

March 29, 2004



Acquisition

Acquisition of the Boeing KC-767A Tanker Aircraft (D-2004-064)

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Acronyms

AFOTEC	Air Force Operational Test and Evaluation Center
AMC	Air Mobility Command
BCA	Boeing Commercial Airplane
C4I	Command, Control, Communications, Computers, and Intelligence
CBO	Congressional Budget Office
CPPC	Cost-Plus-a-Percentage-of-Cost
DCAA	Defense Contract Audit Agency
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulation
FASA	Federal Acquisition Streamlining Act
GTTA	Global Tanker Transport Aircraft
IDA	Institute for Defense Analysis
IDS	Integrated Defense Systems
OMB	Office of Management and Budget
ORD	Operational Requirements Document
PAA	Performance Aircraft Availability
RFP	Request for Proposal
TINA	Truth in Negotiations Act



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March 29, 2004

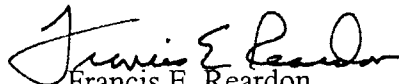
MEMORANDUM FOR UNDER SECRETARY OF DEFENSE FOR ACQUISITION,
TECHNOLOGY, AND LOGISTICS
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)
GENERAL COUNSEL, DEPARTMENT OF DEFENSE

SUBJECT: Report on the Acquisition of the Boeing KC-767A Tanker Aircraft
(Report No. D-2004-064)

We are providing this report for review and comment. We performed the audit in response to a request by the Deputy Secretary of Defense. This report does not address matters under investigation by other components of the Office of the Inspector General. In preparing the final report, we considered comments from the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics; the Assistant Secretary of the Air Force (Acquisition); and the Deputy General Counsel (Acquisition and Logistics).

DoD Directive 7650.3 requires that all recommendations be resolved promptly. As a result of management comments, we request that the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Assistant Secretary of the Air Force (Acquisition); and the General Counsel of the Department of Defense provide comments on this final report by May 17, 2004.

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. John E. Meling at (703) 604-9091 (DSN 664-9091) or Mr. Henry F. Kleinknecht at (703) 604-9324 (DSN 664-9324). See Appendix G for the report distribution. The team members are listed inside the back cover.


Francis E. Reardon
Deputy Inspector General
for Auditing

cc: Deputy Secretary of Defense
Special Assistant to the Deputy Secretary of Defense

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Office of the Inspector General of the Department of Defense

Report No. D-2004-064

(Project No. D2004AE-0063)

March 29, 2004

Acquisition of the Boeing KC-767A Tanker Aircraft

Executive Summary

Deputy Secretary of Defense Request. On December 1, 2003, the Deputy Secretary of Defense requested an audit, stating that “In light of recent revelations by The Boeing Company concerning apparent improprieties by two of the company’s executives, please determine whether there is any compelling reason why the Department of the Air Force should not proceed with its Tanker Lease Program. In particular, I would appreciate knowing whether any of these revelations affect any of your previous analysis of this program.”

Response to the Deputy Secretary. The audit resulted in a two-part answer. Based on the audit work supporting our report, the short answer to both questions in your request is no;^{*} however, it is our independent judgment that the Air Force used an inappropriate procurement strategy and demonstrated neither best business practices nor prudent acquisition procedures to provide sufficient accountability for the expenditure of \$**.* billion for the KC-767A tanker program. We identified five statutory provisions that have not yet been satisfied relating to: commercial items; testing (two statutes); cost-plus-a-percentage-of-cost system of contracting; and leases. Therefore, DoD should not proceed with the program until it resolves the issues pertaining to the procurement strategy, acquisition procedures, and statutory requirements.

Because of our findings, as discussed in the results section below, the Deputy Secretary should consider the following options.

1. After implementation of audit recommendations to resolve contracting and acquisition issues, proceed with the sole-source acquisition of the Boeing KC-767A Tanker Program for 100 or fewer aircraft.
2. Initiate a new major Defense acquisition program based on the results of an analysis of alternatives for military tanker aircraft.
3. Implement a mix of Option 1 for some of the tankers and Option 2 for subsequent tankers.

See Appendixes B and C for the Deputy Secretary of Defense request and details of the results of our prior reviews of the program and a timeline of significant events related to the program, respectively.

Background. The Department of Defense Appropriations Act for FY 2002, Section 8159 authorized the Air Force to make payments on a multiyear pilot program for leasing general purpose Boeing 767 aircraft in commercial configuration. The authority

^{*}This report does not address matters under investigation by other components of the Office of the Inspector General.

^{**}Contractor proprietary and negotiation sensitive data omitted.

exceed 10 years. The development of the Boeing KC-767A Tanker aircraft will evolve from Boeing's basic 767 commercial aircraft and will undergo extensive military-unique modifications that change its primary function from a passenger aircraft to a military tanker aircraft. Scheduled deliveries for 10 tanker aircraft begin in FY 2007 and the final 3 of the planned 100 tanker aircraft are scheduled for delivery in FY 2015. Because of concerns over Air Force plans to fund the 100 leased tanker aircraft, the Congress in Section 135 of the National Defense Authorization Act for FY 2004 authorized the Air Force to lease no more than 20 tanker aircraft and purchase no more than 80 tanker aircraft under the multiyear aircraft lease pilot program.

The Air Force used a commercial item procurement strategy for the Boeing KC-767A Tanker Program and negotiated sole-source fixed price with economic adjustment contracts. The proposed contracts included \$*.** billion for lease and purchase of the "green aircraft" (basic Boeing 767 aircraft), \$*.** billion for Boeing development of the tanker, \$*.** billion for Air Force specific modifications to the tanker, \$*.** billion for fleet logistics support, \$*.** billion for training, \$*.** billion for financing and escalation, and \$*** million for other costs. As of December 5, 2003, the "considered negotiated" price for the proposed contracts was \$**.* billion (current year dollars).

Results. Contrary to the Air Force interpretation, the Boeing KC-767A Tanker Program does not meet the statutory definition of a commercial item. No commercial market for this tanker aircraft exists in order to establish reasonable prices by the forces of supply and demand. Consequently, the commercial item procurement strategy did not provide the Air Force with sufficient cost or pricing data to make multi-billion dollar decisions for the Boeing KC-767A Tanker Program and did not demonstrate the level of accountability needed to conclude that the prices negotiated represent a fair expenditure of DoD funds (Issue A). The Air Force used Section 8159 of the Department of Defense Appropriations Act for FY 2002 to justify its informal acquisition strategy with the primary goal to expeditiously lease 100 Boeing KC-767A Tanker aircraft to replace its aging KC-135E Tanker fleet. In doing so, the Air Force did not demonstrate best business practices and prudent acquisition procedures in developing this program and did not comply with statutory provisions for testing (Issue B).

Specific aspects of Issue A are as follows:

- **Commercial Item Procurement Strategy.** The Air Force commercial item procurement strategy prevented any visibility into Boeing's costs and required the Air Force to use a fixed-price type contract. In a fixed-price type contract, the contractor retains all of the savings if the contractor's actual costs are lower than the estimates. Cost or fixed-price incentive type contracts are more appropriate for initial development, modifications, and logistics support. The strategy also exempted the sole-source provider from the requirement to submit cost or pricing data. The strategy places the Department at high risk for paying excessive prices and profits and precludes good fiduciary responsibility for DoD funds (Issue A-1).

* Contractor proprietary and negotiation sensitive data omitted.

Using the commercial item procurement strategy, Air Force program officials:

- **Green (Commercial) Aircraft (\$*. * billion).** Waived obtaining cost or pricing data without obtaining data on prior Boeing commercial sales to establish price reasonableness, did not negotiate engine prices directly with engine manufacturers (a standard commercial practice), and relied on a questionable mix of Boeing 767 commercial aircraft models with a discounted Internet price to establish a fixed-price baseline of \$*. * billion for 100 “green aircraft.” The commercially available data and assumptions that the Air Force program officials relied on were not sufficient to support the fixed-price baseline price and could cause the price to be overstated from \$*** million to \$*. * billion based on an analysis performed by the Institute for Defense Analysis (IDA) and our analysis of a higher discounted price appropriate for a significant competitive order (Issue A-2).
- **Development (\$*. * billion).** Relied on data that Boeing provided to the Italian military for the Global Tanker Transport Aircraft (GTTA) with other assumptions for testing and certification and then added profit and financing costs to support the Air Force share of \$*** million for GTTA development. The Air Force negotiating team also used cost estimating relationships to other programs, Boeing engineering estimates, and other budget data to calculate Air Force-specific development costs of \$*** million. The data used were not sufficient to establish a fixed-price baseline of \$*. * billion for development of the 100 tanker aircraft (Issue A-3).
- **Modification (\$*. * billion).** Used questionable comparisons of modifications costs for other programs and Boeing engineering estimates and vendor quotes without determining the reliability of those estimates or quotes, and then applied a decrement factor to establish a fixed-price baseline of \$*. * billion for the modification of 100 “green aircraft.” The data that Air Force program officials used were not sufficient to establish the modification baseline price, which could cause the modification price to be overstated by at least \$*** million based on an analysis performed by IDA. The magnitude of the military modifications obliges the Air Force to request Congress to provide the statutory authority required by Department of Defense Appropriations Act for FY 2002 to modify leased general purpose Boeing 767 aircraft (Issue A-4).
- **Limitation of Earnings and Termination Clauses.** Attempted to limit Boeing’s earnings to 15 percent by including a limitation of earnings clause in the proposed contract. The clause was written to exclude any Government audit rights and to use Boeing’s independent auditor to provide an attestation on profits earned. Only the Inspector General has the statutory authority to approve the use of non-Federal audit services. The Defense Contract Audit Agency (DCAA) is the appropriate audit entity and is in the best position to provide the requisite audit services. Further, the clause allowed Boeing to include questionable items in its costs and prevented the Government from any visibility of the costs with only a final accounting by Boeing’s auditor after the last aircraft is delivered in FY 2015. The clause is highly detrimental to the fiduciary interests of DoD. The clause also appears to have created a statutorily prohibited cost-plus-a-percentage-of-cost system of contracting. Also, the termination for convenience clause in the proposed contract does not provide sufficient controls or audit rights to adequately determine the Government’s termination liability and to prevent a possible Anti-Deficiency Act violation (Issue A-5).

*Contractor proprietary and negotiation sensitive data omitted.

- **Logistics Support (\$*. * billion).** Used a mix of pricing data from brochures relating to other aircraft and escalated 1980s pricing data for support equipment costs that included a \$*** million error to justify a fixed-price fleet logistics support price of \$*. * billion for ** years. The data used were not sufficient to support baseline fleet logistics support costs. Further, Air Force program officials set a ** percent “performance aircraft availability” for Boeing to receive 100 percent of the annual contract price without benchmarking the availability rates of comparable aircraft systems. The **-year sole-source contract is also premature because the Air Force should first comply with statutory requirements in the National Defense Authorization Act for FY 2004; Section 2464 of title 10, United States Code; and the Strom Thurmond National Defense Authorization Act for FY 1999 requiring analyses of the costs and benefits of organic or contractor support, core logistics, and contract length (Issue A-6).
- **Lease (\$*. * billion).** Did not meet three of six criteria requirements for an operating lease as described in Office of Management and Budget Circular No. A-11. Meeting the Office of Management and Budget criteria for leases is a statutory requirement of Section 8159 of the Department of Defense Appropriations Act for FY 2002. Further, the lease for 20 tankers will increase Air Force costs by at least \$*** million more than purchasing the aircraft (Issue A-7).

Specific aspects of Issue B are as follows:

- **Acquisition Strategy.** The Office of the Assistant Secretary of the Air Force (Acquisition) did not establish an appropriate acquisition strategy for acquiring tanker aircraft to satisfy warfighter needs. Instead, the Air Force used Section 8159 of the Department of Defense Appropriations Act for FY 2002 to justify its informal acquisition strategy, the focus and goal of which was to expeditiously lease 100 Boeing 767A Tanker aircraft without regard to best business practices, prudent acquisition procedures, and compliance with statutory provisions for testing. Without a disciplined acquisition strategy, the Air Force cannot ensure to the warfighter that the delivered KC-767A Tanker aircraft will satisfy operational requirements (Issue B-1).

Using the legislation as the informal acquisition strategy, Air Force officials did not:

- **System Engineering Requirements.** Fully develop system engineering requirements to convert the commercial non-developmental aircraft into an integrated military configuration. Without fully developing system engineering requirements for aircraft conversion, the Boeing KC-767A Tanker aircraft may not meet the operational requirement for a 40-year service life as well as command, control, communications, computers, and intelligence (C4I) support plan requirements (Issue B-2).
- **Operational Requirements Document.** Tailor the first spiral or increment of the operational requirements document to warfighter requirements in the mission needs statement for future air refueling aircraft but instead tailored it to correlate closely with the capabilities of the Boeing 767 tanker variant that Boeing was producing for the Italian government. As a result, the first 100 KC-767A Tankers will not meet the operational requirement for interoperability and will not meet the mission capabilities in the operational requirements document to

* Contractor proprietary and negotiation sensitive data omitted.

conduct secondary missions, such as cargo/passenger and aeromedical evacuation missions (Issue B-3).

- **Statutory Provisions for Testing.** Comply with Sections 2366 and 2399 of title 10, United States Code for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before proceeding beyond low-rate initial production and committing to the subsequent production of all 100 Boeing KC-767A Tanker aircraft. By not complying with the statutory provisions, the Boeing KC-767A Tanker aircraft delivered to the warfighter may not be operationally effective, suitable, and survivable (Issue B-4).

Recommendations Summary. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

- Direct the Assistant Secretary of the Air Force (Acquisition) to either:
 - After implementation of audit recommendations to resolve contracting and acquisition issues, proceed with the sole-source acquisition of the Boeing KC-767A Tanker Program for 100 or fewer aircraft.
 - Initiate a new major Defense acquisition program based on the results of the analysis of alternatives for military tanker aircraft.
 - Implement a mix of the above options.
- Discontinue the commercial item procurement strategy for the Boeing KC-767A Tanker Program and replace fixed-price contracts for initial development, modification, and integrated fleet support with cost or fixed-price incentive type contracts that would require Boeing to provide cost or pricing data as appropriate.
- Require that Boeing provide cost or pricing data for the Boeing 767-200ER aircraft unless Boeing provides information on the prices at which the same or similar items have been previously sold in similar quantities and negotiate prices for aircraft engines directly with the engine manufacturers.
- Require that the Air Force contact the Office of the Inspector General for the Department of Defense for review and approval, as appropriate, when considering the use of non-Federal audit services in any contract.
- Reduce the negotiated price calculated for integrated fleet support by \$*** million for the misapplication of KC-10 support equipment costs and perform appropriate benchmarking of “performance aircraft availability” for other comparable aircraft systems.
- Perform statutory analyses of the costs and benefits of organic or contractor support, core logistics requirements, performance based logistics, and contract length before selecting a provider for integrated fleet support.
- Not enter into the proposed lease for 20 Boeing KC-767A Tanker aircraft until after either obtaining statutory authority to enter into a lease-purchase contract or renegotiating lease terms to meet Office of Management and Budget Circular No. A-11 requirements for an operating lease.
- Determine whether leasing rather than purchasing 20 Boeing KC-767A Tanker aircraft represents the best value to the Government.

*Contractor proprietary and negotiation sensitive data omitted.

We recommend that the General Counsel of the Department of Defense review the limitation of earnings clause and determine whether it creates a prohibited cost-plus-a-percentage-of-cost system of contracting and review clauses clauses C-016 “Aircraft Quantity,” C-024 “Anti-Deficiency Act,” and C-103 “Termination for Convenience – Pre-Construction Aircraft,” in proposed Contract FA8625-04-C-6453 to determine whether the contract clauses and audit rights provide sufficient controls to adequately define the extent of the Government’s termination liability and to prevent a possible Anti-Deficiency Act violation if less than the full quantity of aircraft and fleet support years are leased and purchased.

We recommend that the Program Director, KC-767A System Program Office:

- Establish a process to develop a performance metric for verifying that the Boeing KC-767A Tanker aircraft will meet the 40-year service life requirement.
- Revise the system specification for the proposed Boeing KC-767A Tanker aircraft contracts to include a requirement for protective measures to control corrosion and to include requirements in the operational requirements document for interoperability with other systems, integration of secure communications, and combat identification.
- Complete the command, control, communications, computers, and intelligence support plan for the Boeing 767A Tanker aircraft; include it in the statement of work before award of the contracts; and resolve issues identified by implementing the support plan before system acceptance testing.
- Ensure that system specifications developed for the first spiral of the air refueling aircraft include at least all key performance parameters and that spiral two and three requirements are subsequently included in the first 100 and future air refueling aircraft.
- Comply with the statutory provisions by conducting operational and survivability testing on production representative aircraft before committing to the production of all 100 Boeing KC-767A Tanker aircraft.

Similar Sole-Source Commercial Acquisition. In a separate project, we are reviewing the C-130J aircraft program that used a similar sole-source commercial item acquisition strategy with a fixed-price contract.

* * * * *

Management Comments and Audit Response. We received comments from the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics; the Assistant Secretary of the Air Force (Acquisition); and the Deputy General Counsel

* Contractor proprietary data omitted.

(Acquisition and Logistics) on the draft report. The comments provided by the Acting Under Secretary stated that he was withholding his comments on the report recommendations until the completion of other studies of the program. The other studies of the program that the Deputy Secretary of Defense also requested are being conducted by the Defense Science Board and the National Defense University. The Assistant Secretary generally nonconcurred with the report findings and recommendations. We disagree with the Assistant Secretary's comments and stand by our findings and recommendations. The Deputy General Counsel stated that, if the program proceeds, his office will review the proposed contracts. Further, he believes that a legal opinion would be premature at this time. (See the Issue section of the report for a discussion of the management comments on the recommendations and audit responses and the Management Comments section of the report for the complete text of the comments.)

Therefore, we request that the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics; the Assistant Secretary of the Air Force (Acquisition); and the General Counsel of the Department of Defense provide comments on this final report by May 17, 2004.

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Source: Office of the Assistant Secretary of the Air Force (Acquisition)

Proposed Boeing KC-767A Tanker Aircraft

Background

We performed this audit at the request of the Deputy Secretary of Defense. The Deputy Secretary requested that we determine whether there was any compelling reason why the Air Force should not proceed with its Tanker Lease Program and whether the results affected our previous reviews. Additionally, he placed the Boeing KC-767A Tanker Program under a pause until we completed our review and two other studies are completed. See Appendix B for the Deputy Secretary of Defense request and details of the results of our prior reviews of the program. See Appendix C for a timeline of events related to the Boeing KC-767A Tanker Program.

Summary of Legislation. In Section 8159 of the Department of Defense Appropriations Act for FY 2002, January 10, 2002, Congress authorized the Air Force to make payments on a multiyear pilot program for leasing not more than 100 general purpose Boeing 767 aircraft for not more than 10 years per aircraft, inclusive of any options to renew or extend the initial lease term, and for not more than 90 percent of the fair market value of the aircraft obtained under the lease. In Section 133 of the National Defense Authorization Act for FY 2003, December 2, 2002, the Congress directed that the Secretary of the Air Force not enter into a lease for the tanker aircraft until:

- the Secretary submits a report to the congressional Defense committees outlining his plans for implementing a pilot program, and
- either authorization and appropriation of funds necessary to enter into the lease are provided by law or until a new start reprogramming notification for the necessary funds has been submitted.

Because of concerns over Air Force plans to fund the 100 leased aircraft, the Congress, in Section 135 of the National Defense Authorization Act for FY 2004, November 24, 2003, authorized the Air Force to lease no more than 20 tanker aircraft and purchase no more than 80 tanker aircraft under the multiyear aircraft lease pilot program. Appendix D provides additional information on statutory provisions pertaining to the lease and procurement of the 100 Boeing KC-767A Tanker aircraft.

Aircraft Description. Boeing plans to produce the KC-767A Tanker aircraft from its core commercial B767-200ER aircraft. The plans include integrating features from other B767 models and adding extensive military-unique modifications for its primary air refueling mission and other missions, including cargo, passenger, aeromedical evacuation, communication relay, and passive sensor. As a tanker, the aircraft is to receive and dispense fuel through a drogue and boom from its centerline and to store more than 200,000 pounds of fuel, including 41,000 pounds of fuel held in auxiliary fuel tanks.

Leasing Panel. On November 1, 2001, the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Under Secretary of Defense (Comptroller)/Chief Financial Officer established the Leasing Review Panel (the Panel), which they co-chaired. The Panel is responsible for reviewing all lease

proposals costing \$250 million or more. The Panel is subordinate to the Defense Acquisition Board and its review activities and the Defense Acquisition Executive has decision-making authority on programmatic and contractual issues related to leasing proposals offered as alternatives to acquisitions of potential major Defense acquisition programs. The Panel was established for the FY 2003 budget cycle; however, its continuation is subject to approval by the Secretary of Defense.

On May 23, 2003, the Secretary of Defense approved the Air Force proposal to award a multiyear Pilot Program with Boeing for leasing 100 general purpose Boeing 767 aircraft, based on the results of the Panel review of the Boeing 767A Tanker aircraft leasing and purchasing options. The Leasing Review Panel compared the merits and shortcomings of both leasing and purchasing the aircraft, and the Secretary determined that the lease option best satisfied military needs. The primary reasons were that the lease will accelerate deliveries of aircraft and will result in smaller outlays in the initial years of the Future Years Defense Program. The Under Secretary of Defense for Acquisition, Technology, and Logistics decided not to convene an Overarching Integrated Product Team to review the results of the Panel review because the Under Secretary believed that the Boeing KC-767A Tanker aircraft was 90 percent commercial and did not require significant development and modification effort.

Complex Financing Agreement. After obtaining the Secretary of Defense's approval, the Air Force, Boeing, the Office of the Secretary of Defense, and the Office of Management and Budget reached a complex financing agreement in May 2003 allowing the Air Force to lease up to 100 Boeing KC-767A Tanker aircraft. Because of concerns over the financing agreement and its impact on future DoD budgets, the Congress, as discussed earlier, authorized the Air Force to lease no more than 20 tanker aircraft and purchase no more than 80 tanker aircraft under the multiyear aircraft lease pilot program.

Noncompetitive Fixed-Priced Commercial Contracts. Based on the congressional authorization, the Air Force is negotiating noncompetitive fixed-price commercial contracts with Boeing for the lease of 20 KC-767A Tanker aircraft and the procurement of 80 tanker aircraft. The "considered negotiated" * * * * * (current year dollars) for the 100 Boeing KC-767A Tanker aircraft was \$**.* billion, including \$*.* billion for the "green aircraft," \$*.* billion for Boeing development of the tanker, \$*.* billion for Air Force specific modifications to the tanker, \$*.* billion for fleet logistics support, \$*.* billion for training, \$*.* billion for financing and escalation, and \$*** million for other costs. The \$**.* billion¹ can also be broken out to include \$*.* billion for lease rents, \$**.* billion for aircraft purchase, \$*.* billion for fleet logistics support, \$*.* billion for training, and \$*** million for other costs.

Currently, Boeing will deliver

* * * * *

* Contractor proprietary and negotiation sensitive data omitted.

¹The latest Air Force cost projection in then-year dollars is \$** billion, including \$*.* billion for lease rents, \$**.* billion for aircraft purchase, \$*.* billion for integrated fleet support, \$* billion for training, \$*** million for other costs, and \$*** million for military construction.

Objective

Our overall audit objective was to review the acquisition of the Boeing KC-767A Tanker Program to determine whether there was any compelling reason why the Air Force should not proceed with its Tanker Lease Program. We did not review the validity of the requirements for the tanker aircraft; the condition of the Air Force's current tanker fleet in terms of corrosion and increased maintenance costs; and whether other tanker aircraft should be considered to meet user requirements. See Appendix A for a discussion of the audit scope and methodology.

Issue A. Commercial Item Procurement Strategy for the Boeing KC-767A Tanker Program

The Air Force contracting officer decided to use a commercial item procurement strategy that Air Force management strongly encouraged for the sole-source Boeing KC-767A Tanker Program, valued at \$**.* billion, with The Boeing Company (Boeing). However, contrary to the Air Force interpretation, the military tanker aircraft is not a commercial item as defined in Section 403 of title 41, United States Code. Further, there is no commercial market to establish reasonable prices by the forces of supply and demand. The commercial item procurement strategy also required that the Air Force use a fixed-price type contract under which the contractor assumes the risk of delivery and conformance with the systems specifications rather than a more appropriate mix of cost and fixed-price incentive type contracts. Under a fixed-price type contract, the contractor assumes the risk of cost over-runs but also retains all of the savings if the contractor's actual costs are lower than the estimates. The commercial strategy also exempted Boeing from the requirement to submit cost or pricing data (Truth in Negotiations Act [Section 2306a of title 10, United States Code]) which places the Government at high risk for paying excessive prices and profits and precludes good fiduciary responsibility for DoD funds. Without insight into the contractor's actual costs, the Air Force will also be at a disadvantage in any future tanker procurement negotiations (Issue A-1).

Discussion of Issue

Using the commercial item procurement strategy, the Air Force did not have sufficient data to make multi-billion dollar decisions for the Boeing KC-767A Tanker Program and could not demonstrate the level of accountability needed to conclude that the prices negotiated represent a fair expenditure of DoD funds. Specifically, Air Force program officials:

- **Green Aircraft (\$*.* billion).** Waived cost or pricing data without obtaining data on prior Boeing commercial sales to establish price reasonableness, did not negotiate engine prices directly with engine manufacturers (a standard commercial practice), and relied on a questionable mix of Boeing 767 commercial aircraft models with a discounted Internet price to establish a fixed-price baseline for 100 “green aircraft” (variation of Boeing commercial 767-200ER and 767-400ER aircraft) at \$*.* billion. The commercially available data and assumptions that the Air Force program officials relied on were not sufficient to support the fixed-price baseline price and could be overstated from \$*** million to \$*.* billion based on an analysis performed by the Institute for Defense Analysis (IDA) and our analysis of a higher discounted price appropriate for a significant competitive order (Issue A-2).

*Contractor proprietary and negotiation sensitive data omitted.

-
- **Development (\$*. * billion).** Relied on data that Boeing provided to the Italian military for the Global Tanker Transport Aircraft (GTTA) with other assumptions for testing and certification and then added profit and financing costs to support the Air Force share of \$*** million for GTTA development costs. The Air Force negotiating team used cost estimating relationships to other programs, Boeing engineering estimates, and other budget data to calculate Air Force-specific development costs of \$*** million. The data used were not sufficient to establish a fixed-price baseline of \$*. * billion for development of the 100 tanker aircraft (Issue A-3).
 - **Modification (\$*. * billion).** Used questionable comparisons of modifications costs for other programs, Boeing engineering estimates, and vendor quotes without determining the reliability of those estimates or quotes, and then applied a decrement factor to establish a fixed-price baseline of \$*. * billion for the modification of 100 “green aircraft.” The data used were not sufficient to establish the baseline price and could cause the modification price to be overstated by at least \$*** million based on an analysis performed by IDA. The magnitude of the military modifications obliges the Air Force to request Congress to provide the statutory authority required by the Department of Defense Appropriations Act for FY 2002 to modify leased general purpose Boeing 767 aircraft into a military tanker configuration (Issue A-4).
 - **Limitation of Earnings and Termination Clauses.** Attempted to limit Boeing’s earnings to 15 percent by including a limitation of earnings clause in the contract. To achieve this limitation, however, the Air Force program officials wrote the clause to exclude, without authority, statutory Government audit rights and to use Boeing’s independent auditor to provide an attestation on profit. Only the Inspector General has the statutory authority to approve use of non-Federal audit services. The Defense Contract Audit Agency (DCAA) is the appropriate entity and is in the best position to provide the requisite audit services. Further, the clause allowed Boeing to include questionable items in its costs, such as cost reduction initiative savings and engine manufacturer credits or rebates, and concealed contract costs from the Government with only a final accounting by Boeing’s auditor after the last aircraft is delivered in FY 2015. Our office and the DCAA find the clause to be highly detrimental to the fiduciary interests of the DoD and it provides no true accountability for the expenditure of DoD funds. The clause also appears to have created a prohibited cost-plus-a-percentage-of-cost system of contracting. Also, the termination for convenience clause in the contract does not provide sufficient controls or audit rights to adequately determine the Government’s termination liability and to prevent a possible Anti-Deficiency Act violation (Issue A-5).
 - **Logistics Support (\$*. * billion).** Used a mix of pricing data from brochures relating to other aircraft and escalated 1980s pricing data for support equipment costs that included a \$*** million error to justify a fixed-price fleet logistics support price of \$*. * billion for ** years. The data used were not sufficient to support the baseline price for fleet logistics support costs. Further, Air Force program officials set a ** percent “performance aircraft availability” for Boeing to receive 100 percent of the annual contract price

*Contractor proprietary and negotiation sensitive data omitted.

without benchmarking availability rates of comparable systems. The **.-year sole-source logistics support contract is premature because the Air Force should first comply with statutory requirements in the National Defense Authorization Act for FY 2004; Section 2464 of title 10, United States Code; and the Strom Thurmond National Defense Authorization Act for FY 1999 requiring analyses of the costs and benefits of organic or contractor support, contract length, and core logistics (Issue A-6).

- **Lease (\$*. * billion).** Did not meet three of six criteria requirements for an operating lease as described in Office of Management and Budget (OMB) Circular No. A-11. Meeting the OMB criteria for leases is a statutory requirement of Section 8159 of the Department of Defense Appropriations Act for FY 2002. Further, the lease for 20 tankers will increase Air Force costs by at least \$*** million more than purchasing the aircraft (Issue A-7).

Management Comments on Issue A and Audit Response

Summaries of Air Force comments on Issue A and audit responses are in Appendix F.

Issue A-1. Commercial Item Procurement Strategy

Conclusion and Results Summary. The Air Force contracting officer decided to use a commercial item procurement strategy that Air Force management strongly encouraged for the sole-source Boeing KC-767A Tanker Program, valued at \$*. * billion, with The Boeing Company (Boeing). However, contrary to the Air Force interpretation, the military tanker aircraft is not a commercial item as defined in Section 403 of title 41, United States Code. Further, there is no commercial market to establish reasonable prices by the forces of supply and demand. By using a commercial item procurement strategy, the Air Force was also required to use a fixed-price type contract where the contractor retains all of the savings if the contractor's actual costs are lower than the estimates rather than a more appropriate mix of cost and fixed-price incentive type contracts. The commercial strategy also exempted Boeing from the requirement to submit cost or pricing data, which places the Government at high risk for paying excessive prices and profits and precludes good fiduciary responsibility for DoD funds. Without the Air Force gaining insight into Boeing's actual costs, the Air Force will also be at a disadvantage in any future tanker procurement negotiations.

Criteria. Federal Acquisition Regulation (FAR) Part 2, "Commercial Item Definition," Part 12, "Acquisition of Commercial Items," and Part 15, "Contracting by Negotiation;" Section 403 of title 41, United States Code, "Definitions" (Commercial items); Under Secretary of Defense for Acquisition, Technology, and Logistics memorandum on "Commercial Acquisitions," January 2001, "the Federal Acquisition Streamlining Act of 1994" or "FASA," and Section 2306a of title 10, United States Code, "Cost or pricing data: truth in negotiation," provide guidance on commercial items and exceptions to cost or pricing data.

*Contractor proprietary and negotiation sensitive data omitted.

Use of Commercial Item Procurement Strategy

One of the unique aspects of the proposed Boeing KC-767A Tanker aircraft lease was that in Section 8159 of the Department of Defense Appropriations Act for FY 2002, Congress authorized the Air Force to lease general purpose Boeing 767 aircraft under a pilot program. Also, Congress authorized the Air Force to include terms and conditions in the lease agreements that were customary in aircraft leases by a non-Government lessor to a non-Government lessee. To implement this, the Air Force contracting officer and the cost/price analyst for the Boeing KC-767A Tanker Program stated that Air Force management strongly encouraged them to examine the use of a commercial item procurement strategy for the Boeing KC-767A Tanker Program. The Air Force contracting officer decided to use a commercial item procurement strategy.

Commercial Item Determination

Contracting Officer Commercial Item Determination and Finding. In the determination and finding, the contracting officer described the rationale for classifying the Boeing KC-767A Tanker aircraft as a commercial item. Specifically, the contracting officer stated:

For the 767 tanker to fall in the FAR 2.101(3) “commercial item” category, it must be an item that would satisfy FAR 2.101(1) or (2), except for **“minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements.”** FAR 2.101(3)(ii) goes on to state that minor modifications are those that **do not significantly alter an item’s non-governmental function** or essential physical characteristics. A modification’s value and size relative to the final product’s value and size are considerations in determining whether a modification is “minor,” but are not conclusive. The 767 passenger and freighter configurations are, without question, items that would satisfy the FAR 2.101(1) definition of a “commercial item.” The question is whether reconfiguring a 767 passenger or freighter version to a tanker equals a FAR 2.101(3)(ii) “minor modification” such that the tanker is a FAR 2.101(3) commercial item. The sheer number of modifications does not determine whether a modification is minor, but the determinant is whether the modifications change the item’s function or essential physical characteristics. **Modifying a 767 passenger or freighter configuration to the tanker configuration would not change the aircraft’s function. The aircraft’s function would still be to transport people and cargo by air. It would likewise not change the aircraft’s essential physical characteristics. It would still be an airplane, with a hull, wings, tail, engines, and avionics.** The modification (which is of a type, as discussed above, not customarily available at this time in the commercial marketplace) to a tanker configuration for the Air Force, to meet federal government requirements (the government requires the tanker configuration for long-range aerial refueling), does not significantly alter the 767’s non-governmental function or essential physical characteristics. **One thus**

can argue that reconfiguring a 767 passenger or freighter version to a tanker is a FAR 2.101(3)(ii) “minor modification”. [emphasis added]

The KC-767A Aircraft qualifies (as a commercial item) under FAR 2.101(3), as the 767 passenger and freighter versions are customarily used by the general public for non-governmental purposes, and a 767 passenger or freighter aircraft configured as a tanker **appears to qualify as a minor modification**. As a result, it is hereby determined that items being acquired for the KC-767A Aircraft System Program are commercial items in accordance with FAR 2.101(3).” **[emphasis added]**

Air Force Information on Commerciality. The contracting officer supported his determination and finding with information from decisions by the General Services Board of Contract Appeals and the Comptroller General. The Board stated in the General Services Board of Contract Appeals case,² *Sprint Communications Co., et al. versus Defense Information Systems Agency*, that “The factor distinguishing major from minor modifications is said to rest on the degree to which the modification changes the function or essential physical characteristics of the product or item in question. It is this and not the aggregate complexity of the proposed alterations which distinguishes major from minor modifications as that term is used in the commerciality provisions of the RFP [Request for Proposal].” We determined this decision has no relevance to the argument to classify the Boeing KC-767A Tanker aircraft as a commercial item. The decision does not relate to a minor modification of a type not customarily available in the commercial marketplace as defined by statute and the FAR. It does relate to commerciality provisions defined in the RFP. The Federal Aviation Administration wanted a commercially available system for its procurement of a telecommunications system and did not want modifications, minor or otherwise, because of bad experiences with previous equipment modifications on other contracts. However, conflicting clauses in the RFP allowed minor modifications to commercial systems and defined minor modification as “a modification to a commercial item that does not alter the commercial item’s function or essential physical characteristics.”

The Comptroller General decisions (*Premier Engineering & Manufacturing, Inc.* and *Canberra Industries, Inc.*)³ also discussed the issue of commercial item determinations. The first decision related to a competitive procurement that dealt with the similarity between a single-engine aircraft deicer and a dual-engine deicer. The decision agreed with the commercial item determination stating that adding a second engine to the single-engine configuration was a “minor modification” (based on a 90 percent similarity in the 2 configurations) without significant physical alteration and no change to the essential function. The basic function to deice the aircraft was not changed in any way by the use of an

²General Services Board of Contract Appeals Number 12692-P, 94-3, Board of Contract Appeals ¶ 26966, March 15, 1994.

³*Premier Engineering & Manufacturing, Inc.*, B-283028; B-283028.2, 1999 U.S. Comp. Gen. LEXIS 174; 99-2 Comp. Gen. Proc. Dec. ¶ 65, September 27, 1999. *Canberra Industries, Inc.* B-271016, 1996 U.S. Comp. Gen. LEXIS 302; 96-1 Comp. Gen. Proc. Dec. P269, June 5, 1996.

auxiliary engine to operate the deicing equipment. This decision has no relevance to the argument to classify the Boeing KC-767A Tanker aircraft as a commercial item. The decision does not relate to a minor modification of a type not customarily available in the commercial marketplace as defined by statute and the FAR, and again, it relates to commerciality provisions defined in the RFP. The commercial determination related to a deicer that had long been offered for sale and sold in the commercial marketplace, and the modification was minor and of a type customarily available in the commercial marketplace.

The second decision, another competitive procurement, discussed a software upgrade for pedestrian radiation detection equipment. The decision again agreed with the commercial item determination because the software modification did not alter the function or physical characteristics of the pedestrian monitor and thus was minor. Further, the decision stated that there was nothing in the record to indicate that the modification was other than a minor one to the monitor's operating system. Specifically, the new software was a commercially available program that merely replaced the software previously used. This decision has no relevance to the argument to classify the Boeing KC-767A Tanker aircraft as a commercial item. The decision does not relate to a minor modification of a type not customarily available in the commercial marketplace as defined by statute and the FAR and again relates to commerciality provisions defined in the RFP. The commercial determination related to the use of new software that was a commercially available program and did not alter the function or physical characteristics of the monitor.

Military Tanker Not a Commercial Item

Modification of Boeing 767 Aircraft into Military Tanker. The Air Force contracting officer, in the determination and finding for the Boeing KC-767A Tanker aircraft, inappropriately determined that modifications of the Boeing 767 aircraft were minor modifications of a type not customarily available in the commercial marketplace to satisfy the commercial item definition.

Not Minor Modifications. The modifications made to develop the Boeing KC-767A Tanker aircraft were not minor, were for unique military-specific purposes, and cost **. * percent of the base commercial aircraft price (\$*. * billion [development and modification]/\$*. * billion ["green aircraft"]). The Air Force believes the correct figure is ** percent, which is not minor and does not include the \$* billion development effort. In addition, the modifications significantly changed the aircraft's primary purpose and function from that of transporting people and cargo to that of a military tanker.

The major modifications that will be made to the Boeing 767-200ER commercial aircraft will create a military-unique tanker aircraft that does not currently exist. Specifically, the Air Force specified military-unique modifications to the "green aircraft" such as the installation of auxiliary fuel tanks, a refueling boom, a refueling receptacle, more powerful engine generators, and heavier wiring to accommodate military-unique requirements. Other significant modifications that the Air Force required included the installation of a hose drogue unit which

*Contractor proprietary and negotiation sensitive data omitted.

allows for aerial refueling, the use of Link 16 software for secure voice and data communications, and a convertible modification that allows the conversion of the tanker configuration to a passenger or freighter configuration.

Although the Air Force version of the tanker aircraft is not a commercial item, the Air Force believes that a worldwide market is emerging for the GTTA, because of sales of four aircraft each to Japan and Italy, stated interest by Australia, and competition between Airbus and Boeing for a United Kingdom tanker program.

Not “Of a Type.” The Boeing KC-767A Tanker aircraft also did not meet the intent of the commercial item definition “of a type.” The Under Secretary of Defense for Acquisition and Technology (since renamed Acquisition, Technology, and Logistics) in a memorandum on “Commercial Acquisition,” January 5, 2001, clarified for consistency, FAR guidance on commercial items including the intent of “Of a Type” determinations. Specifically,

The phrase “of a type” is not intended to allow the use of FAR Part 12 to acquire sole-source, military unique items that are not closely related to items already in the marketplace. . . . “of a type” broadens the statutory commercial item definition to allow Part 12 acquisition of a government-unique item that can compete with commercial items that meet the government’s requirement. [emphasis added]

Statutory Requirements for Commercial Item. The Department of Defense Appropriations Act for FY 2002 and the National Defense Authorization Act for FY 2004 did not waive the commercial item provisions set forth in the Federal Acquisition Streamlining Act (FASA) of 1994. Section 8159 of the Department of Defense Appropriations Act for FY 2002 permitted the leasing of general purpose Boeing 767 aircraft in commercial configuration without modification to satisfy the tanker requirement. Section 135 of the National Defense Authorization Act for FY 2004 permitted the leasing of 20 tanker aircraft and the purchase of 80 tanker aircraft. FASA and its legislative history in Senate Report 103-258, May 11, 1994, clearly intended that commercial items be “non-developmental.” Section 8001 of FASA defined a commercial item as items that have been sold, leased, or licensed to the general public to include non-developmental items developed exclusively at private expense that have been sold in substantial quantities on a competitive basis to State and local governments. The definition of commercial item is at Section 403 of title 41, United States Code and Part 12 of the FAR. To satisfy the tanker requirement, the Boeing 767 will undergo substantial development and modification totaling \$*. * billion. Section 5064 of FASA characterizes upgraded aircraft for use in meeting tanker requirements as commercial-derivative aircraft rather than as commercial items. Therefore, commercial-derivative tanker aircraft are not covered as commercial items under FASA. The Department of Defense Appropriations Act for FY 2002 and the National Defense Authorization Act for FY 2004 did not waive the commercial item provisions under FASA and now under title 41.

*Contractor proprietary and negotiation sensitive data omitted.

Commercial Market Does Not Exist

There is no commercial market for the Boeing KC-767A Tanker aircraft to establish the reasonableness of prices by the forces of supply and demand. When there is a market, the market establishes prices by the forces of supply and demand, and the market provides the oversight.

The Air Force determination and finding also stated that a commercial market for the Boeing KC-767A Tanker aircraft did not currently exist. Specifically,

Tanker aircraft, of whatever type, are not presently customarily used by the general public, or by non-governmental entities, at this time. Also, virtually all of Boeing's present sales are to governments. Perhaps if Boeing's market develops as hoped, one could affirmatively agree that (1) and (2) might eventually apply to the tanker, but, as they do not at present, the 767 does not meet the "commercial item" definition in FAR 2.101(1). **[emphasis added]**

Fixed-Price Contract Type

The commercial item procurement strategy required that the Air Force use a fixed-price type contract rather than more appropriate cost and fixed-price incentive type contracts. The fixed-price type contract is one in which the contractor assumes the risk of overruns but also retains all of the savings if the contractor's actual costs are lower than the estimates. FAR 12.207, "Contract Type," states that agencies will use firm fixed-price contracts or fixed-price contracts with economic price adjustment for the acquisition of commercial items. The use of any other contract type to acquire commercial items is prohibited.

The Air Force stated that FAR 16.202-2 provides that use of a firm-fixed-price contract is suitable for acquiring commercial items or for acquiring other supplies or services on the basis of reasonably definite functional or detailed specifications when the contracting officer can establish fair and reasonable prices. Price reasonableness under FAR 16.202-2 can be established by a number of different methods including reasonable price comparisons with prior purchases of the same or similar supplies or services. FAR 16.202-2 permits the use of fixed-price contracts notwithstanding performance uncertainties as long as the performance uncertainties can be identified and reasonable estimates of their cost impact can be made, and the contractor is willing to accept a firm fixed price representing assumption of the risks involved.

We believe that by using fixed-price contracts, the Air Force created a high-risk procurement strategy for the development, modification, procurement, and logistics support of the Boeing KC-767A Tanker Program. As to the Boeing KC-767A Tanker Program, a fixed-price commercial contract may be appropriate for the basic Boeing 767-200ER aircraft, but a cost or fixed-price incentive contract would be more appropriate for the initial Boeing KC-767A Tanker aircraft development, modification, and logistics support efforts.

Truth In Negotiations Act

By using the commercial item procurement strategy, the Air Force negotiating team did not obtain cost or pricing data under the Truth in Negotiations Act (TINA). The commercial strategy also exempted Boeing from the requirement to submit cost or pricing data, which places the Government at high risk for paying excessive prices and profits. Congress historically has expressed concern with the use of other-than-competitive contracts that typically were negotiated between the parties. Noncompetitive contracts increase the risk that the Government will pay unreasonable prices and that the contractors will earn excessive profits. Based on these concerns, Congress passed TINA in September 10, 1962, that required contractors to submit cost or pricing data before the award of a negotiated contract and to certify that the data were accurate, complete, and current. The purpose of TINA was to provide the Government with all the facts on cost and pricing that the contractor used to prepare the proposal so that the Government could negotiate far more knowledgeably and avoid paying excess prices and profits. Throughout the years, amendments have modified TINA requirements, and the appropriate statutory authority is now in Section 2306a of title 10, United States Code.

On Inspector General of the Department of Defense Report No. 98-064, "Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111," June 24, 1998, the Director, Defense Procurement provided the following comments in June 1995 on the benefits of TINA, marketplace pricing, and the differences between DoD and commercial procurement environments.

The requirements of TINA are necessary to ensure the integrity of DoD spending for military goods and services that are not subject to marketplace pricing. **When there is a market that establishes prices by the forces of supply and demand, the market provides the oversight.** DoD procures many highly complex military systems in the absence of supply/demand situation for these relatively low volume, unique military goods. The requirements of TINA address legitimate and necessary differences between DoD and commercial procurement environments.

While DoD recognizes the need for TINA, it also is moving to increase competition and decrease the number of pricing actions that would require cost or pricing data. The implementation of FASA [Federal Acquisition Streamlining Act], with its emphasis on encouraging the acquisition of commercial end items and **increased competition, will bring the requisite market forces to bear on prices, and thus exempt contractors from the requirement to submit cost or pricing data. Absent this competition, the quantitative benefit to the Government of TINA compliance far exceeds the cost of Government oversight.** These benefits are best illustrated by the fact that during FY 94, oversight work related to TINA resulted in net savings of \$2 billion on DoD contracts. When compared to the cost of \$761 million for TINA compliance the benefits represent a 267% return on investment. **[emphasis added]**

Recommendations, Management Comments, and Audit Response

A.1. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics discontinue the commercial item procurement strategy for the Boeing KC-767A Tanker Program and replace it with a strategy that will use cost or fixed-price incentive contracts and would require Boeing to provide cost or pricing data as appropriate.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed. For the complete text of the Acting Under Secretary's comments, see the Management Comments section of the report.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating that the commercial character for the KC-767 tanker program's origin was "rooted in legislative history." Further, the associated "colloquies" from the Senate and the House clearly established that Congress viewed the KC-767 tanker as a commercial configuration. For the complete text of the Assistant Secretary's comments, see the Management Comments section of the report.

Audit Response. The KC-767 tanker is not a commercial item as defined by Section 403 of title 41, United States Code and Part 12 of the FAR. Further, neither the Department of Defense Appropriations Act for FY 2002 nor the National Defense Authorization Act for FY 2004 waived the commercial item provisions initially set forth in the Federal Acquisition Streamlining Act of 1994.

Issue A-2. Green Aircraft Price (\$*. * billion)

Conclusion and Results Summary. The Air Force negotiating team waived cost or pricing data and did not include the FAR clause to obtain data on prior Boeing commercial sales to establish price reasonableness. The negotiating team also did not negotiate engine prices directly with engine manufacturers (a standard commercial practice), and relied on a questionable mix of Boeing 767 commercial aircraft models with a discounted Internet price to establish a fixed-price baseline of \$*. * billion for 100 "green aircraft." The commercially available data and assumptions that the negotiating team relied on were not sufficient to support the fixed-price baseline price and could be overstated from \$*** million to \$*. * billion based on an analysis performed by IDA and our analysis of a higher discounted price appropriate for a significant competitive order.

Criteria. * Director ,
Defense Procurement Memorandum on Pricing sole-source commercial items;
FAR 52.215-20, "Requirement for Cost of Pricing Data or Information other

*Predecisional documentation omitted.

than Cost or Pricing Data (Oct 1997);" and *
provide information on
the proposed price and guidance on commercial items and exceptions to cost or
pricing data.

Commercial Item Exception from Cost or Pricing Data

The Air Force negotiating team did not obtain cost or pricing data on the "green aircraft" even though Boeing did not provide data on prior commercial sales to establish price reasonableness. The negotiating team deviated from the regulatory commercial item procurement strategy when Boeing was not obligated to submit cost or pricing data and did not provide appropriate information on the prices at which Boeing had previously sold the same or similar aircraft to support a commercial item exception for the "green aircraft."

To support the negotiating team's decision, the Air Force cited FAR 15.403-4(a)(1), which states "The Contracting Officer must obtain cost or pricing data only if the contracting officer concludes that none of the exceptions in 15.403-1(b) applies." FAR 15.403-1(b) identifies five exceptions, one of which is "commercial item." The contracting officer determined that this acquisition was a commercial item. On that basis, the Air Force negotiating team did not obtain cost or pricing data. FAR 15.402(a) states "the contracting officer must not obtain more information than necessary... must generally use the following order of precedence... information within the Government, information obtained from sources other than the offeror, and if necessary information from the offeror... such offeror information shall include at a minimum appropriate information on the prices at which the same or similar items have been sold previously...." FAR 15.408 states "Considering the hierarchy at 15.402, the contracting officer may insert the provision at 52.215-20... in solicitations...."

Because Boeing has entered into nondisclosure agreements with its customers prohibiting the disclosure of prices or the terms of their agreements, the level of data otherwise common was not available to the government. Nondisclosure agreements are common in the highly competitive commercial aircraft industry. The Air Force negotiating team believes it followed the intent of the FAR as identified above. However, the fiduciary responsibility associated with the expenditure of \$*. * billion should necessitate that the Air Force truly meet the intent of the FAR and obtain more data on sales or costs.

Director, Defense Procurement Guidance. On August 2, 2000, the Director, Defense Procurement issued a memorandum to the Defense community on "Obtaining Information for Pricing Sole-Source Commercial Items." The Director stated:

Please remind your contracting professionals that the clause at FAR 52.215-20 should be included in the solicitations for sole-source commercial items when the contracting officer has a reasonable expectation that the offeror will request a commercial item exception to a requirement for submission of certified cost or pricing data, and that **the offeror will need to provide, at a minimum, appropriate**

*Predecisional documentation omitted.

information on the prices at which the same or similar items have been previously sold. [emphasis added]

FAR 52.215-20 describes the following requirements for offerors to obtain a commercial item exception from submitting cost or pricing data.

(ii) *Commercial item exception.* For a commercial item exception, **the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. [emphasis added]**

Aircraft Engine Prices

The Air Force negotiating team did not negotiate engine prices directly with the engine manufacturers, a standard commercial practice. Currently, three Defense contractors manufacture engines used on Boeing 767 aircraft. The negotiating team held conversations with a senior vice president of * at * and used his general observations to support the “green aircraft” price. In regard to purchasing engines, the * vice president stated:

* * * * *

The Institute for Defense Analysis also addressed the commercial practice of procuring aircraft engines as follows.

* * * * *

Basis for “Green Aircraft” Price

Boeing Proposal. Boeing represented the “green aircraft” price as a bill from their commercial aircraft division. At the *
for the Boeing KC-767A Tanker aircraft, Boeing proposed a price of \$** million for each “green aircraft.” Boeing derived the price from Boeing 767

*Contractor proprietary and negotiation sensitive data omitted.

commercial airplane prices on the Internet. Boeing used an average from its Internet price range and then weighted the prices of two of its commercial planes. The least expensive of these, the 767-200ER, was weighted at ** percent and the more expensive 767-400ER was weighted at **.5 percent. Boeing then either applied its “preferred customer discount” of **.5 percent to arrive at the \$** million proposed price or calculated the customer discount as merely the difference between the base price and the proposed price. Table 1 summarizes the Boeing proposed price.

Table 1. Boeing Proposed Green Aircraft Unit Prices (\$millions)					
	Commercial Airplane Prices (Internet)			Weight	
<u>Airplane Model</u>	<u>Low</u>	<u>High</u>	<u>Average</u>	<u>Factor</u>	<u>Price</u>
767-200ER	\$100.0	\$112.0	\$106.0	*.**	\$**.*
767-400ER	125.5	138.5	132.0	*.**	**.*
Green Aircraft Base Price					\$***.*
Preferred Customer Discount		(**.*%)			<u>(**.*)</u>
Green Aircraft Price					\$**.*

Data the Air Force Used to Negotiate the “Green Aircraft” Price. The Air Force negotiating team used factors from six different approaches to determine a “green aircraft” price of \$** million each. One approach the negotiating team used, based the aircraft price on what an aircraft customer, without any preferential standing, might pay for one aircraft as identified by a catalog price and then discounted the aircraft price based on the Air Force being a very good customer. In the * the cost/price analyst stated:

On this last note BCA (Boeing Commercial Airplane) represents that while the Air Force and the United States Government (USG) are considered very good customers, in this situation their level of commitment is not on equal footing with other airline companies that maintain exclusivity agreements with Boeing, whereby they buy all their aircraft from Boeing. Boeing also points out that there is no guarantee the USG will lease let alone buy 100 aircraft. The Air Force does not have a plan to exclusively purchase all of its future tanker needs from Boeing.

The AFNT [Air Force Negotiating Team] considered a production rate provision that would have reduced future aircraft prices if production rates increased since production rates are near the bottom right now. BCA and Boeing IDS (Integrated Defense Systems) were ultimately unresponsive to this approach as too risky in maintaining future margins.

*Contractor proprietary and negotiation sensitive data omitted.

Table 2 shows how the Air Force negotiating team arrived at the negotiated “green aircraft” price.

Table 2. Basis for Air Force Negotiated Green Aircraft Unit Prices (\$millions)			
<u>Data Source</u>	*	*	*
Internet	\$80.3	*	*
Appraisers	66.8	*	*
*	***	*	*
Marketplace	65.0	*	*
Parametric 1	80.5	*	*
Parametric 2	60.0	*	*
Subtotal			*
Trade-off elements			*
Green Aircraft Price			*

Internet. To calculate the Internet price, the Air Force negotiating team used the same methodology that Boeing used in its proposal. However, the Air Force used a ** percent preferred customer discount off the \$***.* million base price for the “green aircraft” to arrive at the \$80.3 million price. As shown in the *:

Each approach was weighted based upon its assessed strength in explaining green aircraft prices. **The Internet approach is considered the best approach since it represents the most commercial approach. [emphasis added]**

Appraisers. The Air Force negotiating team used four different appraisal firms to assess aircraft valuation in the marketplace. The negotiating team used a 50/50 split of prices for Boeing 767–200 and 767-400 aircraft to reflect marketplace valuation and then averaged the prices from the four appraisers to arrive at the \$66.8 million price. The Boeing 767–200 aircraft prices were about \$20 million less than the 767–400 aircraft prices.

* The Air Force negotiating team held conversations with a senior vice president * who provided both general and specific observations to support a price of \$** million. This included a similar * they offered on the marketplace. This individual indicated that a ** percent customer discount from a catalog price should be considered the best available in the marketplace for the best customer.

Marketplace. The Air Force negotiating team obtained current marketplace assessments from industry insiders that they could not validate because of marketplace restraints on sharing information. The negotiating team stated that price is only one of many factors in an agreement; accordingly,

* Contractor proprietary and negotiation sensitive data omitted.

configuration options, financing, warranty, and unique terms significantly skew any comparison of simple marketplace price information. The information showed a 2001 purchase of a 767-200ER aircraft for \$57.2 million with a resale valuation of the same aircraft estimated at \$70.0 million in the same year. The negotiating team averaged the two prices and escalated the price to the current year to arrive at the \$65 million price.

Parametrics 1 and 2. The Air Force negotiating team made parametric assessments based on data from parametric assessments made for the C-130J aircraft in 1996 and in 1999. The 1996 parametric assessment used weight from various aircraft to predict price and the 1999 parametric assessment used weight, speed, and fuel from various aircraft to predict price.

Institute for Defense Analysis Price Estimate. IDA prepared a “green aircraft” price estimate for the Director, Program Analysis and Evaluation and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics.

* * * * *

IDA calculated the “green aircraft” unit price at \$**.* million (\$**.* million for the basic B767-200ER aircraft and \$*.* million for enhanced features).

To develop its “green aircraft” price estimate, IDA used estimates from five sources. The 5 sources used the limited data available to support their estimates and generally referred to some type of discount from the Boeing list price. Table 3 shows the computation of the IDA estimate.

Table 3.		*
		*
Source	Range	Estimate
*	\$**.*	**.*
*		**.*
*		**.*
*		**.*
*		**.*
Average		**.*

* * * * *

*Predecisional documentation omitted.

* * * * *

In this paper, IDA also explained why it was difficult to estimate prices for the "green aircraft."

* * * * *

Reliability of Baseline Price

Baseline Price Could Be Overstated. The Air Force negotiating team did not have sufficient information without Boeing cost or pricing data or complete information on Boeing prior sales to calculate an accurate price for the "green aircraft." The Air Force stated "By relying on other cost and price data and techniques, a fair and reasonable price is represented by a wide range. Calculating the best price within this range must reflect the medium risks of the effort." The degree to which prices can differ is evident from the Air Force and IDA using a different mix of 767-200ER and 767-400ER aircraft and different preferred customer discount rates in their calculations for "green aircraft" prices. For example, the IDA analysis showed a \$*** million price differential (savings) from the Air Force negotiated price for the "green aircraft." The price differential (savings) from the IDA analysis would increase from \$*** million to \$.** billion, when using a preferred customer discount rate of ** percent to ** percent for a significant competitive order.

Table 4 shows the price differential (savings) from the Air Force negotiated price as compared to the IDA "green aircraft" estimate price, and other computed "green aircraft" price estimates *

*Predecisional documentation omitted.

rates * Table 4 also shows the commercial aircraft mix and aircraft discounts proposed by Boeing, recommended by IDA, and “considered negotiated” by the Air Force.

Table 4. Commercial Aircraft Discounted Unit Prices (\$millions)

	Discount	767-200ER	Commercial Aircraft Mix			767-400ER
<u>Estimates</u>	<u>(Percent)</u>	<u>100/0</u>	<u>75/25</u>	<u>50/50</u>	<u>25/75</u>	<u>0/100</u>
	0.0	106.0	112.5	119.0	125.5	132.0
	30.0	74.2	78.8	83.3	87.9	92.4
	32.5	71.6	75.9	80.3	84.7	89.1
	32.3	71.8	76.2	80.6	85.0	89.4
	35.0	68.9	73.1	77.4	81.6	85.8
	36.0	67.8	72.0	76.2	80.3	84.5
	40.0	63.6	67.5	71.4	75.3	79.2
	45.0	58.3	61.9	65.5	69.0	72.6
	50.0	53.0	56.3	59.5	62.8	66.0

	30-35 percent - Negotiated Order
	35-40 percent - Competitive Order
	45-50 percent - "Competitive Launch" Order

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*           *           *           *           *
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*           *           *           *           *
*           *           *           *           *
*           *           *           *           *

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* Contractor proprietary and negotiation sensitive data omitted.

Table 5 shows the difference (savings) from the Air Force “considered negotiated” price, IDA price, and other calculations based on various customer discounts.

Table 5. Comparison of Boeing Proposal and Air Force Considered Negotiated Price with Other Calculations (\$millions)						
	Discount (percent)	Aircraft Unit Prices			Total Price (100 aircraft)	*
		Basic	Other	Final		
*	**.*	\$ *.*.*		\$**.*	\$*,***.*	
*	**.*	**.*	-.*	**.*	*,***.*	\$ ***.*
	*					
*	32.5	71.6	*.*	**.*	*,***.*	530.0
767-200ER	35.0	68.9	*.*	**.*	*,***.*	800.0
767-200ER	40.0	63.6	*.*	**.*	*,***.*	1,330.0
767-200ER	45.0	58.3	*.*	**.*	*,***.*	1,860.0
767-200ER	50.0	53.0	*.*	**.*	*,***.*	2,390.0

Commercial Sales. The Boeing Web site shows 941 orders for Boeing 767 model aircraft to 66 different customers since 1978, or an average purchase of 14 aircraft per customer. The single largest customer, Delta Air Lines, procured 117 aircraft on 6 different orders from 1978 to 1997. Consequently, the Air Force order for 100 Boeing KC-767A Tanker aircraft and the potential for the Air Force to order several hundred additional aircraft should entitle the Air Force to a higher preferred customer discount rate than was included in the Air Force’s negotiated price for the “green aircraft.”

Recommendations, Management Comments, and Audit Response

A.2. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

a. **Require Boeing to provide cost or pricing data for the Boeing 767-200ER aircraft unless it receives a commercial item exception because it provided information on the prices of same or similar items that had been sold in similar quantities.**

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

*Contractor proprietary and negotiation sensitive data omitted.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating that the report erroneously suggested that a commercial item exception was tied to whether or not the item's manufacturer provided information on the prices of the same or similar items that had been sold in similar quantities.

Audit Response. The Assistant Secretary is disregarding guidance from the Director, Defense Procurement and Acquisition Policy to support the requirements in the Federal Acquisition Streamlining Act of 1994 relating to obtaining cost or pricing data for procurements of commercial items that are not based on adequate competition. The guidance provides that a contracting officer may require cost or pricing data if unable to obtain information on prices at which the same item or similar items have been sold in the commercial market adequate for evaluating through price analysis the reasonableness of the price of the contract. The guidance from the Director reminds contracting professionals to include the applicable FAR clause in solicitations for sole-source commercial items.

b. Negotiate prices for engines directly with the engine manufacturers.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating that negotiating for the engines directly with the intent to provide them as Government Furnished Property overlooks the benefits of acquiring them through Boeing and complicates the commercial acquisition.

Audit Response. Negotiating engine prices with the engine manufacturers, as done by commercial customers, is more complicated than procuring the engines through Boeing. However, the Air Force will need to learn to be able to leverage engine procurements and take advantage of the competitive commercial engine market and associated warranties.

Issue A-3. Non-Recurring (Development) Costs (\$*.* Billion)

Conclusion and Results Summary. The Air Force negotiating team relied on data that Boeing provided to the Italian military for the GTTA with other assumptions for testing and certification and then added profit and financing costs to support the Air Force \$*** million share for GTTA development. The negotiating team used cost estimating relationships to other programs, Boeing engineering estimates, and other budget data to calculate Air Force specific

*Contractor proprietary and negotiation sensitive data omitted.

development costs of \$*** million. The data that the negotiating team used was not sufficient to establish a fixed-price baseline of \$*. * billion for development of the 100 tanker aircraft.

Criteria. * * * * *

provide information on the proposed development costs.

Global Tanker Transport Aircraft Development Costs

The Air Force negotiating team did not receive a formal proposal from Boeing to support the initial \$*** million development price for the GTTA but relied on a review of Boeing pricing support provided to the Italian military. The negotiating team basically accepted the proposed \$*** million GTTA development price and then added additional amounts for risk, Boeing corporate financing, profit, and other Air Force specific development effort.

GTTA Market. * * * * *

Prospective GTTA sales: 4 tankers each to Italy and Japan, 100 tankers to the United States, 21 tankers to Britain, * tankers to Australia, and * tankers to the United Arab Emirates. The GTTA sales to Britain will not materialize because as of January 23, 2004, Britain is set to award a \$24 billion contract to Airbus for military tankers.

Air Force Analysis of GTTA Development Costs. The Air Force negotiating team reviewed the GTTA development costs from the Italian acquisition that supported the original Boeing proposal price of \$*** million. The negotiating team adjusted the original proposal price based on updated vendor information, requirement changes, and additional modifications to the tanker. As a result, the negotiating team increased the GTTA development costs to \$***. * million, of which \$*** million was to be paid by the Air Force.

In an attempt to support price reasonableness, the negotiating team assessed development costs for the KC-10 aircraft and the Advanced Tanker Cargo Aircraft. From their assessment of KC-10 aircraft development costs, the negotiating team used proposed hourly information with loaded 2002 Boeing labor wrap rates for engineering and manufacturing to support a GTTA price in the range of \$*** million to \$*** million. The negotiating team’s assessment of development costs for the Advanced Tanker Cargo Aircraft supported a GTTA development cost estimate in the range of \$*** million to \$*** million.

To further justify the \$*** million GTTA development costs, the negotiating team used various methodologies and technical experts. The Air Force negotiating team based much of the development effort on drawing counts which use catalog factors (hours per drawing) and cost estimating relationships applied against those hours. The negotiating team used various Internal Rates of Return, ranging from \$*** million to \$* billion, ultimately settling on a conservative 9 percent Internal Rate of Return to assess Boeing’s internal corporate financing.

* Contractor proprietary and predecisional data omitted.

Table 6 identifies the Air Force negotiating team GTTA development costs.

Table 6. GTTA Development Costs (\$million)		
<u>Cost Element</u>	<u>Amount</u>	<u>Description</u>
Manufacturing	\$ **.**	*
Interdivisional Work Authorization	**. **	*
Avionics	**. **	*
Mechanical	**. **	*
Structures	**. **	*
Integrated Logistics Support	**. **	*
Certification and Test	***. **	*
Systems Analysis	**. **	*
Program Management	**. **	*
Subtotal GTTA	\$***. **	
Profit	**. **	*
Financing	***. **	*
Total	\$***. **	

The Air Force stated that if Boeing had provided cost or pricing data, the Air Force negotiating team could have significantly reduced risk in assessing a fair and reasonable price for the Air Force share of GTTA development costs. Although, the Air Force did receive pricing data for Boeing's original proposal of \$*** million for GTTA development costs. However, the Air Force stated, "it omitted many relevant test risks, profit, and financing without being wholly consistent with the Italian buildup, which questions the viability of the methodology." The negotiating team added \$*** million of test risk because the Air Force had recently experienced this same type of uncertainty in getting the C-130J certified by the Federal Aviation Administration.

Air Force Development Cost

Air Force Specific Development Costs. Boeing originally proposed \$*** million for Air Force-specific development costs. The Air Force negotiating team made adjustments to the original proposal price to account for requirement

* Contractor proprietary and negotiation sensitive data omitted.

changes and additional tanker modifications. As a result, the negotiating team increased the price for Air Force-specific development costs to \$***.* million.

Table 7 shows the prices of the Air Force-specific development elements and costs.

Table 7. Air Force-specific Development Elements and Prices (\$millions)	
<u>Element</u>	<u>Amount</u>
Auxiliary Tanks	\$ **.**
Miscellaneous	**. **
Avionics	***. **
Link 16	***. **
Requirements Additions	***. **
Total	\$***.**

Boeing based its proposed auxiliary tanks development prices on estimates of drawing counts and cost estimating relationships derived from the Air Borne Laser program and other programs. The Air Force negotiating team took no exception to this methodology based on a general review by Air Force engineers and conversations with the Defense Contract Audit Agency. For the miscellaneous element, the negotiating team performed a technical assessment to measure process improvements and painting requirements. For the avionics element, the Air Force engineers concurred with Boeing engineer estimates. In addition, the negotiating team used Boeing quotes from Boeing suppliers to support avionics equipment prices. To determine the Link 16 (software for secure voice and data communications) prices, the negotiating team took the midpoint of two averages of budget estimates. The first average included Link 16 budget estimates for the F-22, the F-15, the F-16, the B-2, and the B-1 programs. The second average included Link 16 budget estimates for just the F-16 and B-2 programs, as the most similar. For the operational requirements document additions element, the negotiating team made numerous adjustments based on engineer estimates, Boeing quotes, and risk abatement.

Fixed-Price Development Efforts

Past experience has shown that Government costs can and have increased for fixed-price development efforts. A May 26, 1999, decision by the United States Court of Appeals for the Federal Circuit, *American Telephone and Telegraph et al. V. United States*, 177F.3d 1368, 1370-1371 (Fed. Cir. 1999) states,

Concern about the use of fixed price contracts for research and development phases pervades defense procurement. In 1971, Department of Defense Directive (DoDD) 5000.1 stated that '[I]t is not possible to determine the precise production cost of a new complex defense system before it is developed,' and established the policy of using cost reimbursement price terms for procurement of research and

*Contractor proprietary and negotiation sensitive data omitted.

development. . . . The Federal Acquisition Regulations governing R&D contracts also embodied this policy. . . . in the 1980s, despite these policy directives, the Navy returned to fixed price contracting for R&D.

. . . . This in turn led to congressional investigations and hearings. An investigation conducted by the House Appropriations Committee concluded that for the development phases of new technologies, the Navy's use of fixed price contracting resulted in program delays, cost overruns, contractor claims, nonparticipation, and litigation.

Further, as in the case of fixed-price contracts, fixing the Government's investment does not guarantee that the Government's cost will not increase if the contractors request relief from Government requirements or additional funding for the development effort. In addition, the Air Force-specific development price will continue to increase because of requirement changes and additional modifications that the Air Force plans for the future.

Recommendations, Management Comments, and Audit Response

A.3. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics not use a fixed-price contract for development of the Boeing KC-767A Tanker aircraft and obtain cost or pricing data from Boeing to determine fair and reasonable prices for the Boeing 767A Tanker aircraft development work.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the report mischaracterizes non-recurring effort as development effort. Much of the development has taken place over the last decade by Boeing to make available a tanker version of the Boeing 767 aircraft. Also, the effort defined as high-risk development is better defined as integration of existing commercial technology and much of the non-recurring price is profit, financing, and Federal Aviation Administration certification.

Audit Response. In addition to the development efforts described in the report, the contract specifically identifies a fixed cost that will be charged to the Government of \$*** million that represents the "Contractor's investment in developing the 767 GTTA." Boeing has already expensed the GTTA fixed-development cost included in the contract. The Boeing President and CEO stated on February 20, 2004, that Boeing was slowing its "development efforts" on the version of the 767 designed for the Air Force. We have not used the term "high-risk," in describing the development effort. We agree that much of the development effort price represents profit and financing.

*Contractor proprietary and negotiation sensitive data omitted.

Issue A-4. Aircraft Modification Costs (\$*. * Billion)

Conclusion and Results Summary. The Air Force negotiating team used questionable comparisons of modifications costs for other programs, engineering estimates, and vendor quotes with a decrement factor provided by Boeing without determining the reliability of those estimates or quotes to establish a fixed-price baseline of \$*. * billion for the modification of 100 “green aircraft.” The data that the negotiating team used were not sufficient to establish the modification baseline price, which could be overstated by at least \$*** million based on an analysis performed by IDA. The magnitude of the military modifications obliges the Air Force to request Congress to provide the statutory authority required by Department of Defense Appropriations Act for FY 2002 to modify general purpose Boeing 767 aircraft into a military tanker configuration.

Criteria.

FAR Part 12, “Acquisition of Commercial Items” and Part 15, “Contracting by Negotiation”; and

provide information on the proposed modification costs and acquisition guidance.

Negotiation of Modification Price and Justification

Tanker Negotiations. The Air Force and Boeing began negotiations in April 2002 that were based exclusively on the overall price for the tanker aircraft. Initially, Boeing offered the Air Force a price per tanker aircraft of \$*** million and indicated that the tanker normally marketed for \$*** million. During negotiations, the Air Force negotiating team accepted Boeing statements about quotes, nondisclosure agreements, and proposed prices. In July 2002, the negotiating team agreed to \$***. * million price for the tanker but required Boeing to include the following items at no charge: Link 16 capability, warranty, engineering services of up to \$** million, and financing assistance. In March 2003, the Office of the Secretary of Defense requested that IDA review the proposed purchase price for the tanker. In May 2003, using the purchase price estimate developed by IDA as leverage, the Assistant Secretary of the Air Force for Acquisition was able to lower Boeing’s tanker price to \$*** million, a total difference of about \$*. * billion for 100 aircraft. However, to obtain the lower price, the negotiating team deleted \$*. ** billion of requirements for the 100 aircraft. For each individual aircraft, the following requirements were deleted; convertible combination (\$*. * million), Boeing financing assistance (\$* million), and the lease market development credit (\$*. * million), and reduced the number of auxiliary fuel tanks (\$*. * million).

Military-Unique Modifications. Air Force-required modifications to the Boeing commercial aircraft were not minor based on the magnitude of the modifications and the changed purpose and function of the aircraft. The Air Force-required modifications amounted to *. * percent of the base aircraft price. Further, the

*Contractor proprietary and negotiation sensitive data omitted.

aircraft's function was changed from that of transporting people and cargo to that of a tanker aircraft. Specifically, the Air Force specified military-unique modifications to the "green aircraft" such as the installation of auxiliary fuel tanks, a refueling boom, a refueling receptacle, more powerful engine generators, and heavier wiring to accommodate military-unique requirements. Other significant modifications that the Air Force required included the installation of a hose drogue unit which allows for aerial refueling, the use of Link 16 software for secure voice and data communications, and a convertible modification that allows the conversion of the tanker configuration to a passenger or freighter configuration.

Fair and Reasonable Prices. FAR Part 15, "Contracting by Negotiation," requires the contracting officer to purchase supplies and services from responsible sources at fair and reasonable prices. For commercial items, FAR 15.403-3, "Requiring Information Other Than Cost or Pricing Data," states:

If the contracting officer cannot determine whether an offered price is fair and reasonable, even after obtaining additional information from sources other than the offeror, then the contracting officer must require the offeror to submit information other than cost or pricing data to support further analysis.

We believe the contracting officer did not have sufficient information to determine fair and reasonable prices. The Air Force stated:

FAR Part 15.403-4(a)(1) states "The Contracting Officer must obtain cost or pricing data only if the contracting officer concludes that none of the exceptions in 15.403-1(b) applies." FAR Part 15.403-1(b) identifies 5 exceptions, number 3 is "commercial item." The PCO [procuring contracting officer] has determined that this acquisition is a commercial item. On this basis, the Air Force negotiating team did not obtain cost or pricing data. FAR Part 15.402(a) states "the contracting officer must not obtain more information than necessary ... must generally use the following order of precedence...information within the Government, information obtained from sources other than the offeror, and if necessary information from the offeror...such offeror information shall include at a minimum appropriate information on the prices at which the same or similar items have been sold previously ...". FAR Part 15.408 states "Considering the hierarchy at 15.402, the contracting officer may insert the provision at 52.215-20...in solicitations ..." The contracting officer did not include the provision in the RFI because it was not a solicitation. The Air Force Negotiation Team (AFNT) followed the intent of the FAR as identified above, although they could not obtain sales data as prescribed by FAR Part 15.402 because Boeing and the buyers have a legal agreement that neither party may disclose prices and terms of individual acquisitions. The AFNT attempted to obtain vanilla information but Boeing asserted the market was sufficiently small that it would still violate the intent of the agreements. Even if the Air Force was successful in obtaining vanilla data it would then have no basis to validate it because of the legal constraints in the industry.

Price Analysis Using Top-level Program Comparison. The Air Force negotiating team considered a top-level assessment and detailed assessment. The top-level assessment considered the overall price of the commercial tanker modification as a function of the base aircraft price. The negotiating team reviewed ** other aircraft programs to determine their percentage of required modification prices as a function of the base aircraft price. The ** programs were assigned a weight based upon the Air Force negotiating team's assessment of each data-point's contribution. The negotiating team analysis showed that modifications priced as a function of the base aircraft price varied from **. * percent to **. * percent, had an average of **. * percent, and a weighted average of **. * percent. The negotiating team calculated the modifications price for the Boeing KC-767A Tanker aircraft at **. * percent (our calculation **. * percent)⁴ of the base aircraft price observing that the most similar effort is the KDC-10 tanker at ** percent. The Air Force stated that a top-level approach provides a price check and framework for the detailed approach explained below.

The Air Force negotiating team top-level price analysis for other programs did not adequately determine that Boeing modification prices for the Boeing KC-767A Tanker aircraft were fair and reasonable. The price of modifications for the Boeing KC-767A Tanker aircraft (**. * percent) were significantly higher than the average of **. * percent and the weighted average of **. * percent of the base aircraft price for the ** other programs examined. Further, the negotiating team included questionable programs in the analysis and no support was shown for the weights assigned to each program. For example, ** percent of the weight factor for this analysis was assigned to the KC-10 (** percent) and the KC-10A (** percent). In addition, ** percent of the weight factor was assigned to different configurations (J, T, and F) of the C-130 aircraft.

Price Analysis of 14 Modification Kits and Installation Effort. The Air Force negotiating team also used a more detailed approach to establish prices that involved an assessment of 14 modification kits and their installation. Boeing provided estimates of the prices for the 14 kits and installation costs based on its expertise (engineering estimates), comparisons to similar efforts, and vendor quotes. For the most part, Boeing's price estimates did not break out prices for material and labor. Boeing priced the kits and installation effort on an average basis, which negated the use of learning curves because the average price will remain the same.

The Air Force negotiating team established their own prices for the 14 kits and installation effort and broke out those amounts into material and labor. The negotiating team determined the average unit cost by estimating the price of the first kit installation effort and applying learning curves.

Kits. Boeing proposed a mid-point learning curve representing average cost for material and labor for each of the 14 kit modifications. The Air Force negotiating team did not agree with this methodology and instead used its

*Contractor proprietary and negotiation sensitive data omitted.

⁴Modification to the "green aircraft" to develop the Boeing 767A Tanker aircraft cost **. * percent of the base commercial aircraft price (\$*. * billion [development and modification]/\$*. * billion ["green aircraft"]).

expertise with other programs to establish the cost of the first unit and apply learning curves to determine average unit cost. The Air Force stated that the negotiating team used a ** percent material learning curve based on similarity with other programs and reflects leadership experience with other major Air Force programs. The negotiating team used an ** percent labor learning curve based on a weighted assessment of ** programs to include the C-17, KC-135, KC-10, F-15, C-130 AMP, and a RAND study.

Installation Effort. As suggested by Boeing, the Air Force negotiating team based their installation price assessments on prices for the Air Borne Laser Program. The negotiating team engineers concluded that the Air Borne Laser Program reflected a current, comprehensive, and complex installation of technical provisions on a par with a large type of modification effort similar to the Boeing KC-767A Tanker aircraft. The Air Force also contacted DCAA and the Defense Contract Management Agency to substantiate the use and application of proposed cost estimating relationships.

The Air Force negotiating team methodology of assessing the prices of the 14 kit modifications and installation effort did not adequately determine the reliability of Boeing's engineering estimates and vendor quotes.

The Air Force price analysis for the 14 modifications is shown in table 8.

Modification Type	First Unit Assessment		Unit Price			Total Price for 100 Aircraft
	*	*	*	*	Total	
Convertible	\$**.**	\$**.**	\$**.	\$**.	\$**.**	\$*,***
Auxiliary Tanks	**.**	*.**	*.**	*.**	*.**	***
Boom	*.**	*.**	*.**	*.**	*.**	***
Requirement Changes	*.**	*.**	*.**	*.**	*.**	***
Hose Drogue Unit	*.**	*.**	*.**	*.**	*.**	***
Avionics	*.**	*.**	*.**	*.**	*.**	***
Core tanker	*.**	*.**	*.**	*.**	*.**	***
Receiver	*.**	*.**	*.**	*.**	*.**	***
Link 16	*.**	*.**	*.**	*.**	*.**	**
Aerial Refueling						
Lighting	*.**	*.**	*.**	*.**	*.**	**
Crew rest	*.**	*.**	*.**	*.**	*.**	**
Seats	*.**	*.**	*.**	*.**	*.**	**
Situational Awareness						
Camera	*.**	*.**	*.**	*.**	*.**	**
Interphone	*.**	*.**	*.**	*.**	*.**	**
Total	\$**.**	\$**.**	\$**.**	\$**.**	\$**.**	\$*,***

IDA Cost Estimates for the 14 Modification Kits and Installation Effort. IDA established a cost estimate for each of the 14 modification kits and installation

*Contractor proprietary and negotiation sensitive data omitted.

effort. IDA estimated that the 14 modifications would total approximately \$*.** billion. IDA estimated prices that were lower than the Air Force assessments for * of the 14 modifications. We adjusted the IDA cost estimate by \$*** million for the combination portion of the convertible modification that was deleted during final contract negotiations. Accordingly, the IDA adjusted cost estimate of \$*.** billion was \$*** million less than the Air Force negotiated price for the 14 modifications.

Table 9 shows the difference between the Air Force negotiating team price and the IDA cost estimates for the 14 modifications.

Modification	Air Force Price	IDA Cost Estimate	Difference		
			Per Aircraft	For 100 Aircraft	Percent
Convertible	\$***.***	\$ *.*** ¹	\$*.***	\$ ***	***.***
Crew rest	.**	.**	.**	**	***.***
Interphone	.**	.**	.**	*	***.***
Core tanker	*.***	*.***	.**	**	***.***
Auxiliary Tanks	*.***	*.***	*.***	***	***.***
Requirements Changes	*.***	*.***	.**	**	***.***
Receiver	*.***	*.***	.**	**	***.***
Avionics	*.***	*.***	.**	**	***.***
Aerial Refueling Lighting	.**	.**	.**	*	***.***
Seats	.**	.**	(.**)	(*)	(***.***)
Boom	*.***	*.***	(***)	(***)	(***.***)
Hose Drogue Unit	*.***	*.***	(.**)	(**)	(***.***)
Link 16	.**	.**	(.**)	(**)	(***.***)
Situational Awareness Camera	.**	.**	(.**)	(**)	(***.***)
Total	\$***.***	\$***.***	\$*.***	\$ ***	***.***
¹	*	*	*	*	*

Statutory Authority for Modification

The Department of Defense Appropriations Act for FY 2002 authorizes the Air Force to establish a multiyear lease pilot program for the general purpose Boeing 767 commercially configured aircraft. However, the Department of Defense Appropriations Act for FY 2002 did not authorize the Air Force to have Boeing modify its commercially configured aircraft as follows.

(d) No lease entered into under this authority shall provide for-

* Contractor proprietary and negotiation sensitive data omitted.

(1) the modification of the general purpose aircraft from the commercial configuration, unless and until separate authority for such conversion is enacted and only to the extent budget authority is provided in advance in appropriations Acts for that purpose; or **[emphasis added]**

See Appendix D for the complete text of the Multiyear Aircraft Lease Pilot Program provisions in the Department of Defense Appropriations Act for FY 2002.

The Air Force stated that Section 135 of the Department Defense Authorization Act for FY 2004 authorized the Air Force to lease no more than 20 “tanker aircraft” and to purchase no more than 80 “tanker aircraft” under a multiyear procurement. The legislative history makes it clear that Congress was referring to the same type of aircraft identified in Section 8159 of the Department of Defense Appropriations Act for FY 2002.

In response to a request from the Office of the Inspector General of the Department of Defense, the Associate General Counsel (Acquisition and Logistics) of the Department of Defense provided the following comments regarding whether the KC-767 aircraft meets the commercial item definition at Section 403 of Title 41 United States code and whether the Air Force has a reasonable basis for proceeding under Section 8159 of the Department of Defense Appropriations Act for FY 2002:

Although the KC-767 aircraft may not qualify as a commercial item under section 403 of title 41, United States Code, and Part 12 of the FAR, we believe that the aircraft is a general-purpose aircraft in commercial configuration, as required in section 8159 of the Department of Defense Appropriations Act, 2002. The KC-767 is a general-purpose aircraft because it will be capable of performing missions other than aerial refueling (for example, carrying passengers and cargo). The requirement that the aircraft be in commercial configuration presents a more complex question. On balance, however, we believe that the aircraft satisfies that requirement. The aircraft will have value in the secondary market, even if Boeing must remove the tanker modifications in order to sell it. The international market for tankers enhances the aircraft’s value, and reduces the government’s financial risk, in the event that the Air Force does not receive statutory authority to purchase the aircraft at the end of the lease. The existence of a secondary market is sufficient to establish that 767 tankers are in commercial configuration for purposes of section 8159.

OMB Circular No. A-11 defines a general-purpose asset as not being built specifically for Government purposes or to unique Government-specifications.

The asset is a general-purpose asset rather than being for special purpose of the government and is not built to the unique specification of the government as lessee.

We question whether the asset is a general-purpose asset as defined by OMB Circular No. A-11, due to the significant military unique modifications to convert

the commercial aircraft into a military tanker. The primary purpose of the aircraft, as stated in the Air Force Acquisition Plan is that of a military tanker.

We also question whether a secondary market exists for the Boeing KC-767A Tanker aircraft. In October 2001, Boeing stated,

* * * * *

Boeing gave the following reasons:

- A significant portion of the tanker value is in the tanker modification, which would have no value in the used 767 freighter market.
- The modification adds significant weight to the aircraft making it less efficient to operate in the commercial environment. There would be a cost to de-modify the aircraft back to a commercial configuration, thereby reducing any commercial value.
- Once the 767 is modified into a tanker, they are considered military articles by the United States State Department even if de-modified. As military articles the aircraft would have restrictions on sale in the international market.

Recommendations, Management Comments, and Audit Response

A.4. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

a. Not use a fixed-price contract for modification of the Boeing KC-767A Tanker aircraft and obtain cost or pricing data from Boeing to determine a fair and reasonable price for the Boeing KC-767A Tanker aircraft modification work.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the use of a fixed-price contract is consistent with the risks of the KC-767 commercial item acquisition.

Audit Response. There are no KC-767A tanker aircraft in the commercial market and the Air Force is the only customer. Consequently, there is no commercial market to establish prices for the forces of supply and demand where the market provides the oversight. As stated in the report, the Air Force did not have sufficient information to effectively price the aircraft modification and establish an accurate baseline price for this procurement and any future procurement.

b. Request statutory authority required by the Department of Defense Appropriations Act for FY 2002 to modify general purpose Boeing 767 aircraft (leased) into a military tanker configuration.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the Defense Appropriation Act for 2002, the National Defense Authorization Act for FY 2004, and the accompanying legislative history make clear that Congress was referring to aerial tankers in its reference to Boeing 767 aircraft in commercial configuration. The purpose of the provision was to prevent the tanker aircraft from being modified beyond their commercial configuration without congressional authorization.

Audit Response. The military-unique modifications made to the Boeing 767 aircraft in commercial configuration significantly modify the commercial 767 aircraft into a military tanker and there will be little if any residual value for the leased tanker aircraft on the commercial market. Consequently, congressional authorization for the modification is required.

Issue A-5. Limitation of Earnings and Termination Clauses

Conclusion and Results Summary. The Air Force negotiating team attempted to limit Boeing's earnings to 15 percent by including a limitation of earnings clause in the contract. To achieve this limitation, however, the Air Force negotiating team wrote the provision to exclude Government audit rights and use Boeing's auditor to provide an attestation on profit earned. The Inspector General alone has the statutory authority in the Department to determine when it is appropriate to use non-Federal auditors. The Defense Contract Audit Agency is the appropriate audit entity for the requisite audit services. Further, the clause allowed Boeing to include questionable items in its costs, such as cost-reduction initiative savings and engine manufacturer credits or rebates, and concealed contract costs from the Government with only a final accounting by Boeing's auditor after the last aircraft is delivered in FY 2015. Our office and the DCAA find the clause to be highly detrimental to the fiduciary interests of the DoD and it provides no true accountability for the expenditure of DoD funds. The clause also appears to have created a prohibited cost-plus-a-percentage-of-cost system of contracting. Also, the termination for convenience clause in the contract does not provide sufficient controls or audit rights to adequately determine the Government's termination liability and to prevent a possible Anti-Deficiency Act violation.

Criteria. Clauses C-016, “Aircraft Quantity;” C-024, “Anti-Deficiency Act;” C-103, “Termination for Convenience – Pre-Construction Aircraft;” and C-244, “Limitation of Earnings,” of Contract Number FA8625-04-C-6453; DCAA comments of October 17, 2003 and January 29, 2004; Inspector General Act of 1978; DoD Directives 5105.36, “Defense Contract Audit Agency (DCAA),” and 7600.2, “Audit Policies;” and Office of the Inspector General of the Department of Defense Memorandums on “Contracting for Audit Services,” March 28, 1996 and March 20, 2002; and Section 2306(a) of title 10, United States Code, “Kinds of Contracts” identify contract clauses and provide guidance on audit responsibility.

Government Audit Rights

Contract Clause. Clause C-224, “Limitation of Earnings,” of the Boeing KC-767A Tanker Program contract FA8625-04-C-6453 attempts to limit the earnings to 15 percent that are associated with Boeing Integrated Defense Systems and Boeing Commercial Airplanes for development, production, and modification of 100 aircraft. However, the Air Force negotiating team wrote the following provision in the clause that limits oversight of Boeing’s earnings to an independent third party auditor hired by Boeing while specifically excluding all government audit agencies.

Examination rights will be solely limited to the Contractor’s independent auditor and will not extend to any governmental audit agency.

Inspector General Authority. Section 8(c)(2) of Title 5, Appendix “Inspector General Act of 1978” authorizes the Inspector General of the Department of Defense to conduct and supervise audits and investigations relating to Defense programs and operations. We believe the audit clause excluding Government audit rights inappropriately attempts to limit the statutory authority of the Inspector General.

Use of Non-Federal Auditors. The Inspector General has the sole authority in the Department to determine when it is appropriate to use non-Federal auditors. Section 4(b)(1) of Title 5 Appendix states that:

Each Inspector General shall—

- establish guidelines for determining when it shall be appropriate to use non-Federal auditors; and
- take appropriate steps to assure that any work performed by non-Federal auditors complies with the standards established by the Comptroller General . . .

Further, DoD Directive 7600.2, states that DoD Components shall not contract for audit services unless expertise does not exist or temporary audit assistance is required. Specifically,

The DoD Components **shall not contract for audit services**, as defined in OMB (Office of Management and Budget) Circular No. A-73, Chapter 2 (reference (d)), **unless expertise** required to perform the audit **is not available** within the DoD audit organization **or temporary audit assistance is required** to meet audit reporting requirements mandated by law or DoD regulation. ... **No DoD Component shall contract for quality assurance reviews of internal audit, internal review, or contract audit organizations without the prior approval of the OIG, DoD...** [emphasis added].

In addition, the Inspector General of the Department of Defense issued policy memorandums in March 1996 and March 2002 on “Contracting for Audit Services,” which reiterated that solicitations for audit services from outside sources are to be submitted to the Inspector General for review before the release to prospective bidders.

Previous Air Force Agreement on OIG Approval. The Air Force previously agreed to either use DCAA for required audit services or seek approval from Office of the Inspector General, as required, as part of the resolution decision relating to the audit of the “Evolved Expendable Launch Vehicle Program Other Transactions,” Report No. D-2000-070, December 30, 1999. In the resolution memorandum, the Air Force stated:

The Air Force will negotiate with both contractors to modify their respective ILS [initial launch services] contracts, to include provisions for the employment of the Defense Contract Audit Agency (DCAA) in the event an auditor is actually required to support implementation of the Most Favored Customer clause. If an audit is required, and agreement cannot be reached with the contractors on the use of DCAA, the Air Force will comply with the requirements of DoD Directive 7600.2, and seek appropriate OIG approval, as required.

In reference to the contract for the Boeing KC-767A Tanker aircraft, Air Force program officials did not contact the Office of the Inspector General about the use of non-Federal auditors or the audit clause as required.

DCAA Audit Responsibility

DCAA Audit Assistance. The Air Force negotiating team obtained only limited assistance from DCAA in the lease analysis or negotiations for the Boeing KC-767A Tanker Program even though DCAA has the resources and expertise to lend invaluable assistance to contracting officials in their efforts to determine price reasonableness. DoD Directive 5105.36 states that DCAA is responsible for performing contract audits and providing accounting and financial advisory services regarding contracts and subcontracts to all DoD Components responsible for procurement and contract administration. DCAA also has highly qualified and experienced auditors familiar with accounting practices and systems used to accumulate, record, report, and bill costs against Government contracts at most Boeing locations. Accordingly, DCAA is the appropriate entity and in the best

position to provide the requisite audit services for the Boeing KC-767A Tanker aircraft contracts.

DCAA Review of Limitation of Earnings Clause. The Air Force negotiating team did ask the DCAA to review the limitation of earnings clause. On October 17, 2003, DCAA sent a memorandum to the contracting officer that concluded that it was not advisable for the Air Force to accept the risk of excluding all Government audit rights for this clause and recommended that the clause be rewritten.

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Questionable Cost Items and Concealed Contract Costs

Our office and the DCAA find that the limitation of earnings clause to be highly detrimental to the fiduciary interests of the DoD, and the clause provided no true accountability for the expenditure of DoD funds. The only effective means to protect the Governments interests and limit the risk of DoD paying Boeing excessive prices and profits is to provide transparency into contractor costs by using either cost or fixed-price incentive type contracts for the Boeing KC-767A Tanker Program where DCAA monitors Boeing’s actual costs.

Questionable Cost Items. The Limitation of Earnings clause also allowed Boeing to include questionable items in its costs, such as cost reduction initiative savings and engine manufacturer credits or rebates. The Air Force contracting officer stated that the intention of the clause was to allow the Government to receive the savings from cost reduction initiatives and engine rebates; however, we do not see how the following clause as written provides those savings to the Government.

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*Contractor proprietary and negotiation sensitive data omitted.

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Concealed Contract Costs. The Air Force contracting officer stated that all contract costs relating to the limitation of earnings clause are concealed from the Government. The clause requires Boeing's Chief Financial Officer to provide the Government with a signed certification of earnings to include the actual earnings rates and a refund if earnings exceed the 15 percent cap based on the results from Boeing's independent auditor. Boeing's auditor will provide only a final accounting after the last aircraft is delivered in FY 2015. At that time, limited contractor earnings will be determined by the formula $[(\text{Sales} - \text{Costs})/\text{Sales}]$ and will be verified by Boeing's independent auditors (*), not later than 3 months after Boeing's fiscal year end following final delivery of the 100th Aircraft (estimated FY 2015). Even though Boeing's independent auditor performs annual reviews, the Government receives no insight as to whether costs are overrunning or underrunning.

Cost-Plus-a-Percentage-of-Cost System of Contracting

The limitation of earnings clause appears to have created a cost-plus-a-percentage-of-cost (CPPC) system of contracting prohibited by Section 2306(a) of title 10, United States Code. The section states, "The cost-plus-a-percentage-of-cost system of contracting may not be used." An article in the November-December 1993, Program Manager magazine, "Cost-Plus-Percentage-Of-Cost Contracts, prepared by Paul Stein, Director of the DoD Overhead Course at the Air Force Institute of Technology and Dr. Eileen Donnelly, Professor of Government Contract Law also at Air Force Institute of Technology addressed CPPC contracts and questioned "Are we still writing them?" The CPPC form of contracting reimburses the contractor for costs incurred, plus a percentage of the cost incurred for profit. Comptroller General decision B-183705, Marketing Consultants International Limited, identified a four-point test for determining CPPC contracts. Contracts meeting all four criteria violate the prohibition against CPPC contracts and contracts not meeting the four-point test may also violate the CPPC system of contracting when increases in contractor costs will eventually generate increases in contractor profits. The Boeing KC-767A Tanker aircraft contract meets the four-point test.

- Payment for profit is based on a predetermined percentage rate.
- The predetermined percentage rate is applied to actual performance costs.
- Contractor entitlement is uncertain at the time of contracting.
- Contractor entitlement increases commensurately with increased costs

*Contractor proprietary and negotiation sensitive data omitted.

Comptroller General decision B-120546, Curtis-Wright Europa, N.V., stated, “A contract ceiling does not prevent a contract from being in violation of the prohibition against the CPPC system of contracting.”

The article by the Air Force Institute of Technology instructors also addressed previous practices used by Air Force contracting officers that were strikingly similar to the KC-767A Tanker contract limitation of earnings clause.

A variation of the CPPC contract was commonly used in some Air Force buying commands. At these commands, contracting officers tried to circumvent the CPPC challenge by identifying contract types as being firm-fixed-priced, pricing these contracts at a ceiling, and then (through a contract clause) reducing contractor profit when incurred costs were lower than originally estimated. Unlike incentive-type contracts, which reward contractors with increased profits as costs are reduced, these clauses result in reduced profits for reduced cost. These clauses, in effect, penalize the contractor by reducing contract costs. The Air Force General Counsel found these contracts to be in violation of the prohibition against CPPC contracting.⁵ [emphasis added]

Air Force Audit Agency Report 3066416, “Review of Firm Fixed Price Level of Effort Contracting Within The Air Force Systems Command,” March 18, 1985, also found that price reduction clauses used in fixed-price contracts were an improper adaptation of a recognized type of contract, which results in a form of contract without basis in the FAR. The Report included an Air Force General Counsel memorandum dated March 23, 1984, that supported the report finding.

Termination for Convenience

The contract clauses used by the Air Force relating to termination for convenience do not provide sufficient controls or audit rights to adequately determine the Government’s termination liability and to prevent a possible Anti-Deficiency Act violation. Therefore, the Government does not have adequate protection if less than the full aircraft quantity and fleet support years are leased and purchased.

Termination Liability. The Air Force has only vague information on its termination liability if less than 100 aircraft are leased and purchased and less than ***,** equivalent years of aircraft support are procured from Boeing because the cost elements for which the Air Force will be liable are undefined. Consequently, contract clause C-016, “Aircraft Quantity,” that is quoted below exposes the Air Force to unknown and unquantifiable monetary liability.

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⁵Office of the General Counsel, March 23, 1984. Reported by the Air Force Audit Agency in Audit Report No. 3066416, March 18, 1985.

*Contractor proprietary and negotiation sensitive data omitted.

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Audit Rights. The contract then states that the Government does not have any right to audit the contractor records if the contract is terminated for convenience. Contract clause C-103, “Termination for Convenience – Pre-Construction Aircraft,” states:

* * * * *

Anti-Deficiency Act. Further, the Air Force appears to be obligating itself for vague contract obligations even if funding is not appropriated. This would result in the possibility of an Anti-Deficiency Act violation or probable litigation if the Air Force does not lease and purchase all 100 aircraft and ***.** years of fleet support. Contract clause C-024, “Anti-Deficiency Act,” states:

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* Contractor proprietary and negotiation sensitive data omitted.

Recommendations, Management Comments, and Audit Response

A.5.a. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

1. Require that the Air Force comply with DoD Directive 7600.2 and contact the Office of the Inspector General for the Department of Defense for review and approval, as appropriate, before contemplating using non-Federal audit services in any contract.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the directive only applied to contracting for audit services, something the Air Force is not preparing to do, and does not relate to using non-Federal audit services in any contract. Further, the requirement for prior approval applies only to quality assurance reviews of internal audit, internal review, or contract audit organizations.

Audit Response. The guidance does relate to using non-Federal audit services in contracts, internal review, and contract audit organizations as stated by the Assistant Secretary. Further, the Inspector General Act of 1978 states that each Inspector General shall establish guidelines for determining when it shall be appropriate to use non-Federal auditors. The Office of the Inspector General determined that the Air Force plan to use the Boeing independent auditor is not an appropriate use of non-Federal auditors.

2. Require that the Defense Contract Audit Agency be used for audit services in negotiated contracts for the Boeing KC-767A Tanker Program.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating there was no requirement to use DCAA and DCAA does not have experience auditing Boeing's commercial accounting system. Further, the recommendation implies that the audit opinion of the non-government public auditor is somehow unreliable or suspect.

Audit Response. DCAA has the expertise to perform the required audit services. Further, the public accountant to be hired by Boeing is not required to provide an audit opinion but rather an examination report in accordance with the attestation standards of the American Institute of Certified Public Accountants. The attestation report only expresses opinions with compliance or noncompliance of paragraphs 1-4 of the limitations of earnings clause.

A.5.b. We recommend that the General Counsel of the Department of Defense:

1. Review the limitation of earnings clause in planned contract FA8625-04-C-6453 and determine whether it creates a prohibited cost-plus-a-percentage-of-cost system of contracting.

General Counsel of the Department of Defense Comments. The Deputy General Counsel (Acquisition and Logistics) stated that the draft report raises some valid concerns regarding the acquisition. The Department has taken steps to examine the determination that recapitalization of the tanker fleet is necessary. If the program proceeds, we will review the proposed contracts in light of the recommendations. A legal opinion would be premature until then. For the complete text of the Deputy General Counsel's comments, see the Management Comments section of the report.

Audit Response. An opinion was requested from the Office of General Counsel as the technical expert for acquisition matters in DoD. We recognize that the Deputy General Counsel (Acquisition and Logistics) serves as both the technical expert for DoD and primary counsel to the Under Secretary of Defense for Acquisition, Technology, and Logistics.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the Boeing KC-767A tanker contract did not meet the criteria in the four-point test for a prohibited cost-plus-a-percentage-of-cost system of contracting. The profit is not based on a predetermined percentage rate because if Boeing overruns the contract, its profits are reduced. The predetermined percentage rate is applied to actual performance costs only in an under-run case. Finally, the contractor entitlement is not uncertain because Boeing will not be paid more than the fixed-price contract amount.

Audit Response. The fact that a contract is fixed-price and accordingly, has a ceiling price does not preclude a CPPC system of contracting from occurring. There is a contract ceiling price that the contractor cannot exceed for both fixed-price or cost-type contracts. We agree that the predetermined profit rate is applied to actual performance costs unless Boeing overruns the contract. However, the contractor profit increases commensurate with increased costs and is uncertain unless contractor costs exceed 85 percent of the final contract price. This creates a CPPC system of contracting because Boeing has a disincentive to keep costs below 85 percent of the final contract price.

2. Review clauses C-016, “Aircraft Quantity,” C-024, “Anti-Deficiency Act,” and C-103, “Termination for Convenience – Pre-Construction Aircraft,” in Contract FA8625-04-C-6453 to determine whether the contract clauses and audit rights provide sufficient controls to adequately define the extent of the Governments termination liability and to prevent a possible Anti-Deficiency Act violation if less than the full quantity of aircraft and fleet support years are leased and purchased.

General Counsel of the Department of Defense Comments. The Deputy General Counsel (Acquisition and Logistics) stated that the draft report raises some valid concerns regarding the acquisition. The Department has taken steps to examine the determination that recapitalization of the Tanker fleet is necessary. If the program proceeds, we will review the proposed contracts in light of the recommendations. A legal opinion would be premature until then.

Audit Response. An opinion was requested from the Office of General Counsel as the technical expert for acquisition matters in DoD. We recognize that the Deputy General Counsel (Acquisition and Logistics) serves as both the technical expert for DoD and primary counsel to the Under Secretary of Defense for Acquisition, Technology, and Logistics.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating that when negotiations were suspended, the Air Force negotiating team was in the process of negotiating a not-to-exceed clause that would cap the Air Force exposure. Further, if Congress failed to appropriate sufficient dollars for aircraft and support in a fiscal year, the Government would have no fiscal obligation to the contractor, as clause C-024 provides but Congress would have to appropriate funds to terminate or restructure the program.

Audit Response. The proposed contract does not have the appropriate FAR clauses relating to termination liability, equitable adjustment, and disputes to adequately protect the interests of the Government. Further, the contract implies that the obligation of the Government continues without regard to the constitutional mandate of Congress to control the budget of the United States. The comments appear to suggest that an executive branch agency can usurp the constitutionally mandated power of Congress.

Issue A-6. Integrated Fleet Support (\$*.* billion)

Conclusion and Results Summary. The Air Force negotiating team used a mix of pricing data from brochures relating to other aircraft and escalated 1980s pricing data for support equipment costs that included a \$*** million error to justify a fixed-price fleet logistics support price of \$*.* billion for ** years. The data that the Air Force program officials used was not sufficient to support baseline fleet logistics support costs. The Air Force negotiating team set a ** percent “performance aircraft availability” rate for Boeing to receive 100 percent of the annual contract price without first benchmarking the

*Contractor proprietary and negotiation sensitive data omitted.

availability rates of comparable aircraft systems. The ** -year sole-source logistics support arrangement is premature because the Air Force should first comply with statutory requirements in the National Defense Authorization Act for FY 2004 (required by April 1, 2004); Section 2464 of title 10, United States Code; and the Strom Thurmond National Defense Authorization Act for FY 1999 requiring analyses of the costs and benefits of organic or contractor support, contract length, and core logistics.

Criteria.

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Section 135c of the National Defense Authorization Act for FY 2004; Section 2464 of title 10, United States Code; and Under Secretary of Defense for Acquisition, Technology, and Logistics memorandum, "Total Life Cycle Systems Management and Performance Based Logistics, March 7, 2003" provides information on the proposed price and guidance on logistics support.

Price for Integrated Fleet Logistics Support

Boeing Proposal. Boeing provided initial integrated fleet support proposals dated April and May 2002 that included comparisons to the C-17 and C-32 programs. The Air Force negotiating team used the initial proposals as a base from which an Air Force and Boeing team developed a joint proposal in June 2002. A final formal proposal of record is on hold during the OSD-directed pause. The proposed contract provides for ***.** aircraft support years for \$*.* billion from CY ****-CY ****, or an annual support price of \$*.** million per aircraft year (includes escalation).

Data the Air Force Negotiating Team Used to Calculate Price. The Air Force negotiating team used unsupportable data from various sources, did not adequately test the relevance of the data, and misapplied the data to calculate a weighted average integrated fleet support price of \$*.** million per aircraft per year. The negotiating team relied primarily on budget data from various brochures and actual cost data from the early 1980s for the KC-10 (tanker/cargo aircraft), C-32A (transport plane for the Vice President, First Lady, and Members of Congress), and C-17 (transport plane for troops and cargo) to arrive at a price of \$*.** million per aircraft per year.

*Contractor proprietary and negotiation sensitive data omitted.

Table 10 shows how the Air Force arrived at its price.

Table 10. Air Force Calculation of Integrated Fleet Support Costs (\$millions)			
<u>Program</u>	<u>Unit Cost</u>	<u>Weight factor</u>	<u>Amount</u>
KC-10	\$*.**	*.**	\$*.**
C-32A	*.**	*.**	*.**
C-17	*.**	*.**	*.**
C-33A	*.**	*.**	*.**
Offer A	*.**	*.**	*.**
Weighted Average Unit Cost		*.**	\$*.**
Total Calculated Price for 100 aircraft for ** years			\$*,***.**

We reviewed the Air Force calculations of integrated fleet support costs for the KC-10, C-32A, and the C-17 programs that totaled ** percent of the fleet support costs.

KC-10 Program. To calculate KC-10 integrated fleet support costs, the highest weighted factor, the Air Force negotiating team used budgetary requirements from a Tinker Air Logistics Center, Air Mobility Command (AMC) 2002 brochure and actual cost data for KC-10 support equipment from the 1980s escalated at 5 percent. The Air Force then made various adjustments relating to a third site and fewer engines on the Boeing KC-767A Tanker aircraft. We were unable to verify that the budget data from the 2002 brochure was representative of prior years or how it related to 1980s actual costs. The Air Force stated “SPO [System Program Office] experts, in conjunction with field experts at AMC and OC-ALC [Oklahoma City-Air Logistics Center], verified that the budget data from the 2002 brochure was a good proxy for this effort.” The Air Force negotiating team also misapplied the actual cost data from the 1980s for the KC-10 support equipment by applying it as an annual cost in their calculations instead of a total program cost.

To calculate support equipment costs, the Air Force negotiating team used data provided by the KC-10 Systems Program Office from the 1980s that showed total costs for support equipment of \$**.* million for 59 aircraft. The negotiating team escalated the 1980s support equipment price of \$**.* million at 5 percent per year for 20 years to calculate a current support equipment price of \$**.** million. The negotiating team divided this price by the 59 aircraft to arrive at an individual aircraft support equipment price of \$*.** million. The negotiating team added an additional \$*.** million (* of \$*.** million) for a third repair site that resulted in a total price per aircraft for support equipment of \$*.** million. The negotiating team misapplied this \$*.** million figure on an annual basis versus a significantly longer expected life of the support equipment. Internal Revenue Service Publication 946, “How to Depreciate Property,” shows a class life of ** years for

*Contractor proprietary and negotiation sensitive data omitted.

air transport assets. Using the negotiating team method, support equipment costs for the Boeing KC-767A Tanker Program would be \$*.** billion when applied to 100 aircraft for ** years. However, using a conservative ** year useful life for support equipment, the correct calculation for support equipment costs should be \$*.*** million (\$*.** million divided by ** years) for the first two repair sites and \$*.*** million for the third site for a total support equipment price of \$*.*** million or a total program cost of only \$*** million when applied to 100 aircraft for ** years. Table 11 shows the Air Force calculations and source for KC-10 fleet support costs and our adjustments.

*Contractor proprietary and negotiation sensitive data omitted.

Table 11. Air Force Calculation of Integrated Fleet Support Costs for KC-10 Aircraft and Calculation of Adjusted Fleet Support Costs (\$millions)

<u>Element</u>	<u>KC-10 Cost</u>	<u>Unit Price</u>		<u>Source</u>
		<u>***</u>	<u>IG-Adjusted</u>	
On Site Labor	\$***.***	\$*.***	\$*.***	2002 AMC budget brochure
COMBS	*.***	*.***	*.***	2002 AMC budget brochure
FSRs	*.***	*.***	*.***	2002 AMC budget brochure
Task Orders	*.***	*.***	*.***	2002 AMC budget brochure
Engine overhaul	**.*	*.***	*.***	2002 AMC budget brochure
Aircraft/Engine Spares	**.*	*.***	*.***	2002 AMC budget brochure
Support Equipment	**.*	*.***	*.***	1980s actuals escalated at 5 percent
Repair of Repairables	***.*	*.***	*.***	2002 AMC budget brochure
Engine overhaul	***.*	*.***	*.***	2002 AMC budget brochure
Landing gear	*.***	*.***	*.***	2002 AMC budget brochure
Boom	*.***	*.***	*.***	2002 AMC budget brochure
Kits	*.***	*.***	*.***	
Sustaining	*.***	*.***	*.***	2002 AMC budget brochure
Travel	*.***	*.***	*.***	2002 AMC budget brochure
Engineering Support	*.***	*.***	*.***	2002 AMC budget brochure
Task Order sustaining	*.***	*.***	*.***	2002 AMC budget brochure
Total	\$***.***	\$*.***	\$*.***	
<u>Air Force Adjustments</u>				
ETOPS		*.***	*.***	increased inspections, training, and parts
Number of Sites		*.***	*.***	3rd site
Support Equipment		*.***	*.***	3rd site
Engine overhaul		-.***	-.***	2 engines versus 3
Procure spares		*.***	*.***	bed-down profile
Inventory carry		*.***	*.***	aircraft inventory @ 30 percent
Commonality		-.***	-.***	Airline efficiency
Flying Hours		*.***	*.***	different baselines
Total		\$*.***	\$*.***	
Unit Price		\$*.***	\$*.***	
COMBS	Contractor Operated and Maintained Base Supply			
ETOPS	Extended Range Twin Engine Operations			
FSR	Facilities Support Requirements			

*Contractor proprietary and negotiation sensitive data omitted.

Table 12 shows the impact, a difference of \$*** million, to the Air Force negotiating team's calculations for integrated fleet support costs when corrections are made to support equipment cost for the KC-10 program.

Table 12. Air Force Calculation of Integrated Fleet Support Costs With Adjustments for KC-10 Support Equipment Costs (\$millions)			
<u>Program</u>	<u>Unit Cost</u>	<u>Weight</u>	<u>Weighted Amount</u>
KC-10	\$*.**	*.**	\$*.**
C-32A	*.**	*.**	*.**
C-17	*.**	*.**	*.**
C-33A	*.**	*.**	*.**
Offer A	*.**	*.**	*.**
Weighted Average Unit Cost		*.**	*.**
Total Price for ** years for 100 aircraft			\$*,***.**
* Unit Price			\$*.**
Total Price for ** years for 100 aircraft			\$***.**

C-32A Program. To calculate the integrated fleet support costs for the C-32A aircraft, the Air Force negotiating team primarily used an internal 2001 Air Mobility Command budget brochure for the maintenance of four aircraft for \$**.** million. The negotiating team then added \$*.*** million for peculiar support equipment, \$*.*** million for kit effort based on “program actuals,” and \$*.*** million for technical manuals for a total cost of \$**.* million. The negotiating team divided the \$**.* million figure by the four aircraft for the program to arrive at a base annual cost of \$* million each. The negotiating team then made various adjustments using amounts from the KC-10 assessment to add \$*.* million per aircraft to arrive at a total price of \$*.** million per aircraft. The Air Force negotiating team did not explain why the table summarizing its data used a figure of \$*.** million or a difference of \$*** million for 100 aircraft supported for ** years.

C-17 Program. To calculate fleet support cost for the C-17 program, the Air Force negotiating team used the “C-17 flexible sustainment contract selecting representative contract line items, totaling \$*.* million.” The negotiating team noted that the C-17 is a bigger aircraft that operates in a more challenging integrated fleet support environment. The negotiating team then added \$*.* million to the base amount of \$*.* million to arrive at a total of \$*.* million figure. The negotiating team used a \$*.** million figure but did not explain why. This resulted in a difference of \$*** million for 100 aircraft supported for ** years.

*Negotiation sensitive data and predecisional documentation omitted.

Other Comments on Logistics Support Costs. The Air Force had conversations with a senior vice president * who provided only general observations. Of note, from the observations:

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Benchmarking Availability

The Air Force negotiated for Boeing to receive 100 percent of the contract price by Boeing attaining a ** percent “performance aircraft availability” (PAA) rate without first benchmarking availability rates of comparable aircraft systems. As negotiated, the contract requires Boeing to maintain a PAA of ** to **. * percent to receive 100 percent of the annual contract amount. The Air Force stated that the negotiating team could not benchmark availability rates of comparable aircraft systems because they use dispatch rates that are not comparable. Further, the Air Force developed an approach to reflect aircraft performance because of recent dissatisfaction with prolonged depot maintenance time. A PAA of ** percent or higher reflects full compliance with a *** flying hour profile. Anything above ** percent PAA reflects preferred performance.

We believe the Air Force should be able to develop figures to benchmark availability rates of comparable aircraft systems.

* * * * *

Statutory Requirements and Acquisition Guidance

The Air Force negotiating team selected Boeing as the sole-source provider for integrated fleet (logistics) support at a cost of \$*. * billion (CY * through CY *) without first evaluating the costs and benefits of using different logistic support approaches and without providing Congress with an analysis of alternatives to support the Air Force decision to use Boeing. The Under Secretary of Defense for Acquisition, Technology, and Logistics and the Congress have issued guidance that addresses the need and requirements for appropriate planning and analysis to identify and evaluate alternative means of providing life-cycle logistics support. This planning and analysis is designed to provide decision makers with the necessary information to make critical life-cycle logistics support decisions relating to providers (public and private), potential partnering

*Contractor proprietary and negotiation sensitive data omitted.

opportunities, performance-based logistics, core logistics capabilities, and the costs and benefits of using different logistics support approaches.

Life-Cycle Logistics Support and Performance-Based Logistics

Requirements. Air Force program officials did not perform sufficient logistics planning relating to life-cycle logistics support and performance-based logistics requirements. The Under Secretary of Defense for Acquisition, Technology, and Logistics stressed the need to reduce the logistics footprint and implement Performance-Based Logistics in the memorandum “Total Life-Cycle Systems Management and Performance Based Logistics,” March 7, 2003. The purpose of the memorandum was to provide program managers with a tool to ensure that effective weapons system sustainment was addressed and accomplished over the system’s life cycle. The memorandum identified the following key logistics information and criteria:

- Analysis of Alternatives to include alternative operating and system support concepts, with specific consideration of performance-based options.
- Market analysis for system and product support capabilities (public and private) to define extent and scope of opportunities for achieving support objectives through design and viable product support strategies.
- Identification of Product Support Integrator and potential support providers (public and private) and potential partnering opportunities.
- Depot-level maintenance core capability assessment and the identification of workloads required to sustain those capabilities.
- Identification of potential organic depot-level sources of maintenance.
- Development of a PBL Business Case Analysis (BCA) to determine:
 - The relative cost vs. benefits of different support strategies.
 - The impact and value of Performance/Cost/Schedule/Sustainment trade-offs.
 - Data required to support and justify the PBL strategy.

National Defense Authorization Act for FY 2004 Requirements. The Air Force has not completed a study to identify alternative means of meeting long-term tanker aircraft maintenance requirements as required below in the National Defense Authorization Act for FY 2004 (required by April 1, 2004).

(c) STUDY OF LONG-TERM TANKER AIRCRAFT MAINTENANCE AND TRAINING REQUIREMENTS-(1) LEASED AIRCRAFT- **The Secretary of Defense shall carry out a study to identify alternative means for meeting the long-term requirements of the Air Force for—**

(A) the maintenance of tanker aircraft leased under the multiyear aircraft lease pilot program or purchased under subsection (b); [emphasis added]

The fleet logistics support contract length of ** years also exceeds the Act's requirement that a contract may be for any period not in excess of 10 program years as specified below.

(3) Notwithstanding subsection (k) of section 2306b of title 10, United States Code, a contract under this subsection may be for any period not in excess of 10 program years.

See Appendix D for the complete text of section 135 of the National Defense Authorization Act for FY 2004.

Core Logistics Capabilities for Commercial Items Requirements. Section 2464 of title 10, United States Code identifies the need for core logistics capabilities for commercial items. For commercial items, the statute requires notification and justification to Congress including at a minimum:

(1) The estimated percentage of commonality of parts of the version of the item that is sold or leased in the commercial marketplace and the Government's version of the item.

(2) The value of any unique support and test equipment and tools that are necessary to support the military requirements if the item were maintained by the Government.

(3) A comparison of the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the private sector with the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the Government.

See Appendix D for the complete text on the core logistics requirements in Section 2464 of title 10, United States Code.

Congressional Notification of Contracts for Depot Maintenance. Section 346 of Public Law 105-261, the Strom Thurmond National Defense Authorization Act for FY 1999, October 17, 1998, as amended by Section 336 of Public Law 106-65, October 5, 1999, placed conditions on the expansion of functions performed under prime vendor contracts for depot-level maintenance and repair as follows.

Conditions on Expanded Use. The Secretary of Defense or the Secretary of a military Department, as the case may be, may not enter into a prime vendor contract for depot-level maintenance and repair of a weapon system or other military equipment described in section 2464 (a) (3) of title 10, United States Code, before the end of the 30-day period beginning on the date on which the Secretary submits to Congress a report, specific to the proposed contract, that:

(1) describes the competitive procedures to be used to award the prime vendor contract;

*Negotiation sensitive and predecisional documentation omitted.

(2) contains an analysis of costs and benefits that demonstrates that use of the prime vendor contract will result in savings to the Government over the life of the contract;

(3) contains an analysis of the extent to which the contract conforms to the requirements of section 2466 of title 10, United States Code; and

(4) describes the measures taken to ensure that the contract does not violate the core logistics policies, requirements, and restrictions set forth in section 2464 of that title.

Recommendations, Management Comments, and Audit Response

A.6. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

a. Not use a fixed-price contract for logistics support of the Boeing KC-767A Tanker Program until an adequate baseline cost has been established and obtain cost or pricing data from Boeing to determine a fair and reasonable price for the integrated fleet support.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the Air Force believes there is sufficient information available to establish fair and reasonable prices using price analysis to acquire commercial item/support under the proposed fixed-price contract.

Audit Response. The Air Force has not performed sufficient analysis of other logistics support concepts to establish fair and reasonable prices for the KC-767A program. After the draft report was issued, we visited the KC-10A program office for contractor logistics support at Tinker Air Force Base in Oklahoma City, Oklahoma, to obtain additional information on the program. The KC-10A contractor logistics support program is significantly different from the proposed KC-767A fleet support program. The KC-10A program awards its contractor logistics support contracts competitively using a combination of both fixed-price and variable contract line items to reduce risk. The contract uses fixed-price line items to provide services such as contractor operated and maintained Government owned base supply and a flying hours program to support repair of recoverables, replenishment of nonrecoverables, bench stock, warranty administration, and other items. Items such as engine and landing overhaul were priced variably using both fixed-price labor, material, and over and above labor and materials. Using price analysis techniques based on the KC-10A contractor logistics support program, we calculated that the KC-767A program should cost about \$1.2 billion (recurring) less than the proposed \$*.* billion price with an additional

*Contractor proprietary and negotiation sensitive data omitted.

nonrecurring savings for test equipment and Government property of \$974 million. The KC-10A program is also structured so that it provides robust and realistic competition, suitable risk, and enables the Government to obtain the benefits of any warranties. Our calculations were provided to both the KC-10A and KC-767A program offices for review. The KC-10A program office for contractor logistics support agreed with our analysis.

b. Reduce the negotiated price calculated for integrated fleet support by \$* million for the misapplication of KC-10 support equipment costs.**

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) concurred, stating there was a misapplication of support equipment costs but that it was unreasonable to expect that the Air Force could reopen negotiations and limit discussions only to a reduction in the Integrated Fleet Support price.

Audit Response. Based on the benefits of the approach used by the KC-10A program for contractor logistics support, we do not believe the Assistant Secretary can continue on the present course for KC-767A fleet logistics support without further analysis.

c. Perform appropriate benchmarking of “performance aircraft availability” rates for other comparable aircraft systems before negotiating availability requirements in any contract for logistics support of the Boeing KC-767A Tanker Program.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the use of performance aircraft availability is new having no past usage to benchmark from.

Audit Response. The KC-10A program office calculated its performance aircraft availability rate at between ** – ** percent for FYs 2002 and 2003. Similar calculations should be performed for other programs to determine whether the ** percent performance aircraft availability rate proposed in the Boeing 767A tanker contract is an improvement over other programs.

*Contractor proprietary and negotiation sensitive data omitted.

d. Comply with statutory requirements in the National Defense Authorization Act for FY 2004; Section 2464 of title 10, United States Code; and the Strom Thurmond National Defense Authorization Act for FY 1999 requiring analyses of the costs and benefits of organic or contractor support, core logistics requirements, performance-based logistics, and contract length, and notify Congress of its decision before selecting an integrated fleet support provider for the Boeing KC-767A Tanker Program.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating the Air Force disagrees with the interpretation of the statutory requirements that apply to the KC-767A program. The Assistant Secretary agreed that the study on long-term aircraft maintenance and training requirements needed to be completed by April 1, 2004, and that the notification on core logistics capabilities relating to commercial items needed to be provided to Congress. However, the Assistant Secretary did not agree with the requirement that contracts not exceed 10 years applied to the lease contract for 20 aircraft and that Congressional notification relating to prime-vendor contracts applied to commercial items.

Audit Response. In response to the study on long-term aircraft maintenance and training requirements, the Air Force plans to address support requirements after completion of the ** -year contract with Boeing and this plan does not realistically meet the needs of DoD or the intent of Congress. Line item 3000 in the lease contract for \$*.* billion covers fleet support for all 100 aircraft for a period of ** years, which exceed the statutory limitation that multiyear contracts not exceed 10 years. Further, the commercial items excluded from the requirements relating to prime-vendor contracts are only those commercial items “that have been sold or leased in substantial quantities to the general public,” which clearly the KC-767A tanker is not.

Issue A-7. Operating Lease (\$*.* billion)

Conclusion and Results Summary. The contract lease for 20 Boeing 767A Tanker aircraft did not meet three of six criteria requirements for an operating lease as described in OMB Circular No. A-11. Meeting the OMB criteria for leases is a statutory requirement of Section 8159 of the Department of Defense Appropriations Act for FY 2002. Further, the Air Force long-term lease is contrary to the actual intended use of operating leases, which may be cost effective when the Government has only a temporary need for the asset. Accordingly, the lease for the Boeing KC-767A Tanker Program was incorrectly classified as an operating lease. In addition, the use of an operating lease for long-term use is a high-cost way to acquire a capital asset. As a result, the Air Force, by leasing the 20 Boeing KC-767A Tanker aircraft, will pay about

*Contractor proprietary and negotiation sensitive data omitted.

\$*** million or **. * percent more than purchasing the 20 tanker aircraft. However, OMB approved the Air Force's proposed lease under OMB Circular No. A-11.

Criteria. September 4, 2003, Senate Armed Service Committee Hearing on Lease of Boeing KC-767A Air Refueling Tanker Aircraft, testimony from Joel Kaplan, Deputy Director, Office of Management and Budget; September 20, 1994, Subcommittee on Legislation and National Security Committee on Government Operations on the Lease-Purchase Scorekeeping Rule, testimony from James Blum, Deputy Director, Congressional Budget Office (CBO); OMB Circular No. A-11, "Preparation, Submission, and Execution of the Budget (2003);" CBO's "The Budgetary Treatment of Leases and Public and Private Ventures;" CBO's Assessment of the Air Force's Plan to Lease 100 Boeing Tanker Aircraft, August 2003;

* * * * *
provide guidance on lease requirements and information on proposed lease prices and contract clauses.

Statutory Authority for Lease

Department of Defense Appropriations Act for FY 2002. The Department of Defense Appropriations Act for FY 2002 uses permissive language that authorizes the Air Force to establish a multiyear lease pilot program for the general purpose Boeing 767 aircraft in a commercial configuration and requires the Air Force to lease the aircraft as an operating lease. See Appendix D for the complete text of the Act. The Act authorization states:

(5) The Secretary shall lease aircraft under terms and conditions consistent with this section and **consistent with the criteria for an operating lease as defined in OMB Circular A-11**, as in effect at the time of the lease. [emphasis added].

Operating Lease Criteria and Testimony

Operating Lease Criteria. To qualify as an operating lease, the Air Force lease for the Boeing KC-767A Tanker Aircraft must meet the following six criteria, as described in OMB Circular No. A-11:

- The asset is a general-purpose asset rather than being for a special purpose of the government and is not built to the unique specification of the government as lessee;
- There is a private-sector market for the asset;
- The present value of the minimum lease payments over the life of the lease does not exceed 90 percent of the fair market value of the asset at the beginning of the lease term;

*Contractor proprietary and negotiation sensitive data omitted.

-
- The lease does not contain a bargain-price purchase option;
 - Ownership of the asset remains with the lessor during the term of the lease and is not transferred to the government at or shortly after the end of the lease term; and
 - The lease term does not exceed 75 percent of the estimated economic life of the asset.

If the lease does not meet all six criteria, the lease should be considered either a capital lease or a lease-purchase. A lease-purchase is a lease where ownership of an asset is transferred to the Government at or shortly after the end of the lease term but does not have to include a bargain-price purchase option. A capital lease is different from an operating lease in that the Government consumes most of the useful life of the asset.

Testimony on the Tanker Lease Program. On September 4, 2003, the Deputy Director of OMB testified before the Senate Armed Services Committee that the Air Force Boeing KC-767A Tanker aircraft lease is an operating lease and that the Boeing 767 GTTA was commercially developed and marketed. However, Senator Wayne Allard commented that the lease does not meet all of the six requirements of an operating lease. Senator Allard added that CBO determined that the asset was not a general-purpose asset and that the only use of the tanker aircraft is to fly it for fuel. As a result, Senator Allard concluded that the tanker plane cannot be absorbed into the general market for use, and the Air Force lease of the Boeing KC-767A Tanker aircraft qualifies as a lease-purchase.

CBO Testimony. In September 1994, the Deputy Director of the Congressional Budget Office testified before the Subcommittee on Legislation and National Security Committee on Government Operations on the lease-purchase scorekeeping rule. Mr. Blum testified as follows on the cost-effectiveness and purpose of entering into operating leases:

In this type of lease, the government does not take ownership of the asset. **Operating leases may be cost-effective when the government has only a temporary need for an asset.** In such a situation, purchasing the asset and then selling it off again when the use is ended may not make sense. **For long-term use, an operating lease is almost always a high-cost way to acquire a capital asset. [emphasis added].**

Analysis of Lease Criteria

General-Purpose Asset. The Boeing KC-767A Tanker aircraft is not a general-purpose asset because the modifications made to the commercial Boeing 767 aircraft were military-unique and required significant changes to the aircraft. In addition, the modifications made to the Boeing commercial aircraft changed the aircraft's main function from that of transporting people and cargo to that of an aerial refueling tanker and cost **. * percent of the base aircraft price. Further, CBO concluded below that the Air Force used significant modifications to create this capability that serves only a military-unique or governmental purpose.

*Contractor proprietary and negotiation sensitive data omitted.

Although the tanker is based on Boeing's commercial 767-200 model, **the Air Force has specified several significant modifications** such as auxiliary fuel tanks, a refueling boom, a refueling receptacle, more powerful generators, and heavier wiring to accommodate unique military requirements. **The tanker's aerial refueling capability serves a uniquely governmental purpose. [emphasis added].**

The Air Force is spending about \$*. * billion to develop this military tanker. Further, the Air Force plans in the future to have Boeing develop and add, at an unknown cost, interoperability with DoD communication and computer systems, integration of secure communications, and a combat identification system among other modifications.

Private-Sector Market. A private-sector market for aerial refueling tankers does not currently exist. All current sales of tanker aircraft were to governments for aerial refueling of military aircraft.

* * * * *

Tanker aircraft, of whatever type, are not presently customarily used by the general public, or by non-governmental entities, at this time. Also, virtually all of Boeing's present sales are to governments. Perhaps if Boeing's market develops as hoped, one could affirmatively agree that (1) and (2) might eventually apply to the tanker, but, as they do not at present, the 767 does not meet the "commercial item" definition in FAR 2.101(1). **[emphasis added].**

Further, CBO also stated in their assessment below that there is no evidence of a commercial market for 100 tanker aircraft.

Thus, while there may be a private-sector market for a few of the aircraft that the government is acquiring, there is **no evidence of such a market for 100 tanker aircraft. [emphasis added].**

* * * * *

90 Percent of Fair Market Value of Asset. To qualify as an operating lease, the net present value of the Boeing KC-767A Tanker aircraft lease payments may not exceed 90 percent of the fair market value of the aircraft. The Air Force stated that the present value of lease payments are less than 90 percent of the market value of the aircraft. The CBO assessment did not agree with the Air Force methodology used to calculate the net present value of lease payments, and even if the Air Force methodology were used, there exists a significant possibility that the threshold could be exceeded for at least some of the tankers. Specifically, the CBO stated:

The Air Force report indicates that the lease payments under the proposed financing arrangement will account for 89.9 percent of the fair market value of the aircraft, which the Air Force calculates

*Contractor proprietary and negotiation sensitive data omitted.

at \$138.4 million (in 2002 dollars) when the cost of the construction loan financing (\$7.4 million per aircraft) is included. **CBO believes that including the cost of that financing as part of the aircraft's fair market value is inappropriate because that cost is additional to any interest that would be capitalized in the price of the aircraft in the purchase option.** When the financing cost is excluded from the calculation, **the net present value of the lease payments accounts for 93 percent of the fair market value.**

CBO also notes that even using the Air Force's methodology, **there is a significant possibility that the threshold of 90 percent of the fair market value could be exceeded for at least some of the groups of leased tankers.** The lease payments are based on the Air Force's estimate of bond interest rates. If the rates for Treasury bonds are higher than the predicted value used by the Air Force, or if the spread on the interest rates for the bonds issued by the Trust is greater than predicted, lease payments will increase accordingly. **Since the Air Force already estimates that the present value of the lease payments will be 89.9 percent of the fair market value, it has no margin for error on its estimate of interest rates. [emphasis added].**

The * states that changing the timing of payments and the number of capital market financing take-outs all could affect the annual lease rent and the ability to meet OMB Circular No. A-11. As a result, there is risk that the Air Force lease payments will exceed the 90 percent threshold for the 20 leased aircraft. The Air Force commented that the lease payments are "hard wired" not to exceed 90 percent of the fair market value of the asset. We did not analyze the lease calculations and therefore are not disagreeing that the lease meets this criteria.

Further, the Air Force by leasing and then procuring the 20 Boeing KC-767A Tanker aircraft, will pay about \$*** million more than purchasing the tanker aircraft (total lease price per aircraft of \$***.* million plus the purchase option price of \$**.* million less the purchase price of \$*** million times 20 aircraft).

Purchase Option. The Air Force lease contract has an irrevocable option to purchase the aircraft at a bargain price. The lease contract provided that:

The contractor and Lessor hereby grant the Government the unilateral right to acquire title to some or all of the aircraft described in the series 2000 CLINs (contract line items). The Government has the right to acquire title to any number from zero (0) to twenty (20).

CBO concluded that if the Air Force pays 28 percent of the cost of a new tanker for an aircraft with 80 percent of its useful life, the purchase would constitute a bargain purchase price. Specifically, CBO stated:

The agreement gives the Air Force the option to purchase the aircraft at any time during or at the end of the lease. The Air Force estimates that it could purchase the aircraft at the end of the lease for an average

*Contractor proprietary and negotiation sensitive data omitted.

\$** million apiece (in 2002 dollars), or 28 percent of the cost of new tankers.

We agree with this assessment. The Air Force * shows a purchase option price of \$**.* million per tanker. Further, based on the aircraft purchase price of \$*** million (including escalation and financing), the Air Force purchase option represents ** percent of cost of a new tanker and the lease term will use only 15 to 30 percent of the aircraft's useful life of 20 to 40 years. As a result, the Air Force lease does contain a bargain-price purchase option.

Transfer of Assets. The Air Force has promoted the Boeing KC-767A Tanker aircraft as the first step in the re-capitalization of the aerial tanker fleet. Further, the tankers were built to the unique specifications of the Government and are unlikely to be easily absorbed by commercial customers.

CBO concluded that technically the Air Force lease met the criteria for transfer of leased assets. However, CBO also found that it seems clear for several reasons that the Air Force fully intends to acquire the tankers during or at the end of the lease term. CBO stated:

It seems clear for several reasons, however, that **the Air Force fully intends to acquire tankers during or at the end of the lease term.** [emphasis added]

As a result, the evidence shows that the Air Force would retain the Boeing KC-767A Tanker aircraft following the lease term. The Air Force stated that Congress must give specific authority to allow purchase of the leased aircraft, and actual recapitalization of the tanker fleet will begin with the 80 purchased aircraft. Since Congress must approve the acquisition, the lease technically meets this criteria.

75 Percent of Estimated Economic Life of Asset. The Air Force lease term for the Boeing KC-767A Tanker aircraft does not exceed 75 percent of the estimated economic life of the asset. The lease term is 6 years and the estimated economic life of the asset ranges anywhere from 20 years (Boeing 767 commercial aircraft useful life) to 40 years (Air Force Tanker useful life). We calculate the Air Force lease term will use between 15 and 30 percent of the estimated economic life of the Tanker aircraft. CBO in their assessment stated that the aircraft should last at least 30 years and should have 80 percent or more of life expectancy remaining after the lease term.

Associate General Counsel. In response to a request from the Office of the Inspector General, the Associate General Counsel (Acquisition and Logistics) of the Department of Defense stated that, "While we recognize the diversity of opinion regarding the application of Circular A-11, we believe that OMB is entitled to a deference in interpreting its own publications."

IG DoD Opinion. We believe the Air Force lease does not qualify as an operating lease because it did not meet three of six required criteria set forth in OMB Circular No. A-11. Specifically, the lease did not meet criteria for a

* Contrator proprietary and negotiation sensitive data omitted.

general-purpose asset, private sector market, and a bargain price purchase option. As a result the lease of 20 Boeing KC-767A Tanker aircraft does not comply with the requirements of Section 8159 of the Department of Defense Appropriations Act for FY 2002. Further, the lease, as planned, will cost more than other acquisition options.

Recommendations, Management Comments, and Audit Response

A.7. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

a. Not enter into the proposed lease arrangement for 20 KC-767A Tanker aircraft until either obtaining congressional authority to enter into a lease-purchase or until lease terms have been renegotiated to meet OMB Circular No. A-11 requirements for an operating lease.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating various factions had stated the proposed aircraft lease met the operating lease criteria. Further, the audit apparently used the July 25, 2003, revised OMB criteria in reaching its conclusion and that OMB was in the best position to determine whether the lease met its criteria. Also, the tanker configuration chosen by the Air Force is one available to any Boeing customer.

Audit Response. The audit did not use the revised OMB criteria. Had the revised criteria been used the KC-767A tanker lease would have met only 2 of the 6 criteria. Further, there are various conflicting opinions as to whether the lease met the criteria for an operating lease. In August 2002, the Director, OMB stated "I believe it would be inconsistent with OMB circulars and irresponsible to support any lease proposal which would cost tax payers more than direct purchase. We would strongly oppose any effort to alter or manipulate scoring rules and leasing procedures which have served the taxpayers so well." The KC-767A tanker lease clearly costs the taxpayers more than direct purchase. The military unique tanker configuration chosen by the Air Force is not available to commercial customers without complete removal of military hardware and any associated software from the aircraft as determined by the Department of State. Each of the criteria is discussed in detail in the report.

b. Determine whether leasing 20 military tankers rather than purchasing them represents the best value to the Government.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was

currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur, stating that while leasing the aircraft did cost more than buying the aircraft, the advantages of the lease were quick delivery of the aircraft without creating a near term and large financial burden.

Audit Response. The benefits of leasing identified by the Air Force are certainly debatable and need to be decided by someone outside the Air Force.

Issue B. Disciplined Acquisition and Systems Engineering Strategy

The Air Force desired to accelerate replacements of its aging KC-135E tanker fleet by using congressional authorization to lease up to 100 Boeing KC-767A Tanker aircraft. Specifically, the Air Force used Section 8159 of the Department of Defense Appropriations Act for FY 2002 to justify its informal acquisition strategy, the focus and goal of which was to expeditiously lease 100 Boeing KC-767A Tanker aircraft and adequately considering prudent acquisition procedures and best business practices. As discussed in Issue A, significant development effort remains to convert the Boeing 767 “green aircraft” into an integrated military configuration with the Air Force negotiating to pay \$*.* billion for the development and modification of the Boeing 767 “green aircraft” into a tanker aircraft. Without a disciplined acquisition and systems engineering strategy, the Air Force did not adhere to management controls needed to reduce program risks associated with aircraft development and to accomplish program objectives in terms of cost, schedule, and performance.

Discussion of Issue

Using Section 8159 of the Department of Defense Appropriations Act for FY 2002 as its informal acquisition strategy, the Air Force did not demonstrate best business practices and prudent acquisition procedures in developing the Boeing KC-767A Tanker Program and did not comply with statutory provisions for testing.

- **Acquisition Strategy.** The Air Force did not establish an acquisition strategy that serves as a sensible process for acquiring a tanker aircraft to satisfy the warfighter needs. Without a disciplined acquisition strategy, the Air Force can not ensure the warfighter that Boeing will deliver KC-767A Tanker aircraft that will satisfy all operational requirements (Issue B-1).
- **System Engineering Requirements.** The KC-767A System Program Office did not fully develop system engineering requirements to convert the commercial non-developmental aircraft into an integrated military configuration. Without fully developing system engineering requirements for aircraft conversion, the Boeing KC-767A Tanker aircraft may not meet the operational requirement for a 40-year service life as well as command, control, communications, computers, and intelligence (C4I) support plan requirements (Issue B-2).
- **Operational Requirements Document.** The first 100 Boeing KC-767A Tanker aircraft acquired will not fully meet warfighter requirements, including a key performance parameter for the information exchange

*Contractor proprietary and negotiation sensitive data omitted.

requirements.⁶ This occurred because the Air Force tailored the first spiral or increment of the operational requirements document (ORD) for the Boeing KC-767A Tanker aircraft to correlate closely with the capabilities of the Boeing 767 tanker variant that Boeing was producing for the Italian government. As a result, the first 100 Boeing KC-767A Tankers will not meet the operational requirement for interoperability and will not meet the ORD mission capabilities to conduct secondary missions, such as cargo/passenger and aeromedical evacuation missions (Issue B-3).

- **Testing Statutory Provisions.** The Air Force did not comply with Sections 2366 and 2399 of title 10, United States Code for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before proceeding beyond low-rate initial production (normally 10 percent of the total production quantity documented in the acquisition strategy) and committing to the subsequent production of all 100 Boeing KC-767A Tanker aircraft. By not complying with the statutory provisions, the Boeing KC-767A Tanker aircraft delivered to the warfighter may not be operationally effective, suitable, and survivable (Issue B-4).

Management Comments on Issue B

The Assistant Secretary of the Air Force (Acquisition) commented on inaccuracies in this report. In the margins of the Management Comments section of this report, we indicate whether we deemed it necessary to modify the report in response to the purported report inaccuracies. The complete text of those comments is in the Management Comments section of this report.

Issue B-1. Acquisition Strategy

Conclusion and Results Summary. The KC-767A System Program Office has not developed and documented an acquisition strategy that serves as a disciplined process for acquiring a quality product that satisfies the warfighter needs at a fair and reasonable price. Instead, the KC-767A System Program Office⁷ used Section 8159 of the Department of Defense Appropriations Act for FY 2002 to justify its informal acquisition strategy, the focus and goal of which was to expeditiously lease 100 Boeing KC-767A Tanker aircraft without adequate consideration of best business practices, prudent acquisition procedures, and compliance with statutory provisions for testing.

Without a disciplined acquisition strategy, the Air Force cannot ensure the warfighter that Boeing will deliver KC-767A Tanker aircraft that will satisfy operational requirements. Therefore, the Under Secretary of Defense for

⁶Key performance parameters are minimum attributes or characteristics considered most essential for an effective military capability. Correspondingly, information exchange requirements are requirements that define the interoperability key performance parameter threshold and objective values documented in the operational requirements document.

⁷Program officials stated that although the KC-767A System Program Office reports through the program executive officer structure, it is technically not a program office because it is a pre-major Defense acquisition program.

Acquisition, Technology, and Logistics should not allow the Air Force to proceed with the current acquisition plan for 100 tanker aircraft until the Air Force has at least prepared a viable and executable acquisition strategy that includes compliance with statutory provisions for testing, prudent acquisition procedures, and best business practices to satisfy the warfighter needs for tanker aircraft at a fair and reasonable price.

If the Air Force cannot or will not follow the suggested recommendations for this issue and subsequent issues on systems engineering, operational requirements, and testing, then it should initiate a new major Defense acquisition program for tanker aircraft as well as a competitive procurement for the aircraft to achieve the requirements of the warfighter. The Air Force should not proceed with the sole-source acquisition of the Boeing KC-767A Tanker Program for 100 or fewer aircraft until recommendations to resolve contracting and acquisition issues are implemented.

Criteria. Office of Management and Budget Circular No. A-109, “Major Systems Acquisitions,” April 5, 1976; and DoD Instruction 5000.2, “Operation of the Defense Acquisition System,” May 12, 2003, provide guidance concerning system requirements associated with the acquisition strategy.

Office of Management and Budget Circular No. A-109. OMB Circular No. A-109 states that Federal agencies should ensure that each major system, such as the Boeing KC-767A Tanker aircraft, fulfills a mission need, operates effectively in its intended environment, and demonstrates a level of performance and reliability that justifies the allocation of the Department’s limited resources for its acquisition and ownership. The OMB Circular No. A-109 also requires that each agency acquiring major systems should tailor an acquisition strategy for each program and refine the strategy as the program proceeds through the acquisition process to encompass test and evaluation criteria and business management considerations.

Further, OMB Circular No. A-109 states that full production may be approved when the agency’s mission and program objectives are reaffirmed and when system performance has been satisfactorily tested, independent of the agency development and user organizations, and evaluated in an environment that assures demonstration in expected operational conditions. Exceptions to independent testing may be authorized by the agency head under such circumstances as physical or financial impracticability or extreme urgency.

DoD Instruction. DoD Instruction 5000.2 requires the program manager to prepare and the milestone decision authority to approve an acquisition strategy at Milestone B, which is the initiation of an acquisition program. Further, the Instruction states that the acquisition strategy guides a program during system development and demonstration and includes a technology development strategy for the next technology spiral. In an evolutionary acquisition program, the development of each spiral is to begin with a Milestone B, and production resulting from that increment is to begin with a Milestone C, low-rate initial production decision. For a spiral development, a desired capability is identified, but the end-state requirements are not known at program initiation. The requirements for future spirals depend on feedback from users and technology

maturation. In no case will full funding⁸ be done later than Milestone B for acquisition programs, not leases, unless a program first enters the acquisition process at Milestone C. The DoD Instruction 5000.2 also requires low-rate initial production quantities to be minimized and for the milestone decision authority to determine the low-rate initial production quantity for major Defense acquisition programs at Milestone B. Further, the Instruction requires that after its determination, the low-rate initial production quantity for a major Defense acquisition program (with rationale for quantities exceeding 10 percent of the total production quantity documented in the acquisition strategy) be included in the first Selected Acquisition Report.

Results. The KC-767A System Program Office did not have a formal, written acquisition strategy. Instead, it used Section 8159 of the Department of Defense Appropriations Act for FY 2002 to justify its informal acquisition strategy and did not adequately consider best business practices and prudent acquisition procedures to acquire a quality product that satisfies the warfighter needs at a fair and reasonable price. The focus and goal of the informal acquisition strategy was to expeditiously lease 100 Boeing KC-767A Tanker aircraft.

Section 8159 authorized the Secretary of the Air Force to lease not more than 100 Boeing 767 air refueling aircraft; however, it did not mandate that the Air Force lease 100 tanker aircraft. It was up to the Air Force pursuant to the tenets of OMB Circular No. A-109 and best practices of acquisition management principles to determine how and whether to fully use this authority in the most cost effective manner while meeting both warfighter needs and providing stewardship over monies that would be obligated.

To meet those tenets and best practices, the KC-767A System Program Office should have addressed in its acquisition strategy methods for managing a program of this dollar magnitude and complexity early on, particularly with respect to the magnitude of the developmental aspects of the program. Specifically, the informal acquisition strategy did not include:

- a viable acquisition approach to rapidly deliver to the warfighter an affordable, sustainable capability that meets their expectations and adequate consideration for best business practices, applicable laws, and prudent acquisition procedures;
- a discussion of development, production, life-cycle support and costs, and test and evaluation activities that provides teaming among the warfighters, developers, acquirers, engineers, testers, budgeters, and sustainers;
- program risk management to mitigate the risk and not simply accept it; and

⁸DoD Instruction 5000.2 requires full funding at formal program initiation of an acquisition program. Full funding means having approved current and projected resources in the Future Years Defense Program sufficient to execute the acquisition program.

-
- life-cycle sustainment of the Boeing KC-767A Tanker aircraft, including subsequent spiral development.

According to the KC-767A System Program Office, the Air Force plans to prepare a formal, written acquisition strategy as part of the Single Acquisition Management Plan for the Boeing KC-767A Tanker Program prior to contract award.

Recommendations, Management Comments, and Audit Response

B.1. We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics either:

a. After implementation of audit recommendations to resolve contracting and acquisition issues, proceed with the sole-source acquisition of the Boeing KC-767A Tanker Program for 100 or fewer aircraft.

b. Initiate a new major Defense acquisition program based on the results of the analysis of alternatives for military tanker aircraft.

c. Implement a mix of Recommendation B.1.a. for some of the tankers and Recommendation B.1.b. for subsequent tankers.

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments. The Acting Under Secretary stated that the program was currently under suspension pending the outcome of ongoing studies of the program and that he would like to hold his comments until these studies are completed. For the complete text of the Acting Under Secretary's comments, see the Management Comments section of the report.

Air Force Comments. Although not required to comment, the Assistant Secretary of the Air Force (Acquisition) did not concur with the recommendation, stating that the Air Force followed a formal acquisition strategy as dictated by Congress and DoD and complied with the FAR, statutes, and common commercial practices. The Assistant Secretary recommended that the Department proceed with a sole-source acquisition of the Boeing KC-767A Tanker aircraft as mandated by Congress and as reviewed and approved within the Department using approved acquisition processes. For the complete text of the Assistant Secretary's comments, see the Management Comments section of the report.

Audit Response. The Congress did not dictate in the legislation authorizing the Air Force to acquire the 100 general purpose Boeing 767 aircraft that the Air Force use the legislation as the basis for the acquisition strategy and not to comply with statutes, the FAR, and DoD acquisition policy. As evidenced in Issue A and B, the Air Force did not comply with five statutory provisions relating to commercial items, testing (two statutes), cost-plus-a-percentage-of-cost system of contracting, and leases that have not yet been satisfied. In Issue A, we discussed instances where the Air Force did not comply with FAR requirements concerning the definition of a commercial item and obtaining a fair and reasonable price. As

discussed above, the Air Force's informal acquisition strategy did not comply with DoD acquisition policy because it did not establish a disciplined approach. By not implementing a disciplined acquisition strategy, the Air Force has not fulfilled its fiduciary responsibilities to the Department and cannot assure the warfighter that Boeing will deliver KC-767A Tanker aircraft that will satisfy operational requirements.

Issue B-2. Systems Engineering

Conclusion and Results Summary. Costly contract modifications to convert the commercial aircraft to the KC-767A military configuration will occur because the KC-767A System Program Office had not fully developed system engineering requirements. Further, the KC-767A System Program Office and Boeing did not establish a performance metric⁹ for verifying that the KC-767A Tanker aircraft will meet the requirements for a 40-year service life while operating 750 hours per year. Without a performance metric for verifying this requirement and inclusion in the system specification of requirements for protective measures to control corrosion in the Boeing KC-767A Tanker contract, the tanker aircraft that Boeing will deliver are at a high risk of:

- not meeting the tanker operational requirement for a 40-year service life while operating 750 hours per year, and
- not being able to accomplish its mission as specified in the mission needs statement and the operational requirements document.

Also, because a C4I support plan¹⁰ had not been completed according to the KC-767A System Program Office, the System Program Office cannot identify, plan, and manage C4I interoperability, interface, and infrastructure requirements before award of the tanker aircraft contracts. As a result, C4I issues identified by implementing the support plan may not be resolved before award of the contract, and the first spiral of Boeing KC-767A Tanker aircraft are at greater risk of not being able to satisfy the warfighter's C4I supportability needs and interface and interoperability requirements.

Criteria. DoD Directive 5000.1, "The Defense Acquisition System," May 12, 2003; and DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003; and Defense Guidebook, "Interim Defense Acquisition Guidebook," October 30, 2002, provide guidance concerning systems engineering.

DoD Directive. DoD Directive 5000.1 requires that acquisition programs be managed through the application of a systems engineering approach that optimizes total system performance and minimizes total ownership costs.

⁹The performance metric measures technical development and design and the extent to which systems meet requirements.

¹⁰The support plan identifies C4I, surveillance, and reconnaissance needs; dependencies; and interfaces that focus attention on interoperability, supportability, and sufficiency concerns throughout a program's life cycle.

DoD Instruction. DoD Instruction 5000.2 states that effective sustainment of weapon systems begins with the design and development of reliable and maintainable systems through the continuous application of a robust systems engineering methodology. Further, the Instruction requires the program manager to prepare a C4I support plan before the decision reviews for entering into the system development and demonstration and the production and deployment phases of the acquisition process.

Defense Guidebook. The Defense Guidebook states that systems engineering translates operational requirements into configured systems, integrates technical inputs of the entire design team, manages interfaces, characterizes and manages technical risk, transitions technology from the technology base into program specific efforts, and verifies that designs meet operational needs. Further, the Guidebook states that systems engineering principles influence the balance between performance, risk, cost, and schedule. The Guidebook also states that the program manager is expected to implement a sound systems engineering approach to translate approved operational needs and requirements into operationally suitable blocks of systems.

Results. The KC-767A System Program Office did not have a performance metric for verifying that the Boeing KC-767A Tanker aircraft will meet the 40-year service life and did not have requirements for interoperability with other systems, combat identification, and the integration of secure communications in the system specifications for the Boeing KC-767A Tanker contract.

Service Life. The KC-767A System Program Office and Boeing are developing the KC-767A Tanker aircraft from the Boeing GTTA that has a 20-year service life instead of a 40-year service life as operationally required for the Boeing KC-767A Tanker aircraft.

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- The Boeing KC-767A Tanker Program Engineer Team was also concerned that the negotiated contracts did not obligate Boeing to conduct appropriate system engineering, development, and testing to address the tanker 40-year service life requirement, including corrosion prevention.

*Negotiation sensitive data omitted.

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- Although corrosion and associated maintenance costs were the primary drivers for accelerating the replacement of the KC-135E tankers, the system specification in the negotiated Boeing KC-767A Tanker Program contracts did not specify protective measures to control aircraft corrosion in the different climates in which the aircraft is expected to operate. The Boeing KC-767A Tanker Program Engineer Team stated that the aircraft system specification, which should address the corrosion issue, is under revision.

Interoperability, Combat Identification, and Secure Communications.

The KC-767A System Program Office did not include operational requirements for interoperability with other systems, combat identification, and the integration of secure communications in the system specification of the negotiated contracts for the Boeing KC-767A Tanker aircraft.

- The KC-767A System Program Office identified issues concerning interoperability and certification of software interfaces as a result of performing an engineering assessment of the operational requirements document, the system specifications, the statement of work for the proposed contract, and the airworthiness certification.
 - The operational requirements document requires the Boeing KC-767A Tanker aircraft to comply with the Joint Technical Architecture, the Defense Information Infrastructure Common Operating Environment, the Global Information Grid, and combat identification; however, the Air Force did not levy those requirements on Boeing in the contract.
 - The system specification did not address all technical requirements. Specifically, the * states that 100 percent of the top-level information exchange requirements designated as critical will be satisfied; however, those information exchange requirements were not included in the system specification.
 - The Boeing KC-767A Tanker Program Engineer Team stated that the Boeing KC-767A Tanker Program has significant risks associated with the integration of secure communications (Link 16) as this requirement was not included in the system specification of the negotiated contracts for the Boeing KC-767A Tanker aircraft. The Link 16 provides for the exchange of air, space, surface, subsurface, and ground tracks and for the identification, location, and status of friendly forces.
- Although DoD Instruction 5000.2 requires a C4I support plan and the operational requirements document states that the plan will be developed, the KC-767A System Program Office stated that it had not completed a C4I support plan to identify, plan, and manage C4I

*Predecisional documentation omitted.

supportability needs, dependencies between systems, and interface and interoperability requirements.

Recommendations, Management Comments, and Audit Response

B.2. We recommend that the Program Director, KC-767A System Program Office:

a. Establish a process to develop a performance metric for verifying that the Boeing KC-767A Tanker aircraft will meet the 40-year service life to satisfy warfighter requirements.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred, stating that the KC-767A System Program Office will closely work with the contractor to use sound system engineering processes and develop technical performance measures that will identify by event and parameter the level of performance required. The Boeing KC-767A Tanker aircraft 40-year service life requirement is addressed in the system specification as a Federal Aviation Administration (FAA)-verified requirement. This FAA structural evaluation is required in FAA Federal Aviation Regulation 14, Code of Federal Regulations, Section 25.571, “Damage Tolerance and Fatigue Evaluation of Structure,” and Appendix H, Part 25, “Instructions for Continued Airworthiness.”

Audit Response. The Air Force comments were partially responsive to the recommendation. The ORD requires that the Boeing KC-767A Tanker aircraft have a 40-year service life. However, the design of the Boeing KC-767A Tanker aircraft is based on the design of the Boeing GTTA that has a 20-year service life according to its system specification. The Air Force comments did not identify specific documents or performance parameters that it would use to ensure that the Boeing KC-767A Tanker aircraft would achieve the 40-year service life requirement. Further, the Air Force indicated that there is no contractual remedy if the aircraft does not achieve the required 40-year service life. We request that the Air Force identify the specific technical performance measures that it will put in place to ensure that the Boeing KC-767A Tanker aircraft will meet the 40-year service life requirement.

b. Revise the system specification for the Boeing KC-767A Tanker contracts to include a requirement for protective measures to control corrosion in the tanker aircraft.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred, stating that the aircraft manufacturing processes, procedures, material selections, and the planned maintenance approach must clearly address corrosion prevention, and must take into account the planned service spectrum and operational environment of the Boeing KC-767A Tanker aircraft. Accordingly, the KC-767A System Program Office would work with the contractor to add language to the system specification to define the specific environment conditions (that is, sand, salt fog, etc.) to reflect the planned operational environment of the aircraft.

Audit Response. The Air Force comments were partially responsive to the recommendation. The Air Force needs to make required changes to the system specification before contract award to address corrosion prevention and control in the aircraft manufacturing processes, procedures, material selections, corrosion testing and verification, and the planned maintenance approach. The DoD Corrosion Prevention and Control Handbook provides corrosion prevention provisions that should be included in the KC-767A system specification. Specifically, Section 2, “Applicable Documents,” of the system specification should reference all appropriate commercial and military standards for corrosion prevention. Section 3, “Requirements,” of the system specification should detail requirements for materials, design, service environment, maintainability, and environmental compliance. Finally, Section 4, “Verification,” of the system specification should provide details on corrosion prevention and control testing and verification, which are done at the component, subsystem, and system level as appropriate.

If the Air Force does not revise the KC-767A system specification to include those corrosion prevention and control requirements before contract award for the first 100 aircraft, it may incur significant additional contract costs to add those requirements to the system specification. Accordingly, we request that the Air Force provide additional clarifying comments to the recommendation in response to the final report.

c. Revise the system specification for the Boeing KC-767A Tanker contracts to include requirements in the operational requirements document for interoperability with other systems, integration of secure communications, and combat identification.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred, stating that the C4I support plan under development would include applicable interoperability and information assurance requirements. The KC-767A System Program Office would implement changes for missing C4I requirements in the system specification through the contract change clause, if contract changes were required.

Further, the System Program Office would assess beyond line of sight Link 16, secure voice, data communications, and other potential aspects pertaining to information assurance requirements for the DoD Information Technology Security Certification and Accreditation Process.

Audit Response. The Air Force comments were partially responsive to the recommendation. Because the C4I support plan is still under development, the System Program Office has not yet identified and verified that all Boeing KC-767A Tanker aircraft interoperability capabilities are in the system design. By not completing the C4I support plan before delivery of the aircraft, the Air Force cannot identify, plan, and manage warfighter C4I supportability needs, dependencies between systems and interface, and interoperability requirements. As a result, the Air Force risks the need to use the contract change clause, which sometimes results in costly system design, build, and documentation changes to correct deficiencies. Therefore, we request that the Air Force reconsider its position of not revising the contractual system specification to include all C4I requirements for interoperability with other systems, integration of secure

communications, and combat identification until after the award of contracts for the first 100 aircraft.

d. Complete a command, control, communications, computers, and intelligence support plan for the Boeing KC-767A Tanker aircraft to address interoperability, supportability, information assurance and sufficiency concerns, include it in the statement of work before award of the contracts, and resolve issues identified by implementing the support plan before system acceptance testing.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred, stating that the KC-767A System Program Office commenced development of the C4I support plan in December 2003. After the C4I support plan is approved, the System Program Office would implement necessary changes to the system specification through the contract change clause, if contract changes were required.

Audit Response. The Air Force comments were partially responsive to the recommendation. DoD Instruction 5000.2, "Operation of the Defense Acquisition System," requires that the C4I support plan be completed before the production decision. The Air Force solution of using the contract change clause to incorporate required interoperability capabilities identified in the C4I support plan in the system specification after contract award is not in compliance with DoD policy. A fully developed C4I support plan before award of production contracts is necessary to enable the KC-767A System Program Office to determine whether the C4I design meets the needs of the program as well as identifying dependencies between systems, identifying interface requirements, and determining whether the C4I system is supportable, adequate, and sufficient. Because the KC-767A System Program Office does not plan to complete the C4I support plan before the award of production contracts, the Air Force risks the need to use the contract change clause to address C4I design and implementation issues. Such contract changes sometimes results in costly system design, build, and documentation changes. Therefore, we request that the Air Force, in response to the final report, reconsider its position of not completing the C4I support plan before award of the production contracts, and resolve C4I issues identified as a result of implementing the C4I support plan before system acceptance testing.

Issue B-3. Operational Requirements Document

Conclusion and Results Summary. Although the ORD, "Air Refueling Aircraft Program," October 22, 2002, for the tanker aircraft incorporates the warfighter requirements from the Mission Needs Statement, "Future Air Refueling Aircraft," November 1, 2001, it did not require that the first 100 Boeing KC-767A Tanker aircraft acquired meet those requirements. The Air Force plans to address the requirements through evolutionary acquisition in three spirals. However, for the first 100 Boeing KC-767A Tanker aircraft, the Air Force did not:

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- include in the contractual specifications the ORD key performance parameter for information exchange requirements from the first spiral, and
 - plan to incorporate all of the spiral 2 and 3 capabilities.

The Air Force considers the 100 Boeing KC-767A Tanker aircraft as a temporary solution to replace the KC-135E fleet until the next generation of KC-X tanker aircraft can be developed to meet the warfighter requirements in the mission needs statement.

Criteria and Results

Criteria. DoD Instruction 5000.2, “Operation of the Defense Acquisition System,” May 12, 2003; and Chairman of the Joint Chiefs of Staff Instruction 3170.01C, “Joint Capabilities Integration and Development System,” June 24, 2003, provide guidance concerning ORDs.

DoD Guidance. DoD Instruction 5000.2 requires the user to prepare the ORD (now called the capability development document) to support program initiation, refine the integrated architecture, and clarify how the program will lead to joint warfighting capability. The ORD builds on the mission needs statement (now called the initial capabilities document) and provides the detailed operational performance parameters necessary to design the proposed system. Further, the Instruction states that spiral development is used when the desired capability is identified, but the end-state requirements are not known at program initiation. Each increment provides the user the best possible capability. The requirements for future increments depend on feedback from users and technology development. Further, each set of key performance parameters only applies to the current spiral of capability.

Chairman of the Joint Chiefs of Staff Instruction. Chairman of the Joint Chiefs of Staff Instruction 3170.01C states that the ORD (the capabilities development document) is based on the mission needs statement (the initial capabilities documents) and includes the information necessary to develop a proposed program. The Instruction further states that the ORD outlines a militarily useful and supportable operational capability that can be effectively developed, produced or acquired, deployed, and sustained.

Results. The ORD for the tanker aircraft did not require that the first 100 Boeing KC-767A Tanker aircraft acquired meet warfighter requirements in the mission needs statement. Specifically, the Air Force planned to address the requirements through evolutionary acquisition in three spirals. However, for the first 100 Boeing KC-767A Tanker aircraft acquired, the Air Force only included 6 of the 7 ORD key performance parameters and did not include the key performance parameter for information exchange requirements, which was a spiral-one ORD requirement. Further, the Air Force has no plans to incorporate 12 of the 48 spiral-two and all 17 of the spiral-three capabilities into the first 100 aircraft. By not including the key performance parameter for information

exchange requirements in spiral one, the Air Force may not achieve the objectives of the remaining key performance parameters because of their dependency on interoperability capabilities.

Justification for Limited Operational Requirements. Section 8159 of the Department of Defense Appropriations Act for FY 2002 authorized the Air Force to lease not more than 100 general purpose Boeing 767 aircraft. In anticipation of the legislation, the Deputy Director, Operational Requirements, Office of the Deputy Chief of Staff, Air and Space Operations directed that the ORD requirements for the first 100 aircraft correlate closely with the Boeing 767 tanker that Boeing was producing for the Italian government. The Deputy Director also directed that the ORD not include operational requirements that would lengthen the delivery schedule and substantially increase aircraft costs. The resulting ORD included references to Boeing 767-specific information that was later removed at the direction of the Joint Requirements Board.

Evolutionary Acquisition. The ORD for the tanker aircraft includes three spirals for system development. According to the Air Force Deputy Director, Operational Requirements, the first spiral for the first 100 Boeing KC-767A Tanker aircraft requires that the aircraft be more capable than the KC-135E tanker aircraft that it is replacing for the primary mission of tanker refueling. However, the first 100 KC-767A Tanker aircraft acquired will not fully meet warfighter requirements because:

- the negotiated contract for the first spiral did not include:
 - the ORD information exchange requirement key performance parameter; and
 - the ORD mission capability to refuel multiple aircraft simultaneously.
- the system specifications for the first 100 aircraft did not include:
 - the ORD mission capabilities to conduct secondary missions, such as combined cargo/passenger transportation and aeromedical evacuation; and
 - the ORD requirement for a fully mission capable rate of at least 80 percent.¹²

As a result, the 100 Boeing KC-767A Tanker aircraft will not meet the ORD key performance parameter for interoperability and will not meet the ORD mission capabilities to conduct secondary missions.

Future Spirals. The Air Force Deputy Director, Operational Requirements, Office of the Deputy Chief of Staff, Air and Space Operations stated that the tanker aircraft that will include all spiral-two and-three capabilities from the ORD may not be the Boeing KC-767A Tanker aircraft. That tanker

¹²Fully mission capable rate measures how long, in percent of possessed time, an aircraft can perform all of its assigned missions.

aircraft may be another tanker aircraft because the Boeing KC-767A Tanker aircraft may not be the best and most affordable aircraft available to satisfy the warfighter requirements in the mission needs statement. Accordingly, the Air Force is continuing with its plans for the KC-X tanker, which was the future air refueling aircraft that the Air Force was considering before congressional authorization for the 100 Boeing KC-767A Tanker aircraft. The second and third spirals of the evolutionary acquisition will add warfighter capabilities in the mission needs statement for

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Recommendations, Management Comments, and Audit Response

Revised Recommendation. In response comments by the Assistant Secretary of the Air Force (Acquisition), we revised Recommendation B.3.a. to clarify that all key performance parameters were not in the contract or the system specifications, as required.

B.3. We recommend that the Program Director, KC-767A System Program Office:

a. Verify that system specifications developed for the first spiral of the air refueling aircraft contract(s) include at least all key performance parameters in the operational requirements document.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) did not concur, stating that the ORD did not have deficiencies and requires all key performance parameters to be met in the first spiral. Further, the recommendation was redundant to the recommendations in Issue B.2.c. concerning the information exchange requirements topic. The KC-767A C4I support plan, which is currently under development by the KC-767A System Program Office will develop applicable interoperability and information assurance requirements (for example, secure communications, global information grid, and information exchange requirements) to meet the key performance parameter for the information exchange requirement for spiral one.

Audit Response. The report does not raise issues on deficiencies in the ORD. Rather, a fundamental issue raised is that the Air Force did not verify that all key performance parameters in the ORD were included in the contract specifications. The contract specifications include six of seven key performance parameters and omit information exchange requirements as a key performance parameter (the seventh key performance parameter). That omission will result in incurring significant additional costs through subsequent contract modification(s) in order to achieve information exchange requirements as a key performance parameter. Recommendation B.2.c. addresses systems engineering issues of interoperability, integration of secure communications and combat identification. Recommendation B.3.a. addresses the omission of information exchange

*National security data omitted.

requirements as a key performance parameter from the contract. As previously stated, key performance parameters are minimum attributes or characteristics considered most essential for an effective military capability. Correspondingly, information exchange requirements are requirements that define the interoperability key performance parameter threshold and objective values documented in the operational requirements document. In view of Assistant Secretary's comments, we have revised the recommendation to clarify our position. We request the Air Force reconsider its position and provide additional comments on the recommendation.

b. Ensure that spiral two and three requirements are subsequently included in the first 100 and future air refueling aircraft.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) did not concur, stating that the spiral development strategy in the ORD was not deficient. Spiral developments do not need to be delivered with the first aircraft and should not be in the contract at this time. The ORD capabilities not in spiral one would be captured in a timely manner through spiral development. Further, no airplane can be optimized for all types of refueling missions. Recapitalization would include different types of aircraft (size and levels of development) with differing capabilities. This is similar to the current Air Force airlift fleet and the current tanker fleet where different types of aircraft meet different sets of requirements. The Air Force has no requirement to recapitalize all aircraft to have all the same capabilities.

Audit Response. The Air Force comments were not responsive to the recommendation. Using an evolutionary acquisition strategy, the Air Force stated in the operational requirements document for the Air Refueling Aircraft Program that it planned to incorporate the warfighter requirements from the Mission Needs Statement, "Future Air Refueling Aircraft," November 1, 2001, in three spirals. The Air Force plans, however, did not provide for retrofit of the first 100 Boeing KC-767A Tanker aircraft with ORD requirements deferred to spirals two and three of the evolutionary acquisition. We agree that all tanker aircraft acquired may not all have the exact same capabilities. However, to satisfy essential warfighter requirements identified in the Mission Needs Statement, the first 100 aircraft must be retrofitted with spiral two and three ORD requirements for:

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Accordingly, we request the Air Force provide comments explaining how it plans to have the first 100 aircraft meet the ORD requirements.

*National security data omitted.

Issue B-4. Testing

Conclusion and Results Summary. The Air Force did not comply with statutory provisions for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before proceeding beyond low-rate initial production and committing to the subsequent production of all 100 KC-767A Tanker aircraft. Specifically, the KC-767A System Program Office planned to award the contracts for the lease of 20 tanker aircraft and the procurement of 80 tanker aircraft more than 3 years before performing initial operational test and evaluation of the system. Consequently, such a strategy does not protect the interests of the warfighter by ensuring that the warfighter receives aircraft that are operationally effective, suitable, and survivable.

Criteria. Sections 2366 and 2399 of title 10, United States Code and DoD Instruction 5000.2 provide guidance concerning system testing.

Section 2366. Section 2366 of title 10, United States Code, states that a covered system, a system under oversight by the Office of the Director, Operational Test and Evaluation, may not proceed beyond low-rate initial production (low-rate initial production is normally 10 percent of the total production quantity documented in the acquisition strategy) until realistic survivability testing of the system is completed. Further, Section 2366 states that survivability and lethality tests must be carried out early enough in the development phase of the system or program to allow any design deficiency identified by the testing to be corrected during the design of the system and before proceeding beyond low-rate initial production.

Section 2399. Section 2399 of title 10, United States Code, states that a major Defense acquisition program may not proceed beyond low-rate initial production until initial operational test and evaluation of the program is completed. Further, Section 2399 states that a final decision within the Department of Defense to proceed with a major Defense acquisition program beyond low-rate initial production may not be made until the Director, Operational Test and Evaluation has submitted to the Secretary of Defense the Director's report on the adequacy of the test and evaluation completed and effectiveness and suitability of the program. In addition, the congressional Defense committees must have received the Director's report for the program to move beyond low-rate initial production.

DoD Instruction. DoD Instruction 5000.2 requires the completion of initial operational test and evaluation, submission of a beyond low-rate initial production report for programs under oversight of the Director, Operational Test and Evaluation, and submission of a live-fire test and evaluation report, where applicable, to Congress, to the Secretary of Defense, and to the Under Secretary of Defense for Acquisition, Technology, and Logistics before deciding to continue beyond low-rate to full-rate production. Further, the Instruction states that the independent operational test authority is to use production or production representative articles for the dedicated phase of initial operational test and evaluation that supports the full-rate production decision.

Results. The Air Force did not comply with Sections 2366 and 2399 of title 10, United States Code requirements for determining the operational effectiveness, suitability, and survivability of the Boeing 767A Tanker aircraft before proceeding beyond low-rate initial production and committing to the subsequent production of all 100 Boeing KC-767A Tanker aircraft. Specifically, the KC-767A System Program Office did not plan on performing initial operational test and evaluation of the system until after the planned award of contracts for the lease of 20 tanker aircraft and the procurement of another 80 tanker aircraft. To ensure that the Boeing KC-767A Tanker aircraft are operationally effective and suitable, the Director, Operational Test and Evaluation, and Air Force Operational Test and Evaluation Center (AFOTEC) representatives indicated that operational testing should be conducted on production representative aircraft, as required by DoD Instruction 5000.2.

Director, Operational Test and Evaluation. On January 7, 2004, the Deputy Director, Conventional Systems, and the Deputy Director, Live Fire Test and Evaluation, Office of the Director, Operational Test and Evaluation issued a memorandum to the Director, Defense Systems, Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, stating that the purchase of 80 tanker aircraft constitutes proceeding beyond low-rate initial production for the Boeing KC-767A Tanker Program. The Deputy Directors stated that the Boeing KC-767A Tanker aircraft is a major Defense acquisition program and must comply with title 10 of the United States Code requirements for operational and survivability testing before the aircraft proceeds beyond low-rate production.

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The Deputy Directors also stated that this testing would support the required reports to the Secretary of Defense and congressional Defense committees and a full-rate production decision review for the 80 tanker aircraft.

Air Force Operational Test and Evaluation Center. As evidenced in

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the Air Force did not plan to conduct operational testing until after award of the contracts for the lease of 20 tanker aircraft and the procurement of 80 tanker aircraft. Specifically, AFOTEC representatives stated that it did plan to conduct operational test and evaluation of a production Boeing KC-767A Tanker aircraft in January 2007, which was contingent on contract award in October 2003. To reduce program risks, AFOTEC also planned to begin operational flight tests of the GTTA in November 2004. The GTTA has the same boom and a similar Remote Air Refueling Station as the planned Boeing KC-767A Tanker aircraft. However, the GTTA varies from the Boeing KC-767A Tanker aircraft in several areas including the rudder, the cockpit, the flaps, the refuel tanks, and the Remote Air Refueling Operator Station configuration. Accordingly, AFOTEC stated that operational testing would still be required to be conducted for the Boeing KC-767A Tanker aircraft.

*Predecisional documentation omitted.

Recommendations, Management Comments, and Audit Response

B.4. We recommend that the Program Director, KC-767A System Program Office comply with the statutory provisions by conducting operational and survivability testing on production representative aircraft before committing to the production of all 100 Boeing KC-767A Tanker aircraft.

Air Force Comments. The Assistant Secretary of the Air Force (Acquisition) concurred by stating that the Air Force intends to comply with Sections 2366 and 2399 of title 10, United States Code, as those sections apply to the Boeing KC-767A Tanker Program. Further, the Air Force developed the current test strategy before the National Defense Authorization Act for FY 2004 was approved on November 24, 2003. As a result of the December 1, 2003, pause that the Deputy Secretary of Defense levied on the Boeing KC-767A Tanker Program, the Air Force has not resolved the issues arising from the National Defense Authorization Act for FY 2004. The Air Force will continue to work within the DoD to resolve test and evaluation issues using the Overarching Integrated Product Team and Defense Acquisition Board processes.

Audit Response. The Air Force comments were not responsive to the recommendation. In comments to Issue B-1, the Acquisition Strategy, the Air Force indicated that it did not plan to revise its acquisition strategy. Further, in comments received prior to issuance of the draft report on March 5, 2004, the Air Force stated that it did not intend to comply with title 10 statutory requirements. Specifically, it planned on performing survivability testing and initial operational test and evaluation of the system after the planned award of contracts for the lease of 20 tanker aircraft and the procurement of another 80 tanker aircraft. Without revising the acquisition strategy to accommodate survivability testing and initial operational test and evaluation before acquiring all 100 aircraft, the Air Force will not be able to satisfy the statutory requirements of Sections 2366 and 2399 of title 10, United States Code, and may incur costly upgrades and retrofits to meet operational effectiveness, suitability, and survivability requirements of the warfighter. Therefore, to satisfy statutory requirements, the Air Force must revise its acquisition strategy to accommodate testing requirements before proceeding beyond low-rate initial production and committing to the production of all 100 KC-767A Tanker aircraft. Accordingly, we request that the Air Force provide additional comments explaining how it plans to meet the statutory requirements for testing.

Appendix A. Scope and Methodology

We reviewed documentation dated from March 1984 through February 2004. To accomplish the audit objectives we reviewed the following:

- Program documents including the Operational Requirements Document, October 22, 2002;
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to determine whether the Air Force KC-767A System Program Office developed and implemented an acquisition strategy and a test and evaluation plan that were linked to user requirements;
- Documents for the Boeing KC-767A Tanker lease, including commercial item determination, justification for other than full and open competition; the Institute for Defense Analyses report on the Boeing Tanker;
* * * * *; the Boeing and European Aeronautical Defence and Space Company, Incorporated, responses to the Air Force request for information; the Air Force Report to the Congressional Defense Committees on KC-767A Air Refueling Aircraft Multiyear Lease Pilot Program; and *
to determine whether the Boeing KC-767A Tanker aircraft met the definition of a commercial item as required by contracting procedures in Federal Acquisition Regulation, Part 12; whether the Air Force had sufficient cost and pricing information to negotiate a fair and reasonable price for the Boeing 767 “Green” or unconverted aircraft; and whether the lease met the criteria for an operating lease as described in Office of Management and Budget Circular No. A-11;
- The system funding profile to determine whether the Air Force had adequately identified program funding and the source of program funding from other Air Force weapon system acquisition programs;
- Office of Management and Budget Circular No. A-11, “Preparation, Submission, and Execution of the Budget,” Appendix A, “Score-Keeping Guidelines” 2003, Congressional Budget Office, Section 4, Chapter 2, “Budgetary Treatment of Leases,” February 2003; Office of Management and Budget Testimony, “Before the Senate Armed Services Committee on Lease of Boeing KC-767 Air Refueling Tanker Aircraft on Tanker Lease,” September 4, 2003; Congressional Budget Office Report, “Assessment of the Air Force’s Plan to Acquire 100 Boeing Tanker Aircraft,” August 26, 2003; and
- The Boeing website [www.boeing.com]

We also contacted the staffs of the Offices of the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Vice Chairman of the Joint Chiefs of

*Predecisional and negotiation sensitive data omitted.

Staff; the General Counsel of the Department of Defense; the Director, Operational Test and Evaluation; the Air Force Operational Test and Evaluation Command; the Assistant Secretary of the Air Force (Acquisition); the Assistant Secretary of the Air Force (Financial Management and Comptroller); the Defense Contract Audit Agency; the Defense Criminal Investigative Service; the Air Force Audit Agency; the Air Force Contracting Office, Wright-Patterson Air Force Base; the Air Force KC-10 System Program Office; the Air Force KC-767A System Program Office; and the Office of Management and Budget (Budget Analysis) to identify program background, history, and reasons for management actions to lease and procure the Boeing 767A Tanker aircraft.

We performed this audit from December 1, 2003, through February 27, 2004, in accordance with generally accepted government auditing standards.

Limitations. We did not review the management control program because the audit focused on whether any compelling reason existed as to why the Air Force should not proceed with the tanker lease; therefore, our scope was limited to compelling reasons for not proceeding with the lease. Further, because of time constraints, we did not review:

- the validity of the requirements for the tanker aircraft;
- the condition of the Air Force's current tanker fleet in terms of corrosion and increased maintenance costs; and
- whether other tanker aircraft should be considered to meet user requirements.

Use of Computer-Processed Data. We did not rely on computer-processed data to perform this audit.

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the DoD Weapon Systems Acquisition and DoD Contract Management high-risk areas.

Prior Coverage

During the last 5 years, the General Accounting Office, the Inspector General of the Department of Defense, the Office of Management and Budget, and the Congressional Budget Office have issued six reports or testimonies addressing the Boeing KC-767A Tanker Program. Unrestricted General Accounting Office and Inspector General of the Department of Defense reports can be accessed at <http://www.gao.gov> and <http://www.dodig.osd.mil/audit/reports>, respectively.

General Accounting Office (GAO)

GAO Testimony No. GAO-03-1143T, "Military Aircraft: Observations on the Air Force's Plan to Lease Aerial Refueling Aircraft," September 3, 2003

GAO Testimony No. GAO-03-938T, "Military Aircraft: Information on Air Force Aerial Refueling Tankers," June 24, 2003

GAO Report No. GAO-02-724R, "Air Force Aircraft: Preliminary Information on Air Force Tanker Leasing," May 15, 2002

Inspector General of the Department of Defense (IG DoD)

IG DoD Report No. D-2003-129, "Assessment of DoD Leasing Actions," August 29, 2003

Office of Management and Budget

Testimony "Before the Senate Armed Services Committee on Lease of Boeing KC-767 Air Refueling Tanker Aircraft on Tanker Lease," September 4, 2003

Congressional Budget Office

Congressional Budget Office Report, "Assessment of the Air Force's Plan to Acquire 100 Boeing Tanker Aircraft," August 26, 2003

Ongoing Audit Coverage

In a separate project, we are reviewing the C-130J aircraft program that used a similar sole-source commercial item acquisition strategy with a fixed-price contract.

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On December 18, 2003, the Secretary of the Air Force through the Deputy Assistant Secretary of the Air Force for contracting requested that we also review the negotiation of the contract restructure with the Boeing Corporation for the North Atlantic Treaty Organization Airborne Warning and Control System Mid-Term Modernization Program.

*Contractor proprietary data omitted.

Appendix B. Deputy Secretary of Defense Request and Prior Reviews of the Boeing KC-767A Tanker Program

MEMO TO: Inspector General of the
Department of Defense

December 1, 2003

FROM: Paul Wolfowitz

SUBJECT: Request for an Audit/Review

In light of recent revelations by The Boeing Company concerning apparent improprieties by two of the company's executives, please determine whether there is any compelling reason why the Department of the Air Force should not proceed with its Tanker Lease Program. In particular, I would appreciate knowing whether any of these revelations affect any of your previous analysis of this program

I appreciate your prompt response to this request. Please provide an anticipated completion date.



U19581 /03

Prior Reviews of the Boeing KC-767A Tanker Program

Although we identified contracting and acquisition problems during the audit as discussed in Issues A and B, those results did not affect our previous two analyses of the tanker program because they did not involve an examination of contract issues and acquisition processes. The two analyses were in response to requests by the Chairman, Committee on Commerce, Science, and Transportation, U.S. Senate; and the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics.

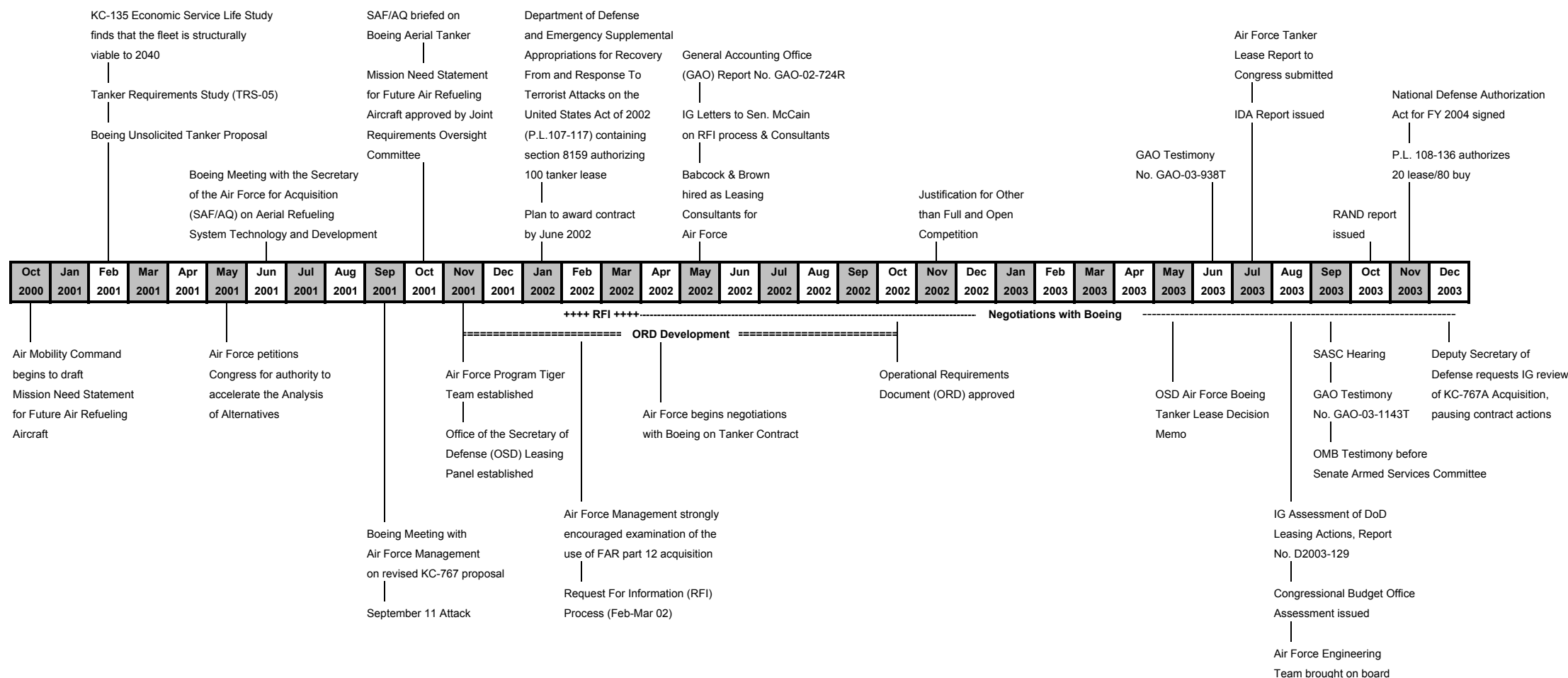
Chairman Request. On April 17, 2002, the Chairman, Committee on Commerce, Science, and Transportation requested that we assess the Air Force decision to select the Boeing 767 rather than the Airbus 330 for its air refueling tankers. On May 3, 2002, the Inspector General of the Department of Defense issued a memorandum, stating that the Air Force did not fully accomplish the purpose of Federal Acquisition Regulation Subpart 15.201, “Exchanges With Industry Before Receipt of Proposals,” which was to improve the understanding of Government requirements and industry capabilities through the exchange of information with potential offerors. However, because Section 8159 of the Department of Defense Appropriations Act for FY 2002 specified Boeing aircraft, the Air Force stated that the normal processes of a request for information were not necessary. Consequently, we did not take exception to the selection of the Boeing 767, because it was specified in legislation.

Acting Under Secretary Request. On July 22, 2003, the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics requested that we:

- review the decision process used by the Air Force and the Office of the Secretary of Defense to lease the Boeing KC-767A Tanker aircraft, and
- assess whether DoD interaction with Congress following the Lease Decision Memorandum signed May 23, 2003, was timely and reasonable.

On August 29, 2003, we issued Inspector General of the Department of Defense Report No. D-2003-129, “Assessment of DoD Leasing Actions,” stating that, although not required by statute, applying a best business practice of weighing the need to conduct a formal analysis of alternatives to achieve the best possible system solution could have improved the Air Force Leasing process. Further, a best business practice would have been to expand the charter of the Leasing Review Panel to include the Panel’s role in the acquisition process and in the life cycles of the leases. We also determined that of the six letters from the Chairman, Committee on Commerce, Science, and Transportation and the one letter from the Congressional Budget Office, five were generally timely and two were not timely. Further, two responses could have been improved by a more comprehensive answer to portions of the requests. However, we did not identify a reason to not proceed with the lease of the Boeing KC-767A Tanker aircraft based on the limited scope of our review.

Appendix C. Timeline of Events



Appendix D. Statutory Provisions

There are several Public Laws addressing issues involved in leasing and procuring Boeing KC-767A Tanker aircraft. The laws include the Department of Defense Appropriations Act for FY 2002; the National Defense Authorization Act for FY 2004; Section 2464 of title 10, United States Code; and the Defense Authorization Act for FY 1999.

Department of Defense Appropriations Act for FY 2002. Section 8159 of the Department of Defense Appropriations Act for FY 2002 uses permissive language that authorizes the Air Force to establish a multiyear lease pilot program for the general purpose Boeing 767 aircraft in a commercial configuration and requires the Air Force to lease the aircraft as an operating lease.

Sec 8159. MULTIYEAR AIRCRAFT LEASE PILOT PROGRAM.

(a) The Secretary of the Air Force may, from funds provided in this Act or any future appropriations Act, establish and make payments on a multiyear pilot program for leasing general purpose Boeing 767 aircraft and Boeing 737 aircraft in commercial configuration.

(b) Sections 2401 and 2401a of title 10, United States Code, shall not apply to any aircraft authorized by this section.

(c) Under the aircraft lease Pilot Program authorized by this section:

(1) The Secretary may include terms and conditions in lease agreements that are customary in aircraft leases by a non-Government lessor to a non-Government lessee, but only those that are not inconsistent with any of the terms and conditions mandated herein.

(2) The term of any individual lease agreement into which the Secretary enters under this section shall not exceed 10 years, inclusive of any options to renew or extend the initial lease term.

(3) The Secretary may provide for special payments in a lessor if the Secretary terminates or cancels the lease prior to the expiration of its term. Such special payments shall not exceed an amount equal to the value of 1 year's lease payment under the lease.

(4) Subchapter IV of chapter 15 of title 31, United States Code shall apply to the lease transactions under this section, except that the limitation in section 1553(b)(2) shall not apply.

(5) The Secretary shall lease aircraft under terms and conditions consistent with this section and consistent with the criteria for an operating lease as defined in OMB Circular A-11, as in effect at the time of the lease.

(6) Lease arrangements authorized by this section may not commence until:

(A) The Secretary submits a report to the congressional defense committees outlining the plans for implementing the Pilot Program. The report shall describe the terms and conditions of proposed contracts and describe the expected savings, if any, comparing total costs, including operation, support, acquisition, and financing, of the lease, including modification, with the outright purchase of the aircraft as modified.

(B) A period of not less than 30 calendar days has elapsed after submitting the report.

(7) Not later than 1 year after the date on which the first aircraft is delivered under this Pilot Program, and yearly thereafter on the anniversary of the first delivery, the Secretary shall submit a report to the congressional defense committees describing the status of the Pilot Program. The Report will be based on at least 6 months of experience in operating the Pilot Program.

(8) The Air Force shall accept delivery of the aircraft in a general purpose configuration.

(9) At the conclusion of the lease term, each aircraft obtained under that lease may be returned to the contractor in the same configuration in which the aircraft was delivered.

(10) The present value of the total payments over the duration of each lease entered into under this authority shall not exceed 90 percent of the fair market value of the aircraft obtained under that lease.

(d) No lease entered into under this authority shall provide for-

(1) the modification of the general purpose aircraft from the commercial configuration, unless and until separate authority for such conversion is enacted and only to the extent budget authority is provided in advance in appropriations Acts for that purpose; or

(2) the purchase of the aircraft by, or the transfer of ownership to, the Air Force.

(e) The authority granted to the Secretary of the Air Force by this section is separate from and in addition to, and shall not be construed to impair or otherwise affect, the authority of the Secretary to procure transportation or enter into leases under a provision of law other than this section.

(f) The authority provided under this section may be used to lease not more than a total of 100 Boeing 767 aircraft and 4 Boeing 737 aircraft for the purposes specified herein.

National Defense Authorization Act for FY 2004. Section 135 of the National Defense Authorization Act for FY 2004 limits the number of tanker aircraft that the Air Force can lease to 20 and authorizes procurement of up to 80 aircraft. In addition, Section 135 of the National Defense Authorization Act for FY 2004

requires that the Secretary of Defense perform a study of long-term aircraft maintenance and requirements.

Sec. 135. PROCUREMENT OF TANKER AIRCRAFT.

(a) LEASED AIRCRAFT – The Secretary of the Air Force may lease no more than 20 tanker aircraft under the multiyear aircraft lease pilot program referred to in subsection (d).

(b) MULTIYEAR PROCUREMENT AUTHORITY – (1) Beginning with the fiscal year 2004 program year, the Secretary of the Air Force may, in accordance with section 2306b of title 10, United States Code, enter into a multiyear contract for the purchase of tanker aircraft necessary to meet the requirements of the Air Force for which leasing of tanker aircraft is provided for under the multiyear aircraft lease pilot program but for which the number of tanker aircraft leased under the authority of subsection (a) is insufficient.

(2) The total number of tanker aircraft purchased through a multiyear contract under this subsection may not exceed 80.

(3) Notwithstanding subsection (k) of section 2306b of title 10, United States Code, a contract under this subsection may be for any period not in excess of 10 program years.

(4) A multiyear contract under this subsection may be initiated or continued for any fiscal year for which sufficient funds are available to pay the costs of such contract for that fiscal year, without regard to whether funds are available to pay the costs of such contract for any subsequent fiscal year. Such contract shall provide, however, that performance under the contract during the subsequent year or years of the contract is contingent upon the appropriation of funds and shall also provide for a cancellation payment to be made to the contractor if such appropriations are not made.

(c) STUDY OF LONG-TERM TANKER AIRCRAFT MAINTENANCE AND TRAINING REQUIREMENTS-(1)- The Secretary of Defense shall carry out a study to identify alternative means for meeting the long-term requirements of the Air Force for—

(A) the maintenance of tanker aircraft leased under the multiyear aircraft lease pilot program or purchased under subsection (b); and

(B) training in the operation of tanker aircraft leased under the multiyear aircraft lease pilot program or purchased under subsection (b).

(2) Not later than April 1, 2004, the Secretary of Defense shall submit a report on the results of the study to the congressional defense committees.

(d) MULTIYEAR AIRCRAFT LEASE PILOT PROGRAM DEFINED- In this section, the term ‘multiyear aircraft lease pilot program’ means the aerial refueling aircraft program authorized under section 8159 of the Department of Defense Appropriations Act, 2002 (division A of Public Law 107-117; 115 Stat. 2284).

(e) SENSE OF CONGRESS- It is the sense of Congress that, in budgeting for a program to acquire new tanker aircraft for the Air Force, the President should ensure that sufficient budgetary resources are provided to the Department of Defense to fully execute the program and to further ensure that all other critical defense programs are fully and properly funded.

Section 2464 of title 10, United States Code. Section 2464 of title 10, United States Code identifies the need for core logistics capabilities and separate requirements for commercial items.

Sec. 2464. – Core logistics capabilities

(a) Necessity for Core Logistics Capabilities. –

(1) It is essential for the national defense that the Department of Defense maintain a core logistics capability that is Government-owned and Government-operated (including Government personnel and Government-owned and Government-operated equipment and facilities) to ensure a ready and controlled source of technical competence and resources necessary to ensure effective and timely response to a mobilization, national defense contingency situations, and other emergency requirements.

(2) The Secretary of Defense shall identify the core logistics capabilities described in paragraph (1) and the workload required to maintain those capabilities.

(3) The core logistics capabilities identified under paragraphs (1) and (2) shall include those capabilities that are necessary to maintain and repair the weapon systems and other military equipment (including mission-essential weapon systems or materiel not later than four years after achieving initial operational capability, but excluding systems and equipment under special access programs, nuclear aircraft carriers, and commercial items described in paragraph (5)) that are identified by the Secretary, in consultation with the Chairman of the Joint Chiefs of Staff, as necessary to enable the armed forces to fulfill the strategic and contingency plans prepared by the Chairman of the Joint Chiefs of Staff under section 153(a) of this title.

(4) The Secretary of Defense shall require the performance of core logistics workloads necessary to maintain the core logistics capabilities identified under paragraphs (1), (2), and (3) at Government-owned, Government-operated facilities of the Department of Defense (including Government-owned, Government-operated facilities of a military department) and shall assign such facilities sufficient workload to ensure cost efficiency and technical competence in peacetime while preserving the surge capacity and reconstitution capabilities necessary to support fully the strategic and contingency plans referred to in paragraph (3).

(5) The commercial items covered by paragraph (3) are commercial items that have been sold or leased in substantial quantities to the general public and are purchased without modification in the same

form that they are sold in the commercial marketplace, or with minor modifications to meet Federal Government requirements.

(b) Limitation on Contracting. –

(1) Except as provided in paragraph (2), performance of workload needed to maintain a logistics capability identified by the Secretary under subsection (a)(2) may not be contracted for performance by non-Government personnel under the procedures and requirements of Office of Management and Budget Circular A-76 or any successor administrative regulation or policy (hereinafter in this section referred to as OMB Circular A-76).

(2) The Secretary of Defense may waive paragraph (1) in the case of any such logistics capability and provide that performance of the workload needed to maintain that capability shall be considered for conversion to contractor performance in accordance with OMB Circular A-76. Any such waiver shall be made under regulations prescribed by the Secretary and shall be based on a determination by the Secretary that Government performance of the workload is no longer required for national defense reasons. Such regulations shall include criteria for determining whether Government performance of any such workload is no longer required for national defense reasons.

(3) (A) A waiver under paragraph (2) may not take effect until the expiration of the first period of 30 days of continuous session of Congress that begins on or after the date on which the Secretary submits a report on the waiver to the Committee on Armed Services and the Committee on Appropriations of the Senate and the Committee on Armed Services and the Committee on Appropriations of the House of Representatives.

(B) For the purposes of subparagraph (A) –

(i) continuity of session is broken only by an adjournment of Congress sine die; and

(ii) the days on which either House is not in session because of an adjournment of more than three days to a day certain are excluded in the computation of any period of time in which Congress is in continuous session.

(c) Notification of Determinations Regarding Certain Commercial Items.-

The first time that a weapon system or other item of military equipment described in subsection (a)(3) is determined to be a commercial item for the purposes of the exception contained in that subsection, the Secretary of Defense shall submit to Congress a notification of the determination, together with the justification for the determination. The justification for the determination shall include, at a minimum, the following:

(1) The estimated percentage of commonality of parts of the version of the item that is sold or leased in the commercial marketplace and the Government's version of the item.

(2) The value of any unique support and test equipment and tools that are necessary to support the military requirements if the item were maintained by the Government.

(3) A comparison of the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the private sector with the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the Government.

Defense Authorization Act for FY 1999. Section 346 of the Defense Authorization Act for FY 1999 as amended, placed conditions on expansion of functions performed under prime vendor contracts for depot-level maintenance and repair.

(a) Conditions on Expanded Use.--The Secretary of Defense or the Secretary of a military Department, as the case may be, may not enter into a prime vendor contract for depot-level maintenance and repair of a weapon system or other military equipment described in section 2464 (a) (3) of title 10, United States Code, before the end of the 30-day period beginning on the date on which the Secretary submits to Congress a report, specific to the proposed contract, that

(1) describes the competitive procedures to be used to award the prime vendor contract;

(2) contains an analysis of costs and benefits that demonstrates that use of the prime vendor contract will result in savings to the Government over the life of the contract;

(3) contains an analysis of the extent to which the contract conforms to the requirements of section 2466 of title 10, United States Code; and

(4) describes the measures taken to ensure that the contract does not violate the core logistics policies, requirements, and restrictions set forth in section 2464 of that title.

(b) Definitions.--In this section:

(1) The term "prime vendor contract" means an innovative contract that gives a defense contractor the responsibility to manage, store, and distribute inventory, manage and provide services, or manage and perform research, on behalf of the Department of Defense on a frequent, regular basis, for users within the Department on request. The term includes contracts commonly referred to as prime vendor support contracts, flexible sustainment contracts, and direct vendor delivery contracts.

(2) The term “depot-level maintenance and repair” has the meaning given such term in section 2460 of title 10, United States Code.

(c) Relationship to Other Laws.--Nothing in this section shall be construed to exempt a prime vendor contract from the requirements of section 2461 of title 10, United States Code, or any other provision of chapter 146 of such title.

Appendix E. Defense Contract Audit Agency Comments on Limitation of Earnings Clause

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

*Contractor proprietary and negotiation sensitive data omitted.

Appendix F. Air Force Comments on Issue A and Audit Response

Our detailed response to comments from the Assistant Secretary of the Air Force (Acquisition) on statements in the draft report follow. The complete text of those comments is in the Management Comments section of this report.

Assistant Secretary of the Air Force (Acquisition) Comments on Issue A: Commercial Item Procurement Strategy for the Boeing KC-767A Tanker Program.

Commercial Item Procurement Strategy. The Assistant Secretary of the Air Force (Acquisition) commented that the KC-767 team was instructed to “investigate” a commercial item approach.

Audit Response. We used the term “examine” versus “investigate” because the Defense Criminal Investigative Service component of the Office of the Inspector General performs civil and criminal investigations and the term “investigate” is more appropriate for their type of work.

Commercial Item Determination. The Assistant Secretary commented that the Comptroller General decisions (Premier Engineering & Manufacturing, Inc., and Canberra Industries, Inc.) were relevant because they related to minor modifications of commercial items and the fact that the procurements that were the subject of the decisions were competitive is irrelevant.

The Assistant Secretary further stated that the dollar values of modifications are only guideposts and not conclusive evidence that a modification is minor. Further, based on the correct comparison, the modification is about **.5 percent of the value of the final product. Also, the modification does not significantly alter the aircraft’s nongovernmental function “still to transport people and cargo by air – tanker aircraft often transport people, and aircraft fuel is cargo.”

Audit Response. The decisions were not relevant because they did not relate to a minor modification of a type not customarily available in the commercial marketplace as defined by statute and the FAR, but the decisions related to specific commerciality provisions defined in the RFP. The modifications made to develop the Boeing KC-767A Tanker aircraft are of a type not customarily available in the commercial marketplace, are not minor, are for unique military-specific purposes, and cost **.5 percent of the base commercial aircraft price. We agree with the Air Force that if you exclude development costs, the modifications represent about **.5 percent of the base commercial aircraft price and that if you compare the total aircraft price to the modification and development costs, the costs represent **.5 percent of the value of the final product. We do not agree with the interpretation by the Assistant Secretary that the basic function of the commercially configured aircraft of transporting people and cargo has not

* Contractor proprietary and negotiation sensitive data omitted.

changed because “aircraft fuel is cargo” and therefore, the Boeing KC-767A Tanker aircraft is basically a cargo aircraft. The Boeing KC-767A Tanker aircraft is an aerial refueling tanker, not a cargo plane.

Military Tanker not a Commercial Item. The Assistant Secretary stated that minor modification related to of a type “not” customarily available in the commercial marketplace. Also, the Under Secretary of Defense for Acquisition, Technology, and Logistics January 5, 2001, guidance on “of a type” related to items customarily used for nongovernmental purposes while the case for the Boeing KC-767A Tanker aircraft was based on minor modification of a type not customarily available. Further, the Air Force could not find language in FASA or the legislative history that indicated commercial items should be non-developmental.

Audit Response. We agree that minor modifications relate to of a type not customarily available in the commercial marketplace and revised the report accordingly. However, the “of a type” guidance is applicable because the intent of the guidance was to address problems with commercial item determinations relating to classifying sole-source military unique items as commercial items because they related to or were of a type to other commercial items. Senate Report 103-258, May 11, 1994, (page 2,604) clearly shows the intent for commercial items to be non-developmental and are supposed to be proven products neither of which is the case for the Boeing KC-767A Tanker aircraft.

The purchase of proven products such as commercial and non-developmental items can eliminate the need for research and development, minimize acquisition lead time, and reduce the need for detailed design specifications or expensive product testing.

Commercial Market Does Not Exist. The Assistant Secretary made various assertions about a commercial market and stated that Boeing expects the freighter fleet to increase to 3,078 aircraft by 2021.

Audit Response. There is no valid case for a commercial tanker market when there currently are no Boeing KC-767A or GTTA tanker aircraft in operation making it impossible to establish prices by the forces of supply and demand. The existence of an after market for freighter aircraft has no bearing on whether the Boeing KC-767A Tanker aircraft is a commercial item and the ability to effectively use the commercial marketplace to establish prices.

Fixed-Price Contract Type. The Assistant Secretary commented that it has given the contractor maximum incentive to perform by using a fixed-price contract type and limiting the contractors earning to 15 percent. Also, a cost contract would place more risk on the Government and that under a fixed-price incentive contract, the contractor could earn more than 15 percent profit.

Audit Response. The proposed fixed-price contract for the Boeing KC-767A Tanker aircraft does not provide the contractor maximum incentive to perform when the profit of the contractor is limited to 15 percent of costs. The contractor does have incentive to increase costs to obtain the maximum 15 percent profit. Although a cost type or fixed-price incentive contract does place additional risk on the Government, we believe the risk is warranted based on the degree of

uncertainty with the pricing for the Boeing KC-767A Tanker aircraft and the need to establish an effective baseline for future procurements. We have no objection to the contractor earning more than 15 percent profit on a fixed-price incentive contract when the Government shares in the savings.

Truth in Negotiations Act. The Assistant Secretary believes there is adequate justification for the use of a FAR Part 12 commercial strategy wherein TINA does not apply.

Audit Response. The Boeing KC-767A Tanker aircraft is a sole-source military unique item. Over the past 7 years we have written numerous audit reports addressing problems obtaining fair and reasonable prices for sole-source military-unique items that were inappropriately classified as commercial items.

Commercial Item Exception from Cost or Pricing Data. The Assistant Secretary stated that the clause in question is a solicitation provision and the contracting officer has latitude for its use when building the pricing case to support the reasonableness of offered prices. Also, obtaining commercial sales information is impossible because of bilateral confidentiality agreements, where both the manufacturer and the customer agree not to reveal the terms or price of a given sale.

Audit Response. The Assistant Secretary is disregarding guidance specifically relating to obtaining cost or pricing data for procurements of commercial items that are not based on adequate competition. The guidance from the Director, Defense Procurement and Acquisition Policy to support the requirement of the Federal Acquisition Streamlining Act of 1994 states that a contracting officer may require cost or pricing data if unable to obtain information on prices at which the same item or similar items have been sold in the commercial market that is adequate for evaluating through price analysis the reasonableness of the price of the contract. The guidance from the Director reminds contracting professionals to include the applicable FAR clause in solicitations for sole-source commercial items. As to the confidentiality agreements, Boeing would need to provide cost or pricing data unless its customers agree to reveal the terms and price of the commercial sales.

Reliability of Baseline Price. The Assistant Secretary commented that the Air Force negotiating team complied with FAR requirements by using various price analysis techniques and obtaining information from sources other than Boeing. Further, the negotiating team requested sales data from Boeing but the contractor refused to provide the data. The negotiating team believes their analysis is sufficient to support price reasonableness and that risk is mitigated by the Return on Sales provision, which provides a rebate for any earnings greater than 15 percent.

Audit Response. The use of price analysis techniques was insufficient to effectively price 100 “green aircraft” valued at \$*.* billion. Further, the negotiating team should have required Boeing to provide cost or pricing data unless Boeing provided the requested sales data. Although the negotiating team did perform a significant amount of analysis, the analysis of mostly opaque data

*Contractor proprietary and negotiation sensitive data omitted.

(as also described by IDA) provides only limited insight into the accuracy of the aircraft prices. The use of the Return on Sales clause raises questions about how much confidence the negotiating team had in its analysis used to calculate a fair and reasonable price for the aircraft.

Aircraft Engine Prices. The Assistant Secretary commented that while airlines do buy engines from the engine original equipment manufacturer and furnish them to the aircraft original equipment manufacturer, the Air Force was unsure of “how such a superficial review” could result in a recommendation and believes the approach is problematic for various reasons. Also, that while a review of the Boeing website reveals there are three Defense contractors that manufacture engines for the family of 767 aircraft, only two provide engines for the 767-200 model.

Audit Response. Unfortunately, the Assistant Secretary never considered the commercial approach of procuring the engines competitively and negotiating prices directly with the engine manufacturers. Further, the KC-10A contractor logistics support program office, Oklahoma City, Air Logistics Center, has successfully implemented a competitive contractor logistics support concept for 59 KC-10A tanker aircraft that uses over \$500 million of Government property, including aircraft engines. The concerns of the Assistant Secretary relating to Government property should be able to be resolved with a contractor logistics support strategy similar to the KC-10A program. The benefits of KC-10A contractor logistics support strategy is further discussed in our audit response to the Air Force in the integrated fleet support section. The use of the Boeing website to determine the exact number of potential competitors for a commercial-type acquisition of aircraft engines may not be advisable.

Non-Recurring Pricing. The Assistant Secretary commented that a fixed-price contracting approach was reasonable given the medium risk of the program integration effort. Also, the non-recurring price utilizes pricing methodology consistent with the “inherent softness” of any non-recurring engineering effort in a fixed-price acquisition.

Audit Response. The “inherent softness” of development effort “usually estimated by engineers based upon their expertise with the system” is exactly why the effort should not be fixed price because these estimates will never enable the Air Force to establish an accurate baseline price for this tanker procurement or any future sole-source procurement of tanker aircraft from Boeing.

Negotiation of Modification Price and Justification. The Assistant Secretary commented that the modification pricing was consistent with FAR Part 15.404(b) following the prescribed hierarchy in FAR Part 15.402. Also, the basis of the IDA findings was never shared with the Air Force or to the knowledge of the Air Force substantiated by any independent review.

Audit Response. The FAR clauses referenced by the Assistant Secretary relate to price analysis techniques that rely primarily on information available within the Government and not obtained from the contractor. The absence of an existing and robust commercial market for tanker aircraft and the magnitude of the program

and potential future procurements dictate the need for cost analysis to establish an accurate baseline price. We agree it is difficult to support any justification of modification costs, including the work done by IDA, that primarily use price analysis techniques and exclude the use of cost analysis of cost or pricing data supplied by the contractor, which is why we are recommending that a fixed-price contract not be used.

Statutory Authority for Modification. The Assistant Secretary used various means and assumptions to interpret congressional guidance on leasing general purpose Boeing 767 aircraft in commercial configuration to be synonymous with Boeing KC-767A Tanker aircraft.

Audit Response. We do not agree that Congress intended for Boeing 767 general-purpose aircraft in commercial configuration to be synonymous with Boeing KC-767A Tanker aircraft.

Government Audit Rights. The Assistant Secretary commented that the use of the limitation of earnings clause and independent auditors opinion was designed to protect the financial interests of the United States.

Audit Response. Neither the contract clause nor the scope of work performed by the Boeing independent auditor provide sufficient transparency to adequately protect the fiduciary interests of the Government.

DCAA Audit Responsibility. The Assistant Secretary commented that since the Air Force negotiating team primarily relied on price analysis with no requirement for detailed cost proposal audits, limited assistance from DCAA appears appropriate.

Audit Response. The price analysis techniques used by the Air Force were inadequate to determine price reasonableness for the tanker program. As previously stated, the commercial item acquisition strategy was not appropriate and the Air Force negotiating team should have obtained cost or pricing data and used DCAA.

Questionable Cost Items and Concealed Contract Costs. The Assistant Secretary maintains that the clauses including questionable items were written properly; however, the language could still be discussed with the contractor to make sure the intent was perfectly clear. Also, the term “concealed” is misleading because customers do not ordinarily audit contractor books in commercial acquisitions.

Audit Response. If the “Limitation of Earnings” clause remains in the contract, sections of the clause need to be clarified relating to realized benefits, rebates, and the \$*** million fixed amount for investment in developing the Boeing 767 GTTA aircraft that has previously been expensed by Boeing. Large commercial firms that possess buying power in a market have long collected cost and pricing data. These large commercial organizations possess power over subordinate suppliers to regularly audit their records and gain visibility into supplier operations to control the price at which it buys.

*Contractor proprietary and negotiation sensitive data omitted.

Appendix G. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
Under Secretary of Defense (Comptroller)/Chief Financial Officer
Deputy Chief Financial Officer
Deputy Comptroller (Program/Budget)
General Counsel of the Department of Defense
Director, Operational Test and Evaluation
Director, Defense Procurement and Acquisition Policy

Department of the Navy

Naval Inspector General
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)
Program Director, KC-767A System Program Office
Assistant Secretary of the Air Force (Financial Management and Comptroller)
Commander, Air Force Operational Test and Evaluation Center
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency

Non-Defense Federal Organizations

Department of Justice
Office of Management and Budget

Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Commerce, Science, and Transportation
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
House Committee on Armed Services
House Committee on Government Reform
House Subcommittee on Government Efficiency and Financial Management, Committee on Government Reform
House Subcommittee on National Security, Emerging Threats, and International Relations, Committee on Government Reform
House Subcommittee on Technology, Information Policy, Intergovernmental Relations, and the Census, Committee on Government Reform

Acting Under Secretary of Defense for Acquisition, Technology, and Logistics Comments



ACQUISITION,
TECHNOLOGY
AND LOGISTICS

THE UNDER SECRETARY OF DEFENSE

3010 DEFENSE PENTAGON
WASHINGTON, DC 20301-3010

MAR 17 2004

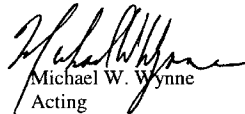
MEMORANDUM FOR DIRECTOR, ACQUISITION MANAGEMENT
DIRECTOR, CONTRACT MANAGEMENT
OFFICE OF THE INSPECTOR GENERAL, DEPARTMENT OF
DEFENSE

SUBJECT: Report on the Acquisition of the Boeing KC-767A Tanker Aircraft
(Project No. D2004AE-0063)

Thank you for the opportunity to respond to the subject draft report concerning the Boeing KC-767A Tanker lease/purchase agreement.

The program is currently under suspension pending the outcome of ongoing studies. I would like to hold my comments until these other studies are complete. I will comment on the report at that time so I am able to provide you with a more informed position.

Once again, thank you for the opportunity to respond to the subject draft report and for the significant effort your office put forth in reviewing the KC-767A Tanker program.


Michael W. Wynne
Acting



Department of the Air Force Comments



OFFICE OF THE ASSISTANT SECRETARY

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC 20330

MAR 17 2004

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL, DEPT OF DEFENSE


FROM: SAF/AQ

SUBJECT: Air Force Response to DoD IG Draft Report, "Acquisition of the Boeing KC-767A Tanker Aircraft," Project Number D2004AE-0063

Attached is the Air Force response in reply to your 5 Mar 2004 memorandum requesting the Air Force review and comment on the subject report.

The Air Force takes issue with most of the DoD IG recommendations and has identified factual errors within the report. The Air Force has also identified listed sections of the report and responses that are not publically releasable and should be marked "For Official Use Only" and/or "Boeing Proprietary."

If you require further assistance, feel free to contact my staff.


MARVIN R. SAMBUR
Assistant Secretary of the Air Force
(Acquisition)

Attachment:
Air Force Response to DoD/IG Draft Report D2004AE-0063

**Air Force Response to Office of the Inspector General, Department of Defense (DoD/IG)
Draft Report D2004AE-0063**

Executive Summary

The DoD/IG Report, "Acquisition of the Boeing KC-767A Tanker Aircraft", Project Number D2004AE-0063 responds to the Deputy Secretary of Defense tasking to review the KC-767A Tanker program for any compelling reasons why the Air Force should not proceed with the program in light of revelations in November 2003 of apparent improprieties by two Boeing executives. The DoD/IG report answer to the tasking was **NO**, there is no compelling reason why the Air Force should not proceed with the program. The DoD/IG report however, pursues a much broader scope, focusing on the Air Force's overall acquisition strategy. The Air Force non-concurs emphatically with nearly all the recommendations within the DoD/IG report. The report centers on two main themes; commercial item determination and acquisition strategy. The first theme of the report relates to the fundamental tenet of the KC-767 program's origination--that its commercial designation was rooted in legislative history. Pertinent legal precedence clearly justifies the Air Force position that the modification effort involved in the KC-767 program is minor and fits clearly within a commercial acquisition. Furthermore, market research was conducted, and a worldwide market clearly exists. The second theme of the report is the claim that the Air Force pursued an informal acquisition strategy. To the contrary, the program's acquisition strategy was dictated by Congress and approved by the Office of the Secretary of Defense (OSD). While executing the acquisition strategy, in accordance with law, the Air Force carefully reviewed and implemented applicable best practices and acquisition procedures. The Air Force fully endorses the current negotiated contract. It forms an agreement that delivers tankers to the warfighter with a fixed price, guaranteed availability, and unprecedented price protections for the government. The Air Force has fully complied with all applicable statutes and regulations, including Office of Management and Budget (OMB) circulars and the Federal Acquisition Regulation (FAR). This Air Force response logically and methodically addresses all recommendations and all aspects of the eleven issues in the report (A-1 to A-7 and B-1 to B-4).

Issue A-1: Commercial Item Procurement Strategy of the KC-767 Program

A number of the recommendations are based on the DoD/IG's assertion that the KC-767 is not a commercial acquisition and should utilize a traditional FAR Part 15 procurement approach. The Air Force disagrees and believes it has followed a legitimate legal and business approach to using a commercial item procurement strategy. A fundamental tenet of the KC-767 program's origination was that its commercial character was rooted in legislative history under Section 8159 of the Fiscal Year 2002 Defense Appropriations Act. Associated colloquies from the Senate and the House reinforce and put this legislative language in context because they clearly establish that Congress views a refueling aircraft based on Boeing's Global Tanker Transport Aircraft (GTТА) as a commercial configuration.

The DoD/IG asserts that a firm-fixed price contract type would allow Boeing to "...retain(s) all of the savings if...actual costs are lower than estimates..." However, by coupling a firm-fixed price contract with a special contract requirement that limits the contractor's maximum return on sales (ROS) to 15%, the Air Force has given the contractor maximum incentive to perform while

limiting the financial exposure. By comparison, the DoD/IG's stated preference for a mix of cost-type and fixed-price incentive (FPI) contracts would shift much of the program's cost, schedule and performance risk to the Air Force. Under a cost-type contract, the contractor's fee would be constrained to a fixed amount; however, the Air Force's overall financial risk would be greatly heightened, as ultimate risk for cost performance would be shifted from the contractor.

The DoD/IG report ignores upfront that any market research was conducted and that any worldwide market exists for any item similar to this acquisition. It fails to identify in the background the relevance of Italy and Japan sales in an emerging market based upon a GTTA. The DoD/IG report ignores or fails to mention that Boeing has been investing money in the GTTA over many years prior to the identification of a KC-767 acquisition. The DoD/IG report also does not recognize the relevant and significant air freighter market and the demand for used aircraft by the commercial industry conducting air freighter operations.

The Air Force asserts that the DoD/IG has missed the commercial item determination natural logic trail and has misapplied the FAR and OSD/AT&L guidance. A detailed explanation and complete analysis of the program's commerciality determination is provided under the full Recommendation A-1 response later in the Report.

Issue A-2: Green Aircraft Price

The DoD/IG suggests that an item's commercial item exception is somehow tied to whether or not the item's manufacturer provided information on the prices of same or similar items that had been sold in similar quantities. The Air Force is unaware of any regulatory guidance, which would support such a position. In fact, the regulatory exception to providing cost or pricing data in this case is found at FAR 15.403-1(b)(3), which essentially states that the contracting officer shall not require submission of cost or pricing data to support any action when a commercial item is being acquired. The Air Force believes it has correctly established the item in question is, in fact, commercial, and therefore the exception in FAR 15.403-1 applies. Furthermore, assertions made in the DoD/IG report that green (unmodified) aircraft prices could be significantly lower are flawed. Recognizing and accounting for technical aspects of the green aircraft and a reasonable marketplace discount is crucial in assessing the accuracy of the green aircraft price. The Air Force believes the DoD/IG incorrectly represents treatment of these factors, which adds to the impression that the Air Force utilized an inflated green aircraft price in the development of its overall KC-767 aircraft price.

Issue A-3: Non-Recurring (Development) Costs

The DoD/IG report mischaracterizes non-recurring effort as development effort and erroneously characterizes medium risk integration effort as high-risk development. Much of the development for this acquisition has taken place over the last decade under the leadership of Boeing to make available a tanker version of the Boeing 767 on the commercial market. Given the medium risk of the program integration effort, the Air Force contends that a firm-fixed price (FFP) contracting approach is reasonable and maintains that it relied upon and complied with the FAR guidance in its price analysis.

Issue A-4: Aircraft Modification Costs

The DoD/IG recommends the Air Force not use a fixed-price contract for modification of the KC-767 Tanker aircraft. The use of a FFP contract is consistent with the risks of the KC-767 commercial item acquisition. The Air Force believes the DoD/IG has overstated the amount of developmental effort and risk associated with kit option integration, not modifications. Kit options primarily reflect commercial items and the majority of this program's non-recurring effort is in kit option integration.

The DoD/IG report also contends that the Air Force requires additional congressional authority to modify the general purpose (leased) Boeing 767 into a military tanker configuration. The Air Force believes, however, that based on complete reading of the FY02 Appropriations Act and the FY04 National Defense Authorization Act (NDAA), the Air Force has clear authority to lease 20 and procure 80 Boeing 767 aircraft in a tanker configuration.

Issue A-5: Limitation of Earnings and Termination Clauses

DoD/IG asserts a role for the Defense Contracting Audit Agency (DCAA) that is inconsistent with commercial practice. There is no requirement that DCAA be used to audit the ROS limitation in the KC-767 contract and ensure the 15% cap is not exceeded. Moreover, the DoD/IG ignores the fact that this is a FAR Part 12 contract and, as such, the Boeing business areas supporting this effort are Generally Accepted Accounting Principle (GAAP) compliant, but not necessarily Cost Accounting Standards (CAS) compliant and are not open to Government audit. The DoD/IG contends the Limitation of Earnings (LOE) clause would allow "...Boeing to include questionable items in its costs, such as cost reduction initiative savings and engine manufacturer credits or rebates." The Air Force disagrees with the DoD/IG and maintains the clause is written properly.

Issue A-6: Integrated Fleet Support (IFS)

The Air Force disputes the DoD/IG's position and believes there is sufficient information available to establish fair and reasonable prices using price analysis to acquire commercial items/support under the proposed fixed price contract. Air Force developed an approach that compared Boeing's IFS concept to other similar support systems (KC-10, C-32 and C-17) to assess a fair and reasonable price. The Air Force disagrees with the DoD/IG's recommendation that the Air Force did not perform appropriate benchmarking of "performance aircraft availability" (PAA). While benchmarking is a sound practice, there is simply no similar metric in use to benchmark against. PAA will provide an effective means by which contractor performance in support of the warfighter's requirements can be quantified, assessed, and rewarded. The Air Force disagrees with the DoD/IG's statement that the 10-year program limitation applies to the lease contract. This limitation applies to the multiyear procurement authority in subsection (b) of Section 135 and not to the lease contract authority under subsection (a).

Issue A-7: Operating Lease

The DoD/IG claims that the lease of 20 aircraft does not meet three of six criteria requirements for an operating lease as described in OMB Circular No. A-11. However, OMB as the author, curator, and arbiter for the circular, determines compliance with the statutory guidance. The Deputy Director of OMB testified at a hearing by the Senate Armed Services Committee on 4 September 2003 that the proposed aircraft lease met the operating lease criteria contained in the circular. Furthermore, the DoD lease panel fully reviewed the lease arrangement and agreed to the compliance with OMB Circular A-11. The DoD/IG has substituted its judgment for that of the OMB.

Issue B-1: Acquisition Strategy

The DoD/IG recommendations are contradictory when analyzed collectively, giving no recommended single path forward. The Air Force recommends that Department of Defense proceed with a sole-source acquisition of the Boeing KC-767 tanker aircraft as mandated by Congress and reviewed and improved within the Department using approved acquisition processes. The Air Force followed a formal acquisition strategy as dictated by Congress and the DoD and complied with FAR, statutes, and common commercial practices.

Issue B-2: Systems Engineering

The DoD/IG claims the Air Force has not fully developed system-engineering requirements. The KC-767 System Program Office (SPO) has pursued a systems engineering approach to ensure delivery and maintenance of an operationally suitable, safe, and effective aircraft system to the warfighter, optimizing total system performance while minimizing total ownership costs. The KC-767 aircraft will be Federal Aviation Administration (FAA) type certified, to include providing verification of a 40-year service life capability. The aircraft will be built utilizing best commercial aircraft manufacturing processes, procedures, and material selections, and the planned maintenance approach that clearly address addresses corrosion prevention, the planned service spectrum, and the operational environments of the KC-767. The first six ORD key performance parameters (KPP) are fully documented in the KC-767 system specification. The aircraft will be maintained utilizing an FAA approved maintenance approach that addresses service life including corrosion prevention and control. KC-767 SPO is continuing to develop applicable interoperability and information assurance requirements to satisfy the warfighter's C4I supportability, information security, and interoperability exchange requirements (IER) to meet the IER KPP in spiral 1.

Issue B-3: Operational Requirements Document

The Air Refueling Aircraft (ARA) ORD was written by, and documents the needs of the warfighter. The same vigorous process that approved the MNS generated the ORD. The ORD was staffed through the Joint Requirements Oversight Council (JROC). This process includes an O-6 and Flag-level review of the ORD by all services and the combatant commanders. The JROC ensures the warfighters' requirements and all required KPPs are met in the first spiral. The JROC reviewed and approved the ORD in July 2002.

This intense joint service scrutiny of the required capabilities produced the ORD with spiral development. Spiral developments do not need to be delivered with the first aircraft and should not be in the contract at this time. There are sound reasons for the ORD spiral evolution methodology, which fully complies with DoD policy on the issue. An acquisition strategy based on a commercial derivative aircraft must incorporate affordability, commercial availability, system integration effort required, relative importance of current and future requirements, and many other factors. The lease, which provides air-refueling capability quickly to the warfighter, precludes the inclusion of some secondary capabilities that exist in sufficient amounts in legacy tanker systems. These capabilities will be captured later through spiral development.

Issue B-4: Testing

Counter to the DoD/IG's arguments, the Air Force has every intention to comply with Title 10, United States Code as it applies to the KC-767 program. Due to the program pause levied on 1 December 2003 by the Deputy Secretary of Defense, the Air Force has not had the opportunity to continue development or resolution of issues arising from 2004 NDAA. The Air Force will continue to work within the Department of Defense to resolve test and evaluation issues using the normal Overarching Integrated Product Team and Defense Acquisition Board process.

Importance of the Negotiated Agreements

The DoD/IG report ignores the historical context of agreements reached along the way with OSD, OMB, Government Accounting Office (GAO), and senior leadership within the Department. The Air Force included observations from various agencies and groups to navigate a path perceived by all groups as a fair representation of the acquisition situation reflecting the required critical thinking to assess the viability of this acquisition. If the DoD/IG finds fault with these bases, they need to first address these with the individual agencies and groups. Each organization was part of an evolutionary process that built to the final strategy over time. The Department of Defense and the Air Force have not navigated this path before, so the Air Force included the critical thinking of all relevant parties.

The DoD/IG report ignores the historical context of the business agreement. Specifically, the deal includes aircraft price, support price, training price, a credit for engineering studies, warranty, unique terms to include Return on Sales, Most Favored Customer, and PAA, and financing. This works hand and glove with how the deal fits together. Aircraft performance is tied to a PAA measurement, warranty, design, and continued acceptance of aircraft to incentivize production of the best aircraft. The DoD/IG report fails to establish upfront that this was an acquisition strategy developed by the Air Force early on in the fact-finding and negotiation process to craft a whole solution. The DoD/IG report eventually attacks this strategy without providing the required framework of facts and how the Air Force applied its judgment to assess the appropriateness of this approach. The whole solution provides price flexibility in the pieces and provides business synergy in making sure the system performs as required. The DoD/IG finds the risk inherent in this new approach unacceptable compared to more traditional approaches without establishing the basis upfront for how to discuss the risks and different approaches.

Conclusion

The Air Force factually disagrees with nearly all of the DoD/IG's findings and recommendations. The Air Force fully endorses the program and looks forward to contract signature and eventual delivery of aircraft. The Air Force has an urgent and compelling need to start recapitalization of the KC-135 tanker fleet as soon as possible. The average age of the KC-135 aircraft fleet is over 43 years old and will most likely take 30 years or more to replace. The global war on terrorism and a heightened steady state of homeland defense have spotlighted our reliance on these critical refueling and combat enabler assets. This reliance and the advanced age of the nation's air refueling aircraft fleet only fuel Air Force's urgency for tanker recapitalization. To kick start tanker recapitalization, Congress mandated the Air Force pursue a multi-year aircraft lease pilot program to procure Boeing 767 tanker aircraft. In compliance with the law and rulings by the OMB, plus direction and oversight from the Department of Defense, the Air Force entered negotiations with Boeing for contracts to lease 20 and buy 80 KC-767 tanker aircraft. The contract includes three significant and linked elements; procurement, maintenance and training. The contract also includes a warranty and unique contract terms to include Return on Sales, Most Favored Customer, Performance Aircraft Availability, and financing. Collectively, they form an agreement that delivers tankers to the warfighter with a fixed price, guaranteed availability, and unprecedented price protections for the government. It is in the best interest of the government to maintain the currently negotiated contracts and protect the aircraft delivery schedule so that tanker recapitalization can begin in 2007. The KC-767 tanker offers an affordable path to rapidly deliver superior capability to our warfighters. The KC-767 will be the world's newest and most advanced tanker, an important capability critical to the defense of our country.

1. Recommendation and Responses: The subject report provides 11 recommendations (A-1 to A-7 and B-1 to B-4). These recommendations are listed below with the Air Force responses.

a. Issue A-1. Commercial Item Procurement Strategy

DoD/IG Recommendation A-1: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics discontinue the commercial item procurement strategy for the Boeing KC-767A Tanker Program and replace with a strategy that will use cost or fixed-price incentive contracts that would require Boeing to provide cost or pricing data as appropriate.*

Air Force Response: **Nonconcur**, the Air Force disagrees with DoD/IG Recommendation A-1. A fundamental tenet of the KC-767 program's origination was that its commercial character was rooted in legislative history. Section 8159 of the Fiscal Year 2002 Defense Appropriations Act explicitly authorized the Air Force to include, "terms and conditions...that are **customary** in aircraft leases by a **non-Government** lessor to a **non-Government** lessee..." [emphasis added]. Furthermore, Section 8159 granted the Air Force authority to "...establish and make payments on a multi-year pilot program for leasing general purpose Boeing 767 aircraft...in **commercial** configuration." Associated colloquies from the Senate and the House reinforce and put this legislative language in context because they clearly establish that Congress views a refueling aircraft based on Boeing's GTTA as a commercial configuration. The Air Force's responses to DoD/IG's more specific comments are as follows:

Use of Commercial Item Procurement Strategy – The DoD/IG write up contends the KC-767A contracting officer (CO) and cost analyst stated that Air Force management strongly encouraged them to examine the use of a commercial item procurement strategy. This is incorrect. In fact, senior Air Force management instructed the KC-767 team to **investigate** a commercial item approach and utilize such a strategy if possible. The team's investigation concluded that such an approach was viable.

Commercial Item Determination - The write up quoted a section of the Contracting Officer's Commercial Item Determination and Finding (D&F) and discussed the Air Force position, which supported the D&F. In short, the DoD/IG narrative dismissed the Air Force position and indicated that two of the cited Comptroller General decisions, Premier and Canberra "...have no relevance to the argument to classify the Boeing KC-767 Tanker aircraft as a commercial item." The Air Force disagrees.

The DoD/IG narrative states that the Premier Engineering and Manufacturing, Inc and Canberra Industries decisions discussed the issue of commercial item determinations, based on a minor modification of a type customarily available in the commercial marketplace. That is not accurate and improperly mixes two different commercial item definitions, explained below. The Premier decision explicitly determines whether the addition of an auxiliary engine to a single engine deicer is a minor modification, and explicitly cites the minor modification test at FAR 52.202-1(c)(3)(ii). The decision further states that the agency and intervener in the case (as well as the board) noted that the engine addition was both a minor modification, and a modification customarily available in the commercial market. Likewise, Canberra determines whether the

software modification to a pedestrian monitor does not alter the function or the physical characteristics of the monitor such that the modification is minor. The analysis focuses on whether the modification is minor, and is the basis of the decision. In sum, these decisions are relevant, and support the Air Force's commercial item determination. Finally, the fact that the procurements that were the subject of these decisions were competitive is irrelevant to the application of the minor modification test at FAR 2.101(3)(ii)(commercial item definition).

Furthermore, the FAR states under the definition of commercial item, at 2.101(3)(ii), that dollar values may be used as guideposts, but are not conclusive evidence that a modification is minor. Another factor to be considered is the value and size of the modification and the comparative value and size of the final product.

The DoD/IG narrative's characterization of the issue discussed in the Comptroller General opinions inaccurately mixes two commercial item concepts:

(1) that a commercial item can meet the commercial item definition at FAR 2.101(1) or (2), but for modifications of a type customarily available in the commercial marketplace, and

(2) that a commercial item can meet the FAR 2.101(1) and (2) definitions but for "minor modifications of a type not customarily available in the commercial marketplace made to meet federal government requirements".

The DoD/IG contends that the modification is not minor based on cost and complexity of the modification. The narrative makes a comparison of the modification to the green aircraft. This comparison is not consistent with the comparison set forth at the FAR definition at 2.101(3)(ii), which compares the modification's value and size with the value and size of the final product. Based on the correct comparison, the modification is approximately **.5 of the value of the final product. The modification further does not significantly alter the aircraft's nongovernmental function (still to transport people and cargo by air – tanker aircraft often transport people, and aircraft fuel is cargo), and does not significantly alter the aircraft's essential physical characteristics. The DoD/IG narrative in effect concludes that the modification is major because it is costly, which is inconsistent with FAR 2.101(3)(ii) of the FAR commercial item determination, which calls for comparison of the modification's value to the final product's value. It further concludes it is major because it is complex and extensive. This is inconsistent with the *Sprint Communications* case cited on page 8 of the draft DoD/IG report, which explicitly stated that the aggregate complexity of the alteration was not a factor distinguishing major from minor modifications.

Military Tanker Not a Commercial Item – The DoD/IG asserts that the "...CO, in the determination and finding for the Boeing KC-767 Tanker aircraft, inappropriately determined that modifications of the Boeing 767 were minor **and** of a type customarily available in the commercial marketplace..." [emphasis added]. This is factually inaccurate. The CO determination, which was partially repeated in the DoD/IG report, maintained that the item would satisfy FAR 2.101(1) or (2) except for "minor modification of a type not customarily available in the commercial marketplace made to meet Federal Government requirements".

As noted in the response to the Commercial Item Determination section above, there is pertinent legal precedence that clearly justifies the Air Force position that the modification effort involved in the KC-767 program is minor, and is fully consistent with the Sprint Communications case discussed above. Second, the DoD/IG assessment of the Air Force commercial determination was mistaken since the determination actually refers to minor modification of a type not customarily available...not minor **and** of a type customarily available... [emphasis added]. The DoD/IG assessment goes on to include portions of a USD/AT&L letter dated 5 Jan 01 in an effort to argue that the KC-767 tanker program did not meet the intent of the commercial item definition "of a type". This, too, is an error. The guidance cited refers to the definition in FAR 2.101(1) where it refers to any item that is "of a type" customarily used for nongovernmental purposes. The guidance makes clear its intent to ensure that acquiring departments were not using the "of a type" language to broaden the definition to military unique items not closely related to items already in the marketplace. The Air Force agrees; however, that is not the case here. The Air Force's case is built upon the premise that the KC-767 aircraft would be a Boeing 767 aircraft (thus meeting the definition of FAR 2.101(1)) except for the minor modification of a type not customarily available (i.e., the tanker modification). In sum, we believe the DoD/IG has missed the Air Force's commercial item determination logic and misapplied FAR and OSD/AT&L guidance.

The DoD/IG argues that the DoD Appropriations Act for FY2002 and the National Defense Authorization Act for FY2004 did not waive the commercial item provisions under the Federal Acquisition Streamlining Act (FASA) and commercial-derivative tanker aircraft are not covered as commercial items under FASA. This argument fails because the assertions made to support it are erroneous.

Specifically, the DoD/IG report states that, "Section 8001 of FASA defined a commercial item as items that have been sold, leased, or licensed to the general public to include nondevelopmental items developed exclusively at private expense that have been sold in substantial quantities on a competitive basis to State and local governments." In fact, Section 8001 of FASA also defines a commercial item as any item that would have met such a definition, but for minor modifications made to meet Federal Government requirements. This language is much the same as that in FAR 2.101(3)(ii), the basic premise of the Air Force's commercial item determination.

The DoD/IG report also argues "Section 5064 of FASA characterizes upgraded aircraft for use in meeting tanker requirements as commercial-derivative aircraft rather than as commercial items." This argument is only partially accurate. While tanker aircraft may be characterized as commercial-derivative aircraft, this does not mean they are not commercial items. In fact, Section 5064 definitions of a commercial-derivative aircraft are virtually identical to the definitions of commercial items at Section 8001 and track to the definitions of a commercial item in FAR 2.101(1) and (3).

Finally, the DoD/IG states that, "FASA and its legislative history in Senate Report 103-258, May 11, 1994, clearly intended that commercial items be non-developmental." In reviewing the Act and the legislative history, the Air Force cannot find any language to suggest such an assertion and therefore, disagrees. The intent appears to be an encouragement of the use of commercial items to meet government requirements. If commercial items are not available, the law

encourages the use of other non-developmental items to meet government requirements, versus procuring goods developed to unique government specifications.

Commercial Market Does Not Exist – The DoD/IG assessment asserts that the Air Force’s own commercial item determination states that a commercial market for the KC-767A aircraft “...did not currently exist.” The report then went on to contradict itself by inserting a portion of the Air Force commercial item determination which stated, “Tanker aircraft, of whatever type, are not presently **customarily used** by the general public...” [emphasis added]. Moreover, OSD General Counsel (OSD/GC), in conferring with the Air Force during preparation for the OSD Lease panel in 2002, concluded “Although that market (international tanker market) is made up entirely of foreign governments, rather than private companies, the existence of a market outside the US Government is sufficient to establish that 767 tankers are in commercial configuration.” That market obviously exists as identified by sales of the GTTA to Italy, Japan and the recent competition between Boeing and Airbus for British tanker requirements.

Further research has revealed that although some number of KC-767 aircraft may be sold and flown without modification as tankers in another country or to one of the civilian firms providing air-refueling services like Omega Air and AirTanker, they certainly can be sold as a cargo aircraft. In the world cargo aircraft market alone, Boeing expects the freighter fleet to increase by 75%, from 1775 aircraft to 3078 aircraft by 2021. Currently, wide body cargo aircraft, including 767s, comprise almost 40% of the world’s cargo aircraft.

Fixed-Price Contract Type – The DoD/IG argues that using a commercial item strategy requires the Air Force to use a FFP contract. They go on to argue that the use of a FFP contract creates a high-risk procurement strategy versus a more appropriate cost and fixed price incentive approach. The Air Force disagrees. The DoD/IG asserts that a FFP contract type would allow Boeing to “...retain(s) all of the savings if...actual costs are lower than estimates...” By coupling a FFP contract with a special contract requirement that limits the contractor’s maximum ROS to 15%, the Air Force has given the contractor maximum incentive to perform while limiting the Air Force’s financial exposure. By comparison, the DoD/IG’s stated preference for a mix of cost-type and fixed-price incentive contracts would shift much of the program’s cost, schedule and performance risks to the Air Force (these are risks that the contractor has been willing to assume). Under a cost-type contract, the contractor’s fee would be constrained to a fixed amount; however, the Air Force’s overall financial risk would be greatly heightened, as ultimate risk for cost performance would be shifted from the contractor. Also, under an FPI contract, the contractor’s ROS could theoretically exceed 15% in an under run scenario.

Truth in Negotiation Act – The DoD/IG assessment includes a tutorial on TINA and the benefits to the use of certified cost or pricing data. The Air Force recognizes TINA and its use in sole-source, FAR Part 15 acquisitions. However, there is adequate justification for the use of a FAR Part 12 strategy wherein TINA would not apply.

b. Issue A-2. Green Aircraft Price

DoD/IG Recommendation A-2a: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics require Boeing to provide cost or pricing data for the*

Boeing 767-200ER aircraft unless it receives a commercial item exception because it provided information on the prices of same or similar items that had been sold in similar quantities.

Air Force Response: **Non-concur.** The DoD/IG erroneously suggests that an item's commercial item exception is somehow tied to whether or not the item's manufacturer provided information on the prices of same or similar items that had been sold in similar quantities. The Air Force is unaware of any regulatory guidance that would support such a position. In fact, the regulatory exception to providing cost or pricing data in this case is found at FAR 15.403-1(b)(3), which essentially states that the contracting officer shall not require submission of cost or pricing data to support any action when a commercial item is being acquired. The Air Force believes it has correctly established the item in question is, in fact, commercial and therefore the exception in FAR 15.403-1 applies.

Commercial Item Exception from Cost or Pricing Data – The DoD/IG asserts the Air Force Negotiating Team (AFNT) "...did not obtain cost or pricing data on the "green aircraft" even though Boeing did not provide data on prior commercial sales to establish price reasonableness." The DoD/IG further observed that the AFNT "...deviated from the regulatory commercial item procurement strategy when Boeing was not obligated to submit cost or pricing data and did not provide appropriate information on the prices at which Boeing had previously sold the same or similar aircraft to support a commercial item exception for the green aircraft." In sum, the DoD/IG has taken the position that the Air Force deviates "from the regulatory commercial item procurement strategy" because it did not include FAR 52.212-20 and require the submission of prior commercial sales of the same or similar item. In fact, the DoD/IG does not portray the relevant regulatory treatment or give consideration to the AFNT's legitimate and FAR compliant approach to building an adequate pricing database with which to negotiate.

First, the prescription clause (FAR 15.408(l)) for FAR 52.212-20 says, "Considering the hierarchy at 15.402, the contracting officer **may** insert the provision at 52.212-20...in **solicitations** if it is reasonably certain that cost or pricing data or information other than cost or pricing data will be required." [emphasis added]. The clause in question is a solicitation provision and the contracting officer has latitude for its use when building the pricing case to support the reasonableness of offered prices. Moreover, it should be noted that the product in question was already determined to meet FAR criteria for exception from cost and pricing data; therefore FAR 52.212-20 had no reasonable application.

Secondly, as will be further described below, the AFNT complied with pricing policy in FAR 15.402 which requires the contracting officer to obtain no more information than is necessary in collection of data to support the determination of pricing reasonableness. Moreover, that data should be collected in the following manner: (a) relying on information available within the Government, (b) relying on information from sources other than the offeror, and (c) if necessary, relying on information from the offeror.

Finally, since the DoD/IG has made an issue of the fact that pricing for which the same or similar items have been previously sold was not obtained, it should be noted that this information was actually requested of Boeing and the AFNT was advised that existing marketplace agreements restricted the release of such information. The AFNT reasoned that even if Boeing would

provide generic green aircraft sales information, there would be no way to validate the data. As noted later in the DoD/IG's report describing the Institute for Defense Analysis' (IDA) estimate of green aircraft, "...most aircraft transactions are made opaque by **bilateral confidentiality agreements**, where both **the manufacturer and the customer agree not to reveal the terms or price** of a given sale." [emphasis added]. Simply put, the DoD/IG's own report points out the practical impossibility of carrying out the direction in a discretionary FAR clause the DoD/IG maintains the Air Force should have used to obtain previous sales data.

Reliability of Baseline Price – The DoD/IG asserts that the AFNT did not have sufficient information without Boeing cost or pricing data or complete information on Boeing prior sales to calculate an accurate price for the "green aircraft." Air Force non-concurs. The AFNT complied with FAR direction in the assessment and calculation of a green aircraft price. Specifically, the AFNT utilized six approaches prescribed for use in FAR Part 15.404(b) following the prescribed hierarchy identified in FAR 15.402.

- (1) Catalog price with customer discount
- (2) Appraisal valuations of similar one-year old aircraft
- (3) Marketplace data
- (4) Industry data about the marketplace
- (5) Single variable (weight) price parametric using DCMA accumulated data
- (6) Multiple variable price parametric using DCMA accumulated data

First, the AFNT obtained data from DCMA (Defense Contract Management Agency) on the weight and price of commercial aircraft; namely, the RJ-100, B737-300F, B737-700, MD-83F, B757-200PF, A310-300F, A300-600F, B767-300F, MD-11F, and B747-400F. The AFNT then obtained similar data from DCMA on military aircraft; namely the C-130H, FLA-25MT, C-141A, C-17, C-5B, C-23A, CN-235M, and C-27A. Finally, the AFNT obtained data from DCMA on weight, speed, range, fuel, and price of the KC-130T, KC-130F, C-160, KV-22, KC-135R, KC-10, KDC-10, L1011-500T, A310-XF, A330-200F, A310-300F, and the B767-200ERF.

Second, the AFNT obtained data from outside the government. This included some uncertain marketplace data obtained from internal government sources with access to commercial market expertise regarding past aircraft purchase prices and current aircraft resale values that the AFNT could not otherwise validate, a discussion with the vice president of a major airline, and appraisals from four widely recognized aircraft appraisal firms.

Third, the AFNT requested sales data from Boeing. As explained above, Boeing refused to provide the data. Boeing's Vice President of BCA Marketing and Plant Manager explained the basis of the business case analysis (BCA) price for the green aircraft. The AFNT also engaged Boeing in a lengthy discussion about the assessment of a customer discount from the listed catalog price on the Boeing website.

Fourth, the green aircraft price is well within the fair and reasonable price range. The DoD/IG report asserts that the range is so wide (because the AFNT did not obtain cost or pricing data) as to be meaningless or certainly unreliable, i.e., there is no confidence in any price within the

identified price range. This ignores the contribution of numerous data points to include IDA. The AFNT maintains that the price range is best described in the middle to high \$**, not \$**- \$***. The price range risk is mitigated by a Most Favored Customer provision, which provides a rebate for any similar aircraft sold for less. The price range risk is also mitigated by a Return on Sales provision, which provides a rebate for any earnings greater than 15%.

Finally, assertions made in the DoD/IG report that the green aircraft price could be significantly lower are based in part upon two flaws in presentation. One, the prices identified in the IDA study (from the Airline Price Guide as part of the study and as referenced by the DoD/IG report) are for a Boeing 767-200ER. This completely misses the technical aspects of the -300, -400, or freighter that are incorporated into the B767-200C minor model (the actual green aircraft upon which the KC-767 is based). The B767-200C is a -200ER in name and outward appearance only. It contains significant additional features such as a digital cockpit, heavier duty landing gear, and larger auxiliary power unit (APU) that are unlike a -200ER. These features have a significant price impact. The price of a -400 is significantly higher (**; \$*** -400 catalog * / \$106 -200 catalog *). If the \$**.* price for a -200ER identified by the Airline Price Guide were increased just ** to compensate for these added -200C features, the price would be \$**.*. This exceeds our considered negotiated amount of \$**. Two, the Air Force would like to emphasize a point the DoD/IG report only includes as a footnote in Table 4 of the report. The Air Force is unaware of any customer discounts offered to the commercial marketplace that exceed **%. This is based upon discussions with the vice president of finance for a major airline and general observations from other aviation negotiation experts at Babcock & Brown and Vedder-Price. In sum, recognizing and accounting for technical aspects of the green aircraft and a reasonable marketplace discount is crucial in assessing the accuracy of the green aircraft price. The Air Force believes the DoD/IG incorrectly represents treatment of these factors, which adds to the impression that the Air Force utilized an inflated green aircraft price in the development of its overall KC-767 aircraft price.

DoD Recommendation A-2b: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics negotiate prices for engines directly with the engine manufacturers.*

Air Force Response: **Non-concur.** The Air Force believes that negotiating for engines directly with the intent to provide them as Government Furnished Property (GFP) overlooks the benefits of acquiring them through the aircraft original equipment manufacturer (OEM) and complicates the commercial acquisition by introducing numerous external variables.

Aircraft Engine Prices – The DoD/IG report notes that the AFNT did not negotiate engine prices directly with the engine manufacturers and points out that a vice president for a major airline advised the AFNT that "...a purchaser would likely expect to do better by buying engines...somewhere else." Also, the DoD/IG notes that IDA maintains purchasing engines directly is a standard commercial practice and that there currently are three defense contractors that manufacture engines used on Boeing 767 aircraft.

A review of Boeing's public website reveals that there are three contractors that manufacture engines for the family of 767 aircraft; however, there are only two that provide engines for the

767-200 model. Further, while the DoD/IG statements on how airlines buy engines and furnish them to the aircraft OEM is essentially correct, the Air Force is unsure of how such a superficial review would result in this recommendation and believes this approach is problematic in several respects. For example, all of the following items should be and have been considered in making a determination to buy engines direct or through the aircraft OEM.

(1) When the airlines buy engines from the engine manufacturer they typically have an established long-term relationship with associated preferential discounts and get repeat customer preferences, etc. The Air Force does not have that relationship for the engines likely to be used on the KC-767, nor do we have a maintenance or engineering infrastructure. The Propulsion System Program Offices would help in such a determination, etc., but that is not the same as having resident design expertise.

(2) As Buyer Furnished Equipment, the government would assume all responsibility for integration issues, risks and problem resolution with the engine OEM, since Boeing would not have that relationship. The Air Force currently does not have the right necessary personnel to accept FAA certified engines, nor the process to maintain FAA certification for the engines.

(3) There would be split responsibility for configuration control (Government on engines and Boeing on aircraft), service action compliance, etc., or we would be paying Boeing to do that for our engines in addition to the airplane.

(4) The typical airline builds its own operators manual and maintenance manual for the airplane. The Air Force would not only have to pay for the manuals from the engine manufacturer but then also pay to integrate appropriate information into the Boeing built manuals and pay Boeing for updates. Additionally, every time the engine contractor publishes a change we would be paying the engine contractor for the change and then Boeing to incorporate it in our manual.

(5) We would assume the role and risks as integrator since the engines would be GFP. This role is inconsistent with the overall acquisition strategy to contract for the lease and support of KC-767 aircraft and begins to shift performance risk away from Boeing. As well, when we do modifications like self-defense, etc., the Air Force would be paying for duplicative analysis efforts by both the engine manufacturer and Boeing. It also complicates warranty issues where engine aircraft interfaces are an issue. Key to understanding this complication is the fact that, unlike commercial airlines, the Air Force does not have a FAA approved maintenance organization. As a result, the Air Force is dependent upon a contractor (Boeing in the case of the KC-767) to provide maintenance support and would be administering a warranty without control over numerous vendors actually working on the aircraft.

(6) There would also be the extra costs of associate contractor clauses, data licenses and government contract administration clauses, not to mention additional SPO manpower requirements.

(7) Air Force acquisition of engines would introduce an additional variable that potential investors would have to account for in the upcoming lease transaction.

c. Issue A-3. Non-Recurring Price

DoD/IG Recommendation A-3: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics not use a fixed-price contract for development of the Boeing KC-767A Tanker aircraft and obtain cost or pricing data from Boeing to determine fair and reasonable prices for the Boeing 767A Tanker aircraft development work.*

Air Force Response: **Non-concur.** The DoD/IG report mischaracterizes non-recurring effort as development effort. Much of the development for this acquisition has taken place over the last decade under the leadership of Boeing to make available a tanker version of the Boeing 767 on the commercial market. Care should be taken not to confuse drawing changes pursuant to integrating technology with the development of new technology.

The DoD/IG report erroneously characterizes medium risk integration effort as high-risk development. During an Integrating Integrated Product Team meeting with senior Air Force leaders, the KC-767 was identified as medium risk effort. KC-767 SPO experts have identified this acquisition as largely integration of existing technology citing that much of what is being identified as a military modification is better defined as integration of existing commercial technology that will meet Air Force mission requirements. In other words, the features most unique to this acquisition and those that make the aircraft a tanker already exist for the most part. Examples include the auxiliary tanks, which are incorporated into many platforms to include the C-17, the Remote Aerial Refueling Operator (RARO) station, introduced on the KDC-10 a decade ago and the air refueling boom technology, which has been incorporated onto the KC-135 and KC-10 and is available from four industry sources, and is provided to foreign countries. The relevant developmental non-recurring can be attributed to software, RARO update and Link 16 and are estimated to cost around \$***, not \$*. Much of the GTTA non-recurring price is profit, financing, and FAA certification, which should not be characterized as “development” costs.

Non-Recurring Pricing – Given the medium risk of the program integration effort, a FFP contracting approach is reasonable and maintains that it relied upon and complied with the FAR guidance in its price analysis. Specifically, the assessment and calculation of non-recurring price utilized approaches prescribed for use in FAR Part 15.404(b) following the prescribed hierarchy in FAR Part 15.402.

The DoD/IG report mischaracterized the AFNT non-recurring assessment as nothing more than segregation of a total sum of money. The total sum, whether segregated or not, ignores consistency in amount with Italy. There was a significant difference in presentation of non-recurring costs between Italy and Air Force acquisitions, but Boeing attributed that to increasing maturity of the fulfillment of the requirements. The AFNT represented the non-recurring by segments for ease of presentation. The basis of the total amount and the segments was assessed as follows:

First, the AFNT utilized in-house data from the KC-10 and Advanced Tanker Cargo Aircraft (ATCA) source selection process as historical sanity checks.

Second, the AFNT utilized information outside the Government from the GTTA non-recurring presented to Italy as a basis for assessing the general aircraft non-recurring. There were significant differences in presentation and composition of GTTA non-recurring. GTTA non-recurring presented to Italy did not incorporate profit or financing, as they were the subjects of other parts of the Italian deal. The AFNT established profit at 15% reflecting the medium risk of the effort. Financing reflects a modest 9% internal rate of return (IRR). The AFNT assessed that GTTA non-recurring understates recent FAA certification experience on the C-130J, which would increase the non-recurring amount by hundreds of millions of dollars.

Third, the AFNT utilized detailed information developed with Boeing. General non-recurring price assessment utilized a detailed buildup considering drawing counts by area, e.g., avionics, cost estimating relationships that provide hours per drawing type, using labor rates identified as suitable by the AFNT with DCMA assistance, quotes, and engineering estimates. Air Force unique non-recurring price assessment utilized a detailed buildup as identified above, quotes, engineering estimates, and five recent program budget estimates for Link 16 incorporation.

The non-recurring price utilizes pricing methodology consistent with the inherent softness of any non-recurring engineering effort in a FFP acquisition. Most of the FFP acquisitions include non-recurring and modest development, e.g. F-16 block changes, C-130 peculiarities and avionics upgrades. Non-recurring in this context is usually estimated by engineers based upon their expertise with the system, which is what we have relied upon here for significant portions of the KC-767 non-recurring assessment. The effort is normally not separated into a reimbursable line item. In sum, the DoD/IG has confused an acquisition strategy used for the development of a new platform with our acquisition where the primary effort reflects integration issues.

d. Issue A-4. Aircraft Modification Costs

DoD/IG Recommendation A-4a: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics not use a fixed-price contract for modification of the Boeing KC-767A Tanker aircraft and obtain cost or pricing data from Boeing to determine a fair and reasonable price for the Boeing 767A Tanker aircraft modification work.*

Air Force Response: **Non-concur.** The kit options are an integral part of the effort to deliver a KC-767 aircraft as contemplated in the Multiyear Aircraft Lease Pilot Program as defined in Section 8159 of the Fiscal Year 2002 Defense Appropriations Act and Section 135(d) of the National Defense Authorization Act for FY 2004. The use of FFP contract is consistent with the risks of the KC-767 commercial item acquisition. The Air Force believes the DoD/IG has overstated the amount of developmental effort and risk associated with kit option integration. As described below, the kit options primarily reflect commercial items. The majority of this program's non-recurring effort is in kit option integration.

Negotiation of Modification Price and Justification - As noted above, DoD/IG mischaracterizes kits as modification effort ignoring the substance or extent of the modification required for those kits to be integrated into this tanker. Each of the kits has been significantly developed before for

other program applications to include the KC-135, KC-10, KDC-10, C-17 and C-32. Prior kit development to be integrated includes:

- Core tanker kit installs four off-the-shelf aerial-refueling pumps
- Convertible kit incorporates floors and doors currently used in other Boeing commercial aircraft and passenger barriers using commercial systems
- Boom and RARO is based upon a GOTS KC-135 boom with fly-by-wire technology similar to KC-10/KDC-10 technology using F-16 series flight control systems
- Situational awareness kit utilizes COTS cameras
- Aerial refueling lighting kit is NDI, installing commercial off-the-shelf lighting similar to the KC-135, KC-10, and KDC-10 using lighting designs that are similar to aircraft reaching back to the KC-97 in the 1940s
- Hose drogue unit is an off-the-shelf item available and used worldwide on C-130, KC-10, VC-10, and Tri-Star aircraft
- Avionics kit is a GOTS product currently available in the military that are being integrated; there is no development
- Crew rest kit integrates commercial bunks similar to the KC-10, E-4, and AF-1
- Receiver kit utilizes a NDI UARRSI already incorporated on the KC-10, 747 and 757 aircraft
- Seats kit is a COTS item similar to those used on the KC-10, KC-135, and C-17
- Interphone kit is an expansion of a commercial interphone system
- Auxiliary fuel tank kit integrates COTS tanks using commercial pumps, valves, and piping
- Link 16 integrates an off-the-shelf MDS LVT 1 radio terminal similar to TCAS and GATM installations

Total kit development compared to green aircraft price is significantly smaller than the total kit effort compared to green aircraft of ** (\$** kits/\$** green aircraft=**). Of the \$** of total kit option price SPO engineers estimate **% of that reflects development effort. That would equal \$*. (\$** *.). Kit development of \$* plus non-recurring development of \$* (\$**/**** ac) as identified in the non-recurring section equals \$** of \$*** or approximately *, a figure which would not support the contention that the KC-767 tanker effort is a developmental program and is consistent with the representation that this particular modification is minor.

Kit option pricing relies upon and complies with the FAR. The assessment and calculation of kit option prices utilized approaches prescribed for use in FAR Part 15.404(b) following the prescribed hierarchy in FAR Part 15.402.

First, the AFNT conducted a top-level estimate as a framework of assessing price using information obtained from DCMA. The top-level assessment compared modification effort price to green aircraft price on 12 programs, namely, KC-130J, KC-130T, KC-130F, C-160T, KV-22, KC-135R, KC-10A, KDC-10, A310-XF, A330-200F, A310-300F, and 767-200ERF. The most similar are the KC-10A at ** and KDC-10 at **. The KC-767 is **.

Second, the AFNT conducted a detailed kit assessment. Each kit option was assessed as a kit and install for each kit with each sub-piece divided into material and labor. The AFNT utilized

*Contractor proprietary and negotiation sensitive data omitted.

comparisons to other programs, engineering estimates, quotes, and cost estimating relationships (CERs) as follows:

Core Tanker	C-17; Rand estimate
Convertible	C-40A; NDAA; B747-400; Cargo Concessions
BOOM/RARO	Long Beach; KDC-10; KC-135; KC-10; FMS sales
Sit Awareness	Long Beach; KDC-10
Air Refueling	KC-10; Honeywell-Grimes
HDU	Smiths; KC-10; Combat Talon II
Avionics	Rockwell; Smiths; Trimble; Honeywell; Thales
Crew Rest	KC-10; JAMCO
Receiver	Commercial UARRSI; engineering estimate
Seats	AAR Cadillac; KC-10
Interphone	Telephonics; engineering estimate
Aux tanks	C-32; BBJs; KC-130J
ORD changes	Engineering estimates
Link 16	Engineering estimate

Install effort utilized the airborne laser (ABL) program (provisions only) as a basis of comparison. The AFNT developed starting points for kit learning curves using its expertise in conjunction with the comparisons identified above. The AFNT applied a material learning curve of ** based upon history and a labor learning curve of ** based upon history with the C-130A, C-141, DC-10, C-5A, MD-11, 747, C-17, KC-135, KC-10, Rand Study, F-15A, F/A-18A, F/A-18E, AV-8B, T-45, T-38C, KC-135PDM, C-130AMP, and AV-8BR.

The DoD/IG report specifically utilizes IDA findings without substantiating the basis and merit of the findings. The basis of the IDA findings has never been shared with the Air Force or to our knowledge been substantiated by any independent review. Without such scrutiny there is **no basis** [emphasis added] to accept IDA findings over those of the AFNT.

DoD/IG Recommendation A-4b: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics request statutory authority required by the Department of Defense Appropriations Act for FY2002 to modify general purpose Boeing 767 aircraft (leased) into a military tanker configuration.*

Air Force Response: **Non-concur** with this recommendation. The statutes as written (Section 8159 of the Department of Defense Appropriation Act for 2002 and Section 135 of the National Defense Authorization Act for FY 2004) and the accompanying legislative history make clear that Congress was referring to aerial tankers in its reference to general purpose Boeing 767 aircraft in a commercial configuration. Any other interpretation would make the Congressional authorization of the pilot lease program meaningless.

The DoD/IG report misconstrues the purpose of the restriction in Section 8159(d), which provides:

No lease entered into under this authority shall provide for (1) the modification of the general purpose aircraft from the commercial configuration, unless and until separate authority for such conversion is enacted and only to the extent budget authority is provided in advance in appropriations acts for that purpose; or (2) the purchase of the aircraft by, or the transfer of ownership to, the Air Force.

This restriction applies to the tanker aircraft during the lease period. The purpose of this provision was to ensure that the leased tanker aircraft would not be modified beyond their commercial configuration without Congressional authorization. This is precisely what the draft lease agreement provides.

Statutory Authority for Modification – The DoD/IG report contends that the intent of Section 8159 of the Department of Defense Appropriations Act for FY2002 was to lease commercially configured Boeing 767 aircraft which are not in a tanker configuration and that the requirement for additional budget authority in a subsequent Appropriation Act levied in subparagraph (d)(1) of Section 8159 would apply to the modification of the “green” B767 aircraft into an aerial tanker. The Air Force believes, however, that based on complete reading of the FY02 Appropriations Act and the FY04 Authorization Act, the Air Force had authority to lease Boeing 767 aircraft in a tanker configuration.

Specifically, the National Defense Authorization Act for FY 2004, Section 135, subparagraph (a), authorized the Secretary of the Air Force to “...lease no more than 20 *tanker aircraft* under the multiyear aircraft lease pilot program referred to in Section 135, subsection (d). Section 135, subsection (d) states that the multiyear aircraft lease pilot program is defined as “...the *aerial refueling aircraft* program authorized under Section 8159 of the Department of Defense Appropriations Act, 2002...” [emphasis added]. Accordingly, Sections 8159 and 135 adequately establish that the intent of Congress was for the Air Force to lease aircraft in the aerial refueling, or tanker, configuration.

In addition, the DoD General Counsel maintained during preparation for the DoD Lease Panel deliberation that 767 tankers would be general-purpose aircraft in commercial configuration, as contemplated in Section 8159. DoD General Counsel’s logic, concurred with by the DoD Lease Panel and the Air Force, was that because the aircraft would have the capacity to carry passengers and cargo, in addition to performing aerial refueling, they would be general-purpose aircraft. Secondly, according to the General Counsel, because of the existence of a market outside the U.S. Government, there is sufficient evidence to establish that 767 tankers are in a commercial configuration.

Finally, the DoD/IG report questions, “...whether the asset is a general-purpose asset as defined by OMB Circular No. A-11...” and “...whether a secondary market exists for the Boeing KC-767A Tanker aircraft.” The Air Force notes that these are two of the six criteria for qualification of an operating lease under A-11 in effect at the time of DoD Lease Panel review and that the Deputy Director of OMB, Joel Kaplan, testified at a hearing by the Senate Armed Services Committee on 4 September 2003 that the proposed aircraft lease met the operating lease criteria contained in the circular.

e. Issue A-5. Limitations of Earnings and Termination Clauses

DoD/IG Recommendation A.5.a.1: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics require that the Air Force comply with DoD Directive 7600.2 for obtaining approval from the Office of the Inspector General for the Department of Defense before contemplating using non-Federal audit services in any contract.*

Air Force Response: **Non-concur.** The DoD/IG's recommendation indicates that the Air Force should comply with the requirement to obtain approval from the Office of the Inspector General for the Department of Defense before contemplating using non-federal audit services **in any contract** [emphasis added]. In fact, the pertinent paragraph within DoD Directive 7600.2 directs that a DoD Component "...**not contract for** audit services, as defined..." [emphasis added]. The distinction is important. The DoD/IG would have the reader believe that using non-federal audit services **in any contract** is unallowable unless the DoD/IG has approved the effort. In fact, DoD/IG's own directive only prohibits contracting for audit services – something the Air Force is not preparing to do. Further, the requirement for prior DoD/IG approval in DoD Directive 7600.2 applies to contracting for "quality assurance reviews of internal audit, internal review, or contract audit organizations." Therefore, the Air Force non-concurs since the recommendation is not supported by DoD Directive 7600.2.

Government Audit Rights - In the Limitation of Earnings (LOE) clause in question, Boeing has agreed to contractually limit its return on sales (ROS) in a FFP contract. The clause provides substantial benefit for the Air Force. It protects the Air Force in the event that the negotiated price proves to be too high and ensures that Boeing will not receive a windfall profit for manufacturing the aircraft. The Air Force does not understand the DoD/IG's strident disapproval of a clause clearly intended to protect the financial interests of the United States.

Under this novel approach, Boeing's return on sale (essentially profit) for the delivered tanker would be limited to 15 percent. Compliance with this limitation would be verified by an independent third party public accountant. The public accountant will follow the rules for verification promulgated by the American Institute of Certified Public Accountants and will issue an audit opinion to the contractor and the Air Force. Put another way, the Air Force is not seeking to put a non-federal auditing firm under contract for audit services. Rather, the Air Force has negotiated a price for 100 tanker aircraft with Boeing that includes a ceiling on ROS. An incidental yet integral part of that business arrangement is the confirmation of ROS provided through the independent auditor's examination opinion.

DoD/IG Recommendation A.5.a.2: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics require that the Defense Contract Audit Agency (DCAA) be used for audit services in negotiated contracts for the Boeing KC-767A Tanker Program.*

Air Force Response: **Non-concur.** DoD/IG asserts a role for the DCAA that is inconsistent with commercial practice. As noted in the response to recommendation A.5.a.1, there is no requirement that DCAA be used to audit the ROS limitation in the KC-767 contract. Moreover, the DoD/IG ignores the fact that this is a FAR Part 12 contract and, as such, the Boeing business areas supporting this effort are compliant with generally accepted accounting principles (GAAP),

but not necessarily compliant with federal cost accounting standards (CAS) and are not open to Government audit. For example, Boeing has made it clear that Government auditors will not be permitted to perform audits related to the “green aircraft” effort by Boeing Commercial Aircraft. Insistence upon using Government auditors within this contract’s ROS limitation clause will likely result in the removal of the provision since Boeing will not agree to DCAA review of the areas necessary to confirm compliance.

DoD/IG’s recommendation with respect to DCAA is based on the assumption that a similar audit could be performed by DCAA auditors as readily as a third party public accountant familiar with Boeing’s system of accounting. This assumption is not correct. The LOE clause applies to both the commercial (green) aircraft and the modifications of the green aircraft. While DCAA has the technical expertise necessary to conduct an audit, it does not have experience auditing Boeing’s commercial accounting system. DCAA does have knowledge of Boeing’s CAS covered system for the Integrated Defense Systems. Also, there is no likelihood that Boeing would allow DCAA or any other government auditor to audit commercial accounts of the Boeing Aircraft Company. A second implicit assumption in the DoD/IG’s recommendation is that an audit opinion provided by a non-government public auditor is somehow unreliable or suspect, particularly if the third party public accountant is retained by the contractor. There is no basis in fact for this assumption. In the post-Enron era, public accounting firms are keenly aware of their professional obligations and are held accountable for their actions under applicable state law.

We note that the lease agreement does contain the standard Comptroller General access to records clause. In the event of conflict between any clause limiting the Government’s right to audit and the Comptroller General’s access to records clause, the Controller General’s access to records clause will prevail (see contract clauses FAR 52.212-05 and FAR 52.212-04(s)). Further, nothing in the contract diminishes the DoD/IG’s statutory rights under the Inspector General Act of 1978. Should an allegation ever arise that the third party audit was conducted improperly, the Government has sufficient authority to fully investigate the allegation.

DCAA Audit Responsibility - The DoD/IG asserts “The Air Force Negotiating Team obtained only limited assistance from DCAA in the lease analysis or negotiations for the Boeing KC-767A Tanker Program...” In fact, the AFNT contacted DCAA as the team began its detailed assessment of various limitations on earnings terms Boeing had suggested. Given the commercial nature of this program, reliance on price analysis and no requirement for detailed cost proposal audit(s), limited assistance appears appropriate.

The DoD/IG also asserts that according to DoD Directive 5105.36, “...the DCAA is responsible for performing contract audits and providing accounting and financial advisory services regarding contracts and subcontracts to all DoD Components responsible for procurement and contract administration.” The Air Force does not take issue with the DCAA’s responsibility as identified in DoDD 5105.36; however, the Air Force must point out that the same Directive affords the acquiring activity some latitude when it directs DoD Components to “...utilize the audit services of DCAA **to the extent appropriate** in connection with the negotiation, administration, and settlement of contract payments and prices...” [emphasis added]. As noted in the Air Force’s response to Recommendation A.5.a.1, the Limitation on Earnings clause is an extraordinary and unprecedented provision. As part of Boeing’s offer to subject itself to a

limitation on earnings, an independent third party auditor () must do the confirmation audit. The Air Force believes that this type of an arrangement is why DoD Directive 5105.36 gives the acquiring agency latitude in deciding if the use of DCAA is appropriate.

Questionable Cost Items and Concealed Contract Costs – The DoD/IG contends the Limitation of Earnings clause would allow “...Boeing to include questionable items in its costs, such as cost reduction initiative savings and engine manufacturer credits or rebates.” The Air Force disagrees with the DoD/IG and maintains the clause as written properly captures the intent that both the following will be considered in the ROS calculation: (1) costs associated with cost reduction initiatives and the resulting benefits, and (2) any reduction to cost resulting from supplier/subcontractor credits or rebates as well as engine manufacturer concessions. However, this language can still be discussed with the contractor to make sure the intent is perfectly clear.

The DoD/IG’s comment on “concealed costs” is apparently a reference to the fact that in a limitation of earnings clause in a commercial FFP contract, there is no Government insight to cost performance, and the Air Force depends instead upon the third party auditor to confirm clause compliance. While the DoD/IG’s report description of how the clause works is accurate, the characterization of costs being “concealed” is misleading. There is no effort to allow for hiding of costs. Customers simply do not ordinarily audit contractor books in commercial acquisitions.

The DoD/IG also suggests that, “The only effective means to protect the Government’s interests and limit the risk of DoD paying Boeing excessive prices and profits is to provide transparency into contractor costs by using either cost or fixed-price incentive type contracts for the Boeing 767A Tanker Program where DCAA monitors Boeing’s actual costs.” The Air Force disagrees both on legal and practical grounds.

In commercial item acquisitions, the Air Force is required by law to use a FFP or FFP with economic price adjustment (EPA) contract (the Air Force proposes to use a FFP with EPA type contract). As discussed in the Air Force’s response to recommendation A-1, a FFP with economic price adjustment (EPA) is appropriate considering the item being leased/purchased and associated risks. Further, in offering this aircraft as a commercial item, the contractor simply will not allow Government auditors to review its books. This position is not inconsistent with the way any other company operates in the commercial world.

Aside from the legal issue previously discussed, the Air Force believes the suggestion that only a contract wherein DCAA monitors actual costs (e.g., cost or fixed-price incentive) will protect Government interests and limit risk of overpayment is a parochial view and fails to consider an appropriate sharing of risk in a commercial acquisition. The Air Force is keenly aware of the magnitude of this program. However, to focus on contract strategies that limits overpayment risks while ignoring other program risks that would be shifted to the Air Force (e.g., delivery or performance) is a narrow view and blurs the Air Force goal of an overall program “best value.” Moreover, the DoD/IG fails to recognize the existing contract provisions that place the risk of delivering an on-time and contract-compliant aircraft squarely on the contractor as well as significant financial penalties associated with failure. These are important program objectives

*Contractor proprietary and negotiation sensitive data omitted.

that would be jeopardized should program decisions be driven by DoD audit interests. Additionally, the dismissal of the protections offered by a third party auditor ignores the fact that no matter their relationship with Boeing as a client, an independent third party auditor has a corporate and ethical responsibility to render objective and supportable audits. It can be argued that this responsibility is taken even more seriously given recent revelations concerning corporate accounting practices and criminal sanctions being used to deal with fraudulent accounting acts. Finally, the DoD/IG report ignores that the accounting profession (outside the Government) is regulated by state law and by professional standards established by the American Institute of Certified Professional Accountants (AICPA). The Sarbanes-Oxley Act of 2002 has placed renewed emphasis on audit compliance by the accounting profession.

DoD/IG Recommendation A.5.b.1: *We recommend that the General Counsel of the Department of Defense review the limitation of earnings clause in planned contract FA8625-04-C-6453 and determine whether it creates a prohibited cost-plus-a-percentage-of-cost system of contracting.*

Air Force Response: **Non-concur** for the reasons identified below.

Cost-Plus-a-Percentage-of-Cost System of Contracting – The DoD/IG suggests that, “The limitation of earnings clause appears to have created a cost-plus-a-percentage-of-cost (CPPC) system of contracting prohibited by section 2306(a) of title 10, United States Code.” The DoD/IG report references a Comptroller General decision (B-183705, Marketing Consultants International Limited) that identified a four-point test for determining CPPC contracts. The DoD/IG notes that any contract meeting all four criteria violate the CPPC prohibition and contends, “The Boeing KC-767A Tanker aircraft contract meets the four-point test.”

- Payment for profit is based on a predetermined percentage rate
- The predetermined percentage rate is applied to actual performance costs
- Contractor entitlement is uncertain at the time of contracting
- Contractor entitlement increases commensurately with increased costs

First, payment for profit is not based on a predetermined percentage rate. Working within the proposed FFP contract, Boeing alone determines what, if any, profit it makes. If Boeing over-runs the contract’s FFP, its profits are reduced or eliminated. Conversely, cost under-runs will result in additional profit up to 15%. Clearly, this is not a situation where profit is predetermined and the Air Force notes that the DoD/IG concern with overpayment and lack of audit insight throughout its draft report is a testimony to this fact.

Second, the predetermined percentage rate is applied to actual performance costs only in the case of an under-run. This criteria would only be met should Boeing under-run to a point in which the limitation of earnings clause would cap profit at 15%.

Third, contractor entitlement is not uncertain at the time of contracting. Like any FFP contract, Boeing’s entitlement is fixed at the time of contract award. It will not be paid more for completing the contractual requirements. The limitation on earnings clause does not alter this fundamental FFP contract characteristic.

Fourth, contractor entitlement does not increase commensurately with increased costs. As noted above, under a FFP contract, Boeing's overall entitlement is fixed. Strictly in terms of profit, Boeing's entitlement would actually decrease commensurately with increased costs.

The proposed firm fixed-price lease agreement, with the limitation of earnings clause is not "cost-plus-a-percentage-of-cost system of contracting" as defined by 10 USC 2306(a), 41 USC 254(b)) FAR Part 16.1 or the Comptroller General.

DoD/IG Recommendation A.5.b.2: *We recommend that the General Counsel of the Department of Defense review clauses C-016, "Aircraft Quantity," C-024, "Anti-Deficiency Act," and C-103, "Termination for Convenience – Pre-Construction Aircraft," in Contract FA8625-04-C-6453 to determine whether the contract clauses and audit rights provide sufficient controls to adequately define the extent of the Government's termination liability and to prevent a possible Anti-Deficiency Act violation if less than the full quantity of aircraft and fleet support years are leased or purchased.*

Air Force Response: **Non-concur.** The Air Force objects to the DoD/IG's suggestion that the Government's termination liability under the proposed lease agreement creates a possible Anti-Deficiency Act violation. When negotiations were suspended, the AFNT was in the process of negotiating a Not to Exceed (NTE) clause C-016, which would cap this liability at a defined amount. This NTE amount will cap Air Force exposure to what the DoD/IG refers to as "...unknown and unquantifiable monetary liability." In any case, the government would not violate the Anti-Deficiency Act if it does not purchase all 100 aircraft, and/or fails to purchase all ***. ** years of fleet support. Clause C-016 is not a government commitment in advance of an appropriation to purchase 100 aircraft, or to purchase all ***. ** years of support. The clause permits the contractor to request, and the parties to negotiate, an equitable adjustment in the event certain specified events occur. The provisions in C-016 are no different than any other repricing provision commonly used in DoD contracts that gives the parties the ability to equitably adjust a contract in the event the government does not purchase the quantity intended.

To the extent any Air Force obligation to make additional payments to the contractor arises based on the equitable pricing adjustment contemplated by C-016 for leased aircraft, such amount would constitute a payment under the lease. According to section 8117 of the 2003 DoD Appropriations Act, payments under the lease may be made from appropriations "at the time the payment is due."

As a general practical consideration, if Congress failed to appropriate funds, or failed to appropriate enough funds for the government to purchase aircraft and support it was scheduled to purchase in a particular fiscal year, the government would be obligated under the contract (a contract obligation) to terminate the contract in whole or in part, or the government would have to restructure the contract. If Congress failed to appropriate sufficient dollars for aircraft and support in a fiscal year, the government would have no fiscal obligation to the contractor, as clause C-024 clearly provides. Further, the Congress would either require the government to terminate the program (in whole or in part), or require the government to restructure it. Either way, Congress would have to appropriate funds to terminate or to restructure. This is no different from any other program that may have to terminate or restructure due to budget cuts or funding

shortfalls. In sum, there would be no Anti-deficiency Act violation as to amount, time or purpose.

f. Issue A-6. Integrated Fleet Support

Recommendation A.6a: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics, not use a fixed-price contract for logistics support of the Boeing KC-767A Tanker Program until an adequate baseline cost has been established and obtain cost or pricing data from Boeing to determine a fair and reasonable price for the integrated fleet support.*

Air Force Response: **Nonconcur.** The Air Force believes there is sufficient information available to establish fair and reasonable prices using price analysis to acquire commercial items/support under the proposed fixed price contract.

All of the pricing relies upon and complies with the FAR. FAR Part 15.403-4(a)(1) directs the contracting officer to obtain cost or pricing data unless an exception applies. FAR Part 15.403-1(b) identifies five exceptions; number three is commercial item. FAR Part 15.402(a) directs the contracting officer to not obtain more information than is necessary and to follow a hierarchy as follows: 1) Information within the Government, 2) Information Outside the Government, and 3) Information from the Offeror.

The AFNT developed an approach that compared Boeing's IFS concept to other similar support systems while making adjustments to price based on their differences. The AFNT utilized the KC-10, C-32 and C-17 to assess a fair and reasonable price. The AFNT adjusted for extended-range twin-engine operations (ETOPS) requirements, the number of operating bases, support equipment required, the need for the procurement of spares, and inventory carrying costs. After initial proposals by Boeing, the AFNT built a proposal together with Boeing utilizing Government and Boeing information. The AFNT relied primarily upon Government experts and Government sources of information to establish a fair and reasonable price. There are significant differences between Air Force maintenance programs and airline maintenance programs making use of outside information problematic.

The DoD/IG report asserts that the AFNT used unsupportable data, did not test the relevance of the data, and misapplied the data. The most similar programs available for comparison are the programs the AFNT selected based upon recommendations of Government experts. Data selected for each program was current based upon actual costs for the program. It is difficult to understand how that data is unsupported. The AFNT relied upon Government experts to validate the relevance of the data. We are uncertain what technical expertise the DoD/IG utilized to identify that the data is not relevant. As identified below, when challenged about KC-10, the AFNT contacted Government experts and validated the use of the data as a good proxy. The AFNT cannot take exception that it misapplied some KC-10 data. We believe this is relatively minor but can be addressed as part of finalizing negotiations. We point out that the Air Force should expect Boeing to request offsets due to schedule slip and moving personnel during the current pause.

The DoD/IG report on page 40, first paragraph, "We were unable to verify that the budget data from the 2002 brochure was representative of prior years or how it related to 1980s actual costs." The AFNT contacted the Tinker AFB POC for KC-10A Contractor Logistics Support on 24 Feb 04. We requested and obtained additional data for subject CLS from 1987, 1993, 1997, and 2000 to compare to our data from 2002. The effort shifted from McDonald Douglas to Lockheed in 1993 and to Boeing in 1998. The initial efforts represent 3 Main Operating Bases (MOB) that later shifted to 2 MOB in the mid 1990s. Consistently there have been about 59 aircraft. The flying hour profile ramped up from 36,000 hours to 44,000, peaked at 58,000 in 1993 and has been relatively stable between 50,000-52,000 hours since then. We used flying hour dollars as a simple consistent comparative test. Without adjusting for inflation or flying hour profile the 2002 data-point is a significant under estimation of the beginning of the KC-10A program. Adjusting for inflation and flying hour profile indicates the 2002 data-point is still a very good proxy for the Government in that it is consistently lower than historical comparison. On this basis the AFNT concludes the use of the 2002 data represents a good proxy for the KC-10A program and as a basis for the KC-767 program.

Recommendation A.6b: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics, reduce the negotiated price calculated for integrated fleet support by \$*** the misapplication of KC-10 support equipment costs.*

Air Force response: **Concur with comments.** The Air Force agrees that some misapplication of support equipment costs have been included as part of the establishment of the IFS price arrangement. However, we have not confirmed the accuracy of the DoD/IG amount.

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This price arrangement encompasses aircraft, financing, fleet support, and training. There are many parts to the business deal to include a credit for engineering services and special terms like performance aircraft availability (PAA), return on sales (ROS), and most favored customer (MFC).

* * * * *

Recommendation A.6c: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics, perform appropriate benchmarking of "performance aircraft availability" rates for other comparable aircraft systems before negotiating availability requirements in any contract for logistics support of the Boeing KC-767A Tanker Program.*

Air Force Response: **Nonconcur.** The Air Force disagrees with the DoD/IG's recommendation. The KC-767s use of performance aircraft availability (PAA) is new, with no past usage to benchmark from. The contract language was written to satisfy requirements specifically documented in the ORD.

Net aircraft availability (NAA) is the metric used in calculating aircraft availability in this program, and the threshold requirement is 80%. This metric measures how well the contractor manages aircraft in heavy maintenance, in addition to how well the contractor's supply chain management system operates.

*Contractor proprietary and negotiation sensitive data omitted.

NAA is not used by other Air Mobility Command (AMC) platforms to compute aircraft availability. An effort to find a comparable metric was considered inappropriate by the warfighting command. AMC states that computing NAA rates to compare to the 767 would yield an “apples to oranges” comparison, and therefore would not provide the desired “benchmark” comparison.

PAA is a metric derived from NAA to account for Blue Suit flight line maintenance. How it is computed: * is the factor used to account for USAF involvement for which Boeing could not be held responsible.

PAA is the metric used to tie contractor performance to payments, a metric that developed as part of a continued and coordinated effort by the Air Force Negotiation Team with the warfighter.

* * * * *

The Air Force considers this unique incentive strategy as an improvement on previous practice. While benchmarking is a sound practice, there is simply no similar metric in use to benchmark against. NAA and PAA will provide an effective means by which contractor performance in support of the warfighter's requirements can be quantified, assessed, and rewarded.

Recommendation A.6d: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics, comply with statutory requirements in the National Defense Authorization Act for FY2004; section 2464 of title 10, United States Code; and the Strom Thurmond National Defense Authorization Act for FY1999 requiring analyses of the costs and benefits of organic or contractor support, core logistics requirements, performance-based logistics, and contract length, and notify Congress of its decision before selecting an integrated fleet support provider for the Boeing KC-767A Tanker Program.*

Air Force Response: **Nonconcur.** The Air Force agrees that the program must comply with statutory requirements. The Air Force disagrees with the interpretation of those statutory requirements as they apply to the KC-767 program. The individual statutory requirements in Recommendation A.6d are discussed individually below.

DoD/IG report, Page 44:

National Defense Authorization Act for FY 2004 Requirements. The Air Force has not completed a study to identify alternative means of meeting long-term tanker aircraft maintenance requirements as required below in the National Defense Authorization Act for 2004 (required by April 1, 2004)

*Contractor proprietary and negotiation sensitive data omitted.

STUDY OF LONG-TERM TANKER AIRCRAFT MAINTENANCE AND TRAINING REQUIREMENTS-(1) LEASED AIRCRAFT- **The Secretary of Defense shall carry out a study to identify alternative means for meeting the long-term requirements of the Air Force for—**

(A) the maintenance of tanker aircraft leased under the multiyear aircraft lease pilot program or purchased under subsection (b); [emphasis added]

Concur with comments. As pointed out in the referenced text, the studies are due to Congress on 1 Apr 04. These studies are currently in work and will be submitted to Congress as required by the referenced statute.

DoD/IG report, Page 45:

The fleet logistics support contract length of 12 years also exceeds the Act's requirement below that a contract may be for any period not in excess of 10 program years as specified below.

(3) Notwithstanding subsection (k) of section 2306b of title 10, United States Code, a contract under this subsection may be for any period not in excess of 10 program years."

Nonconcur. The lease contract will provide for maintenance of the 20 aircraft through the term of each aircraft lease. The reference to "this subsection" in the quoted language above applies to the multiyear procurement authority under subsection (b) and not to the lease contract authority under subsection (a).

DoD/IG report, Page 45:

Core Logistics Capabilities for Commercial Items Requirements. Section 2464 of title 10, United States Code identifies the need for core logistics capabilities for commercial items. For Commercial items, the statute requires notification and justification to Congress including at a minimum:"

(1) The estimated percentage of commonality of parts of the version of the item that is sold or leased in the commercial marketplace and the Government's version of the item.

(2) The value of any unique support and test equipment and tools that are necessary to support the military requirements if the item were maintained by the Government.

(3) A comparison of the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the private sector with the estimated life cycle logistics support costs that would be incurred by the Government if the item were maintained by the Government."

Concur with comments. The Air Force notes the DoD/IG appears to concede the KC-767 program should follow the commercial item section of the law. The Air Force agrees the commercial item section applies but disagrees with the DoD/IG's interpretation.

The DoD/IG statement above does not accurately reflect Section 2464 language. Section 2464 does require core logistics capabilities however; there are exceptions such as commercial items. The Air Force does concur that commercial items require notification and justification to Congress.

10 U.S.C. § 2464. Section 2464(a) details the requirement to identify core logistics capabilities and the workload required to maintain those capabilities that must be performed at Government-owned and Government-operated facilities. There are several exceptions to this requirement, one of which is commercial items. As noted in the response to DoD/IG recommendation A-1, the determination of the KC-767 aircraft as a commercial item is appropriate particularly in light of FAA certificate requirements in accordance with regulatory guidance.

Although a commercial item is excluded from the requirements of § 2464(a), it is covered by the notice requirements of § 2464(c). This subsection requires that at the first time that a weapon system or other item of military equipment is determined to be a commercial item, the Secretary of Defense shall submit to Congress a notification of the determination and an accompanying justification. The justification must include (1) the estimated percentage of commonality of parts of the item sold or leased in the commercial marketplace and the Government's version of the item; (2) the value of any unique support and test equipment and tools that are necessary to support the military requirements if the item were maintained by the Government; and (3) a comparison of life cycle logistics support costs that would be incurred by the government if the item were maintained by the private sector with the estimated life cycle logistics support costs if the item were maintained by the Government. This notice will be provided to Congress once the required justification is prepared.

DoD/IG report, Page 45:

Congressional Notification of Contracts for Depot Maintenance. Section 346 of Public Law 105-261, the Strom Thurmond National Defense Authorization Act for FY 1999, October 17, 1998, as amended by Section 336 of Public Law 106-65, October 5, 1999, placed conditions on the expansion of functions performed under prime contracts for depot-level maintenance and repair as follows.

Conditions of Expanded Use. The Secretary of Defense of the Secretary of a military Department, as the case may be, may not enter into a prime vendor contract for depot-level maintenance or repair of a weapon system or other military equipment described in section 2464(a)(3) of title 10, United States Code, before the end of the 30-day period beginning on the date on which the Secretary submits to Congress a report, specific to the proposed contract, that

- (1) describes the competitive procedures to be used to award the prime vendor contract;

(2) contains an analysis of costs and benefits that demonstrates that use of the prime vendor contract will result in savings to the Government over the life of the contract;

(3) contains an analysis of the extent to which the contract conforms to the requirements of section 2466 of title 10, United States Code; and

(4) describes the measures taken to ensure that the contract does not violate the core logistics policies, requirements, and restrictions set forth in section 2464 of that title.

Nonconcur. Section 346 does not apply to weapons or other items of military equipment that are excluded from the requirements of § 2464(a)(3), such as a commercial item. Accordingly, §346 does not apply to the 767-tanker program.

g. Issue A-7. Operating Lease

Recommendation A-7a. *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics: Not enter into the proposed lease arrangement for 20 KC-767A Tanker aircraft until either obtaining Congressional authority to enter into a lease-purchase or until lease terms have been renegotiated to meet OMB Circular No. A-11 requirements for an operating lease.*

Air Force Response: **Non-concur.** Air Force meets all six criteria in OMB Circular A-11.

Deputy Director of OMB, Joel Kaplan, testified at a hearing by the Senate Armed Services Committee on 4 September 2003 that the proposed aircraft lease met the operating lease criteria contained in the circular. Furthermore, the DoD lease panel fully reviewed the lease arrangement and also agreed that the lease met the criteria contained in OMB Circular A-11.

The DoD/IG apparently used the 25 July 2003 revisions to the OMB Circular A-11 in reaching the conclusions reflected in its report. In late August 2003, the Deputy General Counsel for OMB advised the Air Force Principal Deputy General Counsel that OMB had approved the lease before the 25 July 2003 revisions to A-11 went into effect and that no new analysis was required under the new rules. Thus, the DoD/IG used a different version of OMB Circular A-11 than did OMB and reached a different result than did OMB.

The Air Force believes that OMB – the creator and proponent of the circular – is in the best position to determine the applicable version of the circular and whether the proposed lease met the criteria contained in it. The six criteria for the qualification of an operating lease are summarized below.

Criterion A. The asset is a general-purpose asset rather than being for a special purpose of the Government and is not built to the unique specification of the Government as lessee.

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program does not meet this criterion. Air Force **non-concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. The configuration chosen by the Air Force is one available to any Boeing customer. Thus, the specification and configuration chosen by the Air Force is not unique to the Government and could be chosen by a commercial entity that performs aerial refueling and/or cargo movement.

The DoD/IG report states that the Air Force plans “in the future to have Boeing develop and add, at an unknown cost, interoperability with DoD communication and computer systems, integration of secure communications, and a combat identification system among other modifications.” The DoD/IG fails to point out, however, that none of these modifications will be made on the leased planes. The modifications would only be pursued after the lease is terminated and the planes are purchased (pending Congressional approval to purchase) and given that the requirements for these modifications are still valid at that future time. The potential that these modifications would be pursued in the future does not nullify that the lease configuration constitutes a general purpose asset available to any Boeing customer.

Criterion B. There is a private sector market for the asset.

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program does not meet this criterion. Air Force **non-concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. The asset can be used in the private sector for either aerial refueling or cargo movement. In fact, the basis for meeting this criterion is strengthened under a 20-plane lease as compared to 100-plane lease as the private sector market would more easily absorb 20 planes as compared to 100 planes. The world market obviously exists as identified by sales of GTTA to Italy, Japan and the recent competition between Boeing and Airbus for British tanker requirements. Further research has revealed that although some number of KC-767 aircraft may be sold and flown without modification as tankers in another country or to one of the civilian firms providing air-refueling services like Omega Air and AirTanker, they certainly can be sold as a cargo aircraft. In the world cargo aircraft market alone, Boeing expects the freighter fleet to increase by 75%; from 1775 aircraft to 3078 aircraft by 2021. Currently, wide body cargo aircraft, including 767s, comprise almost 40% of the world's cargo aircraft. The world air freighter market would be eager to acquire used KC-767 aircraft.

Criterion C. The present value of the minimum lease payments over the life of the lease does not exceed 90 percent of the fair market value of the asset at the beginning of the lease term.

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program meets this criterion. Air Force **concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. The lease payments have been structured such that this criteria is met. The DoD/IG points to the Congressional Budget Office (CBO) assessment that the fair market value of the asset should not include construction financing and that if excluded from the fair market value, this criterion would not be met. We disagree with the assertion that construction financing be excluded. Construction financing is integral to the price of the aircraft. The price in turn is a critical input in determining annual lease payments.

The reason that construction financing is integral to the price of the aircraft is that it reflects a cost of bringing the product to market. Consider, for example, the business plan of any prospective market supplier that is contemplating entry to a product market. The manufacturer first estimates the price it can obtain for a product. It then computes product cost. If the difference between price and cost provides an appropriate return to the manufacturer, the manufacturer will enter the market; otherwise, it will not. One of the costs that a manufacturer considers is the cost of capital to construct the product. This includes bank borrowings (i.e., construction financing) used in construction. The inclusion of this cost is fundamental to the "decision calculus" of any prospective market supplier.

Therefore, the price of any given commercial product implicitly includes construction financing (or some cost of capital analogous to construction financing). Typically, however, this element is not explicitly itemized. In the course of negotiations of this particular lease, we specifically asked that construction financing be separately identified so we would have appropriate visibility into bank borrowings. In either event, the construction financing is fundamental to the price that is in turn used to compute lease payments. It would be improper to exclude construction financing.

The DoD/IG also points to the CBO finding that if interest rates exceed those forecasted by the "...Air Force's estimate of bond interest rates", the 90% rule would also be violated. First, it should be noted that bond interest rates used in the analysis were based predominantly on the Administration's estimates of future interest rates. Forecasted spreads on top of the base interest rates were based on an extensive collaboration between OSD and OMB as well as with experts from the financial sector. Based on this extensive collaboration, all parties agreed that this criterion was met based on the interest rates used in the analysis.

Criterion D. The lease does not contain a bargain-price option.

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program does not meet this criterion. Air Force **non-concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. The Title Acquisition provision in the contract is not an option and does not contain a bargain price in that the Air Force will pay the greater of 1) the fair market value (FMV) of the plane at the end of the lease term and 2) the remaining balance at the end of the lease term. In the event that the FMV is higher than the remaining balance, a rebate of the difference would be made to the U.S. Treasury, and not to the Air Force.

Criterion E. Ownership of the asset remains with the lessor during the term of the lease and is not transferred to the Government at or shortly after the end of the lease term.

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program meets this criterion. Air Force **concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. The Air Force would still require Congressional approval to purchase these leased planes. Unless Congress provides that approval, ownership of the leased planes will not be transferred to the Government at or shortly after the end of the lease term.

Criterion F. The lease does not exceed 75 percent of the estimated economic life of the asset

DoD/IG Finding and Air Force Response: The DoD/IG finds that the program meets this criterion. Air Force **concurs**.

The basis for meeting this criterion for a 20-plane lease does not differ from the original 100-plane lease that OMB approved as an operating lease. A six-year lease does not exceed 75 percent of the estimated economic life of the asset.

DoD/IG Recommendation A-7b: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics: Determine whether leasing 20 military tankers rather than purchasing them represents the best value to the Government.*

Air Force Response: **Non-concur.** The DoD/IG report claims that the use of an operating lease for long-term use is a high cost way to acquire aircraft and will result in about *** or \$*** more than purchasing the 20 aircraft. While we refute the accuracy of the numbers within the DoD/IG report, leasing aircraft in terms of then-year dollars cost more than buying aircraft. In our report to Congress (July 2003) on this program, the DoD acknowledged that leasing was more expensive than purchasing, but by less than 1% in net present value calculations. Sensitivity analysis showed the cost increase of leasing over buying by about 10%. This was well understood by Congress and the Department prior to their authorization of the program. The dominant reason for leasing is the advantage it affords for quickly delivering needed tankers to our warfighters without creating a near term and large financial burden. A program to buy KC-767 aircraft on the same schedule as the current program is simply not affordable to the Department. The currently negotiated schedule of leasing 20 / buying 80 in the KC-767 program delivers 45 aircraft by 2010, versus 1 aircraft under a traditional program that can be afforded.

h. Issue B-1. Acquisition Strategy

DoD/IG Recommendation B-1: *We recommend that the Under Secretary of Defense for Acquisition, Technology, and Logistics either:*

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- a. Proceed with the sole-source acquisition of the KC-767A Tanker Program for 100 or fewer aircraft contingent upon implementation of audit recommendations to resolve contracting and acquisition issues, or*
 - b. Initiate a new major Defense acquisition program based on the results of the analysis of alternatives for military tanker aircraft.*
 - c. Implement a mix of Recommendation B-1.a for some of the tankers and Recommendation B-1.b for subsequent tankers.*

Air Force Response: Non-concur. The Air Force non-concurs with the three options presented in Section B-1. These options are based on recommendations within the DoD/IG report that are unjustified and contradictory. The recommendations are also contradictory when analyzed collectively, giving no recommended single path forward. The Air Force recommends that the Department proceed with a sole-source acquisition of the Boeing KC-767 tanker aircraft as mandated by Congress and has reviewed and improved within the Department using approved acquisition processes.

The basis of Issue B-1 is the DoD/IG's contention that the Air Force followed some informal acquisition process when developing the program. This argument is not only inflammatory but also inaccurate. The Air Force following a formal acquisition strategy as dictated by Congress and the DoD and complied with FAR, statutes, and common commercial practices. The foundation of the KC-767 program's acquisition strategy began with Section 8159, Fiscal Year 2002 Defense Appropriations Act. Congress authorized a multi-year aircraft pilot program for leasing general purpose Boeing 767 aircraft. In the congressional colloquy, Congress clearly defined their intentions that the general-purpose aircraft is considered Boeing's air refueling tanker and is considered a commercial product. The Air Force proceeded to comply with the law and pursue coordination and program development within the Department of Defense.

OSD, approved by the Secretary of Defense, issued a leasing decision memorandum in May 2003 approving the Air Force to enter into the multi-year pilot program under the guidance in Section 8159, providing for the delivery of 100 KC-767 aircraft. The Air Force prepared and coordinated the required Report for Congress through OSD, and the Deputy Secretary of Defense subsequently signed the report in July 03. The Report for Congress received thorough review in the four defense committees and resulted in new start approval from the House Appropriations Committee for Defense, House Armed Services Committee, and Senate Appropriations Committee for Defense. In November 2003, the program was approved by Congress and signed into law as a part of the Fiscal Year 2004 National Defense Authorization Act. Section 135 of this Act authorized the lease of 20 tanker aircraft and a multi-year purchase of up to 80 tanker aircraft under the multi-year aircraft lease pilot program in Section 8159, Fiscal Year 2002 Appropriations Act. This new agreement received much consideration and intense debate in the four defense committees and on the Congressional floor. The agreement strikes an appropriate balance between the need to begin recapitalization and current fiscal constraints.

The entire program has undergone intense reviews within Congress, the Office of Manpower and Budget, and the Department of Defense and received clear direction on what to lease/buy (Boeing 767), how to lease/buy the aircraft, and the manner in which to characterize the acquisition (i.e., commercial). The Air Force, in compliance with the law mandated by both

houses of Congress and with direction from the Department of Defense entered negotiations with Boeing for a contract to deliver the first KC-767 aircraft in 2007. The Air Force has pursued a solid acquisition strategy since receiving direction from Congress in December 2001 with Section 8159, FY02 Defense Appropriations Act.

i. Issue B-2. Systems Engineering

DoD/IG Recommendation B-2a. *We recommend that the Program Director, KC-767A System Program Office, establish a process to develop a performance metric for verifying that the Boeing KC-767A Tanker aircraft will meet the 40-year service life to satisfy warfighter requirements.*

Air Force Response: **Concur with comments.** The KC-767 40-year service life is addressed in the system specification as an FAA-verified requirement. This structural evaluation is primarily addressed by FAA FAR 14 CFR 25.571, Damage Tolerance and Fatigue Evaluation of Structure. Additional aspects (e.g., corrosion) impacting service life and safety of flight are addressed by other FAR requirements that must be complied with in order to complete the Instructions for Continued Airworthiness (FAA FAR 14 CFR 25, Appendix H). The KC-767 SPO will work closely with the FAA to ensure a common understanding of the requirements and expectations. The SPO will also work closely with the contractor to utilize sound systems engineering processes and develop Technical Performance Measures (TPMs). These TPMs will identify by event and parameter the level of performance required. The systems engineer in the SPO will formally track TPMs and the status will be reported regularly.

DoD/IG Recommendation B-2b. *We recommend that the Program Director, KC-767A System Program Office, revise the system specification for the Boeing KC-767A Tanker contracts to include a requirement for protective measures to control corrosion in the tanker aircraft.*

Air Force Response: **Concur with comments.** The KC-767 aircraft will be FAA type certificated, which includes providing verification of a 40 year service life. During the FAA certification process, the contractor will conduct environmental assessments and testing in accordance with commercial and military standards, e.g., DO-160, MIL-STD-810, etc. Service life must be addressed across all aspects of the aircraft system and results of these verification efforts must be included in the Instructions for Continued Airworthiness. The Instructions for Continued Airworthiness will be captured in the KC-767 maintenance-planning document. (NOTE: The FAA approved the KC-767 Maintenance Management Plan on 9 October 2003.) The aircraft manufacturing processes, procedures, material selections, and the planned maintenance approach must clearly address corrosion prevention, and must take into account the planned service spectrum and operational environments of the KC-767.

The SPO will work with the contractor to add language to the system specification to define the specific environmental conditions (i.e., sand, salt fog, etc.) reflecting the planned operational environment of the KC-767 Tanker.

DoD/IG Recommendation B-2c. *We recommend that the Program Director, KC-767A System Program Office, revise the system specification for the Boeing KC-767A Tanker contracts to*

include requirements in the operational requirements document for interoperability with other systems, integration of secure communications, and combat identification.

Air Force Response: **Concur with comments.** The KC-767 command, control, communications, computers, and intelligence support plan, C4ISP, which is currently under development by the SPO, will develop applicable interoperability and information assurance requirements (e.g., secure communications, global information grid (GIG), and information exchange requirements (IERs)). The statement of work, paragraph 5.2.f specifically addresses contractor support of the development of the KC-767 C4ISP. After C4ISP approval, the contract change clause will be utilized to provide for any identified missing capabilities.

The SPO will assess beyond line of sight Link 16, secure voice, data communications, and other potential aspects for information assurance requirements for DITSCAP Security Certification. The SPO will also develop and coordinate a Systems Security Authorization Agreement (SSAA), which will describe the security certification requirements. This SSAA requires extensive coordination and support from the contractor, ASC/EN, AMC, NSA, ESC, HQ AFCA, and other stakeholders. After approval of the SSAA, if any contract changes are required they will be implemented via the contract change clause.

DoD/IG Recommendation B-2d: *We recommend that the Program Director, KC-767A System Program Office, complete a command, control, communications, computers, and intelligence support plan for the Boeing KC-767A Tanker aircraft to address interoperability, supportability, information assurance and sufficiency concerns, include it in the statement of work before award of the contracts, and resolve issues identified by implementing the support plan before system acceptance testing.*

Air Force Response: **Concur with comments.** The KC-767 SPO commenced development of the KC-767 C4ISP in December 2003. The contractor is tasked via the SOW to assist in the development of the C4ISP. Completion of the C4ISP may be delayed by the current program pause, as extensive internal and external coordination is required. After C4ISP approval, any contract changes required to provide identified capabilities will be implemented via the contract change clause.

j. Issue B-3. Operational Requirements Document

DoD/IG Recommendation B-3a: *We recommend that the Program Director, KC-767A System Program Office, ensure that system specifications developed for the first spiral of the air refueling aircraft include at least all key performance parameters.*

Air Force Response: **Nonconcur.** The Air Force recommends deleting recommendation B-3a because there is no deficiency with the ORD. The ORD requires all KPPs be met in the first spiral. This recommendation is redundant to the recommendations in B-2c concerning the information exchange requirements topic. The KC-767 command, control, communications, computers, and intelligence support plan, C4ISP, which is currently under development by the KC-767 SPO, will develop applicable interoperability and information assurance requirements (e.g., secure communications, global information grid (GIG), and information exchange

requirements) to meet the IER KPP for spiral 1 (reference ORD Requirements Correlation Matrix, paragraph 4.2.1).

DoD/IG Recommendation B-3b: *We recommend that the Program Director, KC-767A System Program Office, ensure that spiral two and three requirements are subsequently included in the first 100 and future air refueling aircraft.*

Air Force Response: **Nonconcur.** The Air Force recommends deleting recommendation B-3b because there is no deficiency with the ORD's spiral development strategy. The ARA ORD was written by, and documents the needs of the warfighter. The ORD was staffed through the Joint Requirements Oversight Council (JROC). This process includes an O-6 and Flag-level review of the ORD by all services and the combatant commanders. The JROC ensures the warfighters' requirements are met and, as a result, they reviewed and approved the ORD in July 2002.

This intense joint service scrutiny of the required capabilities produced the ORD with spiral development. Spiral developments do not need to be delivered with the first aircraft and should not be in the contract at this time. There are sound reasons for the ORD spiral evolution methodology, which fully complies with DoD policy on the issue. An acquisition strategy based on a commercial derivative aircraft must incorporate affordability, commercial availability, system integration effort required, relative importance of current and future requirements, and many other factors. The lease, which provides air-refueling capability quickly to the warfighter, precludes the inclusion of some secondary capabilities that exist in sufficient amounts in legacy tanker systems. These capabilities will be captured in a timely manner via spiral development.

Regarding the recommendation to require all future aircraft to include spiral 2 and 3 requirements, no airplane can be optimized for all types of refueling missions. Therefore, recapitalization will include different types of aircraft (size and levels of development) with differing capabilities. This is similar to the current Air Force airlift fleet and the current tanker fleet where different types of aircraft meet different sets of requirements. Similarly, there is no requirement for all recapitalization aircraft to have all the same capabilities.

k. Issue B-4. Testing

DoD/IG Recommendation B-4: *We recommend that the Program Director, KC-767A System Program Office comply with the statutory provisions by conducting operational and survivability testing on production representative aircraft before committing to the production of all 100 Boeing KC-767A Tanker aircraft.*

Air Force Response: **Concur with comments.** Counter to the DoD/IG's arguments, the Air Force has every intention to comply with Title 10, United States Code as it applies to the KC-767 program. The current test strategy was developed prior to the signing of the 2004 NDAA, 24 November 2003. Due to the program pause levied on 1 December 2003 by the Deputy Secretary of Defense, the Air Force has not had the opportunity to continue development of resolution of issues arising from 2004 NDAA. The Air Force will continue to work within the Department of Defense to resolve test and evaluation issues using the normal Overarching Integrated Product Team and Defense Acquisition Board process.

Page vi

2. Correction of Inaccuracies in Report: In addition to the Air Force response to the 11 recommendations, the following changes are recommended to correct inaccuracies in the DoD/IG report:

a. Page vi, "Similar Sole Source Acquisition" section, paragraph 1, all sentences: Recommend deletion.
- Reason: (Error in Fact) The KC-767 and C-130J discussion is an "apples to oranges" comparison. The fact that the C-130J is a fixed price, sole-source acquisition program is not the reason for its failure during operational testing. The C-130J's problems stemmed from the ORD, which documented the end state requirement for the aircraft. It did not take into account what items were commercially available and developed and it did not use an evolutionary acquisition strategy to overcome those risks. The KC-767 ORD takes into account what items are commercially available and uses an evolutionary acquisition system to mitigate risks associated with subsystem integration.

Page vi

b. Page vi, "Similar Sole Source Acquisition" section, paragraph 1, second sentence: Error of Fact.

- Reason: Incorrect, the Air Force has only accepted 33 aircraft at a cost of \$*.*.

Revised
Page vi

c. Page vi, "Similar Sole Source Acquisition" section, paragraph 1, fourth sentence: Error of Fact.

- Reason: Incorrect, the C-130J is cleared to conduct the air/land mission. Two combat delivery units have only C-130Js and two have a mixed fleet.

Page 2

d. Page 2, "Leasing Panel" section, paragraph 1 on page 2, last sentence. Recommend deletion.

- Reason: Air Force challenges the origin of the 90% commercial item figure and the notion that it determined the role of the OIPT in the program. The leasing panel was selected as the appropriate review panel because the Department was tasked to develop a tanker lease program IAW FY02 Appropriations Act.

Page 9

e. Page 9, "Not Minor Modifications" section, first sentence. Correct math error of cost calculation that resulted in the \$*.* and \$*.* figures.

- Reason: Error calculating the costs. Green aircraft price is \$** and mods are \$**.

Page 20

f. Page 19, "Table 4", legend. Delete labels to each percentage range.

- Reason: The labels like "negotiated order" are unqualified and meaningless without further explanation.

Revised
Page 49

g. Page 44, "Life-Cycle Logistics" paragraph. Errors of fact, reword paragraph.

- Reason: While the "Life Cycle Systems Management" memorandum was issued after the KC-767 program developed its support strategy, the Air Force has put in place performance-based logistics requirements (ref. Air Force response to DoD/IG recommendation A-6c). The Air Force will continue to evaluate the applicability of this and any future policy changes as they may apply to the KC-767 program.

h. Page 46, "Conclusion" section, middle paragraph, 2nd to last sentence AND page 50, "90 Percent" section, 2nd paragraph, 1st sentence. Math error, confirm \$*** figure.

- Reason: The lease cost of \$*** is wrong, correct error.

Page 54
and
Page 57

i. Page 52, "Issue B" Section, first paragraph; page 53, "Issue B-1" section, conclusion paragraph; page 56, "Issue B-1" section, results paragraph: delete "informal" when referencing the Air Force's acquisition strategy.

- Reason: The suggestion that the Air Force followed some informal acquisition process is inflammatory. The Air Force following a formal acquisition strategy as dictated by Congress and the DoD and complied with FAR, statutes, and common commercial practices. The Air Force completed all required review and approval processes for the program and received authority to proceed from Congress and the DoD. There was nothing informal about the process.

Page 61,
Page 62,
Page 64

j. Page 52, "Operational Requirements Document" section, last paragraph: delete second sentence that alleges the Air Force tailored the ORD.

- Reason: This statement ignores the robust requirements development process. The ORD was written by, and documents the needs of the warfighter. The same vigorous process that approved the Mission Need Statement (MNS) generated the ORD. The ORD was staffed through the Joint Requirements Oversight Council (JROC). This process includes an O-6 and Flag-level review of the ORD by all services and the combatant commanders. The JROC ensures the warfighters' requirements are met and, as a result, they reviewed and approved the air refueling aircraft ORD in July 2002. The fact that 767-specific information was removed, only adds to the argument that the ORD represents the warfighter's needs and not just a replication of the GTTA capabilities.

Page 62

k. Page 60, "Issue B-3" section, Conclusion and Results Summary: Error of fact in DoD/IG statement, "[ORD] did not require that the first 100 Boeing KC-767A Tanker aircraft acquired meet those requirements."

- Reason: The ORD requires that all KPPs must be met with the first 100 Boeing KC-767A Tanker aircraft acquired. All KPPs are identified as spiral 1 in the ORD Requirements Correlation Matrix. This is the fundamental definition to a KPP.

Page 72

KPPs - are those capabilities or characteristics considered most essential for successful mission accomplishment. Failure to meet an ORD KPP threshold can be cause for the concept or system selection to be reevaluated or the program to be reassessed or terminated.... [ARA ORD, 22 Oct 02]

l. Page 60, "Issue B-3" section, Conclusion and Results Summary, bullet 1: Delete text or change text to read, "require complete testing of the information exchange requirements (ORD Key Performance Parameter), and"

- Reason for Deletion: Since the report says the ORD documents the IER needs, there is not an asserted ORD deficiency. And since section B-2 already asserts systems engineering shortfall, recommend deleting this bullet and all statements regarding IERs from section B-3.

Page 72

Final Report
Reference

Page 72

m. Page 60, "Issue B-3" section, Conclusion and Results Summary, bullet 2: Change text to read, "contract to incorporate spiral 2 and 3."
- Reason: (Error in Fact) The Air Force does have plans to incorporate spirals 2 and 3 into the KC-767. It is a documented ORD requirement. It is true that spiral 2 and 3 are not contracted yet. Further design, risk definition and programming will be required to contract spirals 2 and 3.

Page 72

n. Page 60, "Issue B-3" section, Conclusion and Results Summary, paragraph 2: Delete paragraph.
- Reason: (Error in Fact) The KC-767 program kick-starts the recapitalization of an aging fleet (43 years) of 543 KC-135E/Rs. Since the Air Force currently plans to buy 80 aircraft, the proposed fleet of KC-767s is not temporary. It meets the requirements documented in the MNS and the ORD via spiral development. It is true that the recapitalization probably will not consist of all one type of aircraft. Currently, the Air Force is in a position where 90% of all the tanker fleet is one type aircraft and has a short purchase timeframe. This situation has led to the unacceptable possibility of a fleet-wide grounding of 90% of the Air Force's air refueling capability. Most probably, the recapitalization will include different types of aircraft (size and levels of development) with differing capabilities. This is similar to the airlift fleet where different types of aircraft meet different requirements. This is due to the fact that no airplane can be optimized for all types of missions. Also, there is no requirement for all recapitalization aircraft to have all the same capabilities.

Page 72-73

o. Page 61, "Results" section, paragraph 1, Sentence 3: Delete sentence.
- Reason: (Misleading) Recommend deletion because the IER topic is covered under Section B-2. If no deletion, then recommend changing the recommendation to acknowledge the on-going efforts to accomplish the stated objective.

Page 73

p. Page 61, "Results" section, paragraph 1, Sentence 4: Delete sentence.
- Reason: (Error in Fact) The Air Force does have plans to incorporate spirals 2 and 3 into the KC-767. It is a documented ORD requirement. It is true that spiral 2 and 3 are not contracted yet. Further design, risk definition and programming will be required to contract spirals 2 and 3. The slow production schedule allows the Air Force to delay the spiral process.

Page 73

q. Page 61, "Results" section, paragraph 1, Sentence 5: Delete sentence.
- Reason: (Misleading) Recommend deletion because the IER topic is covered under Section B-2. If no deletion, then recommend changing the recommendation to acknowledge the on-going efforts to accomplish the stated objective.

Page 73

r. Page 61-62, "Justification for Limited Operational Requirements" section, title and paragraph one, all sentences: Delete in entirety.
- Reason: (Error in Fact and Inflammatory) The title, specifically the word, "limited" infers the robust JROC ORD coordination and validation process did not capture the warfighter's requirements. The ORD was written by, and documents the needs of the warfighter. The same vigorous process that approved the MNS generated the ORD. The ORD was staffed through the JROC. This process includes an O-6 and Flag-level review of the ORD by all services and the combatant commanders. The JROC ensures the warfighters' requirements are met and, as a

result, they reviewed and approved the Air Refueling Aircraft ORD in July 2002. The fact that 767-specific information was removed, only adds to the argument that the ORD represents the warfighter's needs and not just a replication of the GTTA capabilities. Additionally, the signed ORD should be judged on its merits, not drafts.

s. Page 62, "Evolutionary Acquisition" section, Paragraph 1, Sentence 2: Change to read, "...requires that the aircraft be more capable than the KC-135E tanker aircraft..."

- Reason: (Error in Fact) The ORD chart 1 requires the KC-767 to offload 20% more fuel than the KC-135E.

t. Page 62, "Evolutionary Acquisition" section, Paragraph 2, Bullet 1: Delete bullet.

- Reason: (Misleading) Recommend deletion because the IER topic is covered under Section B-2. If no deletion, then recommend changing the recommendation to acknowledge the on-going efforts to accomplish the stated objective. For more, reference B-2.

u. Page 62, "Evolutionary Acquisition" section, Paragraph 2, Bullet 2, Dash 1: Recommend deletion or change to, "the ORD mission capability to conduct secondary missions, such as integral aeromedical evacuation; and"

- Reason: (Error in Fact and Misleading) The KC-767 spiral 1 will be capable of carrying patient support pallets and will be capable of doing the Aeromedical Evacuation mission. It will not have an integral capability for the AE mission because that is a spiral two development. The OSD directed the removal of the "combi configuration.

v. Page 62, "Evolutionary Acquisition" section, paragraph 2, Bullet 2, Dash 2: Recommend deletion or change to, "...of at least 80%. However, this requirement is documented in the Statement of Work (SOW)"

- Reason: (Error in Fact) It is true that FMC rate is not referenced in the KC-767 Spec. However, the KC-767 Statement of Work does require the IFS contract provider to provide sufficient IFS for the Air Force to obtain an FMC rate of 80%. It also requires the contractor to provide an aircraft designed to achieve an FMC rate of 80%. The ORD identifies several threshold requirements related to readiness. The Air Force Negotiating Team decided that those related to the design of the aircraft and its components would be placed in the System Specification. Those related to the contractor's performance would be placed in the Statement of Work. And, those that were tied to payment schedules and incentives would be placed in the C-300 series clauses.

The Fully Mission Capable (FMC) rate is a metric that is dependent upon both maintenance and supply support activity. As such, it was addressed in the Statement of Work. The FMC rate will be monitored monthly (as will the MC, NARMC, NMCS & PNMS rates) and will be used to evaluate how well the contractor is supporting the mission.

However, the indicators that will be used to determine the overall level of support being provided, and which are tied to payment schedules and incentives, are the Net Aircraft Availability (NAA) and Performance Aircraft Availability (PAA) metrics. NAA essentially monitors how well the contractor is conducting its heavy maintenance function as well as how its supply chain management function is supporting air refueling mission requirements. PAA is the

same as * However, reducing * provides an adjustment for USAF flight line maintenance involvement for which the contractor is not responsible. The relationship between NAA and PAA and the payment schedule and incentives can be found in Attachment 17 to the contract.

From the KC-767 SOW Paragraph 6.16: “Net Aircraft Availability (NAA)
The Contractor shall provide IFS to enable the USAF to achieve a minimum NAA of 80%. The Contractor will track and measure aircraft performance parameters in conjunction with the USAF to determine KC-767A aircraft performance. **Full Mission Capability (FMC) and Mission Capability (MC) rates shall be calculated in accordance with AMC Pamphlet 21-102. MC rate shall be used as a design consideration for 767 Tanker Transport reliability, maintainability, and supportability. The Contractor shall provide the necessary IFS to allow the USAF to achieve 80% FMC, 90% Air Refueling Mission Capable (ARMC), and 90% MC rates. The Contractor’s success in meeting NAA shall be measured by the Performance Aircraft Availability metric as defined in clause C-323. (CDRL A001, DAL- Supplemental Item AD, NAA/PAA Metrics Report)”**

- w. Page 62, “Evolutionary Acquisition” section, paragraph 3, Sentence 1: Recommend deletion or change to, “...may not meet the ORD key performance parameter for interoperability.”
- Reason: (Error in Fact) The absolute statement that the KC-767 will not meet the interoperability KPP is incorrect and ignores the work done by the KC-767 SPO on this area. Also, the aircraft will be capable of conducting its secondary missions, such as carrying cargo, passengers, both and aeromedical evacuation.
- x. Page 62-3, “Future Spirals” section, paragraph 1, All Sentences: Recommend deletion.
- Reason: (Error in Fact) The KC-767 meets the warfighter’s requirement through spiral development in a timely manner.

The KC-767 won’t be the only aircraft procured to meet the warfighter’s requirements. There is no single aircraft that can be optimized for all air refueling missions. Also, the current situation where 90% of the air refueling fleet is one aircraft type and all aging (43 years) has led to the possibility of a fleet-wide grounding, which should be avoided.

The KC-X is the term used for the long-term capitalization of the tanker fleet. The KC-767 is the program designed to kick-start recapitalization. Completion of the Tanker AoA will further define the way ahead for tanker recapitalization. This will probably identify the need for new/different aircraft to meet air refueling needs beyond 2020.

Not every aircraft must have all spirals’ capabilities. The timing and number of aircraft on which to place those spiral 2 and 3 capabilities is not a simple issue. Programming for the right mix of capable aircraft is the long-term solution to the USAF’s aging tanker fleet.

- y. Page 68, “Ongoing coverage” section, paragraph 1, All Sentences: Recommend deletion.

*Cotractor proprietary and negotiation sensitive data omitted.

- Reason: (Error in Fact)

* * * * *

The KC-767 ORD takes into account what items are commercially available and uses an evolutionary acquisition system to mitigate risks associated with subsystem integration.

z. Page 79, Corrections to Timeline.

- Feb 01: Change "KC-135 Economic Service Life Study finds no urgency in KC-135 recapitalization" to: KC-135 Economic Service Life Study finds increasing costs and decreasing availability – corrosion is "wild card." Reason: ESLS was a fiscally unconstrained analysis; accurate findings dealt with rising costs and decreasing availability.

- May 01: Change "Air Force petitions Congress to conduct an Analysis of Alternatives" to: Air Force petitions Congress for authority to accelerate the Analysis of Alternatives. Reason: Accuracy

- Oct 01: Change "SAF/AQ briefed on Boeing Aerial Tanker" to: SAF/AQ briefed on Boeing Tanker Modernization. Reason: correction reflects accurate title

- Move Jan 2002 entry for NDAA to Dec 2001. Reason: inaccurate date

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General Counsel Department of Defense Comments



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26 MAR 2004

MEMORANDUM FOR DIRECTOR, ACQUISITION MANAGEMENT DIRECTORATE,
INSPECTOR GENERAL
DIRECTOR, CONTRACT MANAGEMENT DIRECTORATE,
INSPECTOR GENERAL

SUBJECT: Report on the Acquisition of the Boeing KC-767A Tanker Aircraft
(Project No. D2004AE-0063)

Thank you for the opportunity to comment on the draft report regarding the Air Force's proposed acquisition of Boeing KC-767 tanker aircraft. The draft raises some valid concerns regarding the acquisition. As you know, the Department has taken several steps to examine the determinations that recapitalization of the existing tanker fleet is necessary, and if so, that the KC-767 tanker aircraft is best suited to meet the requirement. The Air Force has committed to provide copies of any proposed contracts for our review, in the event that the Department decides that the KC-767 tanker program should proceed. If the program proceeds, we will review the proposed contracts in light of your recommendations in the draft report. We believe that a legal opinion would be premature until then.

Please do not hesitate to contact me if you wish to discuss this matter further.

A handwritten signature in black ink, appearing to read "Douglas P. Larsen".

Douglas P. Larsen
Deputy General Counsel
(Acquisition & Logistics)



Team Members

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