AIR FORCE MEASUREMENT
OF ADMINISTRATIVE LEAD TIME

Report No. 95-188

May 5, 1995

Department of Defense

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Acronyms

AFB Air Force Base
ALC Air Logistics Center
MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

(Report No. 95-188)

May 5, 1995

We are providing this report for your review and comments. This report is the third in a series of audit reports on administrative lead time for contracts at DoD inventory control points. We considered management comments on a draft of this report in preparing the final report.

DoD Directive 7650.3 requires that all recommendations and potential monetary benefits be resolved promptly. The Under Secretary of Defense (Comptroller) comments were responsive and additional comments are not required. The Air Force comments nonconcurred with the recommendations and potential monetary benefits. Accordingly, the Air Force is requested to provide additional comments on Recommendation 2. by July 5, 1995.

The courtesies extended to the audit staff are appreciated. If you have any questions on this audit, please contact Mr. Wayne K. Million, Audit Program Director, at (703) 604-9312 (DSN 664-9312) or Ms. Macie J. Rubin, Audit Project Manager, at (703) 604-9353 (DSN 664-9353). See Appendix F for the distribution of this report. The audit team members are listed inside the back cover.

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Report No. 95-188
(Project No. 3CD-0043.02)

May 5, 1995

Air Force Measurement of Administrative Lead Time

Executive Summary

Introduction. This report is the third in a series of reports on administrative lead time. This report discusses administrative lead time at the five Air Force air logistics centers: Ogden, Hill Air Force Base, Utah; Oklahoma City, Tinker Air Force Base, Oklahoma; Sacramento, McClellan Air Force Base, California; San Antonio, Kelly Air Force Base, Texas; and Warner-Robins, Robins Air Force Base, Georgia.

Administrative lead time is the time from the identification of the first item reorder requirement to the award of the contract. Reducing administrative lead time reduces the required inventory of consumable spare parts and other materiel and inventory costs, thus, freeing DoD funds for other uses. In FY 1993, the Air Force awarded consumable spare parts contracts totaling $542 million.

Objectives. The primary audit objective was to determine whether measures were in place to monitor and, where appropriate, reduce administrative lead time for awarding consumable and repairable spare parts procurement contracts. However, this report discusses only consumable items. Repairable items are not discussed in this report because repairable items are procured differently than consumable items, and because the Air Force acquisition process for repairable items is different from the acquisition process for repairable items at the other Military Departments and the Defense Logistics Agency. Repairable items will be discussed in a summary report on administrative lead time. We also evaluated the management controls established for administrative lead time. A subsequent report will discuss administrative lead time at 16 DoD inventory control points and actions needed to reduce administrative lead time throughout DoD.

Audit Results. The Air Force did not have appropriate measures in place to monitor and reduce administrative lead time for consumable spare parts procurement contracts. The Air Force did not include the actual purchase request preparation time in its administrative lead time calculation for consumable spare parts contracts. As a result, the Air Force missed opportunities to reduce administrative lead time, inaccurately forecasted consumable item requirements, missed needed delivery dates, used emergency or urgent procurement procedures for 59 percent of consumable spare parts contracts, and waived competition requirements for an estimated $52 million of consumable spare parts contracts. See Part II for a discussion of the audit results.

Management controls did not prevent the omission of purchase request preparation time in the administrative lead time calculation, which constitutes a material weakness, because of the effects the omission can have on inventory and operational readiness. See Part I for management controls reviewed and Part II for details on the adequacy of management controls.
Potential Benefits of Audit. The implementation of the recommendations will result in $136 million put to better use by the Air Force for FYs 1996 through 2001 by reducing inventory needed to cover administrative lead time and associated safety levels. Readiness and supply availability will be improved when administrative lead time is reduced and when the Air Force management is aware of how long it takes to award a contract. Further, by measuring and including the actual purchase request preparation time in administrative lead time, the Air Force can reduce urgent purchase requests that result in the award of higher priced sole-source contracts instead of competitive contracts. See Appendix D for a summary of the potential benefits resulting from the audit.

Summary of Recommendations. We recommend that the Under Secretary of Defense (Comptroller) initiate appropriate adjustments during the budget review process to reflect reduced administrative lead time. We recommend that the Commander, Air Force Materiel Command, revise Air Force Materiel Command guidance to specify all requirements necessary to verify that item managers accurately measure and manage administrative lead time, beginning with the requirement identification date. In addition, we recommend that the Air Force include administrative lead time as an assessable unit in its management control program.

Management Comments. The Under Secretary of Defense (Comptroller) generally concurred with the finding and recommendations, but did not agree with the potential monetary benefits that could occur from reduced administrative lead time. However, the Comptroller reduced the Air Force budget request by $348 million in FY 1996 and by $306 million in FY 1997 partly because of the potential for decreasing administrative lead time as identified in the audit.

The Air Force nonconcurred with the finding and recommendations, stating that the conclusions were erroneous and contradictory. The Air Force stated that using actual administrative lead time days in the computation requirement system will increase the computed requirement. The Air Force concurred with the intent of using actual administrative lead time with the understanding that the Air Force budget will increase with the use of actual lead times. The Air Force also stated the management control program is meant to track financial weaknesses, and the Air Force does not believe tracking actual time to prepare a purchase request will identify a financial weakness. A summary of management comments is at the end of the finding in Part II. The complete texts of management comments are in Part IV.

Audit Response. The actions taken by the Under Secretary of Defense (Comptroller) are responsive to the intent of the recommendation. Accordingly, additional comments are not required.

We maintain that lowering administrative lead time in the requirements computation system without reducing actual administrative lead time may reduce the budget, but does not lower requirements. Since over 50 percent of the contracts for consumable items were done on an emergency or urgent basis, the Air Force has to recognize it has a problem from using a standard and not actual administrative lead time. The Air Force response also shows a lack of understanding of the DoD management control program. Also, because of improved readiness and decreased costs from reducing administrative lead time, we believe administrative lead time is an ideal area to be included in the management control program. We request that the Air Force reconsider its position and provide additional comments on the final report by July 5, 1995.
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Part I - Introduction
Introduction

Background

This report is the third in a series of reports on administrative lead time for contracts at DoD inventory control points. This report discusses the administrative lead time for consumable spare parts contracts at the five Air Force Materiel Command inventory control points: Ogden Air Logistics Center (ALC), Hill Air Force Base (AFB), Utah; Oklahoma City ALC, Tinker AFB, Oklahoma; Sacramento ALC, McClellan AFB, California; San Antonio ALC, Kelly AFB, Texas; and Warner-Robins ALC, Robins AFB, Georgia.

Regulation on Administrative Lead Time. DoD Regulation 4140.1-R, "DoD Materiel Management Regulation," January 1993, formerly DoD Instruction 4140.55, "Procurement Lead Time for Secondary Items," December 1985, states that administrative lead time is the time from the point at which the first item reorder requirement is identified to the day the contract is awarded.

Performance Measures to Assess Program Results. Public Law 103-62 "Government Performance and Results Act of 1993," August 3, 1993, provides for the establishment of strategic planning and performance measurement in the Federal Government. To effectively improve program efficiency and effectiveness, program goals must be established and adequate information on program performance must be available.

Materiel Management by Air Force Inventory Control Points. The Air Force Materiel Command and the ALCs have primary responsibility for materiel management within the Air Force. To properly manage materiel, such as spare parts, the five ALCs must accurately forecast administrative lead time to ensure reorder items are received in time to meet customers' needs and to minimize inventory investment.

Administrative Lead Time as a Management Tool. Administrative lead time is one factor used to forecast when to reorder inventory items. Administrative lead time is defined as the period from the identification of the first item reorder requirement until the contract is awarded. Longer administrative lead times require more inventoried items to be on hand to maintain inventory levels.

Administrative Lead Time Process. Administrative lead time is composed of various segments of time requiring discrete actions by different people and offices. See Appendix A for details of the administrative lead time process.

Effect of Administrative Lead Time on Inventory. Inventory level decreases with the daily use of spare parts. For every day of administrative lead time, spare parts inventory must be maintained to satisfy daily use of spare parts.

Effect of Administrative Lead Time on Inventory Safety Levels. Inventory safety levels allow for fluctuations in estimated lead time and estimated daily use of spare parts. In 1989, the Office of the Assistant Secretary of Defense (Production and Logistics), now in the Office of the Under Secretary of Defense for Acquisition and Technology, conducted a study of consumable and repairable items at DoD wholesale inventory control points. The 1989 study
showed that, as the number of days of lead time decreases, the number of days of safety level decreases proportionally (an 8-to-1 ratio). Therefore, for every 8 days that lead time is reduced, the safety level is reduced by 1 day.

**Reducing Cycle Times.** A September 14, 1994, memorandum from the Secretary of Defense challenges the Military Departments and Defense agencies to establish performance agreements that will reduce DoD cycle times by at least 50 percent by the year 2000. Cycle time is a term used to describe the period of time to accomplish a repetitive process. Administrative lead time for procurement is an example of cycle time. The Secretary of Defense memorandum states that, by reducing cycle time, the Government can achieve the goals of the Vice President's National Performance Review: reducing infrastructure cost, streamlining processes, and improving customer service.

In his memorandum, the Secretary of Defense states that reducing cycle time is important because time is money. By consuming personnel's time with lengthy processes, the Government pays enormous and unnecessary infrastructure costs that limit the Government's ability to fund war-fighting requirements.

**Objectives**

The primary audit objective was to determine whether measures were in place to monitor and, where appropriate, reduce administrative lead time for consumable and repairable spare parts contracts. However, this report discusses only consumable items. Repairable items are not discussed in this report because repairable items are procured differently from consumable items, and because the Air Force acquisition process for repairable items is different from the acquisition process for repairable items at the other Military Departments and the Defense Logistics Agency. Repairable items will be discussed in a summary report on administrative lead time. This report discusses the administrative lead time required to prepare purchase requests for consumable spare parts contracts at the ALCs.

A subsequent report will discuss administrative lead time and management controls at the 16 DoD inventory control points, including the 5 ALCs, and the overall actions needed throughout DoD to reduce administrative lead time.

**Scope and Methodology**

**Audit Locations.** We reviewed the process for measuring administrative lead time at the five ALCs. See Appendix E for a list of organizations visited or contacted.

**Audit Universe.** We selected a stratified sample from a universe of 16,540 consumable spare parts contracts awarded by the 5 ALCs from
Introduction

July 1, 1992, through June 30, 1993, valued at $523 million. The universe excluded delivery orders and requirement contracts, except for the base-year contracts.

Data Reviewed. We reviewed documentation for contracts awarded from July 1, 1992, through June 30, 1993, to determine the actual administrative lead time for the 115 sampled consumable spare parts contracts at the 5 ALCs. We measured the time elapsed from the date that the first item reorder requirement was identified to the award of the contract. Specifically, we reviewed buy computation notices, purchase requests, and contract files to identify the time taken to award contracts. In addition, we interviewed item managers, buyers, and contracting officers.

Use of Technical Staff. Analysts from the Quantitative Methods Division, Audit Planning and Technical Support Directorate, Office of the Assistant Inspector General for Auditing, DoD, assisted in this audit. Analysts helped formulate a statistical sampling plan and computed the statistical projections. Using the audit results, the analysts estimated the difference in administrative lead time between the actual time and the predetermined time estimate for purchase request preparation.

Use of Computer-Processed Data. We relied on computer-processed data from the DoD Contract Action Reporting System to determine the contracting organizations to visit and to determine audit sample selection. Although we did not perform a formal reliability assessment of the computer-processed data, we determined that contract numbers, award dates, contractors, and Federal supply codes on the contracts reviewed generally agreed with the information in the computer-processed data. We did not find errors that would preclude using the computer-processed data to meet the objectives of the audit or that would change the conclusions in this report.

Audit Period and Standards. We performed this economy and efficiency audit from March 1993 through October 1994. The audit was performed according to auditing standards issued by the Comptroller General of the United States as carried out by the Inspector General, DoD. Accordingly, we included tests of management controls considered necessary.

Management Controls

Management Controls Reviewed. We reviewed the management controls established to measure administrative lead time. Specifically, we evaluated the Air Force policies and guidance used to measure administrative lead time. We also evaluated the ALCs management control programs as they applied to measuring administrative lead time.

Adequacy of Management Controls. The audit identified a material management control weakness as defined by DoD Directive 5010.38, "Internal Management Control Program," April 14, 1987. Management controls were
not adequate to keep Air Force management aware of problems with the administrative lead time required to prepare the purchase request. Also, the Air Force management control program was inadequate because ALC managers did not identify administrative lead time as an assessable unit. We consider this weakness material at the ALCs because of the effects on investment in inventory and operational readiness. Recommendation 2.b. in this report, if implemented, will correct the weakness. We calculated that the Air Force could put $135.7 million to better use by implementing the recommendation. See Appendix D for a summary of potential benefits. A copy of this report will be provided to the senior official responsible for management controls in the Department of the Air Force.

Prior Audits and Other Reviews

General Accounting Office Report No. NSIAD 95-2 (OSD Case No. 9792), "Defense Supply Acquisition Leadtime [sic] Requirements can be Significantly Reduced," December 1994, reports that DoD has made only limited progress in reducing acquisition lead time because its lead time reduction initiatives have been unevenly implemented by the Military Departments and the Defense Logistics Agency. The report also states that DoD can reduce acquisition lead time days by at least 25 percent over a 4-year period at a savings of about $1 billion. The report recommends that the Secretary of Defense direct the Secretaries of the Army and the Air Force and the Director of the Defense Logistics Agency to place renewed emphasis on implementing the DoD lead time reduction initiatives and to follow the Navy in setting lead time reduction goals. The Deputy Under Secretary of Defense (Logistics) agreed that further action to reduce acquisition lead time is required; however, the most effective means to accomplish the reduction is full implementation of the DoD Materiel Management Regulation.

Inspector General, DoD, Report No. 93-053, "Administrative Lead Time at Navy Inventory Control Points," December 12, 1994, states that the Aviation Supply Office awarded contracts for spare parts faster than the Ships Parts Control Center. The Ships Parts Control Center could potentially improve benefits for readiness by about $579 million. The report recommends that the Ships Parts Control Center implement a performance measurement system that establishes goals and monitors actual administrative lead time. The Navy agreed with the recommendation to establish goals and monitor administrative lead time; however, the Navy did not agree with the potential monetary benefits.

Inspector General, DoD, Report No. 94-102, "Administrative Lead Time at the Procurement Law Division, Army Aviation and Troop Command," May 17, 1994, identifies a potential 6-day reduction in administrative lead time by improving management controls over the final legal review process of contract actions. The report recommends establishing controls to monitor the final legal review process for contract actions and implementing a performance
measurement system for the Procurement Law Division. The Commander, Army Aviation and Troop Command, Army Materiel Command, agreed to establish a better tracking system for contract actions in process by the Procurement Law Division.
Part II - Finding and Recommendations
Purchase Request Preparation Time for Consumable Items

The Air Force did not know the actual time needed to award a contract and did not include actual purchase request preparation time in its administrative lead time calculation. These conditions occurred because Air Force procedures prevented item managers from overriding the predetermined time estimate when actual purchase request preparation time greatly exceeded the predetermined time estimate. As a result, the Air Force:

- understated administrative lead time,
- missed opportunities to reduce administrative lead time,
- inaccurately forecasted spare part requirements,
- missed needed delivery dates, and
- increased the use of urgent priority codes.

Further, if the Air Force reduced purchase request preparation time to the predetermined time estimate, the Air Force could improve readiness and increase competition, resulting in avoided costs totaling $135.7 million.

Background


Joint Logistics Systems Center Administrative Lead Time Interpretation. The Joint Logistics Systems Center, "Administrative Lead Time Policy Interpretation," May 27, 1994, interpreted DoD Regulation 4140.1-R to mean that administrative lead time begins with the requirement identification date. The requirement identification date is the date when the stock level of an item first decreases to its reorder point and a buy is recommended.
Including Actual Purchase Request Preparation Time in Administrative Lead Time Calculation

Air Force Uses a Requirements Computation System to Project the Quantity and Timing of a Buy. Air Force management did not include actual purchase request preparation time in their administrative lead time calculations. Maintaining an actual administrative lead time in the requirements computation system is important, because the system factors in administrative lead time when projecting the quantity and timing of a buy. If all the data in the requirements computation system are not accurate, then the system's projection will also be inaccurate.

Predetermined Purchase Request Preparation Time Estimates are Automatically Calculated. The Air Force requirements computation system automatically calculates a purchase request preparation time (a predetermined time estimate). The predetermined purchase request preparation time estimate the Air Force established in the requirements computation system is intended to account for the time required to prepare the purchase request. The predetermined time estimate is either 14, 16, or 21 days, depending on the value of the purchase request and the criticality of the item to operational readiness. Ogden ALC used a 17-day predetermined time estimate in its analysis of actual purchase request preparation time versus the predetermined time estimate. Therefore, we used 17 days as the average predetermined time estimate for all Air Force comparisons to the actual determined times.

ALC Procedures to Account for Purchase Request Preparation. Air Force Materiel Command Regulation 57-6 requires item managers to update the purchase request preparation time in the requirements computation system to reflect actual purchase request preparation time only if the actual time is less than the predetermined time estimate. If actual purchase request preparation time is greater than the predetermined time estimate, then the item manager is prevented by the regulation from recording the longer, actual purchase request preparation time. Item managers did not attempt to determine actual purchase request preparation time, because actual purchase request preparation time was usually longer than the predetermined time estimate.

Purchase Request Preparation Time as a Portion of Administrative Lead Time. Based on our statistical sample, projected purchase request preparation time in the Air Force accounts for a substantial portion of administrative lead time. Purchase request preparation time for consumable spare parts contracts at the five ALCs accounted for 35 percent of the total administrative lead time, as shown in Figure 1. See Appendix B for details of our calculations. Purchase request preparation time includes the time required for the item manager to identify the requirement to buy and to process the purchase request.
Specifically, during the preparation of the purchase request, the item manager identifies potential requirements, verifies technical data, initiates acquisition planning, makes the buy decision, and initiates the purchase request.

![Pie chart showing percentage of lead time](image)

**Figure 1. Projected Purchase Request Preparation Time Accounts for More Than One-Third of All Administrative Lead Time**

**Management Controls Over Administrative Lead Time**

ALCs did not measure administrative lead time from the beginning, the requirement identification date. Instead, ALCs used a predetermined time estimate to account for the time required to prepare the purchase request, thereby, not accounting for a projected average of 61 days of the total administrative lead time. The management controls at the ALCs were not adequate to keep management aware of the significance of the unaccounted-for administrative lead time. Therefore, the ALCs should include administrative lead time as an assessable unit in their management control programs.
Item Managers Understated Administrative Lead Time

Purchase Request Preparation Time is Understated. By using the 17-day predetermined time estimate in the requirements computation system instead of the actual number of days, the ALCs greatly understated administrative lead time, specifically the portion of administrative lead time required for purchase request preparation. For the consumable spare parts contracts we reviewed at the five ALCs, item managers did not record the actual time required to prepare the purchase request for any of the contracts; instead, item managers simply allowed the system to record the predetermined number of days.

Figure 2 shows that, based on our statistical sample, the projected most likely number of days required to prepare a purchase request at the five ALCs exceeded the predetermined time estimate. See Appendix B, Table B-1, for an explanation for the ranges of uncertainties for the projections.

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Air Logistics Centers

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<th>Location</th>
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Figure 2. Projected Most Likely Number of Days for Purchase Request Preparation Time Exceeded the Predetermined Time Estimate at the ALCs

Predetermined Time Estimate Used By the Air Force is Outdated. We requested officials at the Air Force Materiel Command to provide the basis for the predetermined time estimate used to account for the time required to prepare the purchase request. Although the Air Force Materiel Command officials were not able to provide any basis for the origin of the predetermined time estimate,
we did verify that the system has been in place for at least 10 years. Also, Air Force management has not reviewed the requirements computation system to validate the predetermined time estimate.

ALC Efforts to Reduce Administrative Lead Time

Understated Administrative Lead Time Caused the Air Force To Miss Opportunities To Reduce Administrative Lead Time. Using a predetermined time estimate instead of the actual purchase request preparation time at the ALCs caused administrative lead time, computed by the requirements computation system, to be understated. Administrative lead time in the requirements computation system was understated by the difference between the actual time and the predetermined time estimate for purchase request preparation, in the worst case, a difference of 348 days. Also, by not measuring the time required to prepare the purchase request, the ALCs could not monitor item manager progress or identify problem areas, thereby missing opportunities to reduce administrative lead time.

Two ALCs Efforts to Reduce Administrative Lead Time. Two ALCs, Ogden and Oklahoma City, made an effort to reduce administrative lead time by analyzing the overall administrative lead time process to identify problem areas.

Ogden ALC Effort. Ogden ALC did record purchase request preparation time to determine how to improve customer satisfaction by meeting needed delivery dates. Ogden ALC has been measuring the time required to prepare the purchase request since 1990.

Oklahoma City ALC Effort. Oklahoma City ALC established an integrated product team in April 1994 to analyze the spare parts acquisition process from requirement identification to contract award. The goal of the integrated product team was to identify impediments to timely customer support.

Ogden and Oklahoma City ALCs efforts to measure the purchase request preparation time contributed to the two ALCs lower projected purchase request preparation time.

Extent of Air Force Management Involvement in Purchase Request Preparation Process. The Air Force did not have the opportunity to reduce administrative lead time because management did not monitor or identify delays in the purchase request preparation process. For example, management:

- did not compare actual purchase request preparation time with the predetermined time estimate to gauge the efficiency of the preparation process for the purchase request;
Purchase Request Preparation Time for Consumable Items

- did not require explanation and justifications when predetermined time estimates were not met; and
- were not involved with problems at the time of occurrence, thus, missing opportunities to correct or improve purchase request preparation time.

Risk of Forecasting Errors Increases

As administrative lead time increases, the risk of forecasting errors increases, thus, resulting in possible increases in inventory. Associated with an increase in inventory is the probability of inapplicable inventory, inventory that is obsolete or that exceeds requirements.

Excessive Administrative Lead Time Can Contribute to Missed Needed Delivery Dates

Missed Needed Delivery Dates. Based on the contracts reviewed, we project that 68 percent of all consumable spare parts contracts was received in the procurement division too late to meet the needed delivery date. The 72 late contracts in our sample were an average of 204 days late. For example, based on a 55-day procurement standard and a 322-day production lead time, to meet a January 30, 1993, needed delivery date, procurement personnel needed to receive the purchase request from the item managers by January 19, 1992. However, procurement personnel did not receive the purchase request until July 7, 1992. Therefore, procurement personnel received the purchase request 170 days too late to meet the needed delivery date.

Proper Use of Priority Codes and Competition to Satisfy Need Dates

Increased Use of Urgent Priority Codes. Based on the contracts reviewed, we project that 59 percent of all consumable spare parts contracts was prioritized as emergency or urgent purchases to enable the contracts to receive special handling. Although the audit did not review the priority codes for appropriateness, we believe the excessive use of urgent priority codes by the ALCs can be attributed, in part, to the understatement of administrative lead time. If every purchase is urgent, none will receive urgent handling. This condition becomes a self-perpetuating cycle.
Increased Use of Urgency Priority Codes Impeded Competition. Based on our statistical sample, we projected that $52 million in consumable spare parts contracts impeded competition by either limiting or restricting competition. We believe the Air Force could have achieved substantial cost reductions if the consumable spare parts contracts had been competitively awarded. Using a 25-percent estimate for cost reductions and applying it to $52 million, we estimated that costs could have been reduced by $13 million. The 25-percent-impeded-competition factor is based on the Defense Federal Acquisition Regulation Supplement, Appendix E, "DoD Spare Parts Breakout Program."

Minimizing Administrative Lead Time Improves Operational Readiness and Reduces Investment in Inventory

If the Air Force accurately measures administrative lead time, the estimated delivery dates of spare parts will be more accurate, and readiness will be improved. Operational readiness would also be improved with costs avoided by reducing administrative lead time. By reducing administrative lead time, funds could be used to purchase additional needed spare parts.

Inventory Investment and Inventory Holding Costs. Decreased administrative lead time results in decreased investment in inventory required to cover daily demand during administrative lead time. Also, as administrative lead time decreases, required safety levels decrease. Inventory holding costs, applicable to both inventory and inventory safety levels, are reduced when inventory is reduced.

Daily Demand. Inventory levels decrease, depending on the daily use of spare parts. For every day of administrative lead time, spare parts inventory must be maintained to satisfy daily use of spare parts.

Safety Levels. As administrative lead time increases or decreases, the required safety level also increases or decreases. For every 8 days that administrative lead time increases or decreases, the required safety level increases or decreases by 1 day. Accordingly, the investment in inventory for the required safety level is directly affected by the administrative lead time.

Inventory Holding Costs. Inventory holding costs are expenses incurred to keep inventory for future use. The expenses include costs of capital invested in inventory, cost of losses due to obsolescence, cost of other losses, and cost of storage. The greater the administrative lead time, the greater will be each of these costs.
Potential Monetary Benefits of Reduced Administrative Lead Time

Potential monetary benefits are achievable for the Air Force if the Air Force can reduce its purchase request preparation process to a level equal to the predetermined time estimate. The details of our calculations are in Appendix C.

Total Potential Monetary Benefits for All Contracts. Potential monetary benefits in reduced inventories and inventory holding costs for all contracts total $122.7 million. After the Air Force improves the acquisition process, the Under Secretary of Defense (Comptroller) should reduce the budget accordingly to reflect the reduced administrative lead time.

Based on average administrative lead time at the five ALCs, the Air Force could reduce administrative lead time by 61 days (projected 78-day actual purchase request preparation time minus the 17-day predetermined time estimate) with a corresponding reduction in required stock safety levels of about 8 days (61 days divided by 8 days). To quantify the potential cost reductions from reduced administrative lead time, potential monetary benefits were quantified in terms of reduced inventory, for a total of 61 days, plus a corresponding 8 days of required safety level inventory, for a total of 69 days. The potential inventory benefit of reducing administrative lead time by 69 days is $67.4 million.

In addition, DoD can avoid the cost of holding or maintaining the inventory. The potential monetary benefit associated with the inventory holding cost is $55.3 million, for a total potential monetary benefit of $122.7 million.

Methodology for Calculating Potential Monetary Benefits of Reducing Administrative Lead Time. The Joint Logistics Systems Center report "The Joint Logistics Systems Center Materiel Management, Corporate Information Management, Business Process Improvement Project," June 25, 1993, identified ways to reduce administrative lead time and provided a methodology to calculate the monetary benefits from reduced administrative lead time. We calculated monetary benefits from reduced administrative lead time using the same methodology in the Joint Logistics Systems Center report.

Conclusion

By measuring the actual time required to prepare the purchase request, the Air Force will be able to identify opportunities to reduce administrative lead time. The ALCs would be able to monitor item manager progress and to identify problem areas that are delaying purchase request preparation.
Purchase Request Preparation Time for Consumable Items

If the Air Force could reduce its purchase request preparation time to the 17-day predetermined time estimate, the purchase request preparation time would decrease from a projected 35 percent to only a projected 10 percent of the Air Force total administrative lead time.

Recommendations, Management Comments, and Audit Responses

1. We recommend that the Under Secretary of Defense (Comptroller) initiate appropriate adjustments during the Air Force budget review process to reflect reduced Air Force administrative lead time.

Under Secretary of Defense (Comptroller) Comments. The Under Secretary of Defense (Comptroller) generally concurred with the finding and recommendations, but did not agree with the calculated potential monetary benefits that could result from reduced administrative lead time. However, during the budget review process, the Air Force budget request was reduced by $348 million in FY 1996 and by $306 million in FY 1997, partly because of the potential for decreasing administrative lead time as identified during the audit. The Under Secretary of Defense (Comptroller) did not agree with the calculated benefits because the potential monetary benefits came from a reduction in obligation authority only and do not necessarily equate to lower inventories or economic benefits.

Air Force Comments. Although not required to comment, the Air Force nonconcurred with Recommendation 1., stating that using actual administrative lead time days in the requirements computation system will increase the computed requirement, causing the Air Force budget to increase. Therefore, no potential monetary benefits would result from reduced administrative lead time, safety levels, or inventory holding costs.

Audit Response. The actions taken by the Under Secretary of Defense (Comptroller) on Recommendation 1. are responsive to the intent of the recommendation. Accordingly, additional comments are not required.

We disagree with the Air Force response that using predetermined time estimates in the requirements computation system reduces requirements. Lowering administrative lead time in the requirements computations system without reducing actual administrative lead time may reduce the budget, but does not lower requirements. Once the requirement reaches its reorder point and cannot be procured within the budgeted time, the requirement is increased based on actual administrative lead time. The Air Force could realize potential monetary benefits, improve readiness and reduce the use of urgent sole-source contract awards by measuring actual administrative lead time and by identifying areas for improvement that could reduce actual administrative lead time.
2. We recommend that the Commander, Air Force Materiel Command:

   a. Revise Air Force Materiel Command Regulation 57-6, "Policy and Procedures for Computing Consumable Type Item Requirements," January 29, 1993, to measure and include in administrative lead time the actual time for item managers to confirm the need for and the quantities of spare parts, beginning with the requirement identification date, as the DoD Materiel Regulation 4140.1-R, "DoD Materiel Management Regulation," January 1993, requires, instead of using a predetermined time estimate.

   b. Include administrative lead time as an assessable unit within the Air Force Materiel Command management control program.

**Air Force Comments.** The Air Force concurred with the intent of Recommendation 2.a., only with the understanding that using actual administrative lead time will increase the Air Force budget. The Air Force explained that using longer actual administrative lead time directly counters other DoD and Air Force efforts to reduce requirements by reducing lead time days in the requirements computation system. The Air Force has acted on DoD direction, to reduce lead times by 50 percent by the year 2000, by directing the Air Force Materiel Command to reduce both actual lead times and lead times used in requirements computations.

The Air Force also stated that Air Force Materiel Command Regulation 57-6 was being converted to an Air Force Materiel Command instruction. The new guidance will allow file maintenance of administrative lead time based on longer-than-standard processing times, if the item manager considers the longer lead times to be normal.

The Air Force nonconcurred with Recommendation 2.b. The Air Force stated that the management control program is meant to track financial weaknesses, and financial weaknesses cannot be identified by tracking the actual time to prepare purchase requests.

**Audit Response.** The DoD challenged the Air Force to reduce lead times by 50 percent by the year 2000. To reduce lead times, the Air Force must reduce actual administrative lead time. If actual administrative lead time is not reduced, the requirements are not reduced.

The new guidance to allow file maintenance of administrative lead time based on longer-than-standard processing times if the item manager considers the longer lead times to be normal is not responsive to our recommendation. The recommendation states that administrative lead time should be measured from the requirement identification date as required by DoD Materiel Management Regulation 4140.1-R. The new Air Force guidance does not measure administrative lead time from the requirement identification date. It allows the item manager to change the time if longer lead times are normal. However, without tracking actual purchase request time, the item manager cannot determine normal purchase request times and, therefore, cannot determine longer-than-standard lead times.
The Air Force has a narrow and incorrect interpretation of the applicability of its management control program. Preparing a budget with estimated administrative lead time days that are much lower than the actual administrative lead time days will cause a shortage of funds, which contributes to a financial weakness and reduced readiness. Also, the fact that an estimated 59 percent of the contracts at the ALCs were emergency or urgent shows a weakness in the current Air Force system. Therefore, administrative lead time is an ideal area to be included in a management control plan for inventory control points. We request that the Air Force reconsider its position on Recommendation 2, and provide comments in response to this report.
Part III - Additional Information
Appendix A. Administrative Lead Time Process

Reorder Requirement Identified → Requirement Validated → Availability of Funds Determined

Technical Data Package Completed → Purchase Request Processed → Purchase Request Forwarded to Procurement

Solicitation Issued → Offers Evaluated → Pending Award Reviewed by Legal

Contract Awarded
Appendix B. Statistical Sampling Projection Methodology

Purpose. The purpose of the statistical sampling performed during this audit was to support three variable projections, two attribute projections, and one ratio projection. Specifically, the variable measures are Average Purchase Request Preparation Time, Total Dollar Value of Contracts Impacted by Waived Competition, and Average Administrative Lead Time As If Purchase Request Preparation Time Were 17 days. The attribute measures are Percent of Contracts Received Too Late to Meet Need Date and Percent of Contracts Prioritized as Emergency or Urgent. The ratio projection is Purchase Request Preparation Time as a Percent of Administrative Lead Time. Two derived measures, Average Unaccounted For Purchase Request Preparation Time and Purchase Request Preparation Time As If 17 Days as a Percent of Administrative Lead Time As If Purchase Request Preparation Time Were 17 Days, were calculated from Average Purchase Request Preparation Time and Average Administrative Lead Time As If Purchase Request Preparation Time Were 17 Days, respectively. All the measures were projected statistically across the five ALCs as a single entity. In addition, Average Purchase Request Preparation Time was projected for each ALC individually.

Scope. The audit universe consisted of 16,540 contracts for consumable spare parts awarded by the five Air Force ALCs from July 1, 1992, to June 30, 1993. These contracts were valued at $523 million.

Sample Designs and Sizes. Stratified sampling methodology was employed for this audit. Three strata were defined as contracts less than $25,000, contracts equal to or greater than $25,000 and equal to or less than $100,000, and contracts greater than $100,000. Initially, all contracts for spare parts were sampled. Subsequently, only the sample of contracts for consumable spare parts was analyzed for this report. The consumable spare parts sample was 115 contracts.
Appendix B. Statistical Sampling Projection Methodology

Sampling Results. Statistical projections of the sample data are as follows.

Table B-1. Average Purchase Request Preparation Time for Each ALC

<table>
<thead>
<tr>
<th>ALC</th>
<th>Lower Bound</th>
<th>Point Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>San Antonio</td>
<td>49.36</td>
<td>121.07</td>
<td>192.78</td>
</tr>
<tr>
<td>Sacramento</td>
<td>73.72</td>
<td>118.81</td>
<td>163.91</td>
</tr>
<tr>
<td>Warner-Robins</td>
<td>3.85</td>
<td>60.64</td>
<td>117.43</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>21.78</td>
<td>29.05</td>
<td>36.31</td>
</tr>
<tr>
<td>Ogden</td>
<td>12.13</td>
<td>24.43</td>
<td>36.72</td>
</tr>
</tbody>
</table>

1With 90-percent confidence, personnel at San Antonio ALC averaged from 49.36 to 192.78 days of purchase request preparation time. The unbiased point estimate, 121.07 days, is the most likely single value for the average purchase request preparation time at San Antonio ALC.

2With 90-percent confidence, personnel at Sacramento ALC averaged from 73.72 to 163.91 days of purchase request preparation time. The unbiased point estimate, 118.81 days, is the most likely single value for the average purchase request preparation time at Sacramento ALC.

3With 90-percent confidence, personnel at Warner-Robins ALC averaged from 3.85 to 117.43 days of purchase request preparation time. The unbiased point estimate, 60.64 days, is the most likely single value for the average purchase request preparation time at Warner-Robins ALC.

4With 90-percent confidence, personnel at Oklahoma City ALC averaged from 21.78 to 36.31 days of purchase request preparation time. The unbiased point estimate, 29.05 days, is the most likely single value for the average purchase request preparation time at Oklahoma City ALC.

5With 90-percent confidence, personnel at Ogden ALC averaged from 12.13 to 36.72 days of purchase request preparation time. The unbiased point estimate, 24.43 days, is the most likely single value for the average purchase request preparation time at Ogden ALC.
Appendix B. Statistical Sampling Projection Methodology

Table B-2. Average Purchase Request Preparation Time for All Five ALCs

| 90-Percent Confidence Interval |
|---|---|---|
| Lower Bound | Point Estimate | Upper Bound |
| All Five ALCs* | 48.95 | 77.74 | 106.53 |

*With 90-percent confidence, personnel at all five ALCs averaged from 48.95 to 106.53 days of purchase request preparation time. The unbiased point estimate, 77.74 days, is the most likely single value for the average purchase request preparation time at all five ALCs.

Table B-3. Purchase Request Preparation Time As a Percent of Administrative Lead Time

| 90-Percent Confidence Interval |
|---|---|---|
| Lower Bound | Point Estimate | Upper Bound |
| For All Five ALCs* | 22.3 | 34.8 | 47.3 |

*With 90-percent confidence, purchase request preparation time as a percent of administrative lead time is from 22.3 percent to 47.3 percent. The unbiased point estimate, 34.8 percent, is the most likely single value for purchase request preparation time as a percent of administrative lead time.
Table B-4. Average Unaccounted-For Purchase Request Preparation Time

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
<th>Lower Bound</th>
<th>Point Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>For All Five ALCs*</td>
<td>31.95</td>
<td>60.74</td>
<td>89.53</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, average unaccounted for purchase request preparation time is from 31.95 to 89.53 days. The unbiased point estimate, 60.74 days, is the most likely single value for the average unaccounted for purchase request preparation time. This confidence interval was calculated from the projected interval for average purchase request preparation time by subtracting the default value, 17 days, from its lower bound, point estimate, and upper bound. Mathematically, this is equivalent to subtracting 17 days from each sampled purchase request preparation time and then statistically projecting these adjusted times.

Table B-5. Percent of Contracts Received Too Late to Meet Needed Delivery Date

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
<th>Lower Bound</th>
<th>Point Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>For All Five ALCs*</td>
<td>54.2</td>
<td>67.8</td>
<td>81.4</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, the percent of contracts received too late to meet the need date is from 54.2 percent to 81.4 percent. The unbiased point estimate, 67.8 percent, is the most likely single value for the percent of contracts received too late to meet the need date.
### Table B-6. Percent of Contracts Prioritized as Emergency or Urgent

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Bound</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>For All Five ALCs*</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, the percent of contracts prioritized as emergency or urgent is from 40.2 percent to 77.2 percent. The unbiased point estimate, 58.7 percent, is the most likely single value for the percent of contracts prioritized as emergency or urgent.

### Table B-7. Total Dollar Value of Contracts Impaired by Waived Competition

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower Bound</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>For All Five ALCs*</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, the total dollar value of contracts impaired by waived competition is from $11.8 million to $92 million. The unbiased point estimate, $51.9 million, is the most likely single value for the total dollar value of contracts impaired by waived competition.
Appendix B. Statistical Sampling Projection Methodology

Table B-8. Average Administrative Lead Time As If Purchase Request Preparation Time Were 17 Days

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
<th>Lower Bound</th>
<th>Point Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>For All Five ALCs*</td>
<td>141.41</td>
<td>162.57</td>
<td>183.73</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, the average administrative lead time as if purchase request preparation time were 17 days is from 141.41 to 183.73 days. The unbiased point estimate, 162.57 days, is the most likely single value for the average administrative lead time as if purchase request preparation time were 17 days.

Table B-9. Purchase Request Preparation Time As If 17 Days as a Percent of Administrative Lead Time

<table>
<thead>
<tr>
<th>90-Percent Confidence Interval</th>
<th>Lower Bound</th>
<th>Point Estimate</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>For All Five ALCs*</td>
<td>9.2</td>
<td>10.4</td>
<td>12.0</td>
</tr>
</tbody>
</table>

*With 90-percent confidence, purchase request preparation time as if 17 days as a percent of administrative lead time is from 9.2 percent to 12.0 percent. The unbiased point estimate, 10.4 percent, is the most likely single value for purchase request preparation time as if 17 days as a percent of administrative lead time as if purchase request preparation time were 17 days. The upper bound of this statistical projection, 12.0 percent, is less than the lower bound of the projection for actual purchase request preparation time as a percent of administrative lead time, 22.3 percent. Therefore, with 90-percent confidence, the actual value is significantly greater than the "as if 17 days" value.
Appendix B. Statistical Sampling Projection Methodology

Administrative lead time and purchase request preparation time could not be determined for 17 of the sampled contracts. Files for two other sampled contracts could not be located. These missing data values were imputed using hot deck methodology, and the corresponding sample variance measures were adjusted to reflect this imputation. To ensure conservative results for the ratio estimate, the calculation of its confidence interval was based on the mean square error of the estimate, which includes the maximum potential bias of the estimate as well as its standard error.
Appendix C. Potential Monetary Benefits of Improved Administrative Lead Time

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Potential Improvement (days)</th>
<th>Daily Demand</th>
<th>Inventory Benefits (^3)</th>
<th>Cost-to-Hold Ratio (^4)</th>
<th>Cumulative Potential Improvement (days) (^5)</th>
<th>Total Holding-Cost Benefits (^6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>12</td>
<td>$976,944</td>
<td>$11,723,328</td>
<td>0.23</td>
<td>12</td>
<td>$2,696,365</td>
</tr>
<tr>
<td>1997</td>
<td>12</td>
<td>976,944</td>
<td>11,723,328</td>
<td>0.23</td>
<td>24</td>
<td>5,392,731</td>
</tr>
<tr>
<td>1998</td>
<td>12</td>
<td>976,944</td>
<td>11,723,328</td>
<td>0.23</td>
<td>36</td>
<td>8,089,096</td>
</tr>
<tr>
<td>1999</td>
<td>11</td>
<td>976,944</td>
<td>10,746,384</td>
<td>0.23</td>
<td>47</td>
<td>10,560,765</td>
</tr>
<tr>
<td>2000</td>
<td>11</td>
<td>976,944</td>
<td>10,746,384</td>
<td>0.23</td>
<td>58</td>
<td>13,032,433</td>
</tr>
<tr>
<td>2001</td>
<td>11</td>
<td>976,944</td>
<td>10,746,384</td>
<td>0.23</td>
<td>69</td>
<td>15,504,101</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
<td></td>
<td>$67,409,136</td>
<td></td>
<td></td>
<td>$55,275,491</td>
</tr>
</tbody>
</table>

\(^1\) Total potential improvement will be achieved over 6 years: 69 days total for all contracts.

\(^2\) Daily demand was calculated by dividing Air Force FY 1995 budget data for consumable items by 360 days.

\(^3\) Potential improvement (days) times daily demand.

\(^4\) Represents the cost of holding inventory, which includes cost of money (10 percent), obsolescence (12 percent), and storage (1 percent).

\(^5\) Represents the total days that inventory can be reduced over 6 years.

\(^6\) Represents the total benefits from reduced inventory over 6 years.
Appendix D. Summary Of Potential Benefits Resulting From Audit

<table>
<thead>
<tr>
<th>Recommendation Reference</th>
<th>Description of Benefit</th>
<th>Amount and Type of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Economy and Efficiency. Reduces administrative lead time, inventory, and inventory maintenance.</td>
<td>Funds put to better use. Monetary benefits are included in Recommendation 2.a.</td>
</tr>
<tr>
<td>2.a.</td>
<td>Program Results. Improves the oversight of the spare parts procurement process and helps reduce administrative lead time.</td>
<td>Funds put to better use of $135.7 million over 6 years Revolving fund.*</td>
</tr>
<tr>
<td>2.b.</td>
<td>Internal Controls. Reduces administrative lead time, which could result in potential cost avoidance by reducing inventory levels.</td>
<td>Funds put to better use. Monetary benefits are included in Recommendation 2.a.</td>
</tr>
</tbody>
</table>

*$135.7 million can be put to better use by reducing inventory and reducing the cost to maintain that inventory needed to cover the administrative lead time. The potential monetary benefits may be spread over more than 1 year as administrative lead time is reduced and as inventory requirements are adjusted correspondingly, as follows.

Monetary Benefits By Fiscal Year (millions)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Inventory</td>
<td>$11.72</td>
<td>$11.72</td>
<td>$11.72</td>
<td>$10.74</td>
<td>$10.74</td>
<td>$10.74</td>
<td>$67.4</td>
</tr>
<tr>
<td>Holding</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td>2.70</td>
<td>5.39</td>
<td>8.10</td>
<td>10.56</td>
<td>13.03</td>
<td>15.50</td>
<td>55.3</td>
</tr>
<tr>
<td>Impeded</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competition Costs</td>
<td>2.17</td>
<td>2.17</td>
<td>2.17</td>
<td>2.17</td>
<td>2.17</td>
<td>2.17</td>
<td>13.0</td>
</tr>
</tbody>
</table>
Appendix E. Organizations Visited or Contacted

Office of the Secretary of Defense
Deputy Under Secretary of Defense (Logistics), Washington, DC
Joint Logistics System Center, Dayton, OH
Deputy Under Secretary of Defense for Acquisition Reform, Washington, DC

Department of the Air Force
Assistant Secretary of the Air Force (Financial Management and Comptroller),
Arlington, VA
Air Force Materiel Command, Wright-Patterson Air Force Base, OH
Ogden Air Logistics Center, Hill Air Force Base, UT
Oklahoma City Air Logistics Center, Tinker Air Force Base, OK
Sacramento Air Logistics Center, McClellan Air Force Base, CA
San Antonio Air Logistics Center, Kelly Air Force Base, TX
Warner-Robins Air Logistics Center, Robins Air Force Base, GA

Non-Government Organization
Logistics Management Institute, McLean, VA
Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Under Secretary of Defense (Comptroller/Management)
  Deputy Under Secretary of Defense (Comptroller/Program/Budget)
Director, Defense Procurement
Deputy Under Secretary of Defense for Acquisition Reform
Deputy Under Secretary of Defense (Logistics)
Assistant to the Secretary of Defense (Public Affairs)

Department of the Army

Auditor General, Department of the Army

Department of the Navy

Comptroller of the Navy
Auditor General, Department of the Navy

Department of the Air Force

Secretary of the Air Force
Assistant Secretary of the Air Force (Acquisition)
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, Air Force Materiel Command
  Commander, Ogden Air Logistics Center
  Commander, Oklahoma City Air Logistics Center
  Commander, Sacramento Air Logistics Center
  Commander, San Antonio Air Logistics Center
  Commander, Warner-Robins Air Logistics Center
Auditor General, Department of the Air Force

Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, Central Imagery Office
Inspector General, National Security Agency
Appendix F. Report Distribution

Non-Defense Federal Organizations

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division,
General Accounting Office

Chairman and Ranking Minority Member of Each of the Following Congressional
Committees and Subcommittees:

Senate Committee on Appropriation
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice,
  Committee on Government Reform and Oversight
House Committee on National Security

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Part IV - Management Comments
MEMORANDUM FOR DIRECTOR, CONTRACT MANAGEMENT DIRECTORATE,
OFFICE OF THE INSPECTOR GENERAL, DOD

SUBJECT: Audit Report on the Air Force Measurement of
Administrative Lead Time

Your memorandum of December 2, 1994, requests our comments
on subject audit. We generally concur with your findings and
recommendations. However, we do not agree with the calculated
savings that could occur from reduced administrative lead time.

In the FY 1996/FY 1997 budget review the Air Force budget
request was reduced by $348 million in FY 1996 and $306 million
in FY 1997 partially because of the potential for decreasing
administrative lead time as identified in the subject audit.
However, this represents a reduction in obligation authority
only and does not necessarily equate to lower inventories or
"savings" in an economic sense. Essentially, it equates to a
one-time deferral of costs more than any real savings.

Administrative lead time is a factor used to determine when
to order an item. The actual inventory consists of an economic
order quantity (EOQ) and a safety level. No inventory is held
for administrative lead time because the inventory requirement
is primarily based on an EOQ that is independent of when the
order is placed. While safety levels associated with the
variability of supply and demand can be reduced because of
changes in administrative lead time, these savings are
relatively minor.

BRUCE A. DAUER
ASSISTANT DEPUTY COMPTROLLER
(PROGRAM/BUDGET)
Department of the Air Force Comments

DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON DC

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL FOR AUDITING,
OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT
OF DEFENSE

Lead Time," (Project No. 3CD-0043.02)

This is in reply to your request for Air Force comments on subject report.

The Air Force does not concur with the DOD IG conclusions presented in subject
report. The conclusions are erroneous and contradictory. The report states the Air Force
should measure actual time required to prepare purchase requests and use this information
to identify opportunities to reduce administrative lead time. However, the Air Force is
currently using a much lower lead time in the consumable item computations than actual
experience, as stated in the report. Therefore, lower lead times are already used
to compute requirements, and reducing actual purchase request preparation time to the 17
day predetermined time will not change the Air Force budget request. Consumable
requirements are computed based on the lead times used in the computation, (i.e., the 17
day predetermined time) therefore, increasing the days by using actual purchase request
preparation time will also increase the requirement. The Air Force budget would then
need to be adjusted upward to account for increased lead time, not decreased as stated in
the report.

Due to the above, the Air Force also does not concur with Recommendation 1 and
stated Potential Monetary Benefits. Because using actual administrative lead time days in
the computation will increase the computed requirement, the Under Secretary of Defense
(Comptroller) would have to adjust the Air Force budget upwards. In addition, if the Air
Force reduces actual purchase request preparation time down to the 17 day predetermined
time estimate, there will be no adjustment required to the budget because, as the report
points out, the Air Force already uses the predetermined time of 17 days in the
consumable computation used to develop the budget. This means there is no potential
monetary benefit due to reduced lead time days, safety level reductions or inventory
holding costs. The Air Force has purchased inventory to the lower 17 day predetermined
lead time estimate, not the higher actuals.

The Air Force concurs with intent on Recommendation 2a, only with the
understanding that using actual lead times (in the beginning, before actual days can be
reduced to the 17 day currently used in the computations) will increase the Air Force
budget. However, using longer actual times directly counters other DOD and Air Force
efforts to reduce requirements by reducing lead time days in the computation. As stated in
the report, DOD has instructed the Air Force to reduce lead times by 50 percent by the year 2000. The Air Force has acted on DOD direction by directing HQ AFMC to reduce both actual lead times and lead times used in requirements computations. We agree that the Air Force needs to concentrate efforts on reducing actual lead times and should require explanation and justification when the predetermined time is not met. The Air Force prefers to force lower lead times in the computations, which will have a direct effect on Inventory Manager action to lower actual lead times in order to prevent supportability problems. However, AFMC Regulation 57-6 is being converted to an AFMC Instruction. The new guidance will allow file maintenance of ALT based on longer-than-standard processing times if the IM considers the longer times to be normal. Estimated completion date is July 1995. This means the Air Force will experience increased budget requirements until we actually experience lower lead time.

The Air Force nonconcurs with Recommendation 2b. The Internal Management Control Program is meant to track financial weaknesses, and we do not consider that tracking actual time to prepare purchase requests will identify financial weaknesses. The Air Force, at the direction of DOD, has made a management decision to use lower lead times in computations to reduce requirements and budget requests. Implementing audit recommendations will require increased funds, not free up funds for other uses.

The erroneous conclusion drawn in this report that using actual purchase request preparation time will reduce administrative lead time ignores the fact that the Air Force is currently computing consumable budget requirements using the lower 17 day predetermined time estimate. We agree that the Air Force needs to concentrate efforts to get actual days down to at least the 17 day predetermined estimate. If directed to use actual days, the Comptroller will have to immediately increase the budget request. Until further actions can be taken to get actual days down to below the 17 day level, we strongly disagree that the Comptroller should reduce the budget to reflect “reduced” lead time when using current actuals increase lead time.

cc: SAF/FMPF
    SAF/FMBM

[Signature]
Audit Team Members

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, Department of Defense.

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INTERNET DOCUMENT INFORMATION FORM

A. Report Title: Air Force Measurement of Administrative Lead Time

B. DATE Report Downloaded From the Internet: 01/24/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):
   OAIG-AUD (ATTN: AFTS Audit Suggestions)
   Inspector General, Department of Defense
   400 Army Navy Drive (Room 801)
   Arlington, VA  22202-2884

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

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   DTIC-OCA, Initials: __VM__ Preparation Date 01/24/99

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