

National Security and
International Affairs Division

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April 17, 1998

The Honorable James M. Inhofe
Chairman, Subcommittee on Readiness
Committee on Armed Services
United States Senate

The Honorable Herbert H. Bateman
Chairman, Subcommittee on Military Readiness
Committee on National Security
House of Representatives

The National Defense Authorization Act for Fiscal Year 1998 requires that we review the Department of Defense's (DOD) December 19, 1997, determinations and supporting rationale for combining certain depot-level maintenance and repair workloads. DOD determined that workloads now being performed at the closing San Antonio, Texas, and Sacramento, California, Air Force maintenance depots cannot be performed as logically and economically without combination. Our required report, issued on January 20, 1998, concluded that DOD's determinations to combine workloads were not adequately supported.¹ On February 24, 1998, DOD provided additional support for the earlier determination to Congress and us.² As you requested, we reviewed that additional material. This report addresses the reasons the Air Force believes it is more logical and economical to combine the workloads and our overall views on the rationale for DOD's determinations and the information provided on February 24, 1998, to support this rationale.

Background

As a result of a 1995 Base Closure and Realignment (BRAC) Commission decision, Kelly Air Force Base, Texas, is to be realigned, and the San Antonio Air Logistics Center, including its Air Force maintenance depot, is to be closed by July 2001. Similarly, McClellan Air Force Base, California, and the Sacramento Air Logistics Center, including its Air Force maintenance depot, is to be closed by July 2001. To mitigate the impact of the closures on the local communities and center employees, the administration announced its decision to maintain certain employment

¹Public-Private Competitions: DOD's Determination to Combine Depot Workloads Is Not Adequately Supported (GAO/NSIAD-98-76, Jan. 20, 1998).

²The Air Force developed the White Paper on Single vs. Multiple Workload Competitions (Sacramento) and the Rationale for Combining Multiple Depot-Level Maintenance and Repair Workloads (San Antonio) to provide additional support for the Department's determinations to combine multiple workloads into a single solicitation at each location.

levels at these locations. Privatization-in-place³ was one initiative for achieving these employment goals.

Since that time, Congress and the administration have debated the process and procedures for deciding where and by whom the depot maintenance workloads at the closing depots should be performed.⁴ Central to this debate are concerns about the excess facility capacity at the Air Force's three remaining maintenance depots and the legislative requirement in 10 U.S.C. 2469 that, for workloads exceeding \$3 million in value, a public-private competition must be held before the workloads can be moved from a public depot to a private sector company.⁵ Because of congressional concerns raised in 1996, the Air Force revised its privatization-in-place plans to provide for competitions between the public and private sectors as a means to decide where the depot maintenance workloads would be performed. The first competition was for the C-5 aircraft depot maintenance workload, which had been performed at the San Antonio depot. The Air Force awarded the workload to the Warner Robins depot in Georgia on September 4, 1997. During 1997, Congress continued to oversee DOD's strategy for allocating workloads currently performed at the closing depots.

The 1998 Defense Authorization Act required that we and DOD analyze various issues related to the competitions at the closing depots and report to Congress regarding several areas, which are discussed in appendix I. One of these areas involves the combination into single solicitations of aircraft and multi-commodity workloads at the Sacramento depot and multiengine workloads at the San Antonio depot. Appendix II provides additional information about the maintenance workloads currently performed at these facilities. As required by the act, a solicitation may be issued for a single contract for the performance of multiple depot-level maintenance or repair workloads. However, the Secretary of Defense must first (1) determine in writing that the individual workloads cannot be performed as logically and economically without combination by sources

³Privatization-in-place is a term used to describe contracting with the private sector for the performance of activities previously accomplished by government employees at a government facility. The contractor would use the former government facility to perform the work. Privatization-in-place may involve transferring ownership of government assets, such as facilities and equipment, to the private sector.

⁴The workloads at the Sacramento depot include KC-135, A-10, and F-15 aircraft; ground communications and electronics equipment and hydraulics; avionics and instruments; and electrical accessories. The workloads at the San Antonio depot include the F100, TF39, and T56 engines; gas turbine engines; and fuel accessories.

⁵We have issued several reports addressing these issues. For more details, see Related GAO Products at the end of this report.

that are potentially qualified to submit an offer and be awarded a contract to perform those individual workloads and (2) submit a report to Congress setting forth the reasons for the determination. Further, the Air Force cannot issue a solicitation for combined workloads until at least 60 days after the Secretary submits the required report.

Our January 20, 1998, report made two key points about DOD's determinations. First, we stated that there was no analysis of the logic and economies associated with having the workload performed individually by potentially qualified offerors. Consequently, there was no support for determining that the individual workloads cannot as logically and economically be performed without combination. Second, we noted that the reports and available supporting data did not adequately support DOD's determinations. Appendix III contains a summary of this report.

We discussed our findings in a February 24, 1998, hearing conducted by the Subcommittee on Military Readiness, House National Security Committee, and a March 4, 1998, hearing conducted by the Subcommittee on Readiness, Senate Armed Services Committee.⁶ At those hearings, Office of Secretary of Defense and Air Force officials provided additional rationale supporting DOD's determinations to combine the workloads. Subcommittee members expressed their concerns regarding whether the new data provided adequate support for the determinations. Both subcommittees requested that we analyze the additional data and report to them on our findings.⁷

Results in Brief

The Air Force's support for DOD's determinations that it is more logical and economical to combine the workloads being competed at the closing depots is based on a wide variety of information accumulated during the acquisition strategy development process started in September 1995. While we recognize that the determinations ultimately represent a management judgment based on various qualitative and quantitative factors and that DOD's determinations may well be appropriate, the rationale presented in the February 24, 1998, Sacramento white paper and San Antonio report for combining the workloads in single solicitations at each location is not well supported.

⁶Public-Private Competitions: Access to Records Is Inhibiting Work on Congressional Mandates (GAO/T-NSIAD-98-101, Feb. 24, 1998, and GAO/T-NSIAD-98-111, Mar. 4, 1998).

⁷The rationale and support we assessed included the December 19, 1997, determinations and reports; the February 24, 1998, Sacramento white paper and San Antonio report; and the supporting documentation provided by the Air Force.

Our assessment indicates that there are significant weaknesses in logic, assumptions, and data. DOD did not consider other alternatives that appear to be logical and potentially cost-effective, and its assumption that efficiencies from shared personnel and facilities are best achieved with a single solicitation for combined workloads at each location is questionable. Also, the Air Force's claim that the effects of sequential personnel reductions and transition delays can be problematic is questionable in view of DOD's demonstrated success in the past handling multiple transitions and sequential reductions. In addition, the workload stability rationale for Sacramento is questionable because the inherent inefficiencies of the commodity workload are not likely to be improved by combination with the more predictable and consistent aircraft workload. Finally, the Air Force's cost analysis, which concluded that workload combination would save \$22 million to \$130 million at Sacramento and \$92 million to \$259 million at San Antonio, is questionable because it did not consider all cost factors, such as the cost benefits of increased competition resulting from solicitations for individual workloads.

Air Force Rationale for Workload Combination Determinations

On February 24, 1998, the Air Force provided additional information in support of DOD's December 19, 1997, determinations. This information included two documents: a white paper containing the rationale for combining the Sacramento depot's aircraft and commodity workloads into a single solicitation and a report containing the rationale for combining the San Antonio depot's engine workloads into a single solicitation.

Air Force officials stated that the decision to combine most of the aircraft and commodity workloads at the Sacramento depot and the engine workloads at the San Antonio depot was made before the mandate in the 1998 National Defense Authorization Act. The officials also said that the process used to make the decision was valid and that a reassessment of alternative acquisition strategies was not required in response to the act.

The Sacramento white paper described the rationale supporting the workload combination determination as an iterative process that evolved over a 2-1/2-year period beginning in September 1995. This process included conferences and discussions with potential offerors, strategy panels with Air Force acquisition experts, repair base analyses,⁸ unsolicited input from industry representatives, and reviews of recent DOD outsourcing efforts. Sacramento officials explained that the initial

⁸In late 1996, the Air Force accomplished repair base analyses for six depot-level workloads currently performed by the Sacramento depot. The objective of each of the analyses was to identify industry capabilities and capacity to repair and overhaul specific workloads.

approach involved a privatization-in-place strategy, including separate solicitations for seven individual workloads and separate transition schedules for some of the individual workloads. In July 1996, the Air Force decided to conduct a public-private competition combining the Sacramento KC-135 and A-10 aircraft and various commodity workloads, including hydraulics, instruments and avionics, and electrical accessories. According to Air Force officials, the Air Force has pursued workload combination as its acquisition strategy since that time.

The San Antonio report recognized that the Air Force had not conducted an economic analysis regarding the potential savings of issuing single versus multiple solicitations. Instead, the Air Force relied on reviews of engine workload data, repair processes, and market surveys to identify the acquisition strategy for determining how San Antonio's engine workloads will be performed in the future.

Both documents discuss the logic and economies supporting DOD's determinations to combine workloads into a single solicitation at each of the closing depots. The key points in the Air Force's rationale and support for DOD's determinations are summarized below.

Logic Factors Cited to Support Workload Combinations

The Air Force stated that its decisions to combine the Sacramento and San Antonio workloads into single solicitations at each location were based on the following logic factors:

- **Workload commonality and overhead sharing.** The Air Force believes that shared personnel skills and backshops⁹ provide an opportunity for achieving improved efficiencies and lower prices in peacetime while providing flexibility to better plan for wartime surge requirements. Air Force officials noted that shared fixed overhead costs for such functions, such as planning, scheduling, and providing materiel support over a larger workload base, provide opportunities for improved economies and reduced costs at both the Sacramento and San Antonio depots. Further, using the same backshops for multiple workloads should reduce the overall cost of the combined work at each location.
- **Avoidance of multiple transitions and personnel turbulence.** The Air Force believes that managing multiple transitions increases the readiness risks associated with closing complex, integrated industrial facilities. Further, delaying the award of the contract by splitting the competition into

⁹Depot industrial facilities have backshops to provide support for common processes, which may include cleaning, inspection, metal plating, painting, and welding.

multiple awards could subject the workforce to multiple reduction-in-force actions, which would disrupt the skill mix and result in productivity losses and production delays that adversely affect the readiness of the Air Force's operational units.

- Workload stability. This factor was also cited to support the rationale at the Sacramento depot. The Air Force stated that, because the aircraft workload is stable, it can be competed using a guaranteed minimum quantity. However, the Air Force noted that many of the commodity workloads have been erratic and therefore cannot be competed with a minimum guaranteed workload. Consequently, the Air Force stated that combining the aircraft and commodity workloads into one solicitation would allow the winning offeror to smooth peaks in one workload segment and offset valleys in other workload segments, providing a more stable production capability. Further, the Air Force stated that a more stable workload would increase efficiency and savings by providing potential offerors a more reliable basis for employment levels and cost planning.
- Market surveys. To support workload consolidation at the San Antonio depot, the Air Force said that the majority of respondents to its October 1995 market survey indicated a preference for a single contract for the C-5 aircraft and a single contract for the combined engine workloads. Further, the Air Force concluded from survey results that more competitors would participate under the single solicitation for the multiple engine workloads.

Economic Factors Cited to Support Workload Combinations

The Air Force cited the following factors supporting the economies of workload combination at the closing depots:

- Time delays. The Sacramento white paper stated that separating the Sacramento workload into five segments would delay contract award and transition completion dates by 16 months, which would impact closure, increase costs, and reduce projected BRAC savings. Similarly, the San Antonio report stated that separating the San Antonio engine workloads into three solicitations would extend the planned contract award from 225 to 740 days, impacting closure and increasing costs.
- Cost increases. The Air Force stated that conducting multiple competitions at Sacramento could result in cost increases to the offerors and the government, which the Air Force estimates to be between \$22 million and \$130 million. At San Antonio, the Air Force estimated the increased cost to be between \$92 million and \$259 million.

- Increased risks. The Air Force believes that changing the strategy from single to multiple awards would increase risks and translate into higher costs.

DOD's Determinations to Combine Workloads Are Not Well Supported

The additional rationale that the Air Force provided to further justify DOD's December 19, 1997, determinations is not well supported. We identified significant weaknesses in both the logic and economic rationale presented to support combining workloads at the Sacramento and San Antonio depots into single solicitations at each location.

Significant Weaknesses in Supporting Logic

We identified significant weaknesses in the rationale presented by the Air Force to support DOD's determinations to combine workloads at the closing Sacramento and San Antonio depots into single solicitations at each location. First, the Air Force did not adequately consider some other viable alternatives as a part of its assessment. Second, some assumptions are creditable only if the combined workloads are performed in place. Third, each of the supporting points has specific weaknesses that create additional questions regarding the adequacy of DOD's support for workload combination determinations. Our concerns regarding the economic rationale are discussed in the following section.

Limited Consideration of Alternatives

Although the Air Force gave limited consideration to options other than combining the workloads at the two locations, they did not consider, or gave only limited consideration to, some other feasible alternatives. According to the 1998 Defense Authorization Act, alternatives that appear logical and potentially cost-effective should have been evaluated. Options not considered include (1) using solicitations that permit the competitors to offer on any combination of workloads, from one to all and (2) having another contracting activity conduct simultaneous competitions for segments of the Sacramento or San Antonio workloads to avoid delays from sequential competitions for individual segments of the competition.

Questionable Assumptions

Our review indicates that several of the assumptions supporting the Air Force's rationale are questionable unless the workload remains at the existing locations. For example, the Air Force states that combining workloads will preclude multiple workload transitions, thereby avoiding multiple reduction-in-force actions, limiting personnel turbulence, and minimizing readiness impacts. Further, the Air Force states that, for the Sacramento workload, combining aircraft and commodities into a single solicitation would provide the winning offeror the ability to shift

employees between workload segments. The advantages cited by the Air Force are not likely to occur if the workloads are performed at a single location other than Sacramento and San Antonio or at multiple locations.

Other Weaknesses

We identified other weaknesses or deficiencies with each of the factors cited by the Air Force, including the following:

- Workload commonality and sharing of overhead. The Air Force's position that realizing efficiencies from shared personnel and facilities at Sacramento and San Antonio is best achieved with a single solicitation for combined workloads is questionable. The efficiencies that are achievable from shared facilities and personnel may be greater if the workloads being combined are the same or more similar than the workloads being combined under the Sacramento and San Antonio solicitations. For example, the Air Force may achieve greater efficiency by combining (1) the management of the Sacramento KC-135 workloads with other KC-135 workloads to be competed and/or (2) the San Antonio Air Force T-56 engine workloads with other engine workloads also to be competed. Both of these options provide opportunities for significant cost savings that were not considered by the Air Force.
- Avoidance of multiple transitions and personnel turbulence. We realize that risks can be associated with the transition of any depot maintenance workload. However, we have reported that there is no inherent reason why these workloads cannot be transitioned without impacting equipment readiness if the transition is properly planned and effectively implemented.¹⁰ Further, DOD has successfully closed 17 depots over the past 10 years and has successfully managed multiple transitions and the resulting sequential personnel reductions.
- Workload stability for commodities and aircraft repair at Sacramento. The Air Force data does not support the conclusion that the inherent inefficiencies of the commodity workload are improved by combining it with the more predictable and consistent aircraft workload. For example, even though the Air Force states that stability will come from being able to transfer employees between the aircraft and commodity workloads, this transfer has rarely happened. Although the Air Force has had the ability to shift workers among the aircraft and commodity workloads, Sacramento depot personnel data shows that on average, each year over the last 7 years, only 22 of the approximately 1,500 wage grade depot employees have been shifted between aircraft and commodities.

¹⁰Depot Maintenance: Lessons Learned From Transferring Alameda Naval Aviation Depot Engine Workloads (GAO/NSIAD-98-10BR, Mar. 25, 1998).

- Results of market surveys. We question whether the results of the 1995 market survey are applicable to the Air Force's current position that combining the San Antonio workloads is more logical and economical than issuing individual solicitations. The survey was designed to collect potential offeror preferences under the then-current acquisition strategy of privatizing the San Antonio aircraft and engine workloads in place. However, in 1996 the Air Force revised this acquisition strategy and adopted a public-private competition strategy. Further, in 1997 the Air Force conducted a market analysis of engine manufacturing companies to determine the availability and interest of public and private sector sources to perform the required repair of engines currently maintained in Air Force depots. In this survey, engine manufacturers indicated a preference for repairing their own engines and were less interested in repairing other engines. Additionally, our discussions with four potential offerors for the engine workload indicated that they are interested in participating regardless of whether the workloads are combined into a single solicitation.

Significant Weaknesses in Economic Analyses

We also identified two significant weaknesses in the Air Force's economic analyses supporting the combination of workloads into single solicitations at each site. First, and most significantly, the analyses were not comprehensive or consistent estimates of the comparative costs associated with the alternatives examined. Second, the cost estimates are questionable for several key categories.

Incomprehensive or Inconsistent Comparative Cost Analyses

The Air Force analyses stated that workload combination would save \$22 million to \$130 million at Sacramento and \$92 million to \$259 million at San Antonio. These figures represent estimates of costs associated with administering the additional contracts and delaying contract award and transition. However, the estimates contain two significant weaknesses.

First, all costs associated with performing the work are not included. For example, the analyses did not consider the cost of performing maintenance operations, including the costs of labor, parts, and overhead required to perform the repair under the two alternatives considered, or the additional layer of cost associated with subcontracting under the combined workload package scenario. Also, the possibility of the cost benefits of increased competition resulting from solicitations for individual workloads was not recognized. Further, because the estimated value of the workload at these locations is \$2.4 billion at Sacramento and \$8 billion at San Antonio, the effect of not considering these costs could

significantly impact the outcome of the analyses.¹¹ To illustrate the significance, a small difference of, for example, 5 percent between cost estimates for single versus multiple solicitations would represent \$120 million and \$400 million, for the Sacramento and San Antonio workloads respectively. These amounts would materially affect the savings ranges projected by the Air Force.

Second, the cost estimates for the two locations did not use consistent cost elements. For example, the San Antonio estimate included a \$40-million cost associated with delaying depot closure, which would reduce the amount of estimated savings, whereas the Sacramento estimate did not consider such costs. We do believe costs associated with delaying closure are relevant to both locations, although we have some questions about the accuracy of the \$40-million cost estimate.

Questionable Cost Estimates

Notwithstanding our concerns about the comprehensiveness and consistency of the cost analysis, our review of the cost data provided indicates that the estimates are overstated or questionable in several areas, including the following:

- Contract administration costs at Sacramento. The Sacramento estimate included a 1.9 percent estimate for contract administration costs resulting from having more than one contract for the Sacramento workload. This estimate was based on a contractor industrial performance metrics study.¹² This estimate may be overstated because participants in the original study found the cost impacts projected by the contractor were significantly overstated.¹³ For example, five participants prepared estimates of the top 10 cost drivers identified in the contractor study and found that the study estimates were overstated from 14 to 70 percent.
- Closure savings costs. As mentioned above, the San Antonio cost estimate included a \$40-million cost associated with delaying depot closure.¹⁴ However, this estimate is overstated. The \$40-million estimate is based on the closure of all logistics operations, some of which will not close until

¹¹The Air Force used an 8-year contract period for Sacramento workloads and a 15-year period for San Antonio workloads in its cost estimates. For comparison purposes, we used the same periods.

¹²DOD Regulatory Cost Premium, Coopers and Lybrand, December 1994.

¹³Acquisition Reform: DOD Faces Challenges in Reducing Oversight Costs (GAO/NSIAD-97-48, Jan. 29, 1997).

¹⁴The Air Force based its \$40-million estimate on our report, Air Force Depot Maintenance: Privatization-in-Place Plans Are Costly While Excess Capacity Exists (GAO/NSIAD-97-13, Dec. 31, 1996). This report estimated that a 1-year delay in the closure of McClellan Air Force Base and parts of Kelly Air Force Base would result in a \$90-million reduction of the BRAC Commission's estimated savings.

2001.¹⁵ According to the BRAC estimates, savings from closing the depot maintenance operations provided only 21 percent of the estimated annual savings from closure. At this rate, the cost of delay should be no higher than \$8.4 million rather than the \$40 million estimated in the San Antonio report.

- Transition costs. Sacramento included a cost estimate for extending the transition period.¹⁶ Under the multi-contract approach, Sacramento assumed workload segments would be transitioned incrementally over a 20- to 24-month period. Although the Air Force may incur additional transition costs under a multiple contract strategy, we found transition costs were overstated. The Air Force's transition cost methodology assumed that each individual winning offeror would require the full 20 to 24 months to complete the transition. However, Sacramento officials recognized that the contractors' transitions for the individual workload segments will not require the entire 20- to 24-month period. The officials stated that they were unable to separately identify a more precise cost estimate.

Conclusions

The Air Force's support for DOD's determinations that it is more logical and economical to combine the workloads being competed at the closing depots is based on a wide variety of information accumulated during the acquisition strategy development process started in September 1995. We recognize that this substantial body of data includes certain information relevant to the determinations required by the National Defense Authorization Act of 1998. We also recognize that the determinations ultimately represent a management judgment based on various qualitative and quantitative factors.

However, our assessment of these factors, as presented by the Air Force in its February 24, 1998, Sacramento white paper and San Antonio report shows significant weaknesses in logic, assumptions, and data. Consequently, DOD's determinations may well be appropriate, but its rationale is not well supported.

¹⁵Under the Air Force's current closure plans, certain functions and activities such as program and item management and various tenant organizations will remain at the closing Sacramento and San Antonio facilities until 2001.

¹⁶The Air Force used an estimate of average transition costs per day for the Aerospace Guidance and Metrology Center during its privatization-in-place transition year. We have testified and issued two reports on the Center's closure and privatization: Air Force Privatization-in-Place: Analysis of Aircraft and Missile Guidance System Depot Repair Costs (GAO/NSIAD-98-35, Dec. 22, 1997) and Aerospace Guidance and Metrology Center: Cost Growth and other Factors Affect Closure and Privatization (GAO/NSIAD-95-60, Dec. 9, 1994).

Agency Comments

On April 10, 1998, we provided a draft of this report for comment. DOD informed us that, given the short amount of time available, it chose not to comment on the report at this time.

Scope and Methodology

To determine the reasons the Air Force believes it is more logical and economical to combine the workloads at the Sacramento and San Antonio depots, we reviewed the December 19, 1997, reports DOD provided to Congress, as required by 10 U.S.C. 2469a; the Sacramento white paper and San Antonio report provided to Congress on February 24, 1998, which expanded on DOD's rationale for combining workloads into single solicitations; and other information relevant to the preparation of these reports.

To analyze the rationale for DOD's determination, we reviewed (1) information contained in the reports; (2) documentation and other data supporting the reports; (3) discussions with Air Force officials responsible for preparing the reports and managing depot maintenance workloads; (4) discussions with contractor officials who are planning to participate in the competitions for workloads currently performed at the Sacramento and San Antonio depots; (5) discussions with Air Force Audit Agency officials who provided advice on the preparation of the Sacramento white paper and San Antonio report; (6) a review of related Air Force studies, reports, and data; (7) our prior work regarding related depot maintenance issues; and (8) a review of applicable laws and regulations.

We conducted our review between February and April 1998 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretaries of Defense and the Air Force; the Director, Office of Management and Budget; and interested congressional committees. Copies will also be made available to others on request.

If you or your staff have any questions about this report, please contact me at (202) 512-8412. Major contributors to this report are listed in appendix IV.

A handwritten signature in black ink, reading "David R. Warren". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

David R. Warren, Director
Defense Management Issues

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Abbreviations

BRAC	Base Closure and Realignment
DOD	Department of Defense

Requirements for Reports on Depot-Level Maintenance

The National Defense Authorization Act for Fiscal Year 1998 contains several depot-related reporting requirements.

1. Report on DOD's Compliance with 50-Percent Limitation (section 358)
The act amends 10 U.S.C. 2466(a) by increasing the amount of depot-level maintenance and repair workload funds that the Department of Defense (DOD) can use for contractors from 40 to 50 percent and revises 10 U.S.C. 2466(e) by requiring the Secretary of Defense to submit a report to Congress identifying the percentage of funds expended for contractors' performance by February 1 of each year.

Within 90 days of DOD's submission of its annual report to Congress, we must review the DOD report and report to Congress whether DOD has complied with the 50-percent limitation.

2. Reports Concerning Public-Private Competitions for the Depot Maintenance Workloads at the Closing San Antonio and Sacramento Depots (section 359)

The act adds to 10 U.S.C. a new section, 2469a, which provides for special procedures for public-private competitions for the workloads of these two closing depots. It also requires that we report in the following areas:

First, the Secretary of Defense is required to submit a determination to Congress if DOD finds it necessary to combine any of the workloads into a single solicitation. We must report our views on the DOD determination within 30 days.

Second, we are required to review all DOD solicitations for the workloads at San Antonio and Sacramento and to report to Congress within 45 days of the solicitations' issuance whether the solicitations provide "substantially equal" opportunity to compete without regard to performance location and otherwise comply with applicable laws and regulations.

Third, we must review all DOD awards for the workloads at the two closing Air Logistics Centers and report to Congress within 45 days of the contract awards whether the procedures used complied with applicable laws and regulations and provided a "substantially equal" opportunity to compete without regard to performance location, determine whether "appropriate consideration was given to factors other than cost" in the selection, and

ascertain whether the selection resulted in the lowest total cost to DOD for performance of the workload.

Fourth, within 60 days of its enactment, the 1998 Defense Authorization Act requires us to review the C-5 aircraft workload competition and subsequent award to the Warner Robins Air Logistics Center and report to Congress on whether the procedures used provided an equal opportunity for offerors to compete without regard to performance location, whether the procedures complied with applicable laws and the Federal Acquisition Regulation, and whether the award resulted in the lowest total cost to DOD.

3. Report on Navy's Practice of Using Temporary Duty Assignments for Ship Maintenance and Repair (section 366)

The act requires us to report by May 1, 1998, on the Navy's use of temporary duty workers to perform ship maintenance and repairs at homeports not having shipyards.

Sacramento and San Antonio Depot Maintenance Workloads

Sacramento

At the time it was identified for closure during the 1995 Base Closure and Realignment (BRAC) process, the Air Force's Sacramento depot had responsibility for the repair of four aircraft and four commodity groups. The depot also had a significant body of manufacturing or repair work it performed in small quantities for various non-Air Force customers. Additionally, it had a microelectronics facility that performed reverse engineering on parts to provide technical data for manufacturing support parts or for developing repair procedures.

Two of the four aircraft repaired at the Sacramento depot will not be included in the competition package—the F-15 and EF-111. F-15 repairs are being consolidated at the Warner Robins depot, which is the F-15 center of excellence and already performs most of the F-15 work. The EF-111 repair requirement is expected to end as the aircraft is phased out of operations. KC-135 and A-10 aircraft requirements are expected to be included in the Sacramento competition package. The KC-135 aircraft is currently repaired at the Oklahoma City depot and at a contractor facility in Birmingham, Alabama. Table II.1 shows the production hours for 1995, 1996, and 1997 for the KC-135 and A-10 aircraft. The KC-135 workload may be increased in the competition package, but the A-10 workload is expected to decrease and to be erratic as the aircraft is phased out of the inventory.

Table II.1: Sacramento Depot Aircraft Workload (fiscal years 1995-97)

Aircraft	Fiscal year		
	1995	1996	1997
KC-135	823,755	1,045,027	696,760
A-10	77,090	102,819	87,939
Total	900,845	1,147,846	784,699

Note: The direct production actual hours are based on customer orders.

In accordance with a 1995 BRAC Commission decision, the Sacramento depot's largest commodity grouping—ground communications and electronics—which has a projected workload of about 825,000 hours, is being transitioned to the Tobyhanna Army Depot between 1998 and 2001. The Sacramento depot's software maintenance workload has declined significantly, and the remaining software work is expected to be transferred outside the competition process to the Ogden depot. The remaining commodity groups currently repaired at Sacramento include hydraulics, instruments and avionics, and electrical accessories.

Appendix II
Sacramento and San Antonio Depot
Maintenance Workloads

Table II.2 provides an overview of the actual direct labor hours used during fiscal years 1995-97 for the commodity groupings that are currently repaired at the Sacramento depot and are expected to be a part of the competitive package.

Table II.2: Sacramento Depot
Commodity Workload (fiscal years
1995-97)

Commodity Group	Fiscal year		
	1995	1996	1997
Hydraulics	449,803	479,702	436,659
Electrical accessories	377,765	350,979	291,449
Instruments and avionics	325,626	289,300	312,226
Total	1,153,194	1,119,981	1,040,334

Note: The direct production actual hours are based on customer orders.

The Air Force assessed Sacramento's core capabilities and analyzed the private sector's repair base.¹ Through this process, which was approved by the Defense Depot Maintenance Council, none of the Sacramento workload was determined to be core.

San Antonio

At the time of its closure, the San Antonio depot largely did modifications and repairs of aircraft, turbine engines, and support equipment, and did a smaller amount of work on nuclear ordnance and engine software. The source of repairs for the C-5 aircraft was determined through a separate public-private competition. That workload was won by the Warner Robins depot, which assumed responsibility for the C-5 in November 1997; work-in-process will continue at San Antonio until the summer of 1998. The Warner Robins depot inducted its first C-5 aircraft in January 1998. The nuclear ordnance commodity management workload is being transferred outside the competition to the Ogden and Oklahoma City depots and Kirkland Air Force Base, with the bulk of the work going to Ogden.

Table II.3 shows a breakout of the San Antonio engine workload based on direct production actual hours for fiscal years 1995 through 1997.

¹Core capabilities consist of the minimum facilities, equipment, and skilled personnel necessary to ensure a high level of technical expertise and combat readiness by maintaining weapon systems determined to be necessary to support the nation's strategic or contingency plans. The objective of the repair base analysis was to identify industry capabilities and capacity to repair and overhaul specific workloads.

Appendix II
Sacramento and San Antonio Depot
Maintenance Workloads

Table II.3: San Antonio Depot Engine
Workload (fiscal years 1995-97)

Engine	Fiscal year		
	1995	1996	1997
F100	1,693,031	1,688,945	1,414,954
T56	627,199	917,017	981,068
TF39	462,704	676,837	654,632
Total	2,782,934	3,282,799	3,050,654

For various reasons, the competition for engine workloads will not include all of the workload at the San Antonio depot. For example, the Navy is making independent source-of-repair decisions for its T56 engine workloads. Further, core engine workload will be moved outside the competition process to the Oklahoma City depot. The Air Force assessed the core engine capabilities at the San Antonio and Oklahoma City depots and analyzed private industry's repair base. As a result of this process, the Air Force determined that it should retain the capability to repair about 24 percent of the annual F100 engine module workload and 50 percent of the workload required to maintain the capability to repair and check out whole engines—or about nine whole engines. Accordingly, the Air Force is moving the F100 core workload to the Oklahoma City depot outside the engine competition. Finally, it is uncertain whether the Air Force could outsource all the engine workload in the competitive package given the statutory limits on the percentage of depot maintenance work that can be performed by the private sector.

Air Force Management Structure for the Sacramento and San Antonio Competitions

The Air Force is using a management structure for administering and managing the Sacramento and San Antonio competitions similar to the one it used for the C-5 competition. The structure includes a program office and evaluation team at each center as well as an advisory council and source selection official at Air Force headquarters. The program office has general responsibility for preparing and managing the request for proposals. The evaluation team will report its assessments to a council made up of representatives from the Office of the Secretary of Defense, Air Force headquarters, and Air Force Materiel Command staff. The council will review the team's assessment and advise the source selection official.

Summary of January 20, 1998, GAO Report on DOD's Determinations to Combine Depot Maintenance Workloads

It may be that the individual workloads at the closing San Antonio, Texas, and Sacramento, California, Air Force depots cannot as logically and economically be performed without combination by sources that are potentially qualified to submit an offer and be awarded a contract for individual workloads. However, DOD reports and data do not provide adequate information to support DOD's determinations.

First, DOD has not analyzed the logic and economies associated with having the workload performed individually by potentially qualified offerors. Consequently, it has no support for determining that the individual workloads cannot as logically and economically be performed without combination by sources that would do them individually. Air Force officials stated that they were uncertain as to how they would analyze the performance of workloads on an individual basis. However, Air Force studies indicate that the information to make such an analysis is available. For example, in 1996 the Air Force performed analyses for six depot-level workloads performed by the Sacramento depot to identify industry capabilities and capacity. Individual analyses were accomplished for hydraulics, software, electrical accessories, flight instruments, A-10 aircraft, and KC-135 aircraft depot-level workloads. As a part of these analyses, the Air Force identified sufficient numbers of qualified contractors interested in various segments of the Sacramento workload to support a conclusion that it could rely on the private sector to support the workloads.

Second, reports and available data did not adequately support DOD's determinations "that the individual workloads cannot as logically and economically be performed without combination by sources that are potentially qualified to submit an offer and to be awarded a contract to perform those individual workloads." For example, DOD's determination report relating to the Sacramento Air Logistics Center, McClellan Air Force Base, California, states that all competitors indicated throughout their Sacramento workload studies that consolidating workloads offered the most logical and economical performance possibilities. This statement was based on studies performed by the offerors as part of the competition process.¹ However, one offeror's study states that the present competition format is not in the best interest of the government and recommends that the workload be separated into two competitive packages. We were unable to determine whether the other two contractor studies support the statement in the DOD report that all competitors favored consolidating the

¹Prior to the planned competition, the Air Force engaged three offerors to identify work processes at Sacramento and determine how those processes could be performed more efficiently.

Appendix III
Summary of January 20, 1998, GAO Report
on DOD's Determinations to Combine Depot
Maintenance Workloads

workloads because the Air Force did not provide us adequate or timely access to the studies cited in the report.

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Appendix IV
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