporting documentation were those for the C-17 and B-2 aircraft, and the documentation for these systems was available only because it had been included in reports to Congress.[6] The Air Force has not compared the C-17 contractor's performance with initial expectations, and program office officials said

[5] The revised version of Air Force Instruction 63-107, Integrated Product Support Planning and Assessment, was issued in May 2001.

[6] The Office of the Secretary of Defense's 1995 *Report on the Most Efficient and Effective Utilization of Both Public and Private Facilities for Depot Maintenance Support of the B-2 Advanced Technology Bomber*, the Air Force's 1994 *Report to Congress: B-2 Depot Support Plan*, and the Air Force's 1997 *Report to Senate Appropriations Committee: Depot Support Strategy: Flexible Sustainment*, which addressed the C-17.

that such a comparison is impossible because the available data are not detailed enough and the logistics support approach taken does not match the approach initially anticipated in the Air Force's report to Congress. For example, the approach being used for C-17 logistics support relies on the private sector for approximately 99 percent of the depot maintenance workload, while the report to Congress estimated that this depot maintenance work would be more or less evenly divided between the private sector and military depots.

The Air Force recently completed a detailed analysis of scheduled airframe depot maintenance costs for the B-2 aircraft, comparing the service's 1995 estimate (when the Air Force decided to contract for B-2 support) with the contractor's actual costs. The review found that scheduled depot maintenance of the airframe cost more than twice what was originally estimated and that while a portion of this increase was due to changes in work requirements, the large majority was due to the contractor's cost omissions and cost increases. This analysis concluded that having the Air Force perform airframe maintenance at any of four military facilities would cost less over the system's estimated 20-year life span.[7] Furthermore, the Air Force's ongoing reassessment of the B-2 depot support approach for components and avionics items thus far indicates that the contractor's total cost estimate for these items for 1995 may have been understated by at least 52 percent. (For details on the Air Force's 1995 decision to contract for B-2 logistics support and its latest review of the 1995 decision, see app. II.)

Pilot Programs May Not Provide Data to Support Expansion of Reengineering Approach

DOD's pilot programs that are meant to test the cost-effectiveness of contractor logistics support may not provide data useful enough to adequately assess the different logistics support approaches. The pilots will not provide sufficient measurable results for several years, and the results will not differentiate between the effects of the various changes being tested in a specific weapon system. We found that the pilot programs' test schedules are unlikely to produce sufficient and timely data and that test results may not demonstrate a clear link to specific concepts. The Air Force believes that lessons learned from 10 Air Force, 10 Navy, and 10 Army pilot programs will provide sufficient evidence to support a decision to expand reliance on the private sector for logistics support.

[7] The quality of the data generated by the Air Force's financial systems creates a degree of uncertainty regarding these estimates, but it represents the best data available.

However, the pilot programs face problems in evaluating the cost-effectiveness of logistics reengineering concepts, such as the long-term use of contractors to replace government personnel. Consequently, even if savings do eventually occur, it will not be clear whether they come from any one reengineering concept or from other program changes.

One example of such uncertainty is the F-117 pilot program, which is testing ways to reduce sustainment costs and improve aircraft performance through such initiatives as downsizing the system program office, transferring some aspects of performance responsibility to a contractor, using a long-term contract, providing stabilized funding, and modernizing through spares.[8] However, according to the F-117 program office, the data will not allow the Air Force to differentiate each initiative's impact on the pilot program's overall success. The transfer of logistics functions, such as transferring supply management to the contractor, for example, is supposed to reduce program management costs by $80 million. But the pilot program's approach analyzes overall system performance measures, not discreet tasks, and the program office is not collecting detailed information on individual support tasks.

Management Data Show Satisfaction With Contractor Logistics Support

While data are not available to compare contractor logistics support approach expectations with actual results, information on actual contractor performance against contract requirements indicates that, generally, the Air Force is satisfied with contractors' performance and weapons systems' performance. Overall indicators show that contractors generally meet or exceed established performance criteria contained in their contracts and that weapons systems that use contractor logistics support meet the operating commands' supply performance standards.

Contractors' Performance Generally Meets Contractual Requirements

According to the Air Force Materiel Command's contractor performance reports, program mangers evaluated most contractor performance as having met and in some cases exceeded all contractual requirements from 1994 through 1999. Contractors' performance is evaluated through various measures specified in their contracts, such as meeting delivery schedules and product quality standards. Program offices conducted periodic assessments of whether contractors met these measures in order to make award fee decisions, and they completed annual performance assessment

[8] Modernization through spares involves replacing outdated components with new components with greater reliability, maintainability, or supportability.

reports.[9] While not all contractors met contractual expectations, most did. (See table 1.)

Table 1: Contractors' Overall Performance Ratings From 1994 Through 1999

Percent						
Rating	**Calendar year**					
	1994	**1995**	**1996**	**1997[a]**	**1998**	**1999**
Exceptional	19	22	24	N/A	26	25
Satisfactory to very good[b]	70	68	66	N/A	64	68
Marginal	9	8	9	N/A	9	6
Unsatisfactory	2	2	1	N/A	1	1

Legend

N/A = not applicable

[a]Data for calendar year 1997 are not available.

[b]In calendar year 1998, DOD split the "satisfactory" category into two categories—"satisfactory" and "very good." For consistency, we combined these two categories for calendar years 1998 and 1999.

Source: Air Force's contractor performance reports.

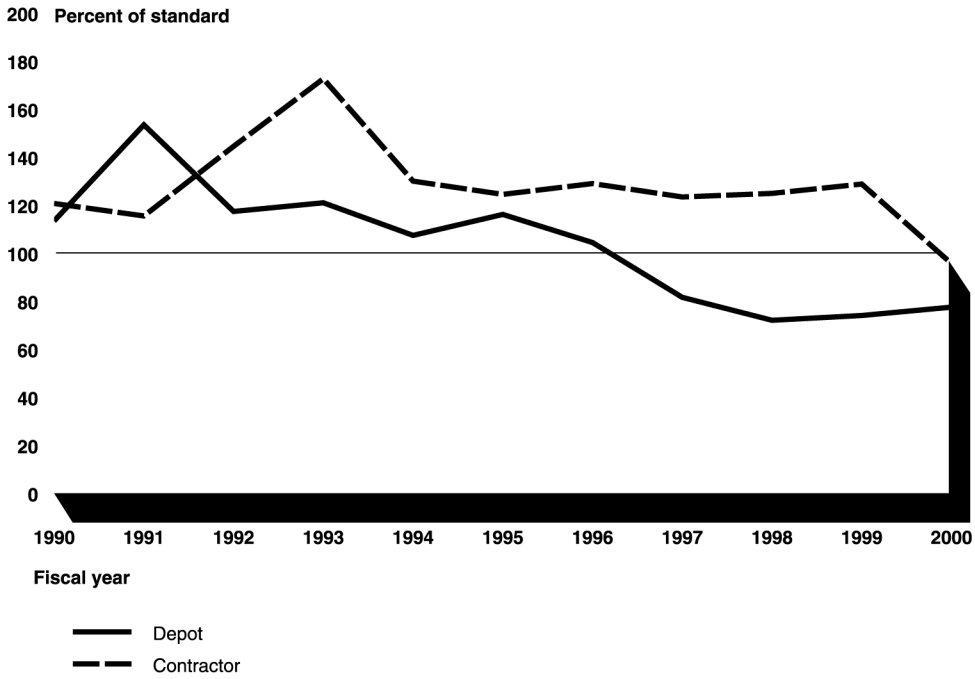
Contractor-Supported Weapons Systems Met Supply-Related Performance Standards

Operating commands reported that weapons systems supported by contractors met their supply-related performance standards. We compared the Air Combat Command's supply-related performance data with the command's standards[10] for 16 aircraft systems supported by contractors and military depots and found that the systems supported by contractors typically met or exceeded applicable performance standards. (See fig. 1.)

[9] Air Force Material Command Instruction 64-107 provides guidance on the preparation and reporting of contractor performance assessments.

[10] The military has various metrics for measuring weapons systems' readiness and performance. We used the "nonmission capable supply" metric to assess how well contractor logistics support affects aircraft readiness. According to Air Combat Command officials, this is the metric that best reflects contractors' performance.

Figure 1: Comparison of Contractors' and Military Depots' Performance in Meeting Air Combat Command Spare Parts Standards for 16 Aircraft Systems, Fiscal Years 1990-2000



Note: Because each aircraft system has a different spare parts nonavailability standard, we normalized the standards so that 100 percent represents the standard for each aircraft system. Consequently, data points on this chart above 100 percent indicate that, on average, the standards were exceeded. Also, of the 16 systems reflected in this chart, military depots support 9 systems, and contractors support 7.

Source: Air Force's data.

In fiscal year 2000, the Air Combat Command established interim goals for the availability of parts that took into account reported shortfalls in the funding for spare parts. Using these interim goals for the performance comparison instead of the parts availability standards, military depots' performance would have closely matched that of contractors in fiscal year 2000.

Air Force Combat Command officials stated that funding priorities should be considered when assessing these data. They pointed out that contractor-supported systems are usually in high demand and have few aircraft. As a result, they have a higher funding priority than military depot-supported systems, which generally have large numbers of aircraft. Air Combat Command, for example, has 44 F-117 fighters, which are high-

demand aircraft managed and supported by a contractor, and 303 F-16 fighters, which are managed by an Air Logistics Center and supported by military depots and contractors. According to command officials, whenever the budget faces reductions or unforeseen requirements for contingency operations, the F-16 typically faces a proportionally greater budget cut than the F-117 or other contractor-supported aircraft.

Data Are Insufficient to Compare Depot Maintenance Performed by Contractors With Maintenance Performed by Military Depots

The Air Force's limited amount of experience with using both the Air Force depots and contractors to perform like depot maintenance work does not provide a sufficient basis to evaluate performance. Furthermore, a comparison of contractors' and Air Force depots' repair prices may be limited because the quality of financial data generated by the Air Force's accounting systems is questionable, and for contractor-managed systems, data that are reported under contract may not provide detail at the component-level.[11] Notwithstanding these concerns, the few cases where price data were available to make such a comparison showed mixed results. We found only three such cases involving large and comparable depot-level maintenance: overhauls of KC-135 and B-1 aircraft, and repairs of components for aircraft and missile guidance systems.

KC-135 and B-1 Overhauls

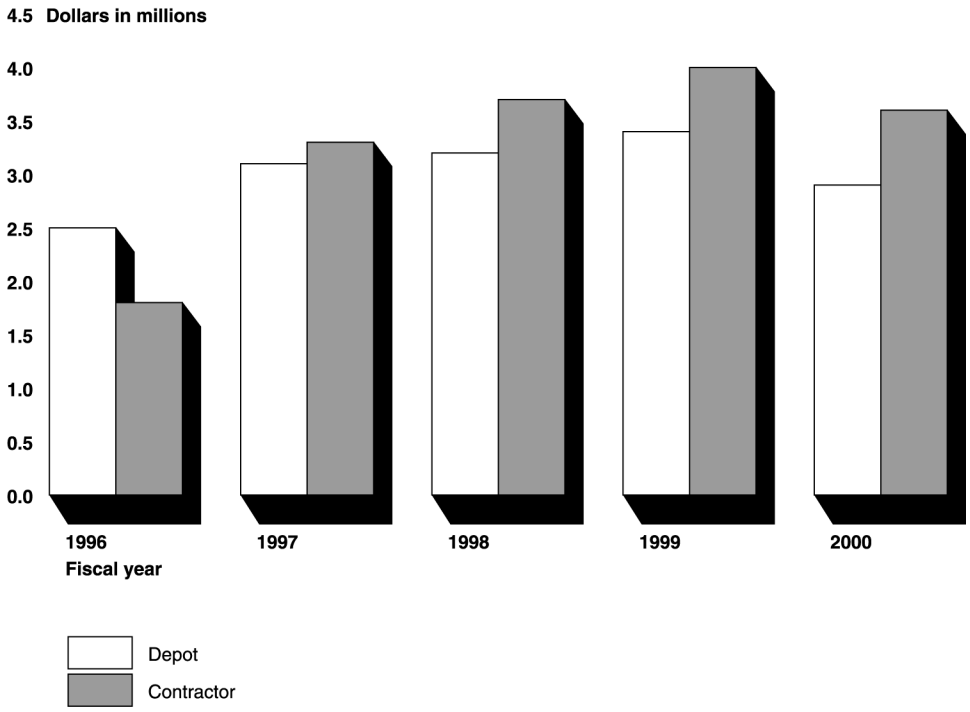
Contractors' prices for overhauling these two aircraft systems were relatively higher than those of Air Force depots'.[12] Figure 2 shows the average airframe overhaul price for 447 KC-135 aircraft (245 at Air Force depots and 202 at contractor facilities). The higher price of Air Force overhauls in 1996 was due to wiring modifications that Air Force depots began that year. The contractor began performing the same modifications in 1997. As for the B-1, we previously reported that overhauls performed

[11] See *Air Force Supply Management: Analysis of Activity Groups' Financial Reports, Prices, and Cash Management* (GAO/AIMD/NSIAD-98-118, June 8, 1998). As discussed in our May 2001 testimony on the results of auditors' review of the Department's fiscal year 2000 financial statements (GAO-01-681T), DOD does not yet have the systems and processes in place to capture the required cost information.

[12] The KC-135 is the only Air Force aircraft that currently uses both contractors and Air Force depots for overhauling airframes in the United States (the Air Force uses foreign contractors to support some aircraft overseas). Until 1998, both an Air Force depot and a contractor overhauled the B-1 bomber. Currently, all B-1 overhauls are performed at an Air Force depot.

by a contractor were priced twice as high as they would have been if an Air Force depot had performed them.[13]

Figure 2: Comparison of Average Airframe Overhaul Prices for KC-135 Aircraft as Performed by Air Force Depots and Contractors, Fiscal Years 1996-2000



Source: Air Force's data.

Components for Aircraft and Missile Guidance System

The Air Force initially estimated that it would save about $5 million a year by privatizing the repair of components for aircraft and missile guidance systems at a Newark, Ohio, facility. Instead, as we reported in 1997, the Air Force was paying about 16 percent more than it would have, had it continued to operate the facility.[14] Cost increases were due to material costs, government costs for contract administration and oversight, and

[13] See *Air Force Depot Maintenance: Information on the Cost-Effectiveness of B-1 and B-52 Support Options* (GAO/NSIAD-97-210BR, Sept. 12, 1997).

[14] See *Military Base Closures: Lack of Data Inhibits the Cost-Effectiveness Analyses of Privatization-in-Place Initiatives* (GAO/NSIAD-00-23, Dec. 20, 1999).

award fees. The facility was privatized in response to a 1993 recommendation by the Base Realignment and Closure Commission.

Component Repairs

Comparisons of contractors' and the Air Force depots' repair price data for similar component repair workloads is inconclusive in determining whether one entity is a more cost-effective source of component repair. Contractors and Air Force depots both repaired 28 components in ways and under conditions that allow for an objective comparison of their performance.[15] In addition, pricing data were available for both Air Force and contractor component repairs. However, as discussed previously, DOD's pricing data are of questionable reliability. Such reliability concerns notwithstanding, pricing comparisons are not conclusive. The Air Force depots' prices were lower for 16 of the 28 components. For example, a contractor repaired a radio circuit card for $1,680 each, while the Air Force depot did so for $624 (63 percent less); another contractor repaired an engine augmentor[16] for $4,742 each, while the Air Force depot made the repair for $1,930 (59 percent less). However, contractors' repair prices were lower for the other 12 components. For example, an Air Force depot repaired an F-16 multifunction display for $4,583 each, while the contractor repaired it for $2,118 (46 percent less); another Air Force depot repaired an F-16 radar receiver circuit card for $2,754 each, while the contractor repaired it for $775 (72 percent less).

Our analysis also showed that, overall, Air Force depots and contractors performed their work at acceptable levels for the components comprising our sample. Air Force officials stated they had no problems with the quality of the Air Force depots' recent performance. However, two contractors have recently had problems with meeting their delivery schedules, a third contractor was replaced by an Air Force depot because of concerns over the decreasing quality of the contractor's repair work, and a fourth contractor was replaced by another firm because the original contractor defaulted on the work.

[15] We reviewed 54 components from an Air Force list of components repaired at both Air Force depots and contractor facilities. These components had significant variances between the Air Force depots' and contractors' repair prices. For 26 of the 54 components, the repairs performed by Air Force depots and contractors were not the same or did not have sufficient data available to analyze relative cost and performance.

[16] The augmentor drives afterburner fuel nozzles.

According to Air Force Materiel Command officials, the cost of repair is not the condition driving where repairs are performed. In some cases, we found that meeting the depots' core capability requirements and fully utilizing depots' repair capacity in order to comply with the laws governing the public-private depot workload mix were the reasons for using a military depot when available data indicated that the contractor was the less expensive repair source.[17] For example, the Air Force repairs expandable program display generators for the F-16 at one of its depots to satisfy these requirements, even though a contractor repairs this item for 19 percent less. More expensive repairs by contractors were used to supplement shortfalls in depots' capacity and to facilitate workload transfers brought on by the closure of two Air Force depots. Additionally, according to these officials, the Air Force's approach is to maintain both a commercial and in-house source of repair to meet potential surge and contingency requirements for some components.

Major Commands' Concerns About Expansion of Contractor Logistics Support Have Not Been Fully Addressed

Major operating command officials have raised concerns about the impact on their operations that may result from the expanded use of contractor logistics support. They are concerned that expanding the approach may (1) limit their funding flexibility, (2) limit their operational authority, and (3) reduce program offices' ability to perform essential management functions. Additionally, Air Force Material Command logistics officials are concerned that not acquiring technical data for a new weapon system, along with the widespread use of contractor logistics support, may, in effect, force the Air Force to obtain support from a single private source, limiting competition among suppliers. The Air Force is taking actions on these concerns, but all issues have not been fully addressed.

Funding flexibility. Air Force operating command, program office, and budget officials generally believe that logistics support contracts, to a degree, represent fixed obligations and limit operating commands' ability to transfer funds in and out of various weapons systems' budget accounts to adjust for changing requirements or budget cuts. Air Force headquarters officials stated that the operating commands have always been able to accomplish their missions in spite of funding constraints and that they will

[17] 10 U.S.C. 2466 prohibits the use of more than 50 percent of funds made available in a fiscal year for depot-level maintenance and repair for private-sector performance. 10 U.S.C. 2464 provides for a core logistics capability that is to be identified by the Secretary of Defense and is government owned and operated. These provisions can limit the amount of depot-level maintenance and repair work that can be performed by contractors.

continue to do so, notwithstanding decreased funding flexibility. Command officials agreed that they have been able to accomplish their missions in spite of funding constraints but reiterated that such constraints may increase as their ability to transfer funds decreases. These officials could not specify at what point the reduced funding flexibility associated with the expansion of contractor logistics support might adversely affect their ability to accomplish their missions.

Operational authority. According to Air Force Space Command officials, including unit-level maintenance in sustainment contracts managed by Air Force Materiel Command would give another command the final decision-making authority over this aspect of unit operations. The officials were concerned that this could potentially diminish a unit commander's ability to effectively manage the basic maintenance of the unit's equipment. They cited the example of a fiscal year 2000 Air Force Materiel Command proposal for sustaining the Global Positioning System, which included unit-level maintenance. These officials stated that sustainment contractors' responsiveness to a unit's requests for critical maintenance functions under such a management arrangement could be slow or nonresponsive to the operating unit's needs and could thus affect readiness. In response to this concern, Air Force headquarters officials stated that final decisions on changes to operational-level maintenance that result from reengineering logistics initiatives can occur only with the operating command's approval.

Program office functions. Program office and command officials alike are concerned that the widespread contracting of logistics support may create a "brain drain" that would limit the Air Force's ability to effectively manage logistics support and deplete the resources and expertise needed to monitor program performance and oversee contractors. For example, the F-117 program office's staff was reduced by three-fourths as a result of the new support contract, and officials fear that similar staff cuts in other programs would severely curtail the service's ability to perform such fundamental tasks as evaluating the cost-effectiveness of modifications and upgrades proposed by contractors, being aware of a system's overall health, and evaluating or negotiating contract proposals. In other words, these officials are concerned that the Air Force may lose the technical resources needed to ensure that the government's best interests are taken into account during subsequent contract negotiations or new workload competitions. The Air Force expects to complete an ongoing assessment of the necessary logistics management functions by September 2001. However, discussions with the assessment team managers indicated that not all logistics functions are being addressed in this assessment.

Consequently, the effort likely will not adequately address the concerns raised.

Technical Data Needed to Ensure Competitive Pricing

Program offices do not always obtain the technical data of a new weapon system. Air Force Materiel Command logistics officials are concerned about the way the Air Force acquires technical data[18] for weapons systems because the current trend may hinder efforts to develop a competitive base of logistics support providers. Competitive sourcing support is a key element of the logistics reengineering strategy, and DOD's acquisition regulations[19] require that program managers provide long-term access to the technical data needed for competing a system's support throughout its life cycle.

In October 2000, the command completed a review of 31 repair source decisions for Air Force systems and concluded that in at least 9 cases, program offices either had not included a provision in the acquisition contract to obtain rights to technical data or had secured rights to the data through an unpriced contract option. If the Air Force does not purchase technical data with a new system, the program office will have to rely heavily on a single contractor (usually the system's manufacturer) for maintenance and will have little or no opportunity to compete the workload. Furthermore, when the time comes to negotiate a price, the data can be prohibitively expensive because the production contract will have been awarded by this time and the contractor will have less incentive to offer a lower price. Air Force officials believe that, in order to avoid this problem, program offices should include a priced option for the purchase of technical data when proposals for new weapons systems or modifications to existing systems are being considered—in other words, when program offices are still in a position to bargain. Air Force headquarters officials agreed that affordable technical data have not always been available, but they have not yet adopted an approach for addressing this concern.

[18] Technical data include descriptions and drawings that provide the necessary level of detail to repair and maintain items or equipment purchased and, in some cases, to produce needed component repair parts.

[19] Mandatory Procedures for Major Defense Acquisition Programs (MDAP) and Major Automated Information System Acquisition Programs, DOD 5000.2-R (June 2001).

Conclusions

The Air Force is unable to assess the cost-effectiveness of past contractor logistics support decisions for weapons systems and ongoing pilot programs. The Air Force monitors contractors' performance against the negotiated performance and costs expectations—not against the initial cost and performance estimates that led to the decision to use contractor logistics support. Also, the Air Force is uncertain of which logistics support approaches are most appropriate to the different characteristics of various weapons systems, such as the number of aircraft in a fleet and the uniqueness of equipment and spares contained in a system. Without this basic management information, the Air Force is uncertain of which logistics support approaches will provide the best return on investment in terms of cost and system readiness for the service's constrained logistics support dollars. The B-2 program, which retained its documentation for logistics sustainment decisions, is using these data to reassess its initial logistics support decisions and explore more cost-effective alternatives.

Also, the overall impact of implementing contractor logistics support approaches may cause adverse operational and contract management situations. These relate to the areas of funding flexibility and operational authority for operational commands, loss of program office capability, and ensuring the consideration of technical data needs for future maintenance actions and workload competitions. However, these have not been fully considered as the contractor logistics support approach decisions are being made and expanded.

Recommendations for Executive Action

We recommend that the Secretary of Defense direct the Secretary of the Air Force to enhance accountability over logistics support decisions by (1) developing a requirement to have program managers of weapons systems retain documentation for logistics support decisions, including that for the ongoing pilot programs, and conduct periodic assessments of these decisions to assess their cost-effectiveness; (2) using the data from those assessments to develop lessons learned information that can be used to assess existing support strategies and new programs to identify the conditions under which the various support approaches are likely to achieve the most cost-effective results; and (3) using an existing corporate senior-level forum to address issues raised by major commands about expanding the use of contractor logistics support and to formally report on solutions recommended and actions taken to address these issues.

Agency Comments and Our Evaluation

In providing written comments on a draft of this report, the Department of Defense generally concurred with our recommendations. (See app. III.) The Air Force provided technical comments, which we incorporated as appropriate.

With regard to the first recommendation that the Air Force develop a requirement to retain documentation for logistics support decisions and periodically assess the cost-effectiveness of these decisions, the Department's response concurred with the intent of the recommendation. Nonetheless, the Department stated that as DOD migrates toward performance-based logistics support arrangements, program managers should focus on the current environment, rather than on historical baselines. We agree that managers should ensure that contractors' performance meets current requirements. In fact, our report notes that the requirements for logistics support contracts are being met. However, in performing baseline studies, which determined that contractor support would be used to provide long-term logistics support, the Air Force established an expectation that the contractor logistics support approach was the most cost-effective alternative. By not using baseline studies and data to evaluate the extent to which the selected logistics support option met the baseline expectations, the Air Force has created an expectation gap as to whether contractor support was the most cost-effective and responsive logistics support alternative. This type of assessment can provide a better basis for improving logistics support approaches for the assessed system as well as providing lessons learned as input to future logistics support decisions. Furthermore, while DOD plans to expand the use of performance-based support arrangements, the degree to which the Department will be successful in expanding this concept is uncertain. Consequently, we continue to believe that assessing actual cost and performance against historical baselines would provide a useful tool for managing logistics support approaches for weapons system programs.

With regard to the second recommendation that the Air Force use assessments of documentation for logistics support decisions to develop lessons learned for improving support strategies for existing and new programs, the Department concurred and stated that the Air Force is developing a product-support knowledge-management Web site as a means for sharing logistics support lessons learned among weapons system programs. While this a step in the right direction, unless the historical baseline documentation discussed in our first recommendation is retained and assessed against actual performance, the Air Force may not have the information needed to develop lessons learned information regarding the cost-effectiveness of a weapon system's initial support

approach decision. Furthermore, the expectation gap will not be resolved, and questions will remain regarding whether the contractor logistics support option is the most cost-effective long-term support approach.

With regard to the third recommendation in our draft report that the Air Force establish a panel process for addressing the issues being raised by major commands about expanding the use of contractor logistics support, the Department did not concur with establishing a panel process to address supportability issues raised by the Air Force's major commands. In its comments, DOD stated that the major commands' interests are maintained throughout the Air Force's acquisition process, which includes the development of the logistics support strategy. In addition, the Department identified the Air Force's corporate-level reviews that it believes serve as effective forums for addressing the major commands' concerns regarding the expanded use of contractor logistics support. Finally, DOD's comments specifically addressed the major commands' issue of long-term access to the technical data needed for the logistics support for weapons systems. This comment concluded that both DOD's and the Air Force's policies requiring that program managers provide for long-term access to technical data are sufficient. We believe that the weapons systems acquisition process, which focuses on the individual weapon system rather than on the major commands' operational and funding issues that cut across multiple Air Force programs, will not adequately address the overarching issues we raised in our report. Furthermore, while we agree that existing Air Force forums provide an opportunity for discussing and addressing the major commands' concerns, the fact that these commands raised issues during our review evidences that more work is needed. Accordingly, we modified our draft report's recommendation to state that the Secretary of the Air Force should task one of its existing forums to review and address the issues that major commands have raised on expanding the use of contractor logistics support and to formally report on the solutions recommended and actions taken to address the issues raised. Finally, we believe that the Department's comment on technical data missed our primary point, since it did not address the concern that the high cost of technical data when they are not acquired or priced at the time the system's initial acquisition may preclude the adoption of more cost-effective support options in the future. Thus, while our revised recommendation no longer specifically refers to "technical data" as one of the support issues to be addressed by an Air Force forum, we continue to believe that it is important for the Air Force to explore this concern. The Air Force may want to consider having this important issue addressed.

Scope and Methodology

To determine the differences between cost-effectiveness estimates for contractor logistics support approaches and actual implementation experiences, we identified weapons systems that primarily relied on contractor-provided logistics support through discussions with officials at Air Force headquarters, system program offices, and logistics centers. For these systems, we collected and reviewed available cost and performance data, and to the extent that sufficient information was available, compared initial estimates with actual results of contractors' performance. For Air Combat Command aircraft, we compared contractors' and Air Force depots' performance with the command's parts-availability standards as an indicator of relative performance. We also reviewed data from the Air Force's assessment reports database on contractors' performance to determine how contractors performed against contract requirements. Finally, we discussed the quality of contractors' performance with weapons systems program managers and representatives of major defense contractors. We did not independently verify the quality of contractor performance of logistics support.

To compare the performance of contractors and Air Force depots in terms of cost and responsiveness for the same or similar work, we reviewed cost and performance data for weapons systems and components repaired by both Air Force depots and contractors. We collected, analyzed, and discussed data regarding the relative performance of contractors and Air Force depots for the workloads with logistics center and program office officials, in addition to relying on our prior work and analyses to the extent practical. In addition, for components, we obtained an Air Force listing of the components repaired at both military depots and contractor facilities,[20] and reviewed 54 components for an analysis of repair costs and performance. For the components selected, we met with the responsible item managers, contracting officers, and equipment specialists to ensure that the same repairs were being performed at both military and contractor facilities. As a result, we determined that the repairs being performed by the military and contractors were comparable for 39 components. We relied on the military's and contractors' repair cost data provided by Air Force item managers, contracting officers, equipment specialists, and production specialist. Of the 39 components with comparable repairs, we determined that the circumstances surrounding

[20] The Air Force developed this dual-source list as part of an exercise to find depot-level workloads that could be transferred from contractors to Air Force depots in order to avoid not meeting the congressionally mandated requirement that at least 50 percent of depot-level work must be performed in Air Force depots.

the repairs of 11 components did not permit an objective comparison of contractors' and the military's repair costs. For example, the Air Force could not always identify the cost of government material provided to the contractor for item repair when more than one type of component was repaired under the same contract. In other cases, the contractors were performing more extensive repairs or upgrading components in conjunction with those repairs that the Air Force depots were not doing.

To determine to what extent the Air Force has addressed concerns raised by major commands regarding the increased use of long-term contractor support, we identified concerns with this logistics support approach through discussions with Air Combat Command, Air Force Space Command, Air Education and Training Command, Air Mobility Command, and Air Force Materiel Command officials. We determined whether Air Force headquarters had taken actions to address these concerns in its pursuit of the expanded use of long-term contractor logistics support. We then assessed the sufficiency of the actions through follow-on discussions with major command officials and a review of the information collected during the review relevant to each concern.

We met with officials at headquarters, U.S. Air Force; headquarters, Air Force Materiel Command; System Program Offices; Air Combat Command; Air Force Space Command; Air Mobility Command; Air Education and Training Command; Aeronautical Systems Center; Ogden, Oklahoma City, and Warner Robins Air Logistics Centers; Lockheed Martin Palmdale; Northrop Grumman Palmdale; Boeing Aircraft Company-Long Beach; Defense Contract Audit Agency-El Segundo, Defense Contract Audit Agency-Palmdale; and Defense Contract Management Agency-Palmdale.

We conducted our review from November 2000 through June 2001 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the appropriate congressional committees; the Secretary of Defense; the Secretary of the Army; the Secretary of the Navy; the Secretary of the Air Force; and the Director,

Office of Management and Budget. We will also make copies available to others upon request. Please contact me on (202) 512-8412 if you or your staff have any questions concerning this report. Key contributors to this report are listed in appendix IV.

David R. Warren, Director
Defense Capabilities and Management

Appendix I: Recent Department of Defense Studies on Logistics Restructuring

The May 1995 report of the Commission on Roles and Missions of the Armed Forces—***Directions for Defense***—identified a number of commercial activities, including depot maintenance, that could be performed by the private sector. The Commission concluded that the privatization of such commercial activities through meaningful competition was the primary path to more efficient support. It noted that such competition typically lowers cost by 20 percent. The Commission recommended that the Department of Defense (DOD) privatize most existing depot maintenance work and all logistics support for new and future weapons systems. In July 1996, we reported that the savings and readiness assumptions of the Commission on Roles and Missions study were based on conditions that do not currently exist for many military depot workloads.[1] The study's assumptions were based mainly on the reported savings from public–private competitions for commercial activities under Office Management and Budget Circular A-76. These commercial activities were generally dissimilar to military depot maintenance activities because they involved relatively simple routine and repetitive tasks that did not require large capital investment or highly skilled and trained personnel.

The **Defense Science Board**, a civilian advisory board to DOD, reported in 1996 that DOD could realize savings of 30 to 40 percent of logistics costs and achieve broad improvements in service delivery and responsiveness by outsourcing support service traditionally done by government personnel.[2] However, in reviewing the estimated savings from logistics activities in the continental United States, the DOD Program Analysis and Evaluation Office and we concluded that the board's logistics savings estimates were not well supported and were unlikely to be as large as estimated.[3]

The 1997 ***Quadrennial Defense Review*** called on DOD to reduce its support infrastructure and streamline its business practices. It proposed

[1] See *Defense Depot Maintenance: Commission on Roles and Mission's Privatization Assumptions Are Questionable* (GAO/NSIAD-96-161, July 15, 1996).

[2] See *Report of the Defense Science Board Task Force on Outsourcing and Privatization* (Aug. 1996) and *Report on the Defense Science Board 1996 Summer Study on Achieving an Innovative Support Structure for 21st Century Military Superiority: Higher Performance at Lower Costs* (Nov. 1996).

[3] See *Outsourcing DOD Logistics: Savings Achievable But Defense Science Board's Projections Are Overstated* (GAO/NSIAD-98-48, Dec. 8, 1997).

that DOD (1) improve the efficiency and performance of support functions by adopting innovative management and business practices, including reengineering, downsizing, and commercializing operations, and (2) consider outsourcing more non-combat-related DOD support functions, inviting commercial companies to compete with the public sector to undertake certain support functions. Regarding outsourcing, the *Quadrennial Defense Review* stated that DOD's experience thus far shows that it can enjoy many of the benefits that private industry has gained, including better service quality, more responsiveness and agility, better access to new technologies, and lower costs. The report asserts that outsourcing and privatizing would help to reduce infrastructure and personnel costs and that savings would be achieved as a result of public-private competitions for the depot maintenance workload. However, the report did not provide evidence to support the cost-effectiveness of these proposed initiatives. Furthermore, as previously discussed, it is questionable whether a sufficiently competitive market exists for the depot maintenance workloads included in the *Quadrennial Defense Review's* initiatives.

The 1997 ***Defense Reform Initiative*** called for DOD to expand the use of competitive sources to open DOD's commercial activities to competition from the private sector. The *Defense Reform Initiative* study anticipated that DOD would be able to streamline its logistics support through competition, citing reported savings from Office Management and Budget Circular A-76 competitions and the C-5 aircraft competition. The study reports that increased public-private competition will improve the performance of military depot maintenance. As discussed above, the Circular A-76 competitions involved commercial activities that were generally dissimilar to depot maintenance activities and, consequently, do not provide evidence to support the cost-effectiveness of outsourcing depot maintenance workloads. However, our reviews of the workload competitions for C-5 aircraft maintenance and other Air Force depot maintenance support DOD's conclusion regarding the benefits of public-private competition for this workload. In total, the competitions resulted in reported savings of $638 million over the life of the contracts. These competitions involved capable competitors, which may not exist in all cases. In a previous review, we reported that 91 percent of nonship depot maintenance contracts were awarded on a sole-source basis.[4] Therefore, in

[4] See *Depot Maintenance: Contracting Approaches Should Address Workload Characteristics* (GAO/NSIAD-98-130, June 15, 1998).

the absence of viable competition, the cost-effectiveness of the Air Force's ongoing outsourcing of depot maintenance and logistics support may be limited.

Appendix II: Details on the Air Force's B-2 Source of Repair Decision

In fiscal year 2000, the Air Force began to assess the contractor's performance as part of the reexamination of its B-2 depot maintenance support plan. This assessment has determined that airframe maintenance costs are significantly higher than initial estimates. Furthermore, initial estimates for component and avionics repair appear to be significantly understated. DOD's 1995 B-2 depot support report concluded that the B-2 depot maintenance workload for the various system modules should be split between the contractor and the Air Force's depot system. (See table 2.)

Table 2: Workload Placement for B-2 Depot Support Based on DOD's February 1995 Report to Congress

Dollars in millions

Module	Air Force depot	Contractor
Airframe maintenance		$415
Avionics repair	$107	
Software support		2,613
Components	49	11
Engine maintenance	125	
Training systems		190
Total	**$281**	**$3,229**

Airframe Depot Maintenance Contract's Cost Is Significantly Greater Than Originally Estimated

The Air Force has experienced a significant cost increase for airframe depot-level maintenance over the contractor's original estimates. While the Air Force initially estimated that the contract cost for airframe maintenance would be 18 percent higher than the Air Force's depot costs, DOD concluded that because the B-2 system was highly complex, had not yet reached configuration maturity, and would inevitably have future system modification requirements, the contractor should perform airframe maintenance at the Air Force's Palmdale facilities.[1] At the time of its 1995 depot support decision, DOD estimated that the scheduled depot maintenance for the B-2 airframe would be $6.57 million per aircraft. However, recent cost figures for this maintenance equated to $14.65

[1] The contractor maintains B-2 aircraft at Air Force Plant 42, a government-owned, contractor-operated facility in Palmdale, California.

million per aircraft, an increase of about 123 percent.[2] The Air Force has analyzed the reasons for the cost growth and concluded that several factors contributed to the increases.

- 47 percent of this cost growth was due to the contractor's cost increases; the most significant portion was due to increases in the estimated labor rate.
- 36 percent of the cost growth was due to the contractor's omitting the costs for various requirements, such as engineering design and testing, product support, and fire and security.
- 17 percent of the cost growth was due to maintenance requirements added or changed by the government after the original cost estimates were calculated.

After analyzing the estimated increases in the programmed depot maintenance for the B-2, the Air Force began to evaluate alternative support options for the airframe maintenance and concluded that three alternative approaches are feasible for reducing airframe maintenance costs. First, the study indicated that transferring the workload and using government labor at any one of three existing government facilities would be less costly alternatives over the system's estimated 25-year life. Second, the analysis determined that converting the contractor's Palmdale operations to performance by government employees would also be less costly than the current approach. Third, the analysis determined that if the contractor could establish a separate B-2 cost center within its cost-accounting system, the result would mean a less costly approach than is currently being used.

The Air Force has not made a decision on which if any of the three alternatives it may adopt to address increased airframe maintenance costs for the B-2. Regarding the first and second alternatives, the Air Force determined that each alternative would require an up-front investment cost of $112 million to $144 million, and program officials doubted whether the program could secure such funding. Regarding the third alternative, the Air Force began pursuing the establishment of a separate B-2 cost center at the Palmdale facility in 1995. While the contractor

[2] The estimated average depot-maintenance-cost-per-airframe increase is based on comparisons between 1994 estimates and 1999 estimates, and both figures are expressed in calendar year 2000 dollars.

established its separate B-2 cost center in January 2001, its cost impact on the B-2 and other military programs has not yet been analyzed by the Air Force or the Defense Contract Management Agency. Consequently, whether the separate cost center will achieve the desired cost reductions for the B-2 program are not yet known.

Original Estimate for B-2 Components' and Avionics' Depot Maintenance Costs Were Significantly Understated

The Air Force's reassessment of the 1995 B-2 depot support report indicates that the original contractor's cost estimates for all components and avionics items were understated by at least 52 percent on the basis of the contractor's cost estimates for nine B-2 subsystems. In 1999, the B-2 program office began a cost reassessment by reviewing the original cost estimates for avionics and components from nine B-2 subsystems. In comparing the revised estimates with the original estimates, the costs for the nine subsystems exceeded the total original cost for all components and avionics items included in the 1995 report. Because of the limited detail in the 1995 report, we were not able to evaluate variances between the 1995 and 1999 cost estimates for all of the components and avionics items included in the 1999 reassessment. However, the 1995 report included sufficient detail to compare revised and original cost estimates for two items—the antenna and the defensive management subsystem. For both items, the Air Force's cost calculations, which are based on the contractor's current costs and estimates, indicate that the 1995 estimates were understated by about 79 percent for the antenna and 96 percent for the defensive management subsystem. The program office is currently reassessing another seven B-2 subsystems, but the results are not yet available. Consequently, we are not able to make a comprehensive determination of the variance between the contractor's earlier cost estimates and estimates based on the contractor's current cost performance.

Appendix III: Comments From the Department of Defense

DEPUTY UNDER SECRETARY OF DEFENSE FOR
LOGISTICS AND MATERIEL READINESS
3500 DEFENSE PENTAGON
WASHINGTON, DC 20301-3500

DUSD(L&MR)/LP&P

AUG 27 2001

Mr. David R. Warren
Director, Defense Capabilities and Management
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Warren,

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "DEFENSE LOGISTICS: Air Force Lacks Data to Assess Contractor Logistics Support Approaches, dated July 3, 2001 (GAO Code 350022)." The Department generally concurs with the report.

Contractor logistics support strategies have for many years proven to be operationally and cost effective support approaches when applied in appropriate circumstances. The problems concerning lack of historical and comparative cost and performance data are not unique to contractor logistics support applications. To improve the review and update of all support concepts, the current DoD 5000 systems acquisition policy strengthened requirements for support plan updates, life cycle support oversight, and post deployment evaluation. We find the Air Force's recently revised regulations and implementation concepts consistent with the DoD policy and the tenets of your report recommendations.

The detailed DoD comments on the draft GAO report recommendations are provided in the enclosure. Additionally, we understand the USAF provided your staff suggested clarifications to the technical content of the draft report. The DoD appreciates the opportunity to comment on the draft report.

Sincerely,

Diane K. Morales

Enclosure

GAO DRAFT REPORT (GAO 01-618) DATED JULY 3, 2001
(GAO CODE 350022)

"DEFENSE LOGISTICS: AIR FORCE LACKS DATA TO ASSESS CONTRACTOR LOGISTICS SUPPORT APPROACHES"

DEPARTMENT OF DEFENSE COMMENTS TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommended that the Secretary of Defense direct the Secretary of the Air Force to enhance accountability over logistics support decisions by developing a requirement to have weapon system program managers retain logistics support decision documentation, including for the ongoing pilot programs, and conduct periodic assessments of these decisions to assess their cost effectiveness. (p. 17/Draft Report)

DOD RESPONSE: Partial concur. The Department concurs with the intent of the recommendation but assesses that too much emphasis is placed on retaining logistics support decision documentation created during acquisition process studies and analyses. As the Department migrates to more performance based business arrangements, program managers should focus on assurance that organic and contractor entities are performing to performance and cost expectations based on the current environment, not historical studies. The draft GAO report confirms this is precisely what PMs and logistics managers are doing. Although baselines are important, they change due to operational and support concept changes. Accordingly, it is most important that program managers and logistics managers manage against performance (to include cost effectiveness), not historical documentation.

Current DoD 5000 policy states:

> "The support strategy shall address how the program manager and other responsible organizations will maintain appropriate oversight of fielded systems. Oversight shall identify and properly address performance, readiness, ownership cost, and support issues, and shall include post deployment evaluation to support planning for assuring sustainment...and to continually improve product affordability." (DoD 5000.2-R, paragraph C2.8.8., June 2001).

The following paragraph in the DoD Regulation states:

> "The PM shall use post deployment evaluations of the system, beginning at IOC, to verify whether the fielded system continues to meet or exceed thresholds and objectives for cost, performance,

and support parameters approved at full rate production." (DoD 5000.2-R, paragraph C2.8.9., June 2001.)

Further, the DoD 5000.2-R requires support strategies to be "updated at least every five years during the product's life cycle, or with greater frequency, depending on the pace of technology.". (DoD 5000.2-R, paragraph C2.8.3.1., June 2001.)

Accordingly, the Department deems that policy guidance to the Services to conduct assessments of the effectiveness of support concepts is adequate. Furthermore, the Air Force confirms they plan to use the framework of their Product Support Management Plan, as described in Air Force Instruction (AFI) 63-107, dated May 2001, as the vehicle to require system program offices to assess and improve sustainment processes. This will include updates to cost, performance, reliability, maintainability, and supportability baselines.

RECOMMENDATION 2: The GAO recommended that the Secretary of Defense direct the Secretary of the Air Force to enhance accountability over logistics support decisions by using the data from those assessments to develop lessons learned information that can be used to assess existing support strategies and for new programs to identify the conditions under which the various support approaches are likely to achieve the most cost-effective results. (p. 17/Draft Report)

DOD RESPONSE: Concur. The DoD 5000 policy above, together with ongoing Department of Defense emphasis on acquisition performance support through knowledge management (KM) will contribute to improved sharing of lessons learned among programs. The Air Force (Headquarters, USAF and Air Force Materiel Command) are in the process of developing a product support KM site, which will have a section devoted to lessons learned. This KM site will be accessible to all Air Force and other DoD system managers and will provide the logistics support community access to lessons learned from each program. This KM site will be operational by July 2002.

RECOMMENDATION 3: The GAO recommended that the Secretary of Defense direct the Secretary of the Air Force to enhance accountability over logistics support decisions by establishing a panel process for addressing issues being raised by major commands about expanding the use of contractor logistics support to include such things as requiring that requests for proposals include a priced option for technical data. (p. 17/Draft Report)

DOD RESPONSE: Non-concur. A specifically designated panel to address Air Force major command supportability issues is not required. Operational command interests are maintained throughout the development of the acquisition

strategy, which includes the support strategy. The Headquarters USAF Deputy Chief of Staff for Air and Space Operations (HQ USAF/XO) is a member of the Acquisition Strategy Panel, and representatives from this office participate at all levels of acquisition strategy review. Further, there are corporate Air Force senior level reviews that serve as effective forums for vetting operational user concerns with contract support approaches, readiness problems, or challenges associated with strategic changes underway. These include Air Force Corona; the Air Force Board of Advisors conferences, which include senior logistics representatives from all major commands (MAJCOMS); and the DoD Council of Logistics Directors.

The newly published AFI 63-107 establishes a process by which all logistics decision stakeholders, including the MAJCOMS, are included in the product support decision process. (AFI 63-107, page 17, paragraph A2.6.) Further, policy supporting consideration of user interests is found in Air Force Instruction (AFI) 63-111, "Contract Support for Systems and Equipment," 16 February 2001, which states: "All Contract Logistics Support (CLS) decisions must be based on thorough analysis and be in the best interest of the Air Force." (AF 63-111, page 6, paragraph 5.2.) And finally, supporting full coordination with and involvement of the operational command users, the AFI 63-111 states: "The lead command, user command(s), and the single managers are responsible for determining and implementing CLS requirements." (AFI 63-111, page 6, paragraph 5.2.1.)

With respect to the recommendation regarding technical data, the Department finds current DoD policy is sufficient. As noted in the draft report, DoD policy requires the PM to provide long-term access to technical data. The policy further states a preference for on-line access through a contractor information service or existing information technology infrastructure. (DoD 5000.2-R, paragraph C2.6.3. and C2.8.4.1., June 2001). Air Force policy is consistent with the DoD 5000 regulation. (AFI 63-111, page 6, paragraph 5.2.1.)

Appendix IV: Staff Acknowledgements

Julia Denman, Larry Junek, Robert Malpass, John Strong, Bobby Worrell, John Brosnan, and Stefano Petrucci made key contributions to this report.

Ordering Information

The first copy of each GAO report is free. Additional copies of reports are $2 each. A check or money order should be made out to the Superintendent of Documents. VISA and MasterCard credit cards are also accepted.

Orders for 100 or more copies to be mailed to a single address are discounted 25 percent.

Orders by mail:
U.S. General Accounting Office
P.O. Box 37050
Washington, DC 20013

Orders by visiting:
Room 1100
700 4th St., NW (corner of 4th and G Sts. NW)
Washington, DC 20013

Orders by phone:
(202) 512-6000
fax: (202) 512-6061
TDD (202) 512-2537

Each day, GAO issues a list of newly available reports and testimony. To receive facsimile copies of the daily list or any list from the past 30 days, please call (202) 512-6000 using a touch-tone phone. A recorded menu will provide information on how to obtain these lists.

Orders by Internet
For information on how to access GAO reports on the Internet, send an e-mail message with "info" in the body to:

Info@www.gao.gov

or visit GAO's World Wide Web home page at:

http://www.gao.gov

To Report Fraud, Waste, and Abuse in Federal Programs

Contact one:

- Web site: http://www.gao.gov/fraudnet/fraudnet.htm
- E-mail: fraudnet@gao.gov
- 1-800-424-5454 (automated answering system)

PRINTED ON RECYCLED PAPER