

S. HRG. 109-22, Pt. 4

DEPARTMENT OF DEFENSE AUTHORIZATION FOR APPROPRIATIONS FOR FISCAL YEAR 2006

HEARINGS

BEFORE THE

COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

ON

S. 1042

TO AUTHORIZE APPROPRIATIONS FOR FISCAL YEAR 2006 FOR MILITARY
ACTIVITIES OF THE DEPARTMENT OF DEFENSE, FOR MILITARY CON-
STRUCTION, AND FOR DEFENSE ACTIVITIES OF THE DEPARTMENT OF
ENERGY, TO PRESCRIBE PERSONNEL STRENGTHS FOR SUCH FISCAL
YEAR FOR THE ARMED FORCES, AND FOR OTHER PURPOSES

PART 4 **AIRLAND**

MARCH 16, APRIL 6, 14, 2005



Printed for the use of the Committee on Armed Services

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2006—Part 4 AIRLAND**

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**DEPARTMENT OF DEFENSE AUTHORIZATION
FOR APPROPRIATIONS FOR FISCAL YEAR
2006**

WEDNESDAY, MARCH 16, 2005

U.S. SENATE,
SUBCOMMITTEE ON AIRLAND,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

**ARMY TRANSFORMATION AND THE FUTURE COMBAT
SYSTEM**

The subcommittee met, pursuant to notice, at 9:30 a.m., in room SR-232A, Russell Senate Office Building, Senator John McCain (chairman of the subcommittee) presiding.

Committee members present: Senators McCain, Sessions, Talent, and Lieberman.

Majority staff members present: William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; and Elaine A. McCusker, professional staff member.

Minority staff members present: Daniel J. Cox, Jr., professional staff member; Peter K. Levine, minority counsel; and Arun A. Seraphin, professional staff member.

Staff assistants present: Alison E. Brill and Pendred K. Wilson.

Committee members' assistants present: Cord Sterling, assistant to Senator Warner; Christopher J. Paul, assistant to Senator McCain; Arch Galloway II, assistant to Senator Sessions; Lindsey R. Neas, assistant to Senator Talent; Frederick M. Downey, assistant to Senator Lieberman; and William K. Sutey, assistant to Senator Bill Nelson.

OPENING STATEMENT OF SENATOR JOHN MCCAIN, CHAIRMAN

Senator MCCAIN. Good morning. The Airland Subcommittee meets today to receive testimony on Army transformation and the Future Combat System (FCS). We divided the hearing into two panels. The first panel will testify on the budgetary aspects of Army transformation and will specifically discuss Army aviation modularity and FCS.

Secretary Bolton and General Cody, welcome. Thank you for coming today.

As we meet today, the Army has over 650,000 soldiers on Active Duty who are deployed, stationed overseas, or securing the home-

land. We must ensure that our Armed Forces have the necessary personnel, training, and equipment to successfully accomplish their missions.

The fiscal year 2006 Army budget requests \$98.6 billion. It has not significantly changed from the 2005 appropriated levels. However, the 2005 appropriated levels include the \$57 billion for the Army in the fiscal year 2005 supplemental request.

Additionally, the Army did not include all modularity costs in the 2006 budget request. Of the \$57 billion requested for the Army in the bridge supplemental, \$12.8 billion is in the procurement account and funds modularity force protection, recapitalization and equipment combat losses.

This committee has jurisdiction over all of these areas, but, by funding these areas through supplementals, has little oversight. It is a concern to me. We would like to hear your views as to why you believe these costs should not have been budgeted in the fiscal year 2006 request.

Over the past 2 years, the Army terminated two major programs, the Crusader field artillery system and the Comanche helicopter program. These programs were terminated to protect funding for the FCS and that is why we have to get the FCS program right.

We will focus on the programmatic aspects of FCS in the first panel. We would be interested in hearing your views on the cost schedule and contractor performance of the FCS program and the rationale to restructure the program.

Monday a Bloomberg News report indicated that the FCS program costs have increased to \$133 billion, a 45-percent increase from its earlier estimate of \$92 billion and the system will not be ready for combat until 2016, 4 years later than previously reported. I hope that our witnesses will be able to discuss that.

FCS is of particular concern to me, especially the use of the Other Transaction Authority (OTA) as a contracting vehicle. That is why the FCS contract is the topic of the second panel. Secretary Bolton, thank you for sitting on the second panel. You will be joined by Paul Francis, Director, Acquisition and Sourcing Management of the Government Accountability Office (GAO); Dr. David Graham, Deputy Director of Strategy Forces and Resources Division for the Institute of Defense Analyses; and Ken Boehm, Chairman of the National Legal and Policy Center.

In 1989, Congress recognized that traditional Government contracts were not an effective mechanism for managing Defense Advanced Research Projects Agency (DARPA) research projects. For this reason, we created a new type of agreement known as "other transactions" that would not be subject to the standard contracting requirements. At first limited to DARPA, section 845 of the National Defense Authorization Act (NDAA) for 1994 extended other transaction authority to prototype projects.

Since the 1994 act, the Department of Defense (DOD) officials and industry have repeatedly requested that we extend "other transaction authority" to production contracts. Congress has consistently refused to do so because we have taken the view that with hundreds of millions of dollars or even billions of dollars at stake, the taxpayer needs the protections built into the traditional procurement system. I would be glad to hear from the witnesses if

they think there is something wrong with the traditional procurement system and if it needs to be modernized or updated.

While we recognize that there may be need for continuing doing business with nontraditional contractors in the production phase of a program, we have preferred to address this issue through targeted waivers that are limited to those companies who need them.

Now the Army has put forward a program that uses other transaction authority for a \$20 billion contract, a figure much greater than Congress intended and unprecedented. We look forward to your testimony and the testimony of the witnesses on the second panel regarding the appropriateness of using other transaction authority for a contract this size and whether the Army has included clauses that protect the Government's interest. I look forward to your testimony.

I want to thank Senator Lieberman for his leadership on this subcommittee and I know we will continue our bipartisanship that this subcommittee has enjoyed over the last 6 years.

[The prepared statement of Senator McCain follows:]

PREPARED STATEMENT BY SENATOR JOHN MCCAIN

The Airland Subcommittee meets today to receive testimony on Army Transformation and the Future Combat System (FCS). We've divided the hearing into two panels. The first panel will testify on the budgetary aspects of Army Transformation and we will specifically discuss Army aviation, modularity, and the Future Combat System. Secretary Bolton, General Cody, welcome. We thank you for coming.

As we meet today, the Army has over 650,000 soldiers on Active-Duty who are deployed, stationed overseas, or securing the homeland. We must ensure that our Armed Forces have the necessary personnel, training, and equipment to successfully accomplish their missions. That's what we are here for today.

The fiscal year 2006 Army budget request of \$98.6 billion has not significantly changed from fiscal year 2005 appropriated levels. However, the fiscal year 2005 appropriated levels include the \$57.0 billion for the Army in the fiscal year 2005 supplemental request. Additionally, the Army did not include all modularity costs in the fiscal year 2006 budget request.

Of the \$57.0 billion requested for the Army in the bridge supplemental, \$12.8 billion is in the procurement account and funds modularity, force protection, recapitalization, and equipment combat losses. This committee has jurisdiction over all of these areas but, by funding these areas through supplementals, has little oversight. This is a concern to me. We would like to hear your views as to why you believe these costs should not have been budgeted in the fiscal year 2006 request.

Over the past 2 years, the Army terminated two major programs, the Crusader field artillery system and the Comanche helicopter program. These programs were terminated to protect funding for the Future Combat System. That is why we have to get the FCS program right.

We will focus on the programmatic aspects of FCS in the first panel. We would be interested in hearing your views on the cost, schedule and contractor performance of the FCS program and the rationale to restructure the program. Monday, a Bloomberg news report indicated that FCS program costs have increased to \$133 billion—a 45-percent increase from its earlier estimate of \$92 billion—and that the system won't be ready for combat until 2016—4 years later than previously reported. I'm not sure the Army can afford the FCS program as it is currently structured.

FCS is of particular concern to me, especially the use of Other Transaction Authority (OTA) as the contracting vehicle. That is why the FCS contract is the topic of the second panel. Secretary Bolton, thank you for sitting on the second panel. You will be joined by Paul Frances, Director, Acquisition and Sourcing Management, Government Accountability Office; Dr. David Graham, Deputy Director, Strategy, Forces and Resources Division, Institute for Defense Analyses; and Kenneth Boehm, Chairman, National Legal and Policy Center.

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tracting requirements. At first limited to DARPA, section 845 of the National Defense Authorization Act for 1994 extended "Other Transaction Authority" to prototype projects.

Since the 1994 Act, Department of Defense (DOD) officials and industry have repeatedly requested that we extend "Other Transaction Authority" to production contracts. Congress has consistently refused to do so, because we have taken the view that with hundreds of millions or even billions of dollars at stake, the taxpayer needs the protections built into the traditional procurement system. While we recognize that there may be need to continue doing business with nontraditional contractors in the production phase of a program, we have preferred to address this issue through targeted waivers that are limited to those companies who need them.

Now, the Army has put forward a program that uses "Other Transaction Authority" for a \$20 billion contract, a figure much greater than Congress intended and unprecedented. We look forward to your testimony and the testimony of the witnesses on the second panel regarding the appropriateness of using "Other Transaction Authority" for a contract this size and whether the Army has included clauses that protect the Government's interest.

I look forward to your testimony.

Before I turn this over to Senator Lieberman, I want to thank Senator Lieberman for his leadership on this subcommittee and hope to continue the bipartisanship this subcommittee has enjoyed over the past 6 years.

[Additional information inserted for the record by Senator McCain follows:]

Project On Government Oversight
Exposing Corruption, Exploring Solutions

Written Testimony of
Danielle Brian
Executive Director
Project On Government Oversight
before the
Senate Armed Services Committee, Airland
Subcommittee on
DoD's Use of "Commercial" Acquisitions and
"Other Transaction Authority"

March 15 and 16, 2005

666 11th Street, NW, Suite 500 • Washington, DC 20001-4542 • (202) 347-1122
Fax: (202) 347-1116 • E-mail: pogo@pogo.org • www.pogo.org
POGO is a 501(c)3 organization

I would like to thank Chairman McCain and all the members of the Subcommittee for this opportunity to provide written testimony for the record. POGO commends the Subcommittee for holding hearings on contract reforms that have subjected taxpayer dollars to potential waste, fraud, and abuse. Undoubtably, the Drayton/Boeing tanker fiasco has created a real ground-swell in Washington circles to review conflict of interest and procurement integrity issues. As a result we have heard of unprecedented investigations by the Defense Criminal Investigative Service of senior procurement officials who have gone to work for defense contractors, as well as the creation of the "Procurement Fraud Working Group" by U.S. Attorney Paul McNulty.

I am the Executive Director of the Project On Government Oversight (POGO) which investigates, exposes, and seeks to remedy systemic abuses of power, mismanagement, and subservience by the federal government to powerful special interests. Founded in 1981, POGO is a politically-independent nonprofit watchdog that strives to promote a government that is accountable to the citizenry. In the beginning, POGO (which was then known as Project on Military Procurement) worked to expose outrageously overpriced military spending such as the \$7,600 coffee maker and the \$436 hammer. After many successes reforming the military, POGO expanded its mandate to investigate systemic waste, fraud, and abuse in all federal agencies.

This testimony combines our unique position in the defense and contract oversight program areas. In the recent past POGO has exposed problems with Department of Defense (DoD) weapons systems, problems with the revolving door between the federal government and its top contractors, and numerous problems by so-called procurement or acquisition "reforms," including lack of competition, reduced oversight, and the elimination of transparency. I would specifically like to highlight two reforms that are very problematic: "commercial item" acquisitions and "other transaction authority" (OTA) – two contracting vehicles that are highly favored by government contractors.

POGO is 100% behind the concept of the government buying truly "commercial" goods and services. The commercial marketplace provides genuine checks-and-balances and therefore provides competition and lower prices. The problem arises in instances when the government is stretching the definition of "commercial" to include non-commercial items. In such cases, checks-and-balances are missing, as well as the contracting controls that provide the government with the ability to protect taxpayer dollars.

With regard to OTA, POGO concludes that their creation was based on a fallacy. Congress was lead to believe that hordes of "non-traditional" contractors who were afraid of government red-tape were clamoring to bring the government innovative good or services. OTA was created to welcome these new businesses into the government contracting fold. Well, the hordes never came. Instead, we are left with a system without contracting controls, and billions of dollars being awarded to "traditional" contractors who were already selling goods or services to the government. Although government statistics show that a few "non-traditional" contractors have stepped forward, those same reviews indicate that as much as 97% of OTA funds are going to traditional contractors.

“Commercial Items”

Federal Acquisition Regulation (FAR) Part 12 governs the “Acquisition of Commercial Items” – items that are believed to be subject to competitive market forces. The purpose of such acquisitions is to reduce acquisition time, rather than paying contractors to develop unique items for the government’s use. “For example, contracting officials may reduce the time needed to solicit bids and award contracts by combining certain steps in the solicitation process, using streamlined evaluation techniques, and eliminating certain administrative requirements.”¹ The use of the “commercial item” contract vehicle is based on the premise that there is a “commercial” market for the desired goods or services.² Unfortunately, DoD has stretched the definition of “commercial item” and even went as far as to permit the purchase of items that do “not meet the definition of “commercial item.”³

Problems with “commercial item” purchases, however, date back many years. A March 1983 GAO report stated that “commercial item descriptions” (CIDs) were expected to maximize “the reliance on commercial packaging, packing, and marketing,”⁴ thereby increasing “competition and, as a result, decreas[ing] costs.”⁵ GAO noted, however, that CID purchases require “established commercial market acceptability, using recognized industry standards, instead of Federal specifications or standards, when ever possible, and requiring manufacturers to certify that the products they are selling to the government are the same as those in the commercial market place.”⁶

To encourage such deregulation contractors argued that a “commercial” market ensures reasonable pricing. In practice, however, there are many inherent problems created when the government purchases goods or services using the “commercial item” contract vehicle. Through

¹ GAO, *Federal Procurement: Federal Procurement Spending and Workforce Trends*, GAO/NSIAD-99-90, August 2003, at p. 17.

² 41 U.S.C. § 403(12) (defining “commercial item”). See 10 U.S.C. § 2376 (defining “commercial item”); FAR 2.101(b) (defining “commercial item”), FAR 12.101(a) (“Conduct market research to determine whether commercial items or nondevelopmental items are available that could meet the agency’s requirements.”), and FAR 12.201 (“Public Law 103-355 establishes special requirements for the acquisition of commercial items intended to more closely resemble those customarily used in the commercial marketplace.”).

³ DFARS 212.7002-1 (allowing “commercial item” contracts to be used for follow-on contracts after use of other transaction authority).

⁴ GAO, *Assessment of the General Services Administration’s Use of Commercial Item Descriptions*, GAO/PLRD-83-43, March 3, 1983, at p. 2.

⁵ *Id.* at p. 1.

⁶ *Id.* at p. 3.

the Federal Acquisition Streamlining Act (FASA)⁷ and the Clinger-Cohen Act,⁸ “commercially” available items are exempted from much procurement oversight, such as the Truth in Negotiations Act (TINA) regulations, Cost Accounting Standards (CAS), cost or pricing data requirements, and audit access for examination of contractor records by the GAO or defense auditing agencies.⁹ That problem is compounded by the government’s loose definition of “commercial,” permitting “non-commercial items” to be labeled as “commercial items.” Similarly, items under the loose definition can be merely “**of a type**” sold to the public, rather than a product that actually is sold to the public.¹⁰

The DoD Inspector General (DoD IG) noted that the loose definition of commercial items “qualifies most items that DoD procures as commercial items,” with the result that: “This opens up a major loophole for sole-source vendors to charge prices that cannot readily be evaluated for reasonableness. This concern will continue to grow as more companies merge and the aerospace industry becomes more of a sole-source environment.”¹¹

For instance, the C-130J military transport aircraft has been sold to the government as a “commercial item.” While not a single sale was ever made to civilians, oversight was loosened. The DoD IG has stated: “The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements.”¹² The IG’s report also said:

The commercial acquisition strategy was unjustified, the Air Force did not properly manage the program, and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics did not provide effective oversight. The Air Force bought the C-130J as a commercial item needing minor modification, but in the 8 years since the Air Force began contracting for the C-130J, Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specifications. In addition, the Air Force did not determine whether the commercial

⁷ P.L. 103-355, sections 8104 and 8203, October 13, 1994.

⁸ Clinger-Cohen Act of 1996 (formerly called Information Technology Management Reform Act (ITMRA), Division E, National Defense Authorization Act for FY 1996 (P.L. 104-106, February 10, 1996).

⁹ See FAR 12.102(f)(2) and 15.403-1. There is a debate over whether government audits can be conducted. A problem exists, however, because contractors supplying “commercial items” do not supply the government with cost or pricing data and therefore the auditors do not have data to verify.

¹⁰ FAR 12.101 and DoD Directive 5000.2-R 3.3.1.1 (“Commercial and Non-Developmental Items”).

¹¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 14-15.

¹² DoD IG, *Acquisition – Contracting for and Performance of the C-130J Aircraft (D-2004-102)*, July 23, 2004, at p. i.

version of the C-130J met the operational requirements before procuring the aircraft.¹³

This “commercial” designation on the C-130J prompted Senator Tom Harkin (D-IA) in 1997 to fire off a letter of protest to Secretary of Defense William Cohen:

How can Atlas rockets and C-130J aircraft be considered “commercial” items? Obviously, these are not items found in the commercial sector. More importantly, they are not items that are priced due to the forces of supply and demand. Items bought solely or primarily by the federal government should not fall under the “commercial” definition.

With oversight regulations waived, the cost of wiring harnesses on the C-130J increased by five times their original price after the aircraft was designated “commercial,” going from \$91 to \$453. The GAO offered this spare part price-hike as a real-world example of the difficulty involved in making the transition from pricing goods and services based on costs incurred to an ineffective commercial model in which factors other than cost are the principal means used to establish prices.¹⁴

Similar government attempts were made to classify the C-17 cargo plane as a “commercial item.” While at the U.S. Air Force, Darleen Druyun was a staunch supporter of the December 2000 proposal to acquire additional C-17 cargo aircraft while sidestepping financial oversight for Boeing. While the acquisition proposal would have been a financial bonanza for Boeing, it would have ultimately put billions of taxpayer dollars at risk. By categorizing such an item as “commercial,” the government would have bypassed important pricing oversight controls that are only intended to be lifted for items that are truly “commercial” and whose prices are set by free market forces. A \$232 million outsize cargo carrier with 173,300 lbs. capacity is clearly not a mass-market item that is sufficiently affected by the free market. Many other “commercial items” are purchased by the public, but with such low frequency that prices are by no means determined by the free market.

Generally, auditors are prevented from obtaining cost or pricing data on “commercial items.” In a memorandum obtain by POGO, the extent to which contractors want to avoid showing cost data to government auditors is laid bare. In preparation for an Air Force visit, a Lockheed Martin official wrote:

Attached is our proposed agenda for the C-130J.

* * *

¹³ *Id.* at ii.

¹⁴ Statement for the Record, Henry L. Hinton, Jr., Assistant Comptroller General, National Security and International Affairs Division, General Accounting Office, before the House Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, *Federal Acquisition: Trends, Reforms, and Challenges*, GAO/T-OCG-00-7, March 16, 2000, at p. 10.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for the start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA [Defense Contract Management Command or Defense Contract Audit Agency], and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.¹⁵ (Emphasis added.)

One DoD auditor-turned-whistleblower who worked at the C-130J plant in Marietta, Georgia, spent months researching the cost of the “J” model, but was frustrated by his attempts to determine an actual, and fair, price for the aircraft. The auditor, Ken Pedeleose, said in a report to Congress that in June 1995 when the government designated the C-130J a “Regulatory Pilot Program,” it “lost all insight into the C-130 operations.”

In 2001, the DOD IG released a report that criticized the use of “commercial item” purchases, concluding:

The Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Defense Advanced Research Projects Agency have made different attempts over the last 3 years to inappropriately use FAR Part 12 contracts to acquire applied research. The lack of a commercial market and established catalog and market prices for applied research, and difficulties in determining fair and reasonable prices for services that do not exist in the marketplace makes the use of commercial item contracts for applied research inappropriate.¹⁶

In 2000, Donald Mancuso, the DoD Deputy Inspector General, testified before Congress regarding the problem with “commercial item” purchases, stating:

In early 1998, we began issuing a series of audit reports on prices paid for aviation spare parts and equipment. As you may recall from your hearings at the time and intermittent publicity since, we found that prices paid under new, commercial type contracting arrangements were considerably higher than was the case when the same

¹⁵ Gene Elmore, Lockheed Martin, Memorandum to Col. Steve Busch, SAF/AQD, October 21, 1998, at p. 1.

¹⁶ DoD IG Report, *Use of Federal Acquisition Regulation Part 12 Contracts for Applied Research*, Report No. D-2001-051, February 15, 2001, at p. I.

items were procured previously under "traditional" Defense contracts or ordering agreements.¹⁷

Before the curtain completely fell on access to "commercial" purchase data, the government was able to compare spare parts prices under the new "commercial item" designation to early data that had been supplied to the government. In its 1999 report, the DOD IG found that AlliedSignal had overcharged the government for spare parts by as much as 618%.¹⁸ The irony is that these parts were bought under the new, much-touted "commercial" price system promoted by the Clinton Administration and Congress. The only way that the outrageous overcharging came to light was because the government still had pre-FASA and pre-Clinger-Cohen Act data to compare the old prices with the new "commercial" prices. POGO suspects that the same overcharges would be revealed in current "commercial items" if government auditors have access to cost or pricing data.

According to the January 1999 investigation by the DoD IG:¹⁹

- The government "paid Allied prices that were higher than fair and reasonable in FYs [Fiscal Years] 1996 and 1997 when compared to the noncommercial prices paid to Allied in previous years." The parts included items such as gearshafts, wheels, nuts, bearings, seals, filters, and valves.
- The Defense Department "paid a 54.5 percent premium for commercial parts from Allied" - in other words, were overcharged by more than 50%.
- For parts that AlliedSignal did not even make itself, but merely bought from original manufacturers or dealers and then sold to the government, some items were variously marked up by as much as 294%, 325%, and 618%.
- The Defense Department paid an even higher average markup in Fiscal Year (FY) 1997 (60.1%) than it did in FY 1996 (45.8%). It appears that in this case an Acquisition Reform "learning curve" is not being realized.
- Defenders of the acquisition system argue that the government paid higher prices because the prices included more stocking services - but the Defense Department failed to use the services.

The DOD IG report blacks out the names of specific spare parts that were grossly overpriced. Although contractors routinely claim such information is "proprietary," the real effect is that the

¹⁷ Donald Mancuso, Deputy Inspector General Department of Defense, Statement made before the Subcommittee on Readiness and Management Support of the Senate Committee on Armed Services on Defense Acquisition, April 26, 2000, at p. 9. Hereinafter Mancuso Statement.

¹⁸ DoD IG, *Commercial Spare Parts Purchased on a Corporate Contract*, Report No. 99-026, January 13, 1999, p. 12.

¹⁹ *Id.* at p. I-10.

public cannot easily find out how much they are overpaying for items they might recognize.

The IG report on AlliedSignal followed 1998 IG reports of overcharging under "commercial" contracts with Boeing and Sundstrand corporations. The earlier reports (see "Acquisition Deform: A Study in Hasty Deregulation," Project On Government Oversight Alert, October 1997) found that:

- Prices were inflated by more than 1,000 percent on a variety of spare parts. For example, the Boeing price for a commercially-available \$24.72 "spoiler actuator sleeve" was \$403.39 - a markup of 1,532 percent.²⁰
- Sundstrand billed the government \$6.1 million for parts that were worth only \$1.6 million.²¹
- Boeing charged \$5 million for parts that were worth \$3.2 million in the competitive market.²²
- A contractor charged \$76 for 57¢ screws.²³
- Another contractor charged \$714 for an electric bell worth \$46.68.²⁴

The IG's 1998 report found that higher prices were paid for "commercial" items than had been paid earlier because:²⁵

- Although Acquisition Reform allowed the Sundstrand items to be purchased under loose "commercial" item rules, in fact "there was no competitive commercial market to ensure the reasonableness of the prices";

²⁰ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17-18.

²¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, February 6, 1998, at p. 12.

²² DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 8.

²³ Department of Defense Authorization Act for Fiscal Year 1999 Report on Authorizing Appropriations, Senate Armed Services Committee, Rpt. 105-189, and "U.S. Senate Panel Tells Pentagon to Stop Parts 'Pricing Abuses,'" Tony Capaccio, Bloomberg Business News, May 29, 1999.

²⁴ *Id.*

²⁵ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 8.

- Sundstrand "refused to provide DLA [Defense Logistics Agency] contracting officers with 'uncertified' cost or pricing data for commercial catalog items";
- Items were defined as commercial as long as they were merely "offered for sale, lease, or license to the general public" (emphasis added); and
- In the Boeing case,

"contracting officers accepted Boeing commercial catalog prices as fair and reasonable without adequate support for price reasonableness, even when DoD was the 'primary' customer procuring significantly larger quantities than other commercial customers and there was no competitive commercial market to ensure the price integrity. The contracting officers made no attempt to exert the leverage that a major customer ought to be able to exert to negotiate significant discounts, as is common commercial practice."²⁶

The purchase of "commercial items" under FAR Part 12 is on the rise. Since FY 2000, contract award dollars and actions have been on the rise. According to GSA's FY 2004 report, the government conducted 367,654 "commercial item" purchases totaling more than \$50 billion.²⁷ In addition, "commercial item" purchases have increased in all categories. The chart below illustrates the increases in both government-wide and "commercial item" purchases.

Fiscal Year	All Contracts ²⁸		"Commercial Items" ²⁹		
	Dollars in Billions	Actions	Dollars in Billions	Actions	% of All Contracts
2004	\$310	1,661,506	\$50	367,654	16 %
2003	\$290	1,006,919	\$62	443,273	22 %
2002	\$234	672,171	\$47	255,480	20 %
2001	\$215	563,014	\$40	185,315	19 %
2000	\$203	519,780	\$31	135,836	15 %

²⁶ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17.

²⁷ GSA, Federal Procurement Data System, Total Federal Snapshot Report, Actions Reported From October 1, 2003 to September 30, 2004, date generated January 17, 2005.

²⁸ GSA, Federal Procurement Data System, Total Federal Snapshot Reports FY 2000 through FY 2004.

²⁹ *Id.*

Not only is the increased use of the “commercial item” contracting vehicle troublesome, but the Acquisition Reform Working Group (ARWG), largely made up of defense contractors, stated in its 2005 Legislative Agenda that it must continue to “push the envelop” regarding the government’s use of “commercial items” purchases. As may be expected, ARWG’s legislative agenda is complete with pro-contractor provisions that severely reduce or eliminate taxpayer protections – protections that allow agencies to oversee and audit government contracts. POGO’s preference is that the “commercial item” designation is only used for goods and services whose price is set by the genuine “commercial” marketplace.

Other Transactions

“Other transaction authority” is a term commonly used to refer to the DoD’s authority to enter into transactions (OT agreements) other than contracts, grants or cooperative agreements.³⁰ DoD has temporary authority to award such agreements in certain circumstances for basic, applied, and advanced research projects.³¹ Its authority was expanded to allow the Director, Defense Advanced Research Projects Agency (DARPA), to enter into OT agreements to carry out prototype projects that are directly relevant to and weapons or weapon systems proposed to be acquired or developed by DoD.³² OTA is a customized agreement rather than contracts that can be specifically tailored based on the government’s needs.³³ The inherent problem, however, is that rather than the government controlling what it needs, the OTA contractors are placed in the powerful position of saying “here’s what we will do for you.”

“Other Transactions” acquisitions generally are not subject to the federal laws and regulations governing procurement contracts. Therefore, OTA is exempt from the usual contracting controls and oversight mechanisms set forth in contracting statutes, the FAR (in particular Truth in Negotiations Act (TINA) regulations and Cost Accounting Standards (CAS), DFARS, audit access for examination of contractor records by the GAO or defense auditing agencies, and Small Business Act requirements for small business participation.³⁴ Mirroring the intended reasons behind “commercial items,” OTA was created to lure non-traditional defense contractors to bring innovative

³⁰ 10 U.S.C. § 2371(a).

³¹ *DoD Annual Report on Cooperative Agreements and Other Transactions Entered into During FY2002 Under 10 USC 2371*, no date provided, at p. 1.

³² Mancuso Statement, at p. 15.

³³ Congress has granted the Department of Homeland Security, NASA, and the Department of Transportation with OTA.

³⁴ Statement of Eleanor Hill, Inspector General Department of Defense, For the Subcommittee on Readiness and Management Support Senate Committee on Armed Services On Acquisition Reform in the Department of Defense, March 17, 1999, at p. 16. Hereinafter Hill Statement.

ideas to the government.³⁵ The numbers do not support the government intent, however, with 72% of the research and 97% of the prototype OTA funding going to traditional DoD contractors in the late-1990s.³⁶ Now we are hearing a new explanation for OTA – that the primary benefit to contractors is that they can fully protect their intellectual property rights. In addition to the elimination of contracting controls, the companies that enter into OT agreements retain their ability to make a dollar from programs that were funded by Uncle Sam.

Soon after DoD started using OTA, the DOD IG began documenting problems with those acquisitions. In 1998, the DOD IG reported on problems for 28 OT agreements awarded by DARPA.³⁷ One recommendation was for better monitoring of the actual costs against the funds paid and inconsistencies with audit provisions.³⁸ One year later, the IG reiterated concerns with OTA, stating:

DoD officials did not receive adequate expenditure reporting needed to monitor “Other Transaction” efforts, did not adjust milestone payments when needed, forfeited interest, and did not receive final research reports. The underlying causes were the lack of management guidance, and a lack of quantifiable performance measures to assess costs and benefits. The Department has issued additional guidance, but establishing the performance measures has been difficult for the Department.

* * *

Given the inapplicability of traditional controls to “Other Transactions,” we believe that if this authority is extended to billion dollar production runs of equipment, additional scrutiny of pricing for sole-source items will be needed to protect DoD and taxpayer interests. In these cases, the Department should require access to cost or pricing data, plus audit access for the Defense Contract Audit Agency, in order to ensure fair prices.³⁹

In 2000, the DoD Deputy IG Donald Mancuso pleaded with Congress to reign in OTA, testifying that “Congress may consider legislative proposals for other transactions this year. Given the inapplicability of traditional controls to other transactions, any expansion of the authority for

³⁵ Under Secretary of Defense for Acquisition, Technology, and Logistics, “*Other Transactions*” (OT) *Guide for Prototype Projects*, January 2001, at p. 11.

³⁶ Mancuso Statement, at p. 15.

³⁷ Hill Statement at p. 17.

³⁸ *Id.* at p. 16-17.

³⁹ *Id.* at p. 18-19.

other transactions should provide the needed protections both for the Department and the American taxpayers.”⁴⁰

Two major DOD acquisitions have come under OTA status: missile defense and Future Combat Systems (FCS) programs. As stated above, these programs are shielded from normal contract oversight mechanisms and proceed virtually unregulated. The real issue is what are we getting for our dollar.

On January 2, 2002, Secretary of Defense Rumsfeld issued a memorandum regarding the direction of the missile defense program. That memorandum included a directive stating that “to encourage flexibility acquisition practices, I delegate to the Director, MDA, authority to use transactions other than contracts grants, and cooperative agreements to carry out basic, applied, and advanced research.”⁴¹

In 2002, DARPA started awarding “other transactions” for development work for the Future Combat Systems (FCS) program. Although only \$20 billion awarded, the total value of the FCS program is believed to run as high as \$120 billion. That makes the FCS program the largest OTA purchase to date. Army officials have countered by claiming that FAR provisions apply to the FCS program. That statement is misleading in the sense that OTA is not subject to the FAR. Last year, however, DoD finalized FAR-like regulations for “other transactions” for prototype projects, although none of those regulations offered oversight controls that protect federal funds (*i.e.*, TINA and CAS).

POGO is concerned that both the missile defense and FCS programs are ripe for abuse and the use of OTA truly eliminates protections of hundreds of billions of taxpayer dollars. The OTA mechanism waives many of the financial oversight requirements of typical contracts for goods or services with the aim of attracting so-called non-traditional defense contractors. “Other transactions” allow contractors to avoid taxpayer protections and transparency requirements in the contract statutes and regulations, which provide protections to ensure fair and reasonable procurement prices. OTA, however, is exempt from those protections and can exempt a defense contractor from undergoing government audits or providing the federal contracting agency and government auditors with access to the contractor's pertinent records.

RECOMMENDATIONS

“*Commercial Items*”:

1. Restore the definition of “commercial items” to those actually sold to the general public in significant quantities, rather than the current loosened definition: an item not necessarily sold to the public, but merely “offered for sale,” or “of a type” offered

⁴⁰ Mancuso Statement, at p. 16-17.

⁴¹ Secretary of Defense Donald Rumsfeld, Memorandum for Deputy Secretary of Defense Secretaries of the Military Departments *et al.*, *Missile Defense Program Direction*, January 2, 2002, attachment at p. 2.

for sale. Today, some "commercial items" never actually experience sales to the public, allowing the defense contractors that produce them to charge exorbitant amounts while pretending that a competitive commercial market is keeping prices in line. Such items should not be exempt from the usual oversight (TINA and CAS); and

2. Stop the proposed rule on use of Time and Material and Labor Hour (T&M and LH) contracts using so-called "commercial item" FAR Part 12 provisions. This attempt is just another way of reliving contractors from oversight on flexibly-priced contracts. T&M and LH contracts could still be used, but they would have to include traditional oversight clauses, which FAR Part 12 prohibits.

Other Transactions:

1. Restore the original intent to bring innovations to the public from non-traditional government contractors, rather than throwing billions of dollars with no oversight controls to the government's top vendors (*i.e.*, prohibit any contractor who has accepted a FAR contract from being eligible to receive an OTA); and
2. Renegotiate such agreements under contracting vehicles that provide taxpayer protections (*i.e.*, FAR Part 15).

General Contract Reforms:

1. Increase competition -- especially for Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts (*e.g.*, GSA schedules, Governmentwide Acquisition Contracts (GWACs), and other multi-agency contracts);
2. Increase oversight for flexibly-priced contracts (*e.g.*, cost-reimbursement contracts, incentive-type contracts, and T&M and LH contracts); and
3. Increase transparency -- by requiring all opportunities (unless there is a security exception), and regardless of how phrased (*e.g.*, contracts, orders, Blanket Purchase Agreement (BPAs), task or delivery orders under schedules GWACs, etc.) to be posted to Fed Biz Ops.



DEPARTMENT OF DEFENSE
OFFICE OF FREEDOM OF INFORMATION AND SECURITY REVIEW
1155 DEFENSE PENTAGON
WASHINGTON, DC 20301-1155

Ref: 05-F-0830

FEB 01 2005

Mr. Scott Amey
Project on Government Oversight
666 Eleventh Street, NW, Suite 500
Washington, DC 20001-4542

Dear Mr. Amey:

This is in response to your December 21, 2004 Freedom of Information Act request. We received your request on January 4, 2005. This also refers to your supplemental request of January 7, 2005.

Please find enclosed the records you requested which we are providing to you in their entirety. The records consist of three Excel spreadsheets for fiscal years 2002, 2003, and 2004, containing contract actions where the "Commercial Item" field was coded as "Y" and with a dollar value equal to or greater than five million dollars. This information was extracted by the Defense Manpower Data Center from the Defense Contract Action Data System.

There are no assessable fees in this instance.

Sincerely,


C. W. Talbott
Chief

Enclosure
Commercial Contract Items (CD)



P r o j e c t O n G o v e r n m e n t O v e r s i g h t
W a t c h d o g s i n c e 1 9 8 1

December 21, 2004

Department of Defense
 Mr. James Hogan
 Office of Freedom of Information/Security Review
 Room 2C757
 1155 Defense Pentagon
 Washington, D.C. 20301-1155

Re: Freedom of Information Act Request

Dear Mr. Hogan:

I am making this request under the Freedom Of Information Act ("FOIA"), 5 U.S.C. § 552. Please provide a list of all goods and services that have been designated as commercial items under federal laws and regulations, including but not limited to 10 U.S.C. § 2375 et seq., 41 U.S.C. § 264 et seq., 48 C.F.R. § 12.000 et seq., FAR Parts 2.101 and 12.000 et seq., and DFARS 12.1 et seq.

I request a waiver of all costs associated with fulfilling this submission pursuant to 5 U.S.C. § 552(a)(4)(A)(iii). Disclosure of the requested records will further the "public interest" because it is likely to contribute significantly to public understanding of the operations or activities of the government and is not primarily in the commercial interest of POGO. Specifically, POGO intends to use the requested records to highlight the government's use of the commercial item designation to contribute to public understanding of the how the government buys goods and services.

POGO investigates, exposes, and seeks to remedy systemic abuses of power, mismanagement, and subservience by the federal government to powerful special interests. Founded in 1981, POGO is a politically-independent, nonprofit watchdog that promotes a government that is accountable to the citizenry. POGO disseminates information about its activities to thousands of concerned citizens, policymakers, and the media via email, direct mail, and its web site <http://www.pogo.org>, which receives over 500,000 hits monthly. The information provided by the agency will be used for the following activities: publication by email and on our website; publication in reports and newsletters issued by POGO; publication in the newsletters of affiliated nonprofit organizations; efforts to educate Congress, the Executive Branch, and other policymakers in Washington, DC; or investigational projects conducted in conjunction with the news media.

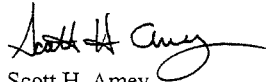
If this request is denied in full or in part, please cite the exemptions pursuant to 5 U.S.C. §

552(b) that justify the denial. If an exemption applies, however, please consider exercising the agency's discretionary release powers to disclose the records. Additionally, please release all reasonably segregable portions of the records that do not meet an exemption.

I look forward to your response within 20 days of the receipt of this request, unless, in the case of "unusual circumstances," the time limitation is "extended by written notice." I am aware that I have a right to appeal if this request is wholly or partially denied or if the agency fails to respond within 20 days, and that, if successful, a federal district court may assess "reasonable attorney fees and other litigation costs." 5 U.S.C. § 552(a)(4)(E).

Please contact me if this request requires further clarification. Thank you for your prompt attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott H. Amey", with a stylized flourish at the end.

Scott H. Amey
General Counsel
scott@pogo.org

[illegible]

[illegible]

[illegible]

W91169	ACA, NRCC - GENERAL SUPPORT DIV	ARCADIS G&M, INC	Sierra Army Depot, California	R499	Other Professional Services	000	62211	Hazardous Waste Treatment and Disposal	5,710,835
W91169	ACA, NRCC - GENERAL SUPPORT DIV	TETRA TECH, INC	Midland, Iowa	F108	Hazardous Substance Removal/Cleanup/Disposal	000	62311	Remediation Services	7,330,781
W91169	ACA, NRCC - GENERAL SUPPORT DIV	THE GINN GROUP	Fort McPherson, Georgia	J099	Maint & Repair of Miscellaneous Equip	000	64101	Facilities Support Services	5,233,861
HC1013	ACA, South Region Contracting Ctr	SYSTEMS PLANNING AND ANALYSIS	Alamogordo, Virginia	T022	ADP Centrl Processing Unit (CPU), Compute	000	64101	Other Computer Related Services	7,180,100
W43B9	FLEET & INDUSTRIAL SUPPLY CENTER	THOMAS GROUP, INC	San Diego, California	J999	Non-nuclear Ship Repair (Nest)	000	64101	Administrative Management and General Ma	8,037,070
W52P17	U.S. Army Industrial Operations	DIMENSIONS INTERNATIONAL, INC	Albany, New York	S1106	Logistics Support Services	000	64130	Process, Physical Distribution, and Logi	1,838,916
W91169	ACA, NRCC - ALEXANDRIA OFFICE	ADWAVE, INC	Albany, New York	R423	Intelligence Services	000	64130	Engineering Services	1,838,916
HC1006	Missile Defense Agency	BOOZ ALLEN HAMILTON INC	MacDill AFB, Florida	R423	Intelligence Services	000	64190	All Other Professional, Scientific, and	10,102,300
W91169	Def. Contract. Ctr. - Washington	QUANTUM RESEARCH INTERNATIONAL	Arlington, Virginia	R689	Other Administrative Support Services	000	64190	Research and Development In the Physical	6,293,917
HHM462	Virginia Contracting Activity	EVERGRUP TECHNOLOGIES, INC	Huntsville, Alabama	R423	Engineering Technical Services	000	64190	All Other Professional, Scientific, and	7,482,874
UL09	ASCD08K	ZEL TECHNOLOGIES, LLC	Robins AFB, Georgia	R423	Engineering Technical Services	000	64190	Engineering Services	5,841,843
W91169	Def. Contract. Ctr. - Washington	AI FORD ASSOCIATES INC	Hempden, Virginia	R423	Intelligence Services	000	64190	All Other Professional, Scientific, and	5,605,744
Q439	6 CONSLG	ALFACOM CORPORATION	Arlington, Virginia	J099	Maint & Repair of Miscellaneous Equip	000	64190	Administrative Management and General Ma	5,605,744
Q439	6 CONSLG	LOGICSED MARTIN INTEGRATED TEC	Arlington, Virginia	R423	Intelligence Services	000	64190	Engineering Services	8,832,911
Q439	6 CONSLG	ACS DEFENSE, INC	MacDill AFB, Florida	R423	Intelligence Services	000	64190	National Security	9,236,957
W91151	ACA, Fort Hood	SYSTEM STUDIES & SIMULATION, I	Fort Hood, Texas	R423	Intelligence Services	000	64190	All Other Professional, Scientific, and	6,644,840
F0254	MARINE CORPS COMBAT DEVELOPMENT	J WALTER THOMPSON USA	Albany, Georgia	R423	Engineering Technical Services	000	64190	Engineering Services	5,060,349
AC48	664 L&L/C	THE REDMON GROUP, INC	Albany, Georgia	R423	Engineering Technical Services	000	64190	Advertising Agencies	3,878,320
W91169	Def. Contract. Ctr. - Washington	SCIENCE APPLICATIONS INTERNATI	Omaha, Nebraska	R423	Engineering Technical Services	000	64190	Engineering Services	6,286,286
W91169	Def. Contract. Ctr. - Washington	AMERICAN MANAGEMENT SYSTEMS I	Omaha, Nebraska	R423	Engineering Technical Services	000	64190	All Other Professional, Scientific, and	1,676,121
OR17	ACD/PN	BOOZ ALLEN HAMILTON INC	Carlisle Barracks, Penn	R499	Other Professional Services	000	64190	All Other Professional, Scientific, and	6,389,842
W91169	Def. Contract. Ctr. - Washington	DELOTTE & TOUCHE L L P	Washington, D.C.	R499	Program Management/Support Services	000	64190	Administrative Management and General Ma	7,890,000
W91150	ACA, NRCC - MISSIION DIVISION	MPRI, INC	Washington, D.C.	R499	Miscellaneous Items	000	64190	Administrative Management and General Ma	7,223,465
F0447	U.S. MARINE CORPS RESERVES	FLUXUS CORPORATION	Fort Knox, Kentucky	R423	Miscellaneous Items	000	64190	Administrative Management and General Ma	9,248,273
C201	81 CONSLG	ROMA WINDATA BUSINESS SOLUTI	Everett, Washington	R423	Engineering Technical Services	000	64190	Instrument Manufacturing for Measuring a	3,716,165
C201	81 CONSLG	STELCASE INC	Chicago, Illinois	R423	Engineering Technical Services	000	64190	Instrument Manufacturing for Measuring a	3,716,165
W6942V	TACOM - Western	FOUNTAIN TRAILER COMPANY	El Segundo, California	7110	Mechanical Furniture and Fixtures	000	33000	All Other Miscellaneous Manufacturing	10,853,045
MA09	84 LG&L/C	SIEMENS ENTERPRISE NETWORKS LL	Haleyville, Alabama	2330	Trailers	000	33020	Truck Trailer Manufacturing	5,863,885
G7Y8	MSG/PK, Bldg 263, Room C022	INTERGRAPH CORPORATION	Reston, Virginia	D302	ADP Systems Development Services	000	33411	Electronic Computer Manufacturing	5,825,532
LC07	11 CONSLG/DW	DIGITALNET GOVERNMENT SOLUTION	Huntsville, Alabama	D309	Other ADP & Telecommunication Services	000	33411	Consumer Electronics Repair and Mainten	12,439,061
HC1013	Defense Info. Technology Contract	THE BENTLEY SYSTEMS CORP.,	Herndon, Virginia	D309	Other ADP & Telecommunication Services	000	33411	Consumer Electronics Repair and Mainten	14,678,683
HC1013	Defense Info. Technology Contract	PIRG BURTOM ASSOCIATES INC	Fairfax, Virginia	D309	Other ADP & Telecommunication Services	000	33411	Consumer Electronics Repair and Mainten	14,678,683
HC1013	Defense Info. Technology Contract	SOLERS INC	Arlington, Virginia	D314	ADP System Acquisition Support Services	000	33411	Other Computer Related Services	5,506,860
HC1013	Defense Info. Technology Contract	MANTECH INTEGRATED DATA SYSTEM	Chantilly, Virginia	7322	ADPE Centrl Processing Unit (CPU), Compute	000	33411	Other Computer Related Services	6,477,390
G9V8	SSG/PK	CDW GOVERNMENT, INC	Chicago, Illinois	7610	ADPE System Configuration	000	33411	Electronic Computer Manufacturing	8,172,802
HC1013	Defense Info. Technology Contract	ZEN TECHNOLOGY, INC	Arlington, Virginia	R499	Other Professional Services	000	33411	Electronic Computer Manufacturing	8,390,630
G204	SAC/PKR, Los Angeles AFB	BOOZ ALLEN HAMILTON INC	McLean, Virginia	R423	Engineering Technical Services	000	33411	Other Computer Related Services	12,288,076
HC1013	Defense Info. Technology Contract	MARKET TECHNOLOGY, INC	McLean, Virginia	7030	ADP Software	000	33411	Computer and Software Stores	17,287,581
W91169	HQ JAWASCOM, Dir. of Contracting	OBJECT SCIENCES CORPORATION	Alexandria, Virginia	D389	Other ADP & Telecommunication Services	000	44120	Computer and Software Stores	6,439,919
W91150	ACA, NRCC - MISSIION DIVISION	LUCCENT TECHNOLOGIES INC	Fort Monro, Virginia	D389	Other ADP & Telecommunication Services	000	44120	Custom Computer Programming Services	5,328,644
HC1013	Defense Info. Technology Contract	METCOIN SOLUTIONS	Hagerstown, Maryland	D391	ADP Facility Operation & Maintenance Ser	000	44152	Computer Systems Design Services	9,232,334
HC1013	Defense Info. Technology Contract	ACS INC	Pompa, California	7022	ADP Centrl Processing Unit (CPU), Compute	000	44152	Computer Systems Design Services	8,173,836
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HC1013	Defense Info. Technology Contract	ACS INC	Pompa, California	7022	ADP Centrl Processing Unit (CPU), Compute	000	44152	Computer Systems Design Services	8,173,836
HC1013	Defense Info. Technology Contract	ACS INC	Pompa, California	7022	ADP Cent				

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DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336411	Aircraft Manufacturing	14,192,220
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336412	Aircraft Manufacturing	3,364,120
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	811510	Commercial and Industrial Machinery and Equipment	6,800,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	411229	AI Other Motor Vehicle Dealers	13,600,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	411229	AI Other Motor Vehicle Dealers	7,952,200
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336413	Industrial Truck, Tractor, Trailer, and Other Aircraft Parts and Auxiliary Equip	5,182,315
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336413	Other Aircraft Parts and Auxiliary Equip	2,191,899
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336414	Aircraft Manufacturing	9,097,908
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336413	Other Aircraft Parts and Auxiliary Equip	61,464,636
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336414	Aircraft Manufacturing	29,364,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Radio and Television Broadcasting and Wireless Communications Equipment	7,464,500
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Radio and Television Broadcasting and Wireless Communications Equipment	14,544,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Other Communications Equipment	16,657,511
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336451	Search, Detection, Navigation, Guidance, Control, and Communications Equipment	8,992,247
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541519	Other Computer Related Services	33,549,127
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	424410	General Line Grocery Merchant Wholesaler	14,733,795
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	424410	General Line Grocery Merchant Wholesaler	8,955,912
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541380	Geographical Mapping and Mapping Services	10,988,063
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336412	Computer Storage Device Manufacturing	17,171,513
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541512	Security Systems Services (except Locks)	5,848,230
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541512	Other Mechanical and Mechanical Equipment	5,172,030
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336413	Industrial Truck, Tractor, Trailer, and Other Aircraft Parts and Auxiliary Equip	16,126,122
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336424	Industrial Truck, Tractor, Trailer, and Other Aircraft Parts and Auxiliary Equip	10,463,926
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	911190	Other General Government Support	10,153,130
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	921190	Other General Government Support	8,302,134
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Industrial Building Construction	4,620,750
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Other Industrial and Academic Structures	1,846,251
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Other Industrial and Academic Structures	5,154,344
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336429	Military Armored Vehicle, Tank, and Tank	6,081,200
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541911	Administrative Management and General Ma	23,423,833
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541911	Custom Computer Programming Services	19,260,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541911	Administrative Management and General Ma	19,933,051
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541919	Other Computer Related Services	3,265,800
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336411	Aircraft Manufacturing	62,000,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336411	Search, Detection, Navigation, Guidance, Control, and Communications Equipment	38,383,652
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336412	Other Aircraft Parts and Auxiliary Equip	17,646,119
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541519	Other Computer Related Services	20,868,000
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541519	Other Computer Related Services	1,632,287
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541519	Other Computer Related Services	8,716,938
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	541519	Other Computer Related Services	5,880,837
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	415199	Other Computer Related Services	20,019,663
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336411	Electronic Computer Manufacturing	12,626,619
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336412	Radio Building	5,235,917
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336412	Radio Building	6,732,316
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	336418	Other Engines Equipment Manufacturing	8,893,887
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	431111	Deep Sea Freight Transportation	43,111
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	431111	Deep Sea Freight Transportation	1,256,745
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	431111	Deep Sea Freight Transportation	6,442,392
DC-ALCND (CLC AIRCRAFT)	LOCKHEED MARTIN CORPORATION	1510	Aircraft Fixed Wing	000	431111	Deep Sea Freight Transportation	6,012,200

GR23	MILITARY SEALIFT COMMAND	AMERICAN ROLL-ON ROLL-OFF CARR	KUWAIT	V124	Marine Charter For Things	000	483111	Deep Sea Freight Transportation	8,653,200
GR23	MILITARY SEALIFT COMMAND	TOTEM OCEAN TRAILER EXPRESS	. KUWAIT	V124	Marine Charter For Things	000	483111	Deep Sea Freight Transportation	5,166,098
GR23	SPACE AND NAVAL WARFARE SYSTEMS	TOTEM OCEAN TRAILER EXPRESS	. KUWAIT	V124	Marine Charter For Things	000	483111	Deep Sea Freight Transportation	5,436,098
GR23	SPACE AND NAVAL WARFARE SYSTEMS	STRATOS MOBILE NETWORKS, INC	Bethesda, Maryland	R428	Communications Services	000	517310	Telecommunications Resellers	28,951,027
RA13A	FLEET & INDUSTRIAL SUPPLY CENTER	TERADYNE INC	Groton, Conn	J296	Maint & Repair of Electrical Industry Ma	000	334415	Semiconductor and Related Device Manufac	3,839,981
RA13A	FLEET & INDUSTRIAL SUPPLY CENTER	GOODWILL INDUSTRIES OF SOUTHERN	Grand Lake, Illinois	J296	Food Services	000	721210	Food Service Contractors	1,825,863
RA13A	FLEET & INDUSTRIAL SUPPLY CENTER	GOODWILL INDUSTRIES OF SOUTHERN	Grand Lake, Illinois	J296	Food Services	000	721210	Food Service Contractors	48,153,462
RA13A	FLEET & INDUSTRIAL SUPPLY CENTER	KEYSTONE HELICOPTER CORP	Philadelphia, Penn	J258	Maint & Repair of Engines, Turbines &	000	336115	Aircraft Engine and Engine Parts Manufac	8,951,818
BM17A	NAVAL SURFACE WARFARE CENTER	EXIDE TECHNOLOGIES	Lombard, Illinois	6140	Batteries, Rechargeable	000	336115	Primary Battery Manufacturing	8,956,910
BM17A	NAVAL SURFACE WARFARE CENTER	LITTON SYSTEMS, INC	Garland, Texas	8359	High Vision Equipment, Emittred and Refl	000	334611	Search, Detection, Navigation, Guidance,	6,463,334
BM17A	NAVAL SURFACE WARFARE CENTER	RAYTHEON COMPANY	McKinney, Texas	5441	Radio Equipment, Airborne	000	334611	Search, Detection, Navigation, Guidance,	6,306,800
BM17A	NAVAL SURFACE WARFARE CENTER	LITTON SYSTEMS INC	Garland, Texas	1995	Guns, Through 30 mm	000	33996	Other Ordnance and Accessories Manufactu	17,627,378
BM17A	NAVAL SURFACE WARFARE CENTER	LITTON SYSTEMS INC	Garland, Texas	1995	Guns, Through 30 mm	000	33996	Other Ordnance and Accessories Manufactu	17,627,378
BM17A	NAVAL SURFACE WARFARE CENTER	LITTON SYSTEMS, INC	Garland, Texas	5555	High Vision Equipment, Emittred and Refl	000	334611	Search, Detection, Navigation, Guidance,	6,463,334
BM17A	NAVAL SURFACE WARFARE CENTER	LITTON SYSTEMS, INC	Garland, Texas	5555	High Vision Equipment, Emittred and Refl	000	334611	Search, Detection, Navigation, Guidance,	21,082,764
BM17A	NAVAL SURFACE WARFARE CENTER	RAIDIAN INC	Alexandria, Virginia	6350	Misc Alarm Signal and Security Detecilo	000	561624	Security Systems Services (except Locksm	8,979,949
BM17A	NAVAL SURFACE WARFARE CENTER	FOSTER-MILLER INC	Waltham, Mass	6350	Surface Use Explosive Ordn Disposal Tools & E	000	334611	Search, Detection, Navigation, Guidance,	5,362,708
RA19A	FLEET & INDUSTRIAL SUPPLY CENTER	EURPAC WAREHOUSE SALES DIV OF	Norfolk, Virginia	8320	Tollst Staps, Shaving Prep & Dettificies	000	423430	Computer and Computer Peripheral Equipme	9,713,960
RA19A	FLEET & INDUSTRIAL SUPPLY CENTER	EURPAC WAREHOUSE SALES DIV OF	Norfolk, Virginia	8320	Tollst Staps, Shaving Prep & Dettificies	000	423430	Computer and Computer Peripheral Equipme	9,713,960
W43D	FLEET & INDUSTRIAL SUPPLY CENTER	CORROSION ENGINEERING SERVICES	San Diego HS, California	J296	Non-metall Ship Repair (Weld)	000	334611	Ship Building and Repairing	5,535,913
W43D	FLEET & INDUSTRIAL SUPPLY CENTER	CORROSION ENGINEERING SERVICES	San Diego HS, California	J296	Non-metall Ship Repair (Weld)	000	334611	Ship Building and Repairing	5,535,913
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL ELECTRIC COMPANY	Lynn, Mass	2440	Gas Turbines and Jet Engines, Aids & Com	000	334611	Aircraft Engine and Engine Parts Manufac	5,764,131
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL ELECTRIC COMPANY	Lynn, Mass	2440	Gas Turbines and Jet Engines, Aids & Com	000	334611	Aircraft Engine and Engine Parts Manufac	5,764,131
JA10E	NAVAL INVENTORY CONTROL POINT	HONEYWELL INTERNATIONAL INC	Tempe, Arizona	2116	Engine Fuel System Components, Aircraft	000	334612	Aircraft Engine and Engine Parts Manufac	15,720,458
JA10E	NAVAL INVENTORY CONTROL POINT	HONEYWELL INTERNATIONAL INC	Tempe, Arizona	2116	Engine Fuel System Components, Aircraft	000	334612	Aircraft Engine and Engine Parts Manufac	15,720,458
JA10E	NAVAL INVENTORY CONTROL POINT	MICHELIN AIRCRAFT COMPANY, LLC	Charlotte, N Carolina	4110	Compressor and Vacuum Pumps	000	334612	Aircraft Engine and Engine Parts Manufac	15,292,174
JA10E	NAVAL INVENTORY CONTROL POINT	MICHELIN AIRCRAFT COMPANY, LLC	Charlotte, N Carolina	4110	Compressor and Vacuum Pumps	000	334612	Aircraft Engine and Engine Parts Manufac	15,292,174
JA10E	NAVAL INVENTORY CONTROL POINT	ROLLS-ROYCE CORPORATION	Indianapolis, Indiana	8845	Tires and Tubes, Pneumatic, Aircraft	000	332111	Tire Manufacturing (except Retreading)	14,376,317
JA10E	NAVAL INVENTORY CONTROL POINT	ROLLS-ROYCE CORPORATION	Indianapolis, Indiana	8845	Tires and Tubes, Pneumatic, Aircraft	000	332111	Tire Manufacturing (except Retreading)	14,376,317
JA10E	NAVAL INVENTORY CONTROL POINT	HONEYWELL INTERNATIONAL INC	Phoenix, Arizona	2910	Torque Converters and Speed Changers	000	334611	Aircraft Engine and Engine Parts Manufac	5,379,240
JA10E	NAVAL INVENTORY CONTROL POINT	HONEYWELL INTERNATIONAL INC	Phoenix, Arizona	2910	Torque Converters and Speed Changers	000	334611	Aircraft Engine and Engine Parts Manufac	5,379,240
JA10E	NAVAL INVENTORY CONTROL POINT	ROCKWELL COLLINS, INC	Indianapolis, Indiana	8425	Engine Instrument and Avionics Equip	000	334611	Aircraft Engine and Engine Parts Manufac	6,963,866
JA10E	NAVAL INVENTORY CONTROL POINT	ROCKWELL COLLINS, INC	Indianapolis, Indiana	8425	Engine Instrument and Avionics Equip	000	334611	Aircraft Engine and Engine Parts Manufac	6,963,866
JA10E	NAVAL INVENTORY CONTROL POINT	CAMPBELL-EWALD COMPANY	Center Eureka, Iowa	R425	Engineering Technical Services	000	541910	Advertising Agencies	13,833,858
JA10E	NAVAL INVENTORY CONTROL POINT	CAMPBELL-EWALD COMPANY	Center Eureka, Iowa	R425	Engineering Technical Services	000	541910	Advertising Agencies	13,833,858
JA10E	NAVAL INVENTORY CONTROL POINT	ROME RESEARCH CORPORATION	Warren, Michigan	R713	Advertising Services	000	541910	Advertising Agencies	31,210,330
JA10E	NAVAL INVENTORY CONTROL POINT	ROME RESEARCH CORPORATION	Warren, Michigan	R713	Advertising Services	000	541910	Advertising Agencies	31,210,330
JA10E	NAVAL INVENTORY CONTROL POINT	INTERMARKET OVERSEAS FOR GENER	Rosewell Roads MS, Puerto Rico	D316	Telecommunication Network Management Ser	000	517310	Telecommunications Resellers	5,370,713
JA10E	NAVAL INVENTORY CONTROL POINT	INTERMARKET OVERSEAS FOR GENER	Rosewell Roads MS, Puerto Rico	D316	Telecommunication Network Management Ser	000	517310	Telecommunications Resellers	5,370,713
JA10E	NAVAL INVENTORY CONTROL POINT	COMMUNICATION TECHNOLOGIES INC	. KUWAIT	8899	Food Items for Resale	000	312113	Ice Manufacturing	9,697,690
JA10E	NAVAL INVENTORY CONTROL POINT	COMMUNICATION TECHNOLOGIES INC	. KUWAIT	8899	Food Items for Resale	000	312113	Ice Manufacturing	9,697,690
JA10E	NAVAL INVENTORY CONTROL POINT	COYLE PERSONNEL PLC	Norfolk, Virginia	8096	Training/Curriculum Development	000	815152	Flight Training	7,696,875
JA10E	NAVAL INVENTORY CONTROL POINT	COYLE PERSONNEL PLC	Norfolk, Virginia	8096	Training/Curriculum Development	000	815152	Flight Training	7,696,875
JA10E	NAVAL INVENTORY CONTROL POINT	MACTEC INC, L P	. UNITED RM	8096	Other Administrative Support Services	000	815152	Flight Training	7,696,875
JA10E	NAVAL INVENTORY CONTROL POINT	MACTEC INC, L P	. UNITED RM	8096	Other Administrative Support Services	000	815152	Flight Training	7,696,875
JA10E	NAVAL INVENTORY CONTROL POINT	MACTEC INC, L P	Lynchburg, Virginia	5330	Telecomm & Public Address Sys, Ex Auto	000	334220	Radio and Television Broadcasting and W	10,050,000
JA10E	NAVAL INVENTORY CONTROL POINT	MACTEC INC, L P	Lynchburg, Virginia	5330	Telecomm & Public Address Sys, Ex Auto	000	334220	Radio and Television Broadcasting and W	10,050,000
JA10E	NAVAL INVENTORY CONTROL POINT	L-3 COMMUNICATIONS CORPORATION	Salt Lake City, Utah	J258	Maint & Repair of Eo/Communication Equip	000	334220	Radio and Television Broadcasting and W	9,699,400
JA10E	NAVAL INVENTORY CONTROL POINT	L-3 COMMUNICATIONS CORPORATION	Salt Lake City, Utah	J258	Maint & Repair of Eo/Communication Equip	000	334220	Radio and Television Broadcasting and W	9,699,400
JA10E	NAVAL INVENTORY CONTROL POINT	POWER SYSTEMS INTERNATIONAL, I	Newspaper, New York	J258	Maint & Repair of Eo/Communication Equip	000	334220	Radio and Television Broadcasting and W	19,754,858
JA10E	NAVAL INVENTORY CONTROL POINT	POWER SYSTEMS INTERNATIONAL, I	Newspaper, New York	J258	Maint & Repair of Eo/Communication Equip	000	334220	Radio and Television Broadcasting and W	19,754,858
JA10E	NAVAL INVENTORY CONTROL POINT	ALUJID GERAC BERNHAR	Naturel Bridge Sta, Virginia	6115	Generators and Generator Sets, Electric	000	333312	Motor and Generator Manufacturing	5,999,508
JA10E	NAVAL INVENTORY CONTROL POINT	ALUJID GERAC BERNHAR	Naturel Bridge Sta, Virginia	6115	Generators and Generator Sets, Electric	000	333312	Motor and Generator Manufacturing	5,999,508
JA10E	NAVAL INVENTORY CONTROL POINT	BEAUPRE AMERICA EQUIPMENT LUM	. ITAL Y	M125	Operational Support Terminal	348	811160	Other General Government Support	6,168,883
JA10E	NAVAL INVENTORY CONTROL POINT	BEAUPRE AMERICA EQUIPMENT LUM	. ITAL Y	M125	Operational Support Terminal	348	811160	Other General Government Support	6,168,883
JA10E	NAVAL INVENTORY CONTROL POINT	INTERLUSIVE, S A	. UNITED RM	V120	Mechanical Engineering and Mining Equipm	000	483110	Other Public-Use Manufacturing	9,100,000
JA10E	NAVAL INVENTORY CONTROL POINT	INTERLUSIVE, S A	. UNITED RM	V120	Mechanical Engineering and Mining Equipm	000	483110	Other Public-Use Manufacturing	9,100,000
JA10E	NAVAL INVENTORY CONTROL POINT	INTERLUSIVE, S A	. SPAIN	M125	Operational Support Terminal	000	861980	All Other Support Services	5,319,542
JA10E	NAVAL INVENTORY CONTROL POINT	INTERLUSIVE, S A	. SPAIN	M125	Operational Support Terminal	000	861980	All Other Support Services	5,319,542
JA10E	NAVAL INVENTORY CONTROL POINT	MCDONNELL DOUGLAS CORPORATION	St. Louis, Missouri	6335	Physical Properties Testing Equipment	000	334619	Other Measuring and Controlling Device M	14,478,804
JA10E	NAVAL INVENTORY CONTROL POINT	MCDONNELL DOUGLAS CORPORATION	St. Louis, Missouri	6335	Physical Properties Testing Equipment	000	334619	Other Measuring and Controlling Device M	14,478,804
JA10E	NAVAL INVENTORY CONTROL POINT	HAMILTON BUNSTRAUD CORPORATIO	San Diego, California	1730	Aircraft Ground Servicing Equipment	000	334619	Other Aircraft Parts and Auxiliary Equip	27,111,868
JA10E	NAVAL INVENTORY CONTROL POINT	HAMILTON BUNSTRAUD CORPORATIO	San Diego, California	1730	Aircraft Ground Servicing Equipment	000	334619	Other Aircraft Parts and Auxiliary Equip	27,111,868
JA10E	NAVAL INVENTORY CONTROL POINT	DELL MARKETING L P	Round Rock, Texas	9999	Misc Electrical & Electronic Components	000	334619	Other Electronic Component Manufacturing	13,447,428
JA10E	NAVAL INVENTORY CONTROL POINT	DELL MARKETING L P	Round Rock, Texas	9999	Misc Electrical & Electronic Components	000	334619	Other Electronic Component Manufacturing	13,447,428
JA10E	NAVAL INVENTORY CONTROL POINT	LUCCENT TECHNOLOGIES INC	Larson Woodville, N Carolina	D389	Other ADP & Telecommunication Services	000	541912	Computer Systems Design Services	7,169,939
JA10E	NAVAL INVENTORY CONTROL POINT	LUCCENT TECHNOLOGIES INC	Larson Woodville, N Carolina	D389	Other ADP & Telecommunication Services	000	541912	Computer Systems Design Services	7,169,939
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL DYNAMICS NETWORK SYSTE	Bedford Heights, Mass	8355	Miscellaneous Communication Equipment	000	234510	Audio and Video Equipment Manufacturin	7,681,900
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL DYNAMICS NETWORK SYSTE	Bedford Heights, Mass	8355	Miscellaneous Communication Equipment	000	234510	Audio and Video Equipment Manufacturin	7,681,900
JA10E	NAVAL INVENTORY CONTROL POINT	DIGITAL GLOBE, INC	Longmont, Colorado	7640	Maps, Atlases, Charts, and Globes	000	541980	Geophysical Surveying and Mapping Servis	8,050,000
JA10E	NAVAL INVENTORY CONTROL POINT	DIGITAL GLOBE, INC	Longmont, Colorado	7640	Maps, Atlases, Charts, and Globes	000	541980	Geophysical Surveying and Mapping Servis	8,050,000
JA10E	NAVAL INVENTORY CONTROL POINT	SPACE IMAGING, LLC	Thornton, Colorado	7640	Maps, Atlases, Charts, and Globes	000	541980	Geophysical Surveying and Mapping Servis	27,700,000
JA10E	NAVAL INVENTORY CONTROL POINT	SPACE IMAGING, LLC	Thornton, Colorado	7640	Maps, Atlases, Charts, and Globes	000	541980	Geophysical Surveying and Mapping Servis	27,700,000
JA10E	NAVAL INVENTORY CONTROL POINT	NORCROSS SAFETY PRODUCTS L L C	Nashua, N.H.	8430	Footwear, Men's	000	316211	Rubber and Plastics Footwear Manufactur	6,851,000
JA10E	NAVAL INVENTORY CONTROL POINT	NORCROSS SAFETY PRODUCTS L L C	Nashua, N.H.	8430	Footwear, Men's	000	316211	Rubber and Plastics Footwear Manufactur	6,851,000
JA10E	NAVAL INVENTORY CONTROL POINT	WOLVERINE WORLD WIDE INC	Rockford, Michigan	8430	Footwear, Men's	000	316211	Rubber and Plastics Footwear Manufactur	15,055,170
JA10E	NAVAL INVENTORY CONTROL POINT	WOLVERINE WORLD WIDE INC	Rockford, Michigan	8430	Footwear, Men's	000	316211	Rubber and Plastics Footwear Manufactur	15,055,170
JA10E	NAVAL INVENTORY CONTROL POINT	ICED	El Paso, Texas	8415	Clothing, Special Purpose	000	313220	Fabric Coating Mills	6,735,000
JA10E	NAVAL INVENTORY CONTROL POINT	ICED	El Paso, Texas	8415	Clothing, Special Purpose	000	313220	Fabric Coating Mills	6,735,000
JA10E	NAVAL INVENTORY CONTROL POINT	SOUTHEASTERN KENTUCKY REMANBL	Cordier, Kentucky	8415	Clothing, Special Purpose	000	313220	Fabric Coating Mills	6,735,000
JA10E	NAVAL INVENTORY CONTROL POINT	SOUTHEASTERN KENTUCKY REMANBL	Cordier, Kentucky	8415	Clothing, Special Purpose	000	313220	Fabric Coating Mills	6,735,000
JA10E	NAVAL INVENTORY CONTROL POINT	MANITO & COMPANY, INC	Wymore, Arkansas	8430	Footwear, Men's	000	316213	Men's Footwear (except Athletic) Manufac	8,201,466
JA10E	NAVAL INVENTORY CONTROL POINT	MANITO & COMPANY, INC	Wymore, Arkansas	8430	Footwear, Men's	000	316213	Men's Footwear (except Athletic) Manufac	8,201,466
JA10E	NAVAL INVENTORY CONTROL POINT	WELCO ENTERPRISES, INC	Waynesville, N Carolina	8430	Footwear, Men's	000	316213	Men's Footwear (except Athletic) Manufac	9,365,445
JA10E	NAVAL INVENTORY CONTROL POINT	WELCO ENTERPRISES, INC	Waynesville, N Carolina	8430	Footwear, Men's	000	316213	Men's Footwear (except Athletic) Manufac	9,365,445
JA10E	NAVAL INVENTORY CONTROL POINT	SKEETA INC	Miami, Florida	7210	Household Furnishings	000	314889	All Other Miscellaneous Textile Product	7,140,000
JA10E	NAVAL INVENTORY CONTROL POINT	SKEETA INC	Miami, Florida	7210	Household Furnishings	000	314889	All Other Miscellaneous Textile Product	7,140,000
JA10E	NAVAL INVENTORY CONTROL POINT	NATIONAL INJECTABLES FOR THE BL	Alexandria, Virginia	5415	Clothing, Special Purpose	000	325212	Women's, Girls', and Infants' Cut and Se	5,747,700
JA10E	NAVAL INVENTORY CONTROL POINT	NATIONAL INJECTABLES FOR THE BL	Alexandria, Virginia	5415	Clothing, Special Purpose	000	325212	Women's, Girls', and Infants' Cut and Se	5,747,700
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL INJECTABLES & VACCINES	. UNITED RM	6905	Drugs & Biologics	000	325414	Biological Product (except Diagnostics) M	18,156,811
JA10E	NAVAL INVENTORY CONTROL POINT	GENERAL INJECTABLES & VACCINES	. UNITED RM	6905	Drugs & Biologics	000	325414	Biological Product (except Diagnostics) M	18,156,811
JA10E	NAVAL INVENTORY CONTROL POINT	AGENTS PASTEUR INC	Bethesda, Penn	6905	Drugs & Biologics	000	325414	Biological Product (except Diagnostics) M	6,460,224
JA10E	NAVAL INVENTORY CONTROL POINT	AGENTS PASTEUR INC	Bethesda, Penn	6905	Drugs & Biologics	000	325414	Biological Product (except Diagnostics) M	6,460,224
JA10E	NAVAL INVENTORY CONTROL POINT	BANDON MARINE AND MERCANTILE	. Bandon	8310	Dairy Foods and Eggs	000	424400	Other Grocery and Related Products Manu	13,145,175
JA10E	NAVAL INVENTORY CONTROL POINT	BANDON MARINE AND MERCANTILE	. Bandon	8310	Dairy Foods and Eggs	000	424400	Other Grocery and Related Products Manu	13,145,175

0000	Defense Energy Support Center	WESTERN PETROLEUM COMPANY	CANADA	0100	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	18,698,927
0000	Defense Energy Support Center	HEMES CONSOLIDATED, INC	Merzville, Wyoming	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	23,085,177
0000	Defense Energy Support Center	PRIME COMPANIES LP	Abilene, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	424720	Petroleum and Petroleum Products Merchant	14,089,428
0000	Defense Energy Support Center	PRECOR REFINING GROUP INC	Lima, Ohio	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	27,233,720
0000	Defense Energy Support Center	CALCABU REFINING COMPANY	Lake Charles, Louisiana	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	41,835,320
0000	Defense Energy Support Center	PLACID REFINING COMPANY, LLC	Lake Charles, Louisiana	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	53,658,866
0000	Defense Energy Support Center	CITGO PETROLEUM CORPORATION	Lake Charles, Louisiana	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	17,171,360
0000	Defense Energy Support Center	AGE REFINING, INC	San Antonio, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	9,600,440
0000	Defense Energy Support Center	GARY-WILLIAMS ENERGY CORPORATI	Wynnewood, Oklahoma	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	34,528,782
0000	Defense Energy Support Center	AM & P LTD	Wynnewood, Oklahoma	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	24,702,291
0000	Defense Energy Support Center	COASTAL ARABIA REFINING COMPANY	NEITHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	424720	Petroleum and Petroleum Products Merchant	7,842,737
0000	Defense Energy Support Center	SHELL OIL PRODUCTS US	Port Arthur, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	11,647,251
0000	Defense Energy Support Center	SHAKEN MOBIL CORPORATION	Texas City, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	11,647,251
0000	Defense Energy Support Center	VALERO MARKETING AND SUPPLY CO	Baton Rouge, Louisiana	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	72,788,204
0000	Defense Energy Support Center	EXXON MOBIL CORPORATION	JORDAN	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	118,820,023
0000	Defense Energy Support Center	TRINCENT LTD	NEITHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	106,227,869
0000	Defense Energy Support Center	SHELL AVIATION LTD	NEITHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	118,820,023
0000	Defense Energy Support Center	KUWAIT PETROLEUM CORPORATION (	KUWAIT	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	71,821,883
0000	Defense Energy Support Center	AL TANMA COMMERCIAL MARKETING	KUWAIT	000	Liquid Propellants & Fuel, Petroleum Bas	444121	General Freight Trucking, Long-Distance,	48,556,687
0000	Defense Energy Support Center	HUNT REFINING COMPANY	Tuscaloosa, Alabama	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	15,936,687
0000	Defense Energy Support Center	PETROLIUM INTERNATIONAL TRADING	BAHRAIN	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum and Petroleum Products Merchant	14,823,218
0000	Defense Energy Support Center	COMPANIA ESPASOLA DE PETROLEOS	UAE	000	Liquid Propellants & Fuel, Petroleum Bas	424720	Petroleum and Petroleum Products Merchant	14,823,218
0000	Defense Energy Support Center	ERG RAFFINERIE MEDITERRANEE BR	SPAIN	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	18,141,800
0000	Defense Energy Support Center	EXXON MOBIL CORPORATION	NETHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	17,188,925
0000	Defense Energy Support Center	MOTOR OIL (HELLAS) CORINTH REF	GREECE	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	60,841,784
0000	Defense Energy Support Center	REFOL COMMERCIAL DE PRODUCTOS	SPAIN	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	103,919,489
0000	Defense Energy Support Center	SHELL AVIATION LTD	UNITED KING	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	43,786,408
0000	Defense Energy Support Center	INTERNATIONAL OIL TRADE CENTER	NETHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	62,652,074
0000	Defense Energy Support Center	FLAT HILLS RESOURCES, LP	JORDAN	000	Liquid Propellants & Fuel, Petroleum Bas	424720	Petroleum and Petroleum Products Merchant	83,500,021
0000	Defense Energy Support Center	THE BAHRAIN PETROLEUM COMPANY	Anchorage, Alaska	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	78,600,000
0000	Defense Energy Support Center	U O IL & REFINING CO	BAHRAIN	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	12,401,835
0000	Defense Energy Support Center	CALTEX TRADING AND TRANSPORT E	Tacoma, Washington	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	81,761,083
0000	Defense Energy Support Center	SEANGTONG U.S.A. INC	San Francisco, California	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	47,592,186
0000	Defense Energy Support Center	EXXON MOBIL CORPORATION	KOREA, REP	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	107,289,356
0000	Defense Energy Support Center	PARAMOUNT PETROLEUM CORP	Torrance, California	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	71,661,710
0000	Defense Energy Support Center	WESTERN REFINING COMPANY, L P	Lakewood, California	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	70,809,987
0000	Defense Energy Support Center	WESTERN REFINING COMPANY, L P	El Paso, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	86,739,250
0000	Defense Energy Support Center	FUNT HILLS RESOURCES, LP	El Paso, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	12,844,965
0000	Defense Energy Support Center	TESORO REFINING AND MARKETING	North Pole, Alaska	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	51,188,201
0000	Defense Energy Support Center	PETRO STAR, INC	North Pole, Alaska	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	168,443,577
0000	Defense Energy Support Center	SHELL OIL PRODUCTS US	Marinez, California	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	8,154,856
0000	Defense Energy Support Center	BP WEST COAST PRODUCTS LLC	Perkins, Wyoming	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	82,520,926
0000	Defense Energy Support Center	UNION OIL COMPANY, L P	Perkins, Wyoming	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	21,318,058
0000	Defense Energy Support Center	HAVASO REFINING COMPANY, L P	El Paso, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	148,133,211
0000	Defense Energy Support Center	AIR B P LTD	NETHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	33,746,542
0000	Defense Energy Support Center	MOTOR OIL (HELLAS) CORINTH REF	GREECE	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	27,354,816
0000	Defense Energy Support Center	SHELL AVIATION LTD	UNITED KING	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	18,081,181
0000	Defense Energy Support Center	AR B P LTD	Texas City Junction, Texas	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	55,242,404
0000	Defense Energy Support Center	DELTA COALS, INC	NEITHERLAND	000	Liquid Propellants & Fuel, Petroleum Bas	324110	Petroleum Refineries	27,354,816
0000	Defense Energy Support Center	ASLAND INC	Habroville, Louisiana	000	Liquid Propellants & Fuel, Petroleum Bas	424688	Other Chemical and Allied Products Merchant	18,081,181
0000	Defense Energy Support Center			000	Macellaneous Chemical Specialties			9,543,894
0000	Defense Energy Support Center			000				8,713,587



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FAR Clauses Contained

FAR Clauses Not Included

Clauses Present in the FCS OT

FAR CLAUSE (title, citation)	REQ'D BY FAR/DFARS?	IN FCS OT VERBATIM?
Definitions (52.202-1)	Yes, over \$100K per 2.201	No, but tailored lang: XXXI.A (p 78)
Security Requirements (52.204-2)	Req'd when applicable per 4.404(a)	No, but tailored lang: XI.A (p 47)
Taxpayer ID (52.204-3)	Yes, per 4.905	No, but code is furnished in OT: XXI (p 65)
DUNS Number (52.204-6)	Yes, per 4.603(a)	No, but code is furnished in OT: XXI (p 65)
CCR Registration (52.204-7)	Yes, per 4.1104	No, but tailored lang: IX.G.3 (p 43), and code is given (p. 65)
Audit - Negotiations (52.215-2)	Yes, per 15.209(b)	No, but tailored lang: X.A (p 45)
Order of Precedence (52.215-8)	Yes, per 15.209(h)	No, but tailored lang: XXII (p 66)
Changes/Add Make or Buy (52.215-9)	Use when applicable per 15.408(a)	No, but tailored lang: VIII.A (p 38)

Regulatory Clauses Not Included in FCS OT

FAR CLAUSE (title, citation)	REQ'D BY FAR/DFARS:
Gratuities (52.203-3)	Req'd over \$100K per 3.202
Covenant Against Contingent Fees (52.203-5)	Req'd over \$100K per 3.404
Restriction on Sub-K Sales to Gov't (52.203-6)	Req'd over \$100K per 3.503-2
Anti-Kickback Procedures (52.203-7)	Req'd over \$100K per 3.502-3
Cancellation, Rescission, and Recovery of Funds for Illegal/Improper Activity (52.203-8)	Req'd over \$100K per 3.104-9(a)
Price/Fee Adjustment For Illegal/Improper Act (52.203-10)	Req'd over \$100K per 3.104-9(b)
Limit on Payments to Influence Certain Fed (52.203-12)	Req'd over \$100K per 3.808(b)



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FAR Clauses Contained FAR Clauses Not Included

o Pension Adj & Asset R (52.215-15)	No: it's req'd only where C&P data apply, per 15.408(g), or where FAR 31 applies to cost determinations	Yes X.D (p 46)	Printed/Copied Double-Sided on Recycled Paper (52.204-4)	Req'd over \$100K per 4.303
o Revision or Adjust (52.215-18)	No: it's req'd only where C&P data apply, per 15.408(j), or where FAR 31 applies to cost determinations	Yes X.D (p 46)	Protecting Gov't Interests When Subcontracting w/ Debarred/Suspended (52.209-6)	Req'd over \$25K per 9.409(b)
Req't for Cost or Pricing Data or Info Other than Cost or Pricing Data (52.215-20)	Req'd when applicable per 15.408(L)	No, but some portions were extracted in XIII.B.2 (p 51)	Price Red for Defective Cost or Pricing Data (52.215-10)	Req'd when C&P data will be required from prime or any sub, per 15.408(b)
Req't for Cost or Pricing Data or Info Other Than C & P Data - Mods (52.215-21)	Req'd when C&P data will be needed for mods, per 15.408(m)	No, but some portions were extracted in XIII.B.2 (p 51)	Price Reduction for Defective C&P Data - Mods (52.215-11)	Req'd when applicable over \$500K per 15.408(c) when prime is req'd to submit C&P data for mods, if 52.215-10 NOT used
o Allowable Cost & Pay (52.216-7)	Yes	Yes (w/ tailor) IX.I (p 43)	Subcontractor Cost or Pricing Data (52.215-12)	Req'd when applicable over \$500K if 52.215-10 applies, per 15.408(d)
o Fixed Fee (52.216-8)	Yes: req'd when applicable 16.307(b)	Yes (w/ minor tailoring) IX.I (p 44)	Subcontractor C&P Data-- Mods (52.215-13)	Req'd where 52.215-11 is used, per 15.408(e)



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FAR Clauses Contained FAR Clauses Not Included

Incentive Fee (52.216-10)	Yes; req'd when applicable 16.307(d)	No, but tailored lang: VII B (p. 32)	Waiver of Facilities Capital Cost of Money (52.215-17)	Req'd when FCCM not proposed by Kr: 15.408(i)
Ordering (52.216-18)	Req'd when ID/IQ contract type being used, per 16.506(a)	No, but tailored lang: V 3.b (p 29)	Notification of Ownership Changes (52.215-19)	Req'd if C&P data apply, or if FAR Part 31 applies to cost defer: 15.408(k)
Small Bus Sub-K Plan (52.219-9)	Yes, in K's > \$500K w/ sub-K possib: 19.708(b)	No, but tailored lang: XXVII (p 73)	Order Limitations (52.216-19)	Req'd when ID/IQ K type being used: 16.506(b)
Equal Opportunity (52.222-26)	Yes in all nonexempt Ks, per 22.810(e)	No, but tailored lang: XX (p 64)	Indefinite Quantity (52.216-22)	Req'd when indef qty K type used, per 16.506(e)
o HAZMAT (52.223-3)	Req'd if applicable per 23.303	Yes XXXI.C (p 78)	Util of Small Business, SDBs & MIs (52.219-8)	Req'd over \$100K per 19.708(a)
o Pollution Prevention (52.223-5)	No; req'd only if work is performed on fed facility, per 23.1005	Yes XXXI.C (p 78)	Liquidated Damages - SubK Plan (52.219-16)	Req'd when 52.219-9 is used, per 19.708(b)(2)
o Notice of Radioac. Mat'l (52.223-7)	Req'd if applicable per 23.602	Yes XXXI.C (p 78)	Notice to Gov't of Labor Disputes (52.222-1)	Required if HCA wants Ktr to give notice of labor disputes per 22.103-5(a)
o Duty-Free Entry (52.225-8)	Req'd over \$100K per 25.1101(e)	Yes XXXI.C (p 78)		



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FAR Clauses Contained

FAR Clauses Not Included

o Duty-Free Entry (52.225-6)	Req'd over \$100K per 25.1101(e)	Yes XXI.C (p 78)	Payment for OT Premiums (52.222-2)	Req'd in C-R Ks > \$100K: 22.103-5(b)
o Auth & Consent (52.227-1)	Req'd over \$100K in US: 27.201-2(a)	Yes XVII (p 55)	K Work Hrs & Safety Stds (52.222-4)	Req'd over \$100K per 22.305 if Walsh-Healey doesn't apply
o Notice & Assistance (52.227-2)	Req'd over \$100K in US: 27.202-2	Yes XVII (p 55)	Walsh Healey Pub Ks (52.222-20)	Req'd over \$10K in Ks for supplies per 22.810
o Filing of Patent Applies (52.227-10)	Req'd if patent applies might result, concerning classified work per 27.207-2	Yes XVII (p 55)	Prohibition of Segregated Facilities (52.222-21)	Req'd when 52.222-26 is used, per 22.810(a)(1)
o Patents Rights—Retention (52.227-12)	Use in R&D Ks w/ other than small bus: 27.303(b)	Yes XVII (p 55)	Pre-Awd On-Site Eq Opp Compliance Evaluation (52.222-24)	Req'd over \$10M when 52.222-26 is used, per 22.810(c)
o Insurance: Liabil. 3 rd (52.228-7)	Req'd in C-R contracts per 28.311-1	Yes: XXIV.B (p 68)	Affirm Act for Spec Disabled & Vietnam-Era Vets (52.222-35)	Req'd over \$25K for perf in the US, per 22.1310(a)(1)
Cost Acctg Stds (52.230-2)	Req'd over \$500K if noncomm'l per 30.201-4(a)	No, but tailored lang: X.B (p 45)	Affirm Act for Handicapped Workers (52.222-36)	Req'd over \$10K for perf in the US, per 22.1408(a)
Payment (52.232-1)	No (is req'd in FFP Ks, per 32.111(a)(1)	No, but tailored lang: IX.A (p 40)	Employment Reports on Disabled & Vietnam-Era Vets (52.222-37)	Req'd over \$25K per 22.1310(b)



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FAR Clauses Contained

FAR Clauses Not Included

Interest (52.232-17)	Yes, over \$100K per 32.617	No, but tailored lang: IX.G.1 (p.42)	Req'd over \$100K per 23.505
o Limitation of Funds (52.232-22)	Yes, in Incremental R&D, per 32.705-2(c)	Yes VI.D (p.31)	Req'd if contract items may contain or require ODS, per 23.804(a)
Assignment of Claims (52.232-23)	Req'd over \$2,500 per 32.806(a)	No, but tailored lang: IX.G.5 (p.43)	Req'd in buys over \$100K, per 3.906(b)
o Prompt Payment (52.232-25)	Yes, per 32.908(c)	Yes IX.I (p.44)	Req'd over \$2.5K per 25.1103(a)
Payment by EFT - CCR (52.232-33) [7] of 52.204-7	Yes per 32.1110(a)	No, but tailored lang: IX.G.2 (p.42)	Req'd if possibility exists for Indian subK Per 26.104
Disputes (52.233-1)	Yes per 33.215	No, but tailored lang: XV.B (p.53)	*Normally* used in R&D if we haven't specified all data we may need, per 27.409(h)
Cert of Final Indirect Cost (52.242-4)	Yes, per 42.703(f)	Yes: tailored lang: IX.G.4 (p.43)	Additional Data Req'ts (52.227-16)
o Stop-Work Order (52.242-15)	No: can be used in R&D 42.1305(b)	Yes (w/ tailoring) XIII.C (p.51)	Tech Data Declaration, Rev, & Wholding of Pymt - Major Systems (52.227-21)
Changes Cost-Reimb ALT II (52.243-2)	Yes, per 43.203-5(b)	No, but topic is in XIII.A.2 (p.50)	Use in Ks for maj systems per 27.409(q)
o Notification of Changes (52.243-7)	No, but may be used KO option: 43.107	Yes (w/ tailoring) XIII.C (p.51)	



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FAR Clauses Contained FAR Clauses Not Included

Competition in SubK (52.244-5)	Req'd over \$100K in Ks, per 44.204(c)	No, but topic is covered: VIII.B.2 (p. 39)	Federal, State, & Local Taxes (52.229-3)	Use in Ks > \$100K in US per 29.401-3
SubKs for Comm'l Items (52.244-6)	Yes, in all noncomm'l Ks: 44.403	Yes: VIII.E (p. 39)	Admin of Cost Acctg Standards (52.230-6)	Req'd when 52.230-2 is used per 30.201-4(d)
Gov't Property - C-R Ks (52.245-5)	Req'd if applicable in C-R Ks, per 45.106(f)(1)	No, but tailored lang: XII (p. 48)	Limit on Withholding of Payment (52.232-9)	Req'd in R&D Ks where 2 or more terms authorize pymt w/hold; 32.111(c)(2)
o Inspection of R&D (52.246-9)	Yes per 46.309	Yes III.D (p. 23)	Service of Protest (52.233-2)	Req'd over \$100K per 33.106(a)
o Limitation of Liability - High-Val Items (52.246-24)	Yes, if high- val items are delivered: 46.805(a)(2)	Yes: XXIV.B (p. 68)	Protest After Award (52.233-3)	Req'd in all contracts per 33.106(b)
o Limitation of Liability - Services (52.246-25)	Yes, if K requires del. of services: 46.805(a)(4)	Yes: XXIV.B (p. 68)	Industrial Resources Developed Under Defense Prod Act Title III (52.234-1)	Req'd in maj sys Ks per 34.104
o Termination (Cost-Reimb) (52.249-6)	Yes, over \$10K, per 49.503(a)(1)	Yes: II.F (p. 21) also see II.B, II.C (p. 20) & p. 80	Privacy or Security Safeguards (52.239-1)	Use in Ks for info tech that need info tech security, per 39.107
o Excusable Delays (52.249-14)	Yes, in all C-R Ks, per 49.505(d)	Yes XXXI.C (p. 78)	Notice Intent to Disallow Costs 42.802	Req'd over \$10K per 42.802



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FAR Clauses Contained

FAR Clauses Not Included

Penalties for Unallowable Costs (52.242-3)	Req'd over \$500K per 42.709-6
Cert of Final Indirect Costs (52.242-4)	Req'd in CR contracts (interim billing) per 42.703-2(f)
Bankruptcy (52.242-13)	Req'd over \$100K per 42.903
Change Order Acctg (52.243-6)	May be used in complex R&D Ks if many changes anticipated
Subcontracts ALT I (52.244-2)	Req'd in all CR contracts 44.204(a)(1)
SubKs for Comm'l Items (52.244-6)	Req'd in all noncomm'l Ks, per 44.403
Special Test Equipment (52.245-18)	Req'd in Negotiated Ks when Kr will buy/make special test equip for us per 45.307-3



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FAR Clauses Contained FAR Clauses Not Included

FOB Origin (52.247-29) =or=	Req'd when applicable per 47.303-1(c) =or=
FOB Dest (52.247-34)	47.303-6(c)
FOB Point for Delivery of GFP (52.247-55)	Use if Gov't will transport the GFP per 47.305-12(a)(2)
Gov't Supply Sources (52.251-1)	Use if Ktr can order from Gov't supply Source per 51.107
Clauses Incorporated By Ref (52.252-2)	Req'd over \$10K per 52.107(b)
Computer Generated Forms (52.253-1)	Use when Ktr must deliver data on std forms per 53.111



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DFAR Clauses Contained DFAR Clauses Not Included

DFARS CLAUSE (title, citation)	REQ'D BY DFARS	IN FCS OT VERBATIM?	DFARS CLAUSE (title, citation)	REQ'D BY DFARS
Disclosure of Info (252.204-7000)	Yes, if Kr may generate sensitive info: 204.404-70(a) also XI.B (p 47)	No, but topic is addressed: I.D, I.E (p. 16); also XI.B (p 47)	KO's Representative (252.201-7000)	Req'd if we expect to have COR: 201.602-70
CAGE Code (252.204.7001)	Yes	No, but code is furnished in OT: XXI (p 65)	Prohibition on Persons Convicted of Fraud (252.203-7001)	Req'd over \$100K per 203.570-5
o Oral Attestations/Security (252.204-7005)	Use when 52.204-2 is used, per 204.404-70(c)	Yes: XI.E (p 47)	Display of DOD Hotline Poster (252.203-7002)	Req'd over \$5M when K in US per 203.7002
o Safety Precau. Ammo (252.223-7002)	Req'd if applicable 23.270-5	Yes XXXI.D (p 78)	DFARS CLAUSE (title, citation)	REQ'D BY DFARS
o Safeguarding Ammo (252.223-7007)	Req'd if applicable 23.7203	Yes XXXI.D (p 78)	Control of Gov't Personnel Work Prod (252.204-7003)	Req'd in all Ks, per 204.404-70(b)
o Buy Am Act (252.225-7001)	Use when buying supplies if no exception applies, per 225.1101(2)	Yes, for prod'n XXXII (p 79)	Prov of Info to Coop Agreement Holders (252.205-7000)	Req'd over \$500K per 205.470-2
o Qual Country Sources (252.225-7002)	Req'd when 252.225-7001 used, per 225.1101(3)	Yes, for prod'n XXXII (p 79)	Acq from SubKs Subject to On-Site Insp 208.103-70	Req'd over \$100K per
			SubK'ing w/ Firms Owned or Controlled by Gov't of a Terrorist Country 252.209-7004	Req'd over \$100K per 209.409



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DFAR Clauses Contained DEAR Clauses Not Included

Reporting of Contract Performance Outside the United States (252.225-7004)	Use in non-commercial buys over \$500K per 225.7203(b)	Listed p 7 of Bolton briefing.	Acq Streamlining (252.211-7000)	Req'd in Ks for sys acq: 211.002-70
Duty-Free Entry Addtl (252.225-7010)	Req'd over \$100K per 225.7102-4	Listed p 7 of Bolton briefing, but clause no longer exists	Pricing Adjustments (252.215-7000)	Req'd when clauses at 52.215-11, -12, or -13 used: 215.408(1)
Duty-Free Ent (252.225-7013)	Req'd over \$10K per 225.7101(4)	Listed p 7 of Bolton briefing as 252.225-7008, which no longer exists	ID of Sources of Supply (252.217-7026)	Yes, per 217.7303
o Pref for Dom Spec Metal (252.225-7014)	Req'd over \$100K when these metals deliverable per 225.7002-3(b)(1)	Yes, for prod'n XXXII (p 79)	Small, SDB, and Women-Owned SB SubK Plan (DoD Contracts) (252.219-7003)	Req'd over \$500K when 52.219-9 used 219.708(b)(1)A
o Restrict on Acq Bearings (252.225-7016)	Req'd in all Ks unless n/a: 225.7009-4	Yes, for prod'n XXXII (p 79)	Hazard Warning Labels (252.223-7001)	Req'd when MSDS apply per 223.303
o Restrict on PAN Fiber (252.225-7022)	Use in Ks for major sys: 225.7103-3	Yes, for prod'n XXXII (p 79)	Change in Place of Perf—Ammo & Explosives (252.223-7003)	Req'd when 52.223-7002 is used
o Restriction on Forgings (252.225-7025)	Use unless no forgings are acquired: 225.7102-4	Yes, for prod'n XXXII (p 79)	Drug-Free Work Force (252.223-7004)	Req'd when Ktr will have access to classified data: 223.570-4
252.225-7026	See 252.225-7004 (renumbered clause)		Pref for Certain Domestic Commodities (252.225-7012)	Req'd over \$100K per 225.7003-2(a)
o Restriction on Armor Steel (252.225-7030)	Use, when delivery of such is req'd 225-7011-3	Yes, for prod'n XXXII (p 79)		



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DFAR Clauses Contained		DFAR Clauses Not Included	
o Secondary Arab Boycott (252.225-7031)	Use unless waived, per 225.1103(2)	Yes, for prod'n XXXII (p 79).	Req'd over \$100K if these tools are deliverable 225.7002-3(c)
o Waiver of UK Levies (252.225-7032)	Req'd if UK sub may get subK > \$1M 225.1101(8)	Yes XXXI.D (p 78)	Use instead of 52.225-8 if the Act applies 225.1101(6)
o Antiterrorism/Force Prot (252.225-7043)	Use when Kts perf or travel req'd outside US; 225.7402	Yes XXXI.D (p 78)	Req'd over \$10K per 225.7402
Rights in Tech Data (252.227-7013)	Yes, when Ktr delivers tech data; 227.7103-6(a)	No, but tailored lang: XVIII (p 56)	\$500K
Rights in Noncommercial Computer Software (252.227-7014)	Req'd when Kts req'd to delivery software or docs 227.7203-6(a)(1)	No, but tailored lang: XVIII (p 56)	Req'd over \$500K per 226.104
Validation of Asserted Restrictions--Comp Software (252.227-7019)	Req'd when 252.227-7014 used, per 252.227-7203-6(c)	No, but tailored lang: XVIII (p 60)	Optional: can use if we want defer delivery of tech data 227.7103-8(a)
Limits on Use/Disclose (252.227-7025)	Use when we might GFX 227-7203-6(d)	Listed p 7 of Bolton briefing	Req'd when 252.227-7013 used, per 227.7103-6(e)(2)
		Declaration of Tech Data Conformity (252.227-7036)	Req'd when 252.227-7013 used, per 227.7103-6(e)(3)



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DEAR Clauses Contained DEAR Clauses Not Included

o Aircraft Flight Risk (252.228-7002)	Use in C-R contracts for development of aircraft per 228.370(c)(1)	Yes XXIV.B (p 68)	Validation of Restrictive Markings on Tech Data (252.227-7037)	Req'd when used, per 227.7103-6(e)(4)
o Accident Reporting/Aircraft (252.228-7005)	Available for use, per 228.370(e)	Yes XXXI.D (p 78)	Suppl. Cost Principles (252.231-7000)	Req'd when FAR 31 applies, per 231.100-70
Electronic Submission of Payment Requests (252.232-7003)	Use in all Ks performed in the USA, per 232.7004	No, but tailored lang: IX.E.1 (p. 41)	Acknowledgment of Support and Disclaimer (252.235-7010)	Req'd in Ks for R&D, per 235.071(c)
Earned Value Management System (EVMS) (252.234-7001)	Use when applicable: 234.005-71(b)	No, but tailored lang: IV.H (p. 26)	Final Scientific or Technical Report (252.235-7011)	Req'd when buying R&D: 235.071(d)
o Frequency Authorization (252.235-7003)	Req'd when developing an items requiring freq. auth, per 235.071(b)	Yes: XXXI.D (p 78)	Mat'l Mgmt & Acct System (252.242-7004)	Req'd in C-R Ks over \$100K per 242.7204
Requests for Equitable Adjustment (252.243-7002)	Req'd in Ks over \$100K: 243.205-71	No, but OTA covers: XIII.A.2 (p. 50)	Reports of Gov't Property (252.246-7001)	Use when GFP applies: 245.505-14
Notif. of Proposed Prog Termination or Reduction (252.249-7002)	Req'd in Ks on major programs: 249.7003(c)	No, but tailored lang: ILC (p 20)	Warranty of Data (252.246-7001)	Can be used when applic: 246.710(1)
Ordering from Gov't Supply 252.251-7000	Yes, when 52.251-1 is used, per 251.107	No, but tailored lang: XXXV (p 69)	Transport of Supplies By Sea (252.247-7023)	Req'd over \$100K per 247.573(b)(1)



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FAR Clauses Contained

FAR Clauses Not Included

Clauses Present in the FCS OT

FAR CLAUSE (title, citation)	REQ'D BY FAR/DFARS?	IN FCS OT VERBATIM?
Definitions (52.202-1)	Yes, over \$100K per 2.201	No, but tailored lang: XXXI.A (p 78)
Security Requirements (52.204-2)	Req'd when applicable per 4.404(a)	No, but tailored lang: XI.A (p 47)
Taxpayer ID (52.204-3)	Yes, per 4.905	No, but code is furnished in OT: XXI (p 65)
DUNS Number (52.204-6)	Yes, per 4.603(a)	No, but code is furnished in OT: XXI (p 65)
CCR Registration (52.204-7)	Yes, per 4.1104	No, but tailored lang: IX.G.3 (p 43), and code is given (p 66)
Audit - Negotiations (52.215-2)	Yes, per 15.209(b)	No, but tailored lang: X.A (p 45)
Order of Precedence (52.215-8)	Yes, per 15.209(h)	No, but tailored lang: XXII (p 66)
Changes/Add Make or Buy (52.215-9)	Use when applicable per 15.408(a)	No, but tailored lang: VIII.A (p 38)

Regulatory Clauses Not Included in FCS OT

FAR CLAUSE (title, citation)	REQ'D BY FAR/DFARS:
Gratuities (52.203-3)	Req'd over \$100K per 3.202
Covenant Against Contingent Fees (52.203-5)	Req'd over \$100K per 3.404
Restriction on Sub-K Sales to Gov't (52.203-6)	Req'd over \$100K per 3.503-2
Anti-Kickback Procedures (52.203-7)	Req'd over \$100K per 3.502-3
Cancellation, Rescission, and Recovery of Funds for Illegal/Improper Activity (52.203-8)	Req'd over \$100K per 3.104-9(a)
Price/Fee Adjustment For Illegal/Improper Act (52.203-10)	Req'd over \$100K per 3.104-9(b)
Limit on Payments to Influence Certain Fed (52.203-12)	Req'd over \$100K per 3.808(b)



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FAR Clauses Contained FAR Clauses Not Included

o Pension Adj & Asset R (52.215-15)	No: it's req'd only where C&P data apply, per 15.408(g), or where FAR 31 applies to cost determinations	Yes X.D (p 46)	Printed/Copied Double-Sided on Recycled Paper (52.204-4)	Req'd over \$100K per 4.303
o Revision or Adjust (52.215-18)	No: it's req'd only where C&P data apply, per 15.408(j), or where FAR 31 applies to cost determinations	Yes X.D (p 46)	Protecting Gov't Interests When Subcontracting w/ Debarred/Suspended (52.209-6)	Req'd over \$25K per 9.409(b)
Req't for Cost or Pricing Data or Info Other than Cost or Pricing Data (52.215-20)	Req'd when applicable per 15.408(L)	No, but some portions were extracted in XIII.B.2 (p 51)	Price Red for Defective Cost or Pricing Data (52.215-10)	Req'd when C&P data will be required from prime or any sub, per 15.408(b)
Req't for Cost or Pricing Data or Info Other Than C & P Data - Mods (52.215-21)	Req'd when C&P data will be needed for mods, per 15.408(m)	No, but some portions were extracted in XIII.B.2 (p 51)	Price Reduction for Defective C&P Data - Mods (52.215-11)	Req'd when applicable over \$500K per 15.408(c) when prime is req'd to submit C&P data for mods, if 52.215-10 NOT used
o Allowable Cost & Pay (52.216-7)	Yes	Yes (w/ tailor) IX.I (p 43)	Subcontractor Cost or Pricing Data (52.215-12)	Req'd when applicable over \$500K if 52.215-10 applies, per 15.408(d)
o Fixed Fee (52.216-8)	Yes: req'd when applicable 16.307(b)	Yes (w/ minor tailoring) IX.I (p 44)	Subcontractor C&P Data-Mods (52.215-13)	Req'd where 52.215-11 is used, per 15.408(e)



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FAR Clauses Contained

FAR Clauses Not Included

Incentive Fee (52.216-10)	Yes; req'd when applicable 16.307(d)	No, but tailored lang: VILB (p. 32)	Waiver of Facilities Capital Cost of Money (52.215-17)	Req'd when FCCM not proposed by Ktr: 15.408(i)
Ordering (52.216-18)	Req'd when ID/IQ contract type being used, per 16.506(a)	No, but tailored lang included in V.3.b (p. 29)	Notification of Ownership Changes (52.215-19)	Req'd if C&P data apply; or if FAR Part 31 applies to cost deter: 15.408(k)
Small Bus Sub-K Plan (52.219-9)	Yes, in K's > \$500K w/ sub-K possibls: 19.708(b)	No, but tailored lang: XXVII (p. 73)	Order Limitations (52.216-19)	Req'd when ID/IQ K type being used: 16.506(b)
Equal Opportunity (52.222-26)	Yes in all nonexempt Ks, per 22.810(e)	No, but tailored lang: XX (p. 64)	Indefinite Quantity (52.216-22)	Req'd when indef qty K type used, per 16.506(e)
o HAZMAT (52.223-3)	Req'd if applicable per 23.303	Yes XXXI.C (p. 78)	Util of Small Business, SDBs & MIs (52.219-8)	Req'd over \$100K per 19.708(a)
o Pollution Prevention (52.223-5)	No: req'd only if work is performed on fed facility, per 23.1005	Yes XXXI.C (p. 78)	Liquidated Damages - SubK Plan (52.219-16)	Req'd when 52.219-9 is used, per 19.708(b)(2)
o Notice of Radioac. Mat'l (52.223-7)	Req'd if applicable per 23.602	Yes XXXI.C (p. 78)	Notice to Gov't of Labor Disputes (52.222-1)	Required if HCA wants Ktr to give notice of labor disputes per 22.103-5(a)
o Duty-Free Entry (52.225-8)	Req'd over \$100K per 25.1101(e)	Yes XXXI.C (p. 78)		



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FAR Clauses Contained

FAR Clauses Not Included

o Duty-Free Entry (52.225-8)	Req'd over \$100K per 25.1101(e)	Yes XXI.C (p 78)
o Auth & Consent (52.227-1)	Req'd over \$100K in US: 27.201-2(a)	Yes XVII (p 55)
o Notice & Assistance (52.227-2)	Req'd over \$100K in US: 27.202-2	Yes XVII (p 55)
o Filing of Patent Applies (52.227-10)	Req'd if patent applies might result, concerning classified work per 27.207-2	Yes XVII (p 55)
o Patents Rights—Retention (52.227-12)	Use in R&D Ks w/ other than small bus: 27.303(b)	Yes XVII (p 55)
o Insurance: Liabil. 3 rd (52.228-7)	Req'd in C-R contracts per 28.311-1	Yes: XXIV.B (p 68)
Cost Actg Sids (52.230-2)	Req'd over \$500K if noncomm'l per 30.201-4(a)	No, but tailored lang: X.B (p 45)
Payment (52.232-1)	No (is req'd in FFP Ks, per 32.111(a)(1)	No, but tailored lang: IX.A (p 40)

Payment for OT Premiums (52.222-2)	Req'd in C-R Ks > \$100K: 22.103-5(b)
K Work Hrs & Safety Sids (52.222-4)	Req'd over \$100K per 22.305 if Walsh-Healey doesn't apply
Walsh Healey Pub Ks (52.222-20)	Req'd over \$10K in Ks for supplies per 22.610
Prohibition of Segregated Facilities (52.222-21)	Req'd when 52.222-26 is used, per 22.810(a)(1)
Pre-Awd On-Site Eq Opp Compliance Evaluation (52.222-24)	Req'd over \$10M when 52.222-26 is used, per 22.810(c)
Affirm Act for Spec Disabled & Vietnam-Era Vets (52.222-35)	Req'd over \$25K for perf in the US, per 22.1310(a)(1)
Affirm Act for Handicapped Workers (52.222-36)	Req'd over \$10K for perf in the US, per 22.1408(a)
Employment Reports on Disabled & Vietnam-Era Vets (52.222-37)	Req'd over \$25K per 22.1310(b)



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FAR Clauses Contained FAR Clauses Not Included

Interest (52.232-17)	Yes, over \$100K per 32.617	No, but tailored lang: IX.G.1 (p 42)	Req'd over \$100K per 23.505
o Limitation of Funds (52.232-22)	Yes, in incremental R&D, per 32.705-2(c)	Yes V.I.D (p 31)	Req'd if contract items may contain or require ODS, per 23.804(a)
Assignment of Claims (52.232-23)	Req'd over \$2,500 per 32.806(a)	No, but tailored lang: IX.G.5 (p 43)	Toxic Chem Release Report (52.223-14)
o Prompt Payment (52.232-25)	Yes, per 32.908(c)	Yes IX.I (p 44)	Req'd over buys over \$100K, per 3.906(b)
Payment by EFT - CCR (52.232-33) [?] of 52.204-7	Yes per 32.1110(a)	No, but tailored lang: IX.G.2 (p 42)	Restrictions on Certain Foreign Purchases (52.223-13)
Disputes (52.233-1)	Yes per 33.215	No, but tailored lang: XV.B (p 53)	Util of Indian Orgs (52.226-1)
Cert of Final Indirect Cost (52.242-4)	Yes, per 42.703(f)	Yes; tailored lang: IX.G.4 (p 43)	Req'd if possibility exists for Indian subK Per 26.104
o Stop-Work Order (52.242-15)	No: can be used in R&D 42.1305(b)	Yes (w/tailoring) XIII.C (p 51)	*Normally* used in R&D if we haven't specified all data we may need, per 27.409(n)
Changes, Cost+Reimb ALT II (52.243-2)	Yes, per 43.203-5(b)	No, but topic is in XIII.A.2 (p 50)	Additional Data Req'ts (52.227-16)
o Notification of Changes (52.243-7)	No, but may be used KO option: 43.107	Yes (w/tailoring) XIII.C (p 51)	Tech Data Declaration, Rev, & W/Holding of Pymt - Major Systems (52.227-21)
			Use in Ks for maj systems per 27.409(q)



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FAR Clauses Contained FAR Clauses Not Included

Competition in SubK (52.244-5)	Req'd over \$100K in Ks, per 44.204(c)	No, but topic is covered: VIII.B.2 (p. 39)	Federal, State, & Local Taxes (52.229-3)	Use in Ks > \$100K in US per 29.401-3
SubKs for Comm'l Items (52.244-6)	Yes, in all noncomm'l Ks: 44.403	Yes: VIII.E (p. 39)	Admin of Cost Acctg Standards (52.230-6)	Req'd when 52.230-2 is used per 30.201-4(d)
Gov't Property - C-R Ks (52.245-5)	Req'd if applicable in C-R Ks, per 45.106(f)(1)	No, but tailored lang: XII (p. 48)	Limit on Withholding of Payment (52.232-9)	Req'd in R&D Ks where 2 or more terms authorize pynt w/hold; 32.111(c)(2)
o Inspection of R&D (52.246-9)	Yes per 46.309	Yes III.D (p. 23)		
o Limitation of Liability - High-Val Items (52.246-24)	Yes, if high- val items are delivered: 46.805(a)(2)	Yes: XXIV.B (p. 68)	Service of Protest (52.233-2)	Req'd over \$100K per 33.106(a)
o Limitation of Liability - Services (52.246-25)	Yes, if K requires del. of services: 46.805(a)(4)	Yes: XXIV.B (p. 68)	Protest After Award (52.233-3)	Req'd in all contracts per 33.106(b)
o Termination (Cost-Reimb) (52.249-6)	Yes, over \$10K, per 49.503(a)(1)	Yes: II.F (p. 21) also see II.B, II.C (p. 20) & p. 80	Industrial Resources Developed Under Defense Prod Act Title III (52.234-1)	Req'd in maj sys Ks per 34.104
o Excusable Delays (52.249-14)	Yes, in all C-R Ks, per 49.505(d)	Yes XXXI.C (p. 78)	Privacy or Security Safeguards (52.239-1)	Use in K's for info tech that need info tech security, per 39.107
			Notice Intent to Disallow Costs 42.802	Req'd over \$10K per 42.802



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FAR Clauses Contained FAR Clauses Not Included

Penalties for Unallowable Costs (52.242-3)	Req'd over \$500K per 42.709-6
Cert of Final Indirect Costs (52.242-4)	Req'd in CR contracts (interim billing) per 42.703-2(f)
Bankruptcy (52.242-13)	Req'd over \$100K per 42.903
Change Order Acctg (52.243-6)	May be used in complex R&D Ks if many changes anticipated
Subcontracts ALT I (52.244-2)	Req'd in all CR contracts 44.204(a)(1)
SubKs for Comm'l Items (52.244-6)	Req'd in all noncomm'l Ks, per 44.403
Special Test Equipment (52.245-18)	Req'd in Negotiated Ks when Kr will buy/make special test equip for us per 45.307-3



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FAR Clauses Contained

FAR Clauses Not Included

FOB Origin (52.247-29) =or= FOB Dest (52.247-34)	Req'd when applicable per 47.303-1(c) =or= 47.303-6(c)
FOB Point for Delivery of GFP (52.247-55)	Use if Gov't will transport the GFP per 47.305-12(a)(2)
Gov't Supply Sources (52.251-1)	Use if Ktr can order from Gov't supply Source per 51.107
Clauses Incorporated By Ref (52.252-2)	Req'd over \$10k per 52.107(b)
Computer Generated Forms (52.253-1)	Use when Ktr must deliver data on std forms per 53.111



FCS OTA - DAAE07-03-9-F001



DFAR Clauses Contained

DFARS CLAUSE (title, citation)	REQ'D BY DFARS	IN FCS OT VERBATIM?
Disclosure of Info (252.204-7000)	Yes, if Kr may generate sensitive info: 204.404-70(a) also XI.B (p 47)	No, but topic is addressed: I.D, I.E (p. 16); also XI.B (p 47)
CAGE Code (252.204-7001)	Yes	No, but code is furnished in OT: XXI (p 65)
o Oral Attestations/Security (252.204-7005)	Use when 52.204-2 is used, per 204.404-70(c)	Yes: XI.E (p 47)
o Safety Precau. Ammo (252.223-7002)	Req'd if applicable 23.270-5	Yes XXXI.D (p 78)
o Safeguarding Ammo (252.223-7007)	Req'd if applicable 23.7203	Yes XXXI.D (p 78)
o Buy Am Act (252.225-7001)	Use when buying supplies if no exception applies, per 225.1101(2)	Yes, for prod'n XXXII (p 79)
o Qual Country Sources (252.225-7002)	Req'd when 252.225-7001 used, per 225.1101(3)	Yes, for prod'n XXXII (p 79)

DFAR Clauses Not Included

DFARS CLAUSE (title, citation)	REQ'D BY DFARS
KO's Representative (252.201-7000)	Req'd if we expect to have COR: 201.602-70
Prohibition on Persons Convicted of Fraud (252.203-7001)	Req'd over \$100K per 203.570-5
Display of DOD Hotline Poster (252.203-7002) DFARS CLAUSE (title, citation)	Req'd over \$5M when K in US per 203.7002 REQ'D BY DFARS:
Control of Gov't Personnel Work Prod (252.204-7003)	Req'd in all Ks, per 204.404-70(b)
Prov of Info to Coop Agreement Holders (252.205-7000)	Req'd over \$500K per 205.470-2
Acq from SubKs Subject to On-Site Insp 209.103-70	Req'd over \$100K per
SubK'ing w/ Firms Owned or Controlled by Gov't of a Terrorist Country 252.209-7004	Req'd over \$100K per 209.409



FCS OTA - DAAE07-03-9-F001



DEAR Clauses Contained

DEAR Clauses Not Included

Listed p 7 of Bolton briefing.

Reporting of Contract Performance Outside the United States (252.225-7004)	Use in non-commercial buys over \$500K, per 225.7203(b)	Acq Streamlining (252.211-7000)	Req'd in Ks for sys acq: 211.002-70
Duty-Free Entry: Addt'l (252.225-7010)	Req'd over \$100K per 225.1101(4)	Pricing Adjustments (252.215-7000)	Req'd when clauses at 52.215-11, -12, or -13 used: 215.408(1)
Duty-Free Ent (252.225-7013)	Req'd over \$10K per 225.1101(4)	ID of Sources of Supply (252.217-7026)	Yes, per 217.7303
o Pref for Dom Spec Metal (252.225-7014)	Req'd over \$100K when these metals deliverable per 225.7002-3(b)(1)	Small, SDB, and Women-Owned SB SubK Plan (DoD Contracts) (252.219-7003)	Req'd over \$500K when 52.219-9 used 219.708(b)(1)A
o Restrict on Acq Bearings (252.225-7016)	Req'd in all Ks unless n/a: 225.7009-4	Hazard Warning Labels (252.223-7001)	Req'd when MSDS apply per 223.303
o Restrict on PAN Fiber (252.225-7022)	Use in Ks for major sys: 225.7103-3	Change in Place of Perf— Ammo & Explosives (252.223-7003)	Req'd when 52.223-7002 is used
o Restriction on Forgings (252.225-7025)	Use unless no forgings are acquired: 225.7102-4	Drug-Free Work Force (252.223-7004)	Req'd when Ktr will have access to classified data: 223.570-4
252.225-7026	See 252.225-7004 (renumbered clause)	Pref for Certain Domestic Commodities (252.225-7012)	Req'd over \$100K per 225.7003-2(a)
o Restriction on Armor Steel (252.225-7030)	Use, when delivery of such is reqd 225-7011-3		



FCS OTA - DAAE07-03-9-F001



DFAR Clauses Contained

DFAR Clauses Not Included

o Secondary Arab Boycott (252.225-7031)	Use unless waived, per 225.1103(2)	Yes, for prod'n XXXII (p 79)
o Waiver of UK Levies (252.225-7032)	Req'd if UK sub may get subK > \$1M 225.1101(8)	Yes XXXI.D (p 78)
o Antiterrorism/Force Prot (252.225-7043)	Use when Kts perf or travel req'd outside US: 225.7402	Yes XXXI.D (p 78)
Rights in Tech Data (252.227-7013)	Yes, when Ktr delivers tech data: 227.7103-6(a)	No, but tailored lang: XVIII (p 56)
Rights in Noncommercial Computer Software (252.227-7014)	Req'd when Kts req'd to delivery software or docs 227.7203-6(a)(1)	No, but tailored lang: XVIII (p 56)
Validation of Asserted Restrictions-Comp Software (252.227-7019)	Req'd when 252.227-7014 used, per 252.227-7203-6(c)	No, but tailored lang: XVIII (p 60)
Limits on Use/Disclose (252.227-7025)	Use when we might GFX 227-7203-6(d)	Listed p 7 of Bolton briefing

Prof for Dom Hand or Measuring Tools (252.225-7015)	Req'd over \$100K if these tools are deliverable 225.7002-3(c)
Trade Agreements Act (252.225-7021)	Use instead of 52.225-8 if the Act applies 225.1101(6)
Foreign Source Restrict (252.225-7025)	Req'd over \$10K per 225. _ _
Outside US (252.225-7026)	\$500K
Utilization of Indian Organizations (252.226-7001)	Req'd over \$500K per 226.104
Deferred Delivery of Tech Data or Comp Software (252.227-7026)	Optional: can use if we want defer delivery of tech data 227.7103-8(a)
Tech Data - Withhold of Payment (252.227-7030)	Req'd when 252.227-7013 used, per 227.7103-6(e)(2)
Declaration of Tech Data Conformity (252.227-7036)	Req'd when 252.227-7013 used, per 227.7103-6(e)(3)



FCS OTA - DAAE07-03-9-F001



DEAR Clauses Contained

DEAR Clauses Not Included

o Aircraft Flight Risk (252.228-7002)	Use in C-R contracts for development of aircraft per 228.370(c)(1)	Yes XXIV.B (p 68)
o Accident Reporting/Aircraft (252.228-7005)	Available for use, per 228.370(e)	Yes XXXI.D (p 78)
Electronic Submission of Payment Requests (252.232-7003)	Use in all Ks performed in the USA, per 232.7004	No, but tailored lang: IX.E.1 (p. 41)
Earned Value Management System (EVMS) (252.234-7001)	Use when applicable: 234.005-71(b)	No, but tailored lang: IV.H (p. 26)
o Frequency Authorization (252.235-7003)	Req'd when developing an items requiring freq. auth, per 235.071(b)	Yes: XXXI.D (p 78)
Requests for Equitable Adjustment (252.243-7002)	Req'd in Ks over \$100K: 243.205-71	No, but OTA covers: XIII.A.2 (p. 50)
Notif. of Proposed Prog Termination or Reduction (252.249-7002)	Req'd in Ks on major programs: 249.7003(c)	No, but tailored lang: II.C (p 20)
Ordering from Gov't Supply 252.251-7000	Yes, when 52.251-1 is used, per 251.107	No, but tailored lang: XXV (p 69)

Validation of Restrictive Markings on Tech Data (252.227-7037)	Req'd when used, per 227.7103-6(e)(4)
Suppl. Cost Principles (252.231-7000)	Req'd when FAR 31 applies, per 231.100-70
Acknowledgment of Support and Disclaimer (252.235-7010)	Req'd in Ks for R&D, per 235.071(c)
Final Scientific or Technical Report (252.235-7011)	Req'd when buying R&D: 235.071(d)
Mat'l Maint & Acct System (252.242-7004)	Req'd in C-R Ks over \$100K per 242.7204
Reports of Gov't Property (252.245-7001)	Use when GFP applies: 245.505-14
Warranty of Data (252.246-7001)	Can be used when applic: 246.710(1)
Transport of Supplies By Sea (252.247-7023)	Req'd over \$100K per 247.573(b)(1)

LOCKHEED MARTIN

**Memorandum**

Date: 21 October 1998
To: Col. Steve Busch, SAF/AQD
From: Gene Elmore

Attached is our proposed agenda for the C-130J Review here in Marietta next week. We have included your requested topics, including those programmatic issues which affect them, starting the afternoon of the first day.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA, and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.

We believe the facts will show that the commercial item contract is a very good deal for the USG, and we hope that the program issues discussions will result in a win/win way forward for the USAF and Lockheed Martin.

I would appreciate your comments on the proposed agenda. I also need insight into Mrs. Drury's plans for Friday so we can finalize that portion of the agenda.

Gene Elmore
Vice President - Hercules Programs

Attachment

March 12, 2002



Testimony

Statement for the Record
Robert J. Lieberman
Deputy Inspector General
Department Defense
to the
Subcommittee on Technology and
Procurement Policy
House Committee on Government Reform
on
The Services Acquisition Reform Act (SARA) of 2002

Hearing Date: March 7, 2002

Report No. D-2002-064

Department of Defense
Office of the Inspector General

Quality

Integrity

Accountability



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

MAR 12 2002

Honorable Tom Davis
Chairman, Subcommittee on
Technology and Procurement Policy
Committee on Government Reform
House of Representatives
Washington, D.C. 20515-6142

Dear Mr. Chairman:

This letter provides our views on the legislation "Service Acquisition Reform Act," HR 3832. During the hearing on March 7, 2002, the chair agreed to the request of the Honorable Jim Turner, Ranking Member, to include the comments of this office in the hearing record.

The Department of Defense procurement system is the largest in the world with \$175 billion of acquisitions in fiscal year 2001. The acquisition process has been greatly improved by reform legislation since 1994, but the implementation of those changes is still incomplete. The pace and effectiveness of implementation have been hampered by a variety of factors, including inadequate training. Nevertheless, we believe that the reform legislation of the 1990's has provided the Department with powerful tools and authorities to improve acquisition performance and their positive effect should become more evident over the next several years.

We welcome your interest in the acquisition of services, which is an area that receives far less oversight than does the procurement of equipment and supplies. In the Department of Defense, which purchases over \$56 billion of services annually, the services segment of the acquisition program could easily be considered to be one of the largest Federal acquisition efforts in its own right. Our audits have consistently indicated problems across the spectrum of requirements determination, procurement strategy, market survey, price analysis, and contract administration. The root causes of those deficiencies, in our view, lie much more in training and staffing than in flawed or excessive laws and regulations. This general view contributes to our concern about several provisions in HR 3832.

We are especially concerned about the proposed broadening of the definition of commercial items, which likely would lead to increased contract risk and higher costs, not the efficiencies that are intended. Our reservations about individual sections and, in some cases, suggestions on how to improve them are spelled out in the enclosed comments for your consideration.

If you have any questions regarding this matter, please contact me or Mr. John R. Crane, Director, Office of Congressional Liaison, at (703) 604-8324.

Sincerely,

A handwritten signature in black ink, reading "Robert J. Lieberman". The signature is written in a cursive, flowing style.

Robert J. Lieberman
Deputy Inspector General

Enclosure

cc: Honorable Jim Turner
Ranking Minority Member

Inspector General, Department of Defense, Comments on the
Service Acquisition Reform Act (HR 3832)

Section 103 and 104. Government Industry Exchange Program and Reimbursement of Costs. Sections 3702 and 3703 would permit Government employees, at the GS-11 level, or an equivalent level, working in the field of Federal acquisition or acquisition management, who are considered exceptional performers by their employers, to be detailed to private sector organizations. The period of such details would be one year and could be extended for one year. In the case of the agency employee, there would be a requirement for the agency employee to serve in the civil service, upon completion of the assignment, for a period equal to the length of the detail.

We support the goal of promoting the exchange of expertise between the Government and private industry. However, we have concerns regarding the proposed initiative and urge that comments be sought from the Office of Government Ethics and Office of Personnel Management.

Section 3704 allows the private sector to transfer or detail employees to the Federal Government while the employee continues to receive benefits from the private sector. The proposal will make the private sector employee subject to many ethics provisions. However, we believe the proposal should be modified to state that the private sector employees detailed to the Department cannot perform inherently Governmental functions such as policy making, supervision of government employees and acquisition.

Section 107. Authorization of Telecommuting for Federal Contractors. This section would allow telecommuting by contractor personnel while working on a Federal contract. We are not opposed to this section; however, we were not aware of any current prohibition on telecommuting by contractor personnel and therefore question the need for this provision.

Section 202. Increased Role for Defense Contract Management Agency (DCMA). This section would require the Under Secretary of Defense for Acquisition, Technology, and Logistics to review the feasibility of establishing the Defense Contract Management Agency (DCMA) as the primary organization responsible for performing contract management services on DoD base operating service contracts in excess of \$5 million.

We do not support the proposed change. The DoD previously studied the issue when DCMA was established in the early 1990s and concluded that base operating service contracts can best be administered by the contracting organization on the base, post,

camp, or station. In recognition of this fact, the Defense Federal Acquisition Regulation Supplement (DFARS) 242.202 provides that contract administration functions for base, post, camp, and station contracts on a military installation are normally the responsibility of the installation or tenant commander. The local base commander should have the personnel responsible for management of the service contracts accountable to the commander to ensure good performance. We see no reason to revisit this issue.

Section 204. Statutory and Regulatory Review. This section requires the Administrator of the Office of Federal Procurement Policy to convene another panel of acquisition experts to review statutes and regulations that hinder commercial practices and performance based contracting, and for the panel to report its findings within one year. While we support continuing efforts to promote acquisition reform, we question whether another panel is needed at this time, particularly given the breadth of the review conducted previously by the Section 800 panel. If this provision is pursued, at least two years should be allowed for the completion of a thorough review of all procurement statutes and regulations. Our recommendation, however, is to concentrate on previously initiated reform initiatives and not charter still another panel to revisit the same laws and regulations.

Section 211. Payment Terms. This provision creates new payment provisions which differ from the Prompt Payment Act (PPA). The PPA allows the government 7 days to review and return improper invoices and 30 days to make payment from the date the invoice is received (unless otherwise specified in the contract). The proposal would create special provisions applicable only to service contractors. Given the payment requirements of the PPA, as implemented by the Office of Management and Budget at 5 Code of Federal Regulations 1315.9, we recommend this section be revised to either be consistent with the PPA, or to specifically amend the PPA. Given the problems we have observed in numerous audits regarding compliance with the PPA and related payment problems by Defense activities, we do not support creating another set of PPA exceptions which are applicable only to service contractors.

Paragraph (1) allows service contractors to submit bills electronically on a biweekly basis. The current requirement is to submit bills every 30 days.

The DoD has over \$56 billion of service contracts. If you also count research as service contracts, then there is an additional \$21.5 billion. In FY 2001, DoD paid 11.1 million contractor and vendor invoices valued at \$150 billion. If only half of these payments were affected by this provision, DoD would have to process an additional 5.5 million invoices and receiving reports. DoD would need to increase the number of acquisition

staff reviewing invoices and receiving reports and financial staff reviewing, approving and paying the invoices. In the last decade the Defense Finance and Accounting Service (DFAS) has been reduced 37 percent, from 27,000 to 17,000 personnel and reversal of that trend would be difficult. Because of those staffing and processing costs, plus a cost due to accelerated Treasury outlays and related borrowing, the proposal is not revenue neutral.

Further, the proposal does not address the requirement for Government activities to submit receiving reports (hand copy or electronic) to the finance office before payment and the effect of the receipt date in computing interest for late payments, and payment dates. If there is no requirement for verification of the receipt of goods and services, the invoice payments should be treated as contract financing payments and the date of Government receipt and acceptance of the service would no longer be used in computing payment due dates. We do not believe it is a good public policy to pay invoices before verifying the goods or services were received.

Paragraph (2) requires that the date of the invoice shall be the date it is delivered electronically. Currently, under the PPA the date an invoice is received and date-stamped by the office designated in the contract to receive the invoice (designated billing office) is used as the invoice receipt date. Payment due dates are computed based on the later of the invoice receipt date, or the date the Government accepts performance of the service. The PPA requirements, as contained in 5 Code of Federal Regulations (C.F.R.) 1315.9 and Federal Acquisition Regulation (FAR) subpart 32.905, require the vendor to place a date on the invoice. They also require the designated billing office to date-stamp the invoice or use the transmission receipt date as the date of receipt. As mentioned above, we believe it is undesirable to modify payment dates by relaxing the requirement for the receiving report that the activity accepting the services must transmit to DFAS.

Section 221. Increase in Authorization Levels of Federal Purchase Cards. This section would increase the micro-purchase threshold from \$2,500 to \$25,000 and is not limited by its terms to purchases made with Federal purchase cards. This provision is overly broad and, with respect to purchase cards, ignores the well documented problems with implementing the widespread use of cards for micro-purchases. We recently issued Report No. 2002-029 "Summary of DoD Purchase Card Coverage" December 27, 2001. The report covered the Purchase Card Program and identified systemic issues discussed in 382 audit reports issued on the DoD Purchase Card Program from FY 1996 through FY 2001. Systemic issues, defined as problems that were reported in 10 or more reports, included lack of account reconciliation and certification, administrative controls, management oversight, property accountability, separation of

duties, and training. In addition, our on-going review on controls over the DoD Purchase Card Program has identified the need to improve oversight and management controls. Improved controls are needed regarding selecting cardholders, assigning approving officials, setting of spending limits, transactions at "blocked" businesses to which charges are not authorized, purchases declined by banks, purchases made after card accounts were closed, and management of convenience checks. We plan to issue a report with these findings in April 2002. Consequently, we do not support increasing the authorization level until improved controls are in place for purchase cards and are effective in preventing misuse.

Section 224. Architectural and Engineering Services.

Section 224(a) would add a new paragraph to the definition of Architectural and Engineering (A&E) services to make it include "surveying and mapping." Section 224(b) would amend the FAR to include the new definition in section 224(a). Section 224(c) would increase the threshold for contracts set aside for small business for A&E services from \$85,000 to \$300,000.

In FY 2001, DoD acquired \$2.1 billion of A&E services. Architectural and engineering services are awarded using a unique process which usually results in an award to the highest qualified contractor. We do not understand the need for this change in section 224(a) because the definition of A&E services at 40 USC 541 (3)(C) already includes surveying and mapping. We do not believe this amendment is necessary.

There is also no reason to increase the threshold for small business set asides for A&E services. Current legislation provides the Secretary of Defense the flexibility to vary the dollar value threshold whenever needed to ensure that small business concerns receive a reasonable share of A&E services contracts. The section 800 Panel reviewed this statute and the dollar value threshold in 1992 and the drafters of the Federal Acquisition Streamlining Act also considered the need to revise the statute. They concluded that no change was needed because the Secretary of Defense already had adequate flexibility. We are not aware of any new circumstances that would justify revisiting those determinations.

Section 301. Revisions to Share-in-Savings Initiatives. The section allows use of share-in-savings contracts for up to 10 years and permits agencies to retain savings beyond the amount paid to contractors. The Clinger-Cohen Act previously authorized pilot share-in-savings programs for Information Technology projects. Because agencies get to retain funds saved and not paid to contractors, the proposal creates an environment for off budget financing of operations. The 10-year length of the contract is unnecessary and may actually impede further savings. The periodic expiration of a service contract should

provide an occasion to spur competition and permit the Government to obtain a better deal or better technology than offered by the incumbent. For example, by year 10 the technology offered by the incumbent can be 7 years out-of-date but still cheaper than the original Government operation. A 10-year contract may provide little incentive for proposing significant improvements after the initial proposal to win the contract. We also have concerns because the DoD does not yet have the ability to determine the actual current costs of operations with any certainty. The contracting officer needs a good cost baseline for calculating improvements against which benefits can be calculated. Determining the cost of operations is why public/private competitions often require 2 or more years. Until the pilot programs currently authorized are completed, and lessons learned developed, we do not support the proposal.

Section 302. Incentives for Contractor Efficiency. This section allows performance periods of 10 years for performance based service contracts.

We do not support this section because it is unnecessary. The Department can already award multiple annual options if the contractor performance is adequate. The Government also possesses other tools to incentivize exceptional contractor performance, particularly in the award of incentive and award fee provisions. We do not believe further incentives are necessary. As mentioned in comments on section 301, the threat of competition and the contractor's desire for the Government to extend the contract through the exercise of options should be adequate incentives to spur contractor performance.

Section 402. Authorization of Additional Contract Types in FAR Part 12. This section would permit use of time-and-materials, and labor hour contracts for commercial item or services using Federal Acquisition Regulation (FAR) Part 12 Commercial Item procedures.

We are opposed to this section. Time and material, and labor hour contracts are the highest risk and least preferred contract types. Under these types of contracts, contractors have little incentive to control costs or increase labor efficiencies. In FY 2001, DoD had \$4.8 billion of time and material and labor hour contracts. We believe the use of these types of contracts should be discouraged, not expanded.

Inspector General, DoD, Report No. D-2000-100 identified a multitude of pre-award and post-award problems for service contracts because of poorly defined requirements on cost and time-and-material contracts. FAR Part 16 emphasizes that there is no positive incentive to the contractor for cost control on cost or time-and-materials contracts. As a result, these types

of contracts require a high degree of labor intensive surveillance and are more susceptible to cost growth. Of the 84 cost and time-and-materials contracts reviewed, 25 percent of these actions experienced cost growth of \$80 million and almost 70 percent of these actions had inadequate surveillance. Downsizing of the acquisition workforce and streamlining have created a need to do more with less, but this proposal would expand the use of time-and-materials contracts that will add contract surveillance workload to an already strained staff and would likely only increase problems.

Section 403. Clarification of Commercial Service Definitions.
This is a change in the definition of commercial items that would equate commercial services with commercial items. We oppose the change as it is unnecessary and confusing.

The proposal would eliminate 41 USC 403(12)(F), which defines services as commercial items only if the services are offered and sold competitively, in substantial quantities, in the commercial marketplace and are based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. It could allow a contractor to claim any service, including research and development, as commercial if the contractor claims it plans to sell the service in the future to the public.

Under the current statute, a determination must be made that the service is actually commercially available to the public. This is not a difficult test. The current definition of commercial services is a very reasonable definition with safeguards to prevent purchasing noncommercial services such as cleanup of radioactive waste by the Department of Energy or acquisition of never before performed applied research for the DoD. Inspector General, DoD, Report No. D-2001-051 "Use of Federal Acquisition Regulation Part 12 Contracts for Applied Research," February 15, 2001, explains the above examples and shows why FAR Part 12 contracts should not be used for acquiring military unique research and development. Pages 13, 14, and 15 of the report show why the Department will pay more for the same research including large profit rates.

We also believe the proposed change is inappropriate because it attempts to graft commercial services to that portion of the commercial item definition which was enacted to apply to supplies. Services were specifically and separately defined at 41 USC 403(12)(F), as what constitutes commercial services differs from supplies. We also oppose the change because the current definition regarding commercial services is more than adequate. It permits services which are sold competitively and for which a market price can be established to be treated as commercial services. This provision has permitted the Government to purchase a myriad of services as commercial

services. As discussed in Inspector General Report No. D-2001-051 (see above), the General Accounting Office has given agencies considerable discretion in determining which services are commercial in nature. We oppose a change in the definition without some showing that the current definition is inadequate.

In FY 2001 DoD acquired nearly \$20 billion of commercial items and services. The Department's purchases of commercial items and services was \$12.5 billion in FY 2000. The 61 percent increase in one year occurred with a relatively flat budget.

Section 404. Designation of Commercial Business Entities. The proposal would allow a business entity that has 85 percent of its sales to non-government customers to consider any item or service it offers or sells to be a commercial item.

We oppose the proposed change. As is the case with sections 402 and 403, it is overly broad and would eliminate many essential safeguards for the taxpayer. The proposal would require the Government to consider many potentially military or government unique items or services as commercial items. The determination of whether an item or service is commercial or not would be based not upon whether the item is sold or offered commercially, but upon a ratio of commercial to non-commercial sales by the business entity. It would permit items which are clearly not commercial items, such as military unique spare parts, to be acquired as commercial items, with none of the current statutory or regulatory protections. Moreover, given the preference in FASA for purchases of commercial items, the proposal would require the acquisition of military or government unique products because they qualify as commercial items according to the criteria in the proposed definition. The Government would have no option to purchase the items using other acquisition methods.

The proposal also would allow contractors to manipulate what is considered a commercial item by creating or reorganizing business entities or allocating contracts to different business entities in order to obtain commercial item status for what are actually military unique products. For example, a company could create a business entity which is responsible for manufacturing all of its commercial and military aircraft. If the commercial aircraft sales account for more than 85 percent of the entity's sales, the Government would be required to acquire military unique aircraft, as a commercial item. We strongly oppose any proposal which would permit the determination of what is a commercial item to be based upon realignments of contracts and organizational structures, which could be done solely for the purpose of limiting Government oversight. We believe the Congress used the appropriate criteria when it created the commercial items preference, by requiring agencies to look to the commercial marketplace to see whether an item is, will, or is intended to be offered to the general public. The

determination is based upon market research, not upon an arbitrary ratio of commercial to non-commercial sales.

The proposal is drafted in such a manner that contractors could make almost any contract for military unique items or services exempt from oversight and the traditional safeguards that Congress intended. A contractor can reorganize or reallocate its contracts initially or annually so that the large contracts for research or production of items would have to be acquired under FAR Part 12. Once a contractor has sold an item as a commercial item, it will likely argue the designation cannot be changed.

We are unaware of any empirical data demonstrating that lower contract prices or better products and services should result from the "commercial business entity" approach.

Because of the TINA, the statutory prohibition on unallowable costs, and audit access to records, DCAA audits saved the Government \$3.2 billion in FY 2001 because they precluded overpricing on contracts for military unique items. The risk is substantial that, by revising the commercial definition to include a business entity with 85 percent commercial work, the Government will pay more because we cannot use the established safeguards. Contracts for which cost or pricing data is required and contracts subject to the Cost Accounting Standards (CAS) have been reduced by legislative changes in the 1990s. We support adopting reasonable commercial approaches when there is a healthy competitive marketplace. However, when buying unique military weapons from a few dominant suppliers, we must recognize that we cannot rely on competitive market forces that do not exist. In the absence of market forces, any prudent buyer, public or private, would want objective verification that what is paid is reasonable. In those circumstances, the Department, entrusted with billions in taxpayer dollars, has a clear obligation to act as an "informed consumer" to the greatest degree possible.

Also, even on large contracts that often exceed \$1 billion, such as military fighter aircraft acquisitions, many components or services for the end item could become commercial items under this legislative proposal. This is because many components are acquired through intra-company transfers or purchases from various business entities. The company can put all components or services for the aircraft into a business entity that meets the criteria in the proposed definition and the Government will lose access to cost data for the items.

The proposal may also give a contractor that has been determined to have a commercial business entity an unfair competitive advantage over other contractors. FASA and FAR 12.101(b) require agencies to acquire commercial items or nondevelopmental items when they are available to meet the needs of the agency. If the proposed definition of a business entity is adopted, a

commercial entity would be awarded contracts and subcontracts merely because it offers the only "commercial item" meeting the buyer's needs. Alternative sources that do not meet the sales criteria in the proposed definition of a "commercial entity," could not compete.

Another reason for caution is that several recent audits have shown that industry, with lax oversight from the Department, has at times insisted that military unique items be acquired as commercial items. Higher costs resulted. Inspector General, DoD, Report No. D-2001-129, "Contracting Officer Determinations of Price Reasonableness When Cost or Pricing Data were Not Obtained," May 30, 2001, shows examples of overpricing on pages 5, 6, 10, 11, and 17 where contractors improperly claimed commercial item designations for military unique items acquired on a sole-source basis. For example, page 17 shows how the price of a military unique item for the F-14 Tomcat wing fuselages increased from \$55 to \$800 (1,454 percent) because the contractor claimed the item was commercial and refused to provide cost and pricing data. Yet, the DoD is the only buyer for this item. Overall, the report identified \$23 million of overpricing on 52 contracts. The proposed change would legitimize overpricing by eliminating the current safeguards to prevent and identify overpricing. In addition, Inspector General, DoD, Report No. D-2001-051, discussed in Section 403, shows why FAR Part 12 contracts should not be used for acquiring military unique research and development.

Section 405. Continuation of Eligibility of Contractor for Award of Information Technology Contract after providing Design and Engineering Services. This section states that a contractor that provides architectural design and engineering services for an information technology program is not, solely by reason of having provided the services, ineligible for award of a contract for procurement of information technology under that program or for a subcontract under such a program. This provision would change FAR Part 9.5's organizational conflict of interest provisions for service contractors. FAR Part 9.5 addresses the legitimate needs of the Government to preclude conflicts of interest. It also provides agencies adequate flexibility by permitting conflicts to be waived if in the Government's best interest. The proposal treats information technology contracts different for no apparent purpose and creates an unnecessary and inappropriate exception to existing organizational conflict of interest policies. Because of those concerns, we do not support this section.

Section 406. Commercial Liability. This section mandates that contracts for the acquisition of services or property contain provisions that bar payment of consequential damages "in cases of contractor liability with respect to the contract" and limit "direct damages in case of contractor liability with respect to

the contract...not [to] exceed the cost of the service that was not performed or the product that was not delivered..."

We oppose the provision. There is no definition of direct or consequential damage, nor a definition or description of what "with respect to the contract" means. Parties to contracts need to know precisely their respective obligations and liabilities. Contractors need such information in order to purchase adequate insurance to cover potential liabilities.

We oppose the bar to payment of consequential damages "with respect to the contract" as it is unclear whether contractors will be exempt from consequential damages only with respect to the Government, or also to third parties who may be injured as a result of negligence or malfeasance by the contractor or its employees in performance of the contract. The Government should be able to pursue consequential damages which result from a contractor's negligence or failure to perform. The provision might bar the Government from establishing liquidated damages which are based upon consequential damages from a contractor's failure to adequately perform. In some family quarters maintenance contracts, for example, a contractor must repaint a set of vacated family quarters within two days or it will be assessed liquidated consequential damages for each additional day the quarters are not available for occupancy. The consequential damages are based on the government's costs to house a service member on the local economy. These damages provide an incentive (and penalty) for the contractor to complete the painting on time. We also oppose the limitation on direct damages to the cost of the services not performed or the product not delivered. The government's damages should not be so limited. A contractor might refuse to perform, and the government's recovery would be limited by the proposal's damages cap, irrespective of the additional costs to the government in obtaining another contractor to perform the function at the last moment.

We believe this provision does not provide an incentive for quality performance by service contractors. We also question why legislative relief is necessary, as there is case law regarding a contractor's liability for damages, to include consequential damages. To the extent necessary, contractors can continue to protect themselves through the purchase of insurance.

Section 503 and 504. Certain Research and Development by Civilian Agencies and Authority for Carrying Out Certain Prototype Projects. These sections authorize civilian agencies to use other transaction authority for research and prototypes.

The Department of Defense has had authority to use other transaction authority for basic, applied and advanced research since 1989, and for prototypes since 1994. The purpose of other

transactions was to attract nontraditional Defense contractors who had research or promising technologies of value to the military, and who did not want to enter into a FAR contract, cooperative agreement or grant. Consequently, the other transaction, which bypasses many federal statutes and regulations, was authorized to give the Department additional flexibility in acquiring innovations and research. In time, other transactions were also authorized for the development of prototypes.

The DoD Inspector General has conducted a number of audits regarding other transactions:

Inspector General, DoD, Report No. D-2001-115, "Audit of Reconnaissance, Surveillance, and Targeting Vehicle Program," May 8, 2001

Inspector General, DoD, Report No. D-2000-070, "Evolved Expendable Launch Vehicle Program Other Transactions," December 30, 1999 (Report is FOUO ("For Official Use Only") and copies may be obtained by authorized personnel by contacting 703-604-8937.)

Inspector General, DoD, Report No. D-2000-065, "Costs Charged to Other Transactions," December 27, 1999

Inspector General, DoD, Report No. 98-191, "Financial and Cost Aspects of Other Transactions," August 24, 1998

Inspector General, DoD, Report No. 97-114, "Award and Administration of Contracts, Grants and Other Transactions Issued by the Defense Advanced Research Project Agency," March 28, 1997

Based upon our most recent audits of prototype other transactions, we have found that other transactions have not attracted a significant number of nontraditional Defense contractors to do business with the Government. Available data for FY 1994 through FY 2001 illustrates this point. Traditional Defense contractors have received 94.5 percent of the \$5.7 billion in funds for 209 prototype other transactions.

We find this trend disturbing, as other transactions do not provide the government a number of significant protections, ensure the prudent expenditure of taxpayer dollars, or prevent fraud. Procurement statutes and the FAR provide contracting officers the tools to negotiate fair and reasonable prices, and to ensure that taxpayer dollars are expended for costs which are allowable and consistent with federal procurement policies. TINA, CAS, and the various audit provisions are among the tools that have provided contracting officers' visibility into contractor costs and help the government ensure that prices negotiated and eventually paid are reasonable. These provisions have served the interests of the government and the taxpayer for

many decades. Congress has given agencies the authority to waive some of these protections, in certain circumstances, in connection with FAR contracts. Thus, the current methods of acquiring goods and services from contractors already provide considerable flexibility to accommodate the needs of the parties.

The traditional protections for the public trust do not exist, for the most part, for other transactions. In only one significant area, namely providing the Comptroller General access to records in connection with prototype other transactions in excess of \$5 million, do other transactions provide visibility into performance costs. Other measures for ensuring visibility into costs and ensuring prices are reasonable have not been enacted for other transactions.

Based upon the DoD experience, we believe other transactions should be considered only when it is clear that the Government is unable to acquire goods, services, and needed technologies through existing vehicles. If other transactions are authorized for civilian agencies, we strongly recommend such legislation be tailored so that the other transactions vehicle is only used to attract companies which have not traditionally done business with the Government and for technologies, research capabilities or other processes which are needed by the federal agency and are not available through traditional acquisition vehicles.

For research other transactions, we recommend the agency head be required to make a determination that an other transaction is necessary to induce a nontraditional contractor to provide technologies, research capabilities, or other processes which are needed by the agency. The determination should also include a finding that a contract, grant, or cooperative agreement are not appropriate or feasible, and that waivers to TINA, CAS, and other Federal statutes or procurement policies are not sufficient. Other transactions for prototype should be limited to developing items which are ripe for development as the result of research conducted pursuant to a research other transaction. We also recommend that audit access rights be given to the Government, to include the Comptroller General, the agency Inspectors General, and departmental contract audit agencies, such as the Defense Contract Audit Agency.

If enacted, other transaction authority for civilian agencies should be provided as a pilot program of limited duration to ascertain whether it actually attracts significant numbers of nontraditional government contractors, whether it results in the acquisition of needed technologies and services, and whether additional safeguards should be enacted.

We recommend for prototype other transactions that Section 845(c) "Comptroller General Review" be extended to include Inspectors General. This is a good management control

because it currently allows access to records to audit other transactions.

Section 601. Simplified Acquisition Threshold (SAT)
Inflationary Adjustment. This section allows inflationary adjustment of the SAT (currently \$100,000) every 3 years.

Adjusting the SAT would have merit, but we suggest it be revised in a different manner. For the TINA, FASA set the threshold at \$500,000, and the threshold is currently revised for inflation every 5 years with minimum changes in multiples of \$50,000. The TINA is currently \$550,000. We recommend the SAT be revised in years divisible by 5 with changes in increments of at least \$10,000 based on the percentage change in inflation. This would ensure changes to all thresholds would occur on a consistent basis.

United States General Accounting Office

GAO

Report to the Chairman and Ranking
Minority Member, Committee on Armed
Services, Subcommittee on Readiness
and Management Support, U.S. Senate

April 2000

ACQUISITION REFORM

DOD's Guidance on Using Section 845 Agreements Could be Improved



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GAO/NSIAD-00-33

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Abbreviations

DARPA	Defense Advanced Research Projects Agency
DOD	Department of Defense



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

National Security and
International Affairs Division

B-281276

April 7, 2000

The Honorable James M. Inhofe
Chairman
The Honorable Charles S. Robb
Ranking Minority Member
Subcommittee on Readiness and Management Support
Committee on Armed Services
United States Senate

To help meet the national security challenges of the 21st century, the Department of Defense (DOD) funds a vast array of research and development activities to exploit emerging technologies, develop advanced weapon systems, and improve the capabilities of fielded weapon systems. Over the past decade, Congress and DOD expressed concern that government-unique procurement requirements—often implemented through specified contract provisions—inhibited DOD's ability to take advantage of technological advances made by the private sector and increased the costs of goods and services DOD acquired.

One effort to address these concerns was enacted under Section 845 of the National Defense Authorization Act for Fiscal Year 1994. Section 845 provided the Defense Advanced Research Projects Agency¹ with temporary authority to enter into agreements for prototype projects² using nonstandard contracting approaches referred to as "other transactions." Other transactions are generally not subject to the federal laws and regulations governing standard procurement contracts. Consequently, when using Section 845 authority, DOD contracting officials are not required to include standard contract provisions that typically address such issues as financial management or intellectual property rights, but rather may structure the agreements as they consider appropriate. In 1996, Congress extended the use of Section 845 agreements to the military

¹ The Defense Advanced Research Projects Agency is DOD's central research and development organization.

² There is no common definition of a prototype project; however, definitions provided by DOD ranged from products that evaluated the technical feasibility or operational utility of a concept or system, to lesser projects involving subsystems, components, technology demonstrations, and other technology development efforts.

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services and other defense agencies. Section 845 authority expires on September 30, 2001.

You asked us to provide information regarding DOD's use of Section 845 agreements to assist you in deciding whether to make the authority permanent. Specifically, we identified (1) the extent to which DOD has used Section 845 agreements, (2) the benefits reported from their use, (3) how DOD tailored these agreements to address issues normally governed by standard contract provisions, and (4) recent DOD efforts to provide additional guidance on their use.

Results in Brief

DOD has awarded 97 Section 845 agreements as of October 1998. These agreements have varied widely in type and dollar value. They were most frequently used to support studies of future weapon systems or to design and develop subsystems or components. DOD's financial commitment was concentrated on 10 agreements that accounted for about \$2.1 billion, or more than 80 percent, of the \$2.6 billion awarded under Section 845 agreements. This financial commitment constituted a relatively small percentage of DOD's overall research and development spending. For example, DOD awarded about \$100 billion in research and development contracts over approximately the same time period.

In a February 1999 report to Congress, DOD cited numerous benefits from using Section 845 authority. These benefits included attracting firms that typically did not contract with DOD,³ enabling use of commercial products or processes, providing more flexibility to negotiate agreement terms and conditions, and reducing program costs. However, the report provided only limited data to assess the agreements' usefulness. For one of the key benefits expected from using Section 845 agreements—attracting commercial firms—data showed mixed results. For example, in our review, traditional DOD prime contractors attracted commercial firms as subcontractors in 24 out of 84 agreements, according to agreement officers.

Section 845 agreements covered most of the areas typically addressed by standard contract provisions in the five areas we evaluated. However, the terms and conditions found in Section 845 agreements provided contractors more flexibility in the business processes and practices they

³ In this report, unless otherwise specified, we use the term "commercial firm" to identify those business entities that typically do not contract with DOD.

employed than typically provided by standard contract provisions. Among Section 845 agreements, we found little variation in the approaches to financial management, subcontractor management, and termination and disputes processes. In two other areas—intellectual property and government property—DOD officials made greater use of the standard contract clauses in agreements awarded to traditional defense contractors, while using tailored clauses in agreements with commercial firms. The use of a model agreement contributed to this uniformity, but DOD officials often did not address why they selected either the standard contract provision or a tailored approach or discuss the anticipated benefits of their choice of approach in the analysis justifying the award of the agreement.

DOD has recently proposed new guidance to assist its personnel in determining when to use a Section 845 agreement and how to structure key provisions. The guidance also calls for additional information that would provide senior acquisition executives better insight on selected terms and conditions for agreements involving major weapon systems. It requires that DOD personnel establish metrics to evaluate the benefits from using Section 845 agreements, but does not provide examples or guidelines to help them develop metrics that are measurable and directly related to the agreement's use. Experience has shown that DOD components have not developed such metrics in the past. Consequently, it is not clear that establishing this requirement without providing guidelines will lead to appropriate assessments of the benefits of using Section 845 agreements. The proposed guidance generated extensive comments within DOD and industry, which may be difficult to reconcile.

We have included recommendations in the report that are intended to assist DOD personnel in determining whether to use a Section 845 agreement and provide more useful indicators of the benefits obtained from their use.

Background

DOD obligated over \$100 billion for fiscal years 1994 through 1998 for research and development activities under various types of contracts. The policies and procedures that govern the solicitation, negotiation, and management of DOD contracts are contained in the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement. Depending on such factors as the contract type and dollar value, a DOD contract could incorporate more than 100 contract clauses. These clauses implement statutory or regulatory requirements covering such issues as financial management and intellectual property, among others. While these requirements are intended to protect the government's or suppliers'

interests, concerns have been raised about the costs or impact of complying with the requirements. For example, traditional defense contractors report that they require additional personnel to comply with government financial management requirements, while commercial companies reportedly decline to accept DOD research contracts to protect their intellectual property. Many requirements can be waived or tailored, but DOD officials indicated this can be difficult and time consuming.

The origins of Section 845 authority began in 1989, when Congress enacted legislation—codified at 10 U.S.C. 2371—to provide the Defense Advanced Research Projects Agency (DARPA) temporary authority to enter into “other transactions” for advanced research projects. The legislation did not define “other transactions,” thus giving DARPA flexibility to deal with unique situations encountered when fostering technology development, especially technology with both commercial and military applications. In 1991, Congress made this authority permanent and subsequently extended it to the military services. Other transactions entered into under 10 U.S.C. 2371 are assistance instruments, which are instruments used by DOD when the principal purpose is to stimulate or support research and development activities for both public and government, versus government-unique, purposes.⁴

In 1993, Congress enacted Section 845 of the National Defense Authorization Act for Fiscal Year 1994⁵ to provide DARPA additional authority for a 3-year period to use “other transactions” to carry out prototype projects directly relevant to weapons or weapon systems proposed to be acquired or developed by DOD; that is, for government-unique purposes. The legislation did not provide specific objectives to be achieved from using the authority, nor did it define what constituted a prototype project. Further, the legislation did not require participants to share in the costs of the project or require that the agreements be used when a standard contract, grant or cooperative agreement was not appropriate or feasible, two conditions required to use an assistance-type other transaction. Congress required DOD to report annually on its use of other transactions.

⁴ We discussed various issues regarding DOD’s initial use of assistance-type other transactions in our report, *DOD Research: Acquiring Research by Nontraditional Means* (GAO/NSIAD-96-11, Mar. 29, 1996).

⁵ P.L. 103-160, Nov. 30, 1993.

In 1996, Congress extended Section 845 authority to the military services and other defense agencies. At that time, senior DOD officials indicated that extending the authority to the military services and defense agencies would, among other things, assist their efforts to attract firms that traditionally did not perform research for the government and reduce the time necessary to field new weapon systems. Congress has twice extended the authority's expiration date, most recently until September 30, 2001.

DOD has issued limited guidance to defense components on using Section 845 agreements. For example, DOD's initial guidance on Section 845 agreements consisted of a memorandum issued by the Under Secretary of Defense for Acquisition and Technology in December 1996.⁶ Although it encouraged defense components to take advantage of the flexibility provided by Section 845 authority, the memorandum did not provide specific objectives or criteria for using it, define what constituted a prototype project, or specifically require components to establish metrics to assess whether the expected benefits were actually achieved.

Guidance issued at the component level mirrored DOD's approach in providing only broad parameters. For example, the Air Force encouraged its acquisition community to use Section 845 authority in situations where a standard contract discouraged cutting-edge, high-technology commercial firms from participating in DOD-funded programs; the Navy guidance encouraged its use to facilitate innovation; and the Army's guidance stated that the authority could enhance its ability to acquire new technology in a better, faster, and cheaper manner. The components' guidance also offered various definitions of prototype projects. For example, Air Force and Army guidance note that a prototype can generally be described as an end product that reasonably evaluates the technical feasibility or operational utility of a concept or system. DARPA described prototypes as not only including systems, but also lesser projects involving subsystems, components, technology demonstrations, and other technology development efforts. The Navy's guidance does not address what constitutes a prototype project.

⁶ The position was recently redesignated as the Under Secretary of Defense for Acquisition, Technology, and Logistics.

Agreements Varied in Project Type and Dollar Value, but Support a Small Percentage of DOD Research Efforts

As of October 1998, DOD has awarded 97 agreements that vary in type and dollar value. Before fiscal year 1997, only DARPA was authorized to use Section 845 agreements, awarding 15 agreements during fiscal years 1994 through 1996 (see table 1). Over the next 2 years, the military services and the National Imagery and Mapping Agency⁷ awarded 61—or nearly two-thirds—of the agreements awarded by DOD through fiscal year 1998. The military services' initial use of Section 845 agreements was largely associated with the Commercial Operations and Support Savings Initiative, a DOD initiative intended to reduce maintenance costs of fielded weapon systems by using commercial products and processes. DOD made the use of Section 845 agreements a requirement for this initiative. In total, 30 of the 38 agreements awarded by the military services in fiscal year 1997 were made under this initiative.

Table 1: DOD's Use of Section 845 Agreements Through Fiscal Year 1998

Component	Number of agreements					Total
	Fiscal Year					
	1994	1995	1996	1997	1998	
Army				10	3	13
Air Force				8	5	13
Navy				20	11	31
National Imagery and Mapping Agency				3	1	4
DARPA	1	6	8	4	15	34
Total	1	6	8	45	35	95

Source: Our analysis.

⁷ The National Imagery and Mapping Agency provides imagery, imagery intelligence, and other information that support national security objectives.

In early fiscal year 1999, the Air Force awarded two agreements under its Evolved Expendable Launch Vehicle program that represented a significant departure from previous agreements in terms of dollar value and financial commitment by the contractors.⁸ The Air Force committed \$500 million on each of these agreements and expects each of the two prime contractors to commit roughly \$1 billion. The contractors are to design and develop a family of launch vehicles capable of meeting both government and commercial requirements, and their cost-share is largely in recognition of the expected commercial demand for launch services.

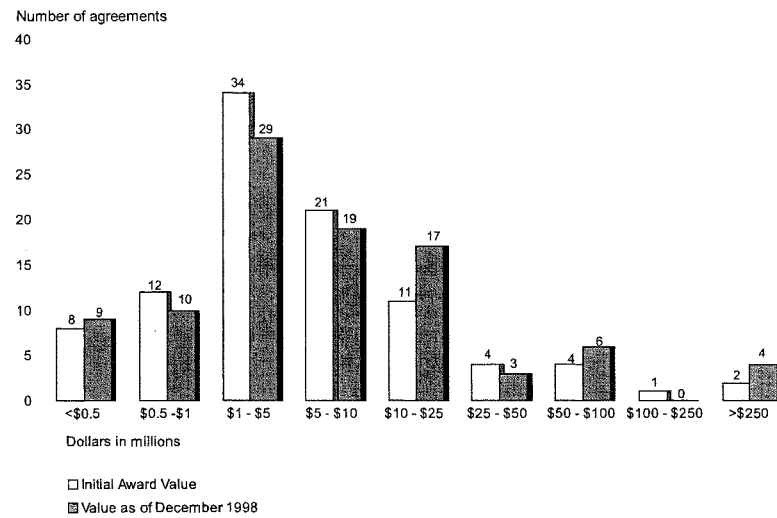
Section 845 agreements support a wide range of projects. More than half of the projects involved either (1) studies to evaluate the feasibility or merits of future weapon system concepts or technologies or (2) the design and development of hardware-related subsystems and components. Section 845 agreements also support the development of software or software applications, information systems, and various imaging and detection technologies. A few projects will result in the development and manufacture of a major end item, such as the Navy's project to design and build a new oceanographic research ship. In this case, the Navy determined that because the ship incorporated numerous new technologies, including new hull and propeller designs, it could be considered a prototype for future efforts.

The agreements' dollar values have also varied greatly, as shown in figure 1.

⁸ DOD officials indicated that DOD awarded a total of 46 new Section 845 agreements in fiscal year 1999. We included the two Evolved Expendable Launch Vehicle agreements within the scope of our assignment due to their significance, but we did not obtain or analyze other agreements awarded in fiscal year 1999.

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Figure 1: Distribution of Section 845 Agreements by Total Agreement Dollar Value



Source: Our analysis of Section 845 agreements awarded through October 1998.

At the time of award, the 97 agreements had a median value of about \$4 million, with individual awards ranging from a \$170,000 Navy effort (to test the feasibility of using composite materials for the motor cases of projectiles used in its 5-inch fire support gun) to the two \$500 million Air Force Evolved Expendable Launch Vehicle agreements.

DOD's initial financial commitment totaled about \$1.8 billion; however, due to changes in the value of 29 agreements, DOD's financial commitment experienced a net increase of about \$0.8 billion to about \$2.6 billion as of December 1998. Changes in the agreements' value resulted from (1) decisions to add work to the original agreement, (2) technical or

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schedule problems that increased the effort's cost, or (3) termination of the planned activity. As shown in table 2, the four largest agreements cumulatively account for about 66 percent of DOD's commitment as of December 1998, while another six agreements account for an additional 16 percent. Of the 10 largest agreements, 9 involved traditional defense contractors, while the 10th involved a consortium comprised of both traditional defense contractors and commercial firms.

Table 2: Ten Largest Section 845 Agreements Measured by DOD Financial Commitment as of December 1998

Dollars in millions

Fiscal year awarded	Prime contractor	Project	DOD financial commitment		
			Amount	Percent	Cumulative percent
1999	Traditional	Develop national space launch capability under Evolved Expendable Launch Vehicle program	\$500.0	19.2	19.2
1999	Traditional	Develop national space launch capability under Evolved Expendable Launch Vehicle program	500.0	19.2	38.4
1995	Traditional	Design, develop, and flight test Global Hawk unmanned aerial vehicle	425.5	16.3	54.8
1994	Traditional	Design, develop, and flight test DarkStar unmanned aerial vehicle	283.1	10.9	65.7
1997	Traditional/Commercial ^a	Evaluate use of commercial information processing, storage, transmission, compression, and display technologies for national security purposes	75.0 ^b	2.9	68.6
1997	Traditional	Evaluate use of commercial information processing, storage, transmission, compression, and display technologies for national security purposes	75.0 ^b	2.9	71.4
1998	Traditional	Develop a common cockpit for the CH-60 and SH-60R helicopters	74.5	2.9	74.3
1998	Traditional	Prepare concept studies for DD-21 Land Attack Destroyer	70.0	2.7	77.0
1996	Traditional	Develop a common ground communication system for Global Hawk and DarkStar unmanned aerial vehicles programs	62.7	2.4	79.4
1997	Traditional ^a	Develop logistics system	58.2	2.2	81.7
Total			\$2,124.1	81.7	

Note: Totals may not add due to rounding.

^aAgreements awarded to consortia.

^bAgreements are reported at their not-to-exceed value.

Source: Our analysis.

DOD's total financial commitment under Section 845 agreements represents a relatively small percentage of its overall research and

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development spending. For example, while DOD awarded \$2.6 billion under Section 845 agreements over the 5-year period that we evaluated, it awarded about \$100 billion under research and development contracts over approximately the same period. DOD's financial commitment was augmented on more than half of the agreements by contractors' cost-sharing. In 48 agreements, contractors were committed to provide about \$178 million, in addition to the roughly \$2 billion the two prime contractors on the Evolved Expendable Launch Vehicle program are expected to provide. DOD officials also indicated that on other agreements contractors had contributed or were expected to contribute additional resources although they were not required to do so under the terms of the agreement.

DOD Reported Numerous Benefits, but Data Show Mixed Results in Attracting Commercial Firms

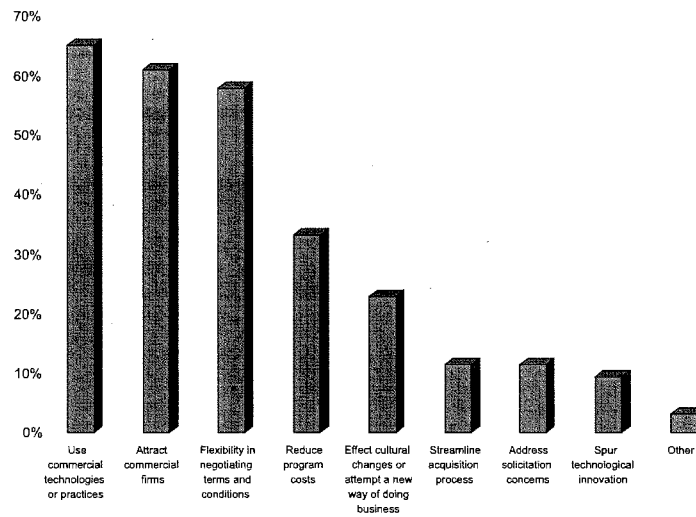
In a recent report to Congress, DOD attributed numerous benefits to Section 845 agreements; however, the report provided only limited data to assess the usefulness of these agreements. Our analysis of data recently developed by the DOD Inspector General suggest mixed results in attracting commercial firms, one of the main benefits DOD expected from using Section 845 agreements. Other reported benefits include reducing program costs or overcoming various solicitation issues.

DOD Report Provides Limited Data to Assess Agreements' Usefulness

In February 1999, DOD reported to Congress that Section 845 agreements provided numerous benefits, though DOD generally offered no quantified measures of the reported benefits or the extent that such benefits were derived from individual agreements. Our analysis of the information provided by the report on individual agreements found that, in most cases, DOD components cited more than one reason or expected benefit from using a Section 845 agreement. The top three reasons cited by DOD components were use of commercial products or processes, attracting commercial firms, and increased flexibility in negotiating terms and conditions (see fig. 2). To a lesser degree, DOD components cited such additional benefits as reducing program cost, attempting to effect cultural change by making the relationship between the government and contractor more like a partnership, trying new ways of doing business, streamlining the acquisition process, spurring technological innovation, or resolving various solicitation issues. These expected benefits were often interrelated. For example, flexibility in negotiating terms and conditions—particularly intellectual property and financial management clauses—was viewed as the key determinant in attracting commercial firms on several agreements. In turn, DOD personnel viewed attracting these firms as a means to leverage commercial technologies or practices.

Figure 2: Reasons Cited by DOD Components for Using Section 845 Agreements

Percent of 97 agreements



Note: DOD components often cited more than one reason for using a Section 845 agreement.
Source: Our analysis of DOD's February 1999 report to Congress on Section 845 agreements.

Evidence on Attracting Commercial Firms Indicates Mixed Results

Our work, as well as work recently conducted by the DOD Inspector General, found that Section 845 agreements have achieved mixed results in attracting commercial firms at either the prime or subcontract level.

DOD officials told us they have been attempting to determine the extent that commercial firms were participating on Section 845 agreements since October 1997. At that time, DOD established a requirement for agreement officers to provide a report, which was to identify (among other things)

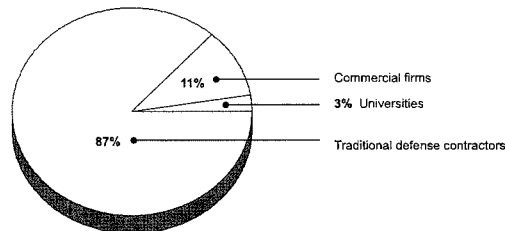
whether the prime contractor or consortium members had performed any prior research efforts for DOD. DOD officials told us that the data collection effort was not entirely successful, in part, because the definition that was provided to agreement officers of what constituted a commercial firm was too narrow, and the report did not provide information at the subcontractor level.

At about the same time that DOD established its reporting requirement, the DOD Inspector General began collecting information on aspects of other transactions, including information on the participants. In December 1999, the DOD Inspector General issued a report that included information on the participation of commercial firms on Section 845 agreements.⁹ For the purposes of their analysis, the Inspector General defined a commercial firm as one that had not performed research on cost-based contracts or that had been subject to an audit by the Defense Contract Audit Agency within the past 3 years. The Inspector General noted that while 34 Section 845 agreements—or more than one-third—had at least one commercial firm participating at either the prime or subcontract level, most of the participants were traditional defense contractors.

Our analysis of the Inspector General's data found that, at the prime contractor level, 84 of the 97 agreements were awarded to traditional defense contractors. Including participants that were members of consortium, we estimate that about 87 percent of the participants at the prime contractor level were traditional defense firms (see fig. 3). DOD officials told us the large number of traditional defense contractors at the prime contract level reflects the fact that Section 845 agreements are to be used on weapon or weapon systems-related projects. Nevertheless, DOD officials had hoped that the use of Section 845 agreements would attract more commercial firms.

⁹ *Costs Charged to Other Transactions*, Office of the Inspector General, Department of Defense, Report No. D-2000-065 (Dec. 27, 1999). The audit's objective was to review the financial and cost aspects of five assistance-type agreements, two Section 845 agreements, and selected subcontracts. During the audit, the Inspector General also quantified the number of contractors participating on assistance-type other transactions and Section 845 agreements awarded through October 1998.

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Figure 3: Composition of Prime Contractors Awarded Section 845 Agreements

Note: Percentages do not total to 100 percent due to rounding.

Source: Our analysis of DOD Inspector General data on prime contractors awarded Section 845 agreements. The Inspector General defined commercial firms as those that had not performed research under a cost-based contract for DOD or had been subject to an audit by the Defense Contract Audit Agency in the last 3 years.

We found DOD personnel attributed the participation of commercial firms to the ability to tailor the agreement's terms and conditions, particularly the intellectual property and financial management clauses. Examples of such tailoring include the following:

- In January 1997, the National Imagery and Mapping Agency solicited proposals to develop and exploit commercial information technologies for national security purposes. The solicitation indicated that the agency intended to award a standard contract. According to agency officials, contractor representatives suggested that using a Section 845 agreement would help their consortium attract commercial firms. The resulting Section 845 agreement, which has a potential value of \$75 million, enabled participating contractors to use their standard accounting system, limited the government's audit rights to a review by a certified public accounting firm, and provided more flexible intellectual property rights. Contractor officials indicated that while about half of the work is being performed by divisions that routinely accept defense work, the other half is being performed by divisions that for various reasons would not have participated under a standard contract.
- A small commercial firm submitted an unsolicited proposal to DARPA to develop and demonstrate an unmanned aerial vehicle capable of vertical take-off and landing based on the company's existing proprietary technology. The company, however, was unwilling to work under a

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standard contract, citing, among other factors, its concerns about accounting, auditing, and intellectual property requirements. The resulting \$16.7 million agreement allowed the company to use its commercial accounting practices, limited the government's review of its financial records, and limited the government's rights to intellectual property and technical data.

At the subcontractor level, DOD agreement officers reported that traditional defense contractors attracted commercial firms in 24 of the 84 agreements they were awarded. For the remaining agreements awarded to traditional defense firms, DOD agreement officers reported that either the prime contractor did not attract commercial firms at the subcontract level (20 agreements) or they did not know whether the prime contractors had attempted to do so (34 agreements). Agreement officers did not provide information on six agreements. In some cases, DOD and contractor personnel noted that because their projects were in the initial concept or design phase, the number of subcontractors actively involved was small. Once their projects matured and the need for subcontractors increased, they believed the use of Section 845 agreements might assist them in attracting commercial subcontractors.

**Examples of Other Reasons
Cited for Selecting a Section
845 Agreement**

While attracting commercial firms was among the principal reasons defense components cited for using Section 845 agreements in DOD's February 1999 report, they also credited the use of Section 845 agreements with other benefits. The use of these agreements to reduce program costs or address solicitation issues illustrates some of the reasons offered by DOD components for using a Section 845 agreement.

In 32 agreements, or about a third, DOD components cited the use of a Section 845 agreement as a means of reducing a program's or technology's estimated cost, though few provided any estimates of specific dollar savings. Rather, DOD components noted that agreements reduced negotiating, administrative, or overhead costs typically associated with a standard contract or provided contractors the flexibility to make performance trade-offs needed to achieve a specific price goal. In other cases, DOD officials also noted that the cost of their specific program was reduced due to the cost-sharing provided by the recipients. For example, they noted that Section 845 agreements allowed recipients to apply independent research and development funds to their specific program.¹⁰

Another means of reducing program costs involved using Section 845 agreements to resolve funding shortfalls. For example, the Navy used a Section 845 agreement on its effort to develop a common cockpit for two helicopters. The Navy wanted to develop the cockpit in a 2-year time frame, but it could not do so because it did not have sufficient funds to pay for tasks that needed to be completed in the first year. Under the agreement, the contractor provided \$11.1 million of the \$29.2 million needed in fiscal year 1998, and the Navy provided the remaining \$18.1 million. While the contractor anticipated being reimbursed the \$11.1 million the following year, the agreement stated that the government's obligation for performance of the agreement beyond the \$18.1 million was contingent upon the availability of appropriated funds. Contractor officials told us they accepted the risk that they might not be reimbursed should the Navy decide to cancel the project because the effort was part of a high-priority Navy program and the Navy was one of their principal customers. By using a Section 845 agreement, Navy officials estimated they avoided over \$50 million in future costs.¹¹

¹⁰ Federal regulations provide that costs incurred by contractors in performing agreements such as Section 845 agreements may be treated as independent research and development expenses. If contractors elect to treat their contributions under Section 845 agreements as independent research and development expenses, the contractors may recover some portion of these costs as allowable overhead charges under other contracts they have with the government.

¹¹ The other option Navy officials considered viable to a Section 845 agreement was to issue a value engineering change proposal. Under this approach, while the development costs remained the same, the contractor would receive half of the estimated \$105.8 million in cost savings attributed to the engineering change. A Navy official indicated they did not consider requesting that funds be reprogrammed from other sources—another option available to them—given the ability to use the Section 845 agreement.

DOD officials also used Section 845 agreements to resolve issues encountered during the contract solicitation phase. During this phase, the government defines its requirements, advertises them, and solicits and evaluates responses from interested parties. Failure to follow the required procedures can result in a protest from an unsuccessful offeror, thereby delaying the effort or resulting in a need to repeat the process. According to DOD officials, using a Section 845 agreement allowed them to address issues arising from the various competition and source selection requirements of the Competition in Contracting Act of 1984.¹² Examples of how DOD used agreements to address these issues follow:

- In one case, DARPA had solicited proposals to address DOD's future transportation and logistics planning needs. DARPA subsequently selected proposals from two different defense contractors for funding. After completing the selection process, the DARPA program manager believed the research would prove more valuable if the two contractors worked collaboratively; consequently, the two companies agreed to form a joint venture. In anticipation of awarding a contract, DARPA authorized the contractors to incur more than \$2 million in expenses. However, DARPA's General Counsel objected that the proposed contract would violate the established competition and source selection requirements, and in doing so, violate the Competition in Contracting Act. DARPA officials changed the standard contract to a Section 845 agreement—which is not subject to the act's requirements—to avoid repeating the competition and terminating the effort that was under way.
- In another effort, the Navy wanted to increase the number of contractors capable of producing a tactical data and voice communication terminal. Early in their planning efforts, Navy officials recognized that the likely bidders had different technical experience. Consequently, while they wanted to award multiple contracts of varying dollar values—with more funds being awarded to contractors with less experience—to increase competition, they could not devise appropriate solicitation and selection procedures that would have enabled them to do so while complying with standard solicitation requirements. Consequently, these officials used Section 845 authority to devise a solicitation and selection strategy that enabled them to award four agreements with values ranging from \$2.2 million to \$9.2 million.

¹² P.L. 98-369, July 18, 1984, as amended, generally codified in Chapter 137 of Title 10 of the United States Code.

Approaches Used to Address Issues Normally Governed by Standard Contract Provisions

DOD contracting personnel confront a different set of factors when structuring the terms and conditions of a Section 845 agreement than when using a standard contract. Whereas statutes or federal acquisition regulations generally prescribe a standard contract's terms and conditions in such areas as financial management or intellectual property, the clauses within a Section 845 agreement may be tailored to better address issues specific to a project. In his December 1996 memorandum, the Under Secretary of Defense for Acquisition and Technology acknowledged that DOD personnel would be operating in a relatively unstructured environment when negotiating Section 845 agreements and he set an expectation that the agreements incorporate good business sense and appropriate safeguards to protect the government's interest.

Our analysis of DOD's Section 845 agreements found that they generally addressed the areas typically governed by the standard contract provisions that we evaluated. In addressing financial management, termination and disputes processes, and subcontractor management issues, DOD personnel employed approaches that were generally less prescriptive or provided more generous terms than typically are provided to contractors in standard contract provisions. In these areas, the approaches employed varied little between agreements regardless of whether the recipients were commercial or traditional defense firms or whether the firms had provided a cost-share. In two other areas—intellectual property and government property—DOD personnel made more frequent use of the standard contract provision in agreements with traditional defense firms, while employing tailored clauses with commercial firms. The use of a model agreement contributed to this uniformity, but DOD officials often did not address why they selected either the standard contract provision or a tailored approach or discuss the anticipated benefits of their choice of approach in the analysis justifying the award of the agreement.

Agreements Adopted Similar Approaches in Most Areas

Section 845 agreements used approaches that varied little in most areas we evaluated. These areas included financial management, termination and dispute processes, intellectual property, government property administration, and subcontractor management (our scope and methodology are provided in more detail starting on page 33; app. I summarizes our analysis of the approaches taken under Section 845 agreements in addressing each of these areas). Regardless of the type of contractor, the agreement's value, or the recipient's contribution of financial resources, a typical Section 845 agreement

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- relied on means other than certified cost and pricing data¹³ to establish a fair and reasonable price for the effort undertaken;
- allowed contractors to use generally accepted accounting principles rather than government cost accounting standards, which are viewed as more complex and costly to administer;
- limited the government's audit rights, generally by omitting (1) the requirement that the clause be included in subcontracts and (2) the requirement that provided GAO access to the prime contractor's and its subcontractors' books and records;¹⁴
- paid contractors a specified amount based on the accomplishment of agreed to technical milestones, rather than on the basis of incurred costs;
- did not provide DOD a right to terminate an effort for default by the contractor; and
- authorized the use of an alternative dispute resolution process that provided for a more streamlined and shortened process.

The terms and conditions of Section 845 agreements also provided considerable flexibility to the prime contractors in subcontractor management-related issues. For example, only two agreements required the contractor to notify the government of the intent to award subcontracts exceeding a certain dollar threshold. Further, while 5 agreements required the contractor to select subcontractors competitively, 15 agreements specifically waived the requirement.

DOD Used a Mix of Standard and Tailored Clauses to Address Intellectual Property Issues

DOD personnel used a mix of approaches in addressing intellectual property issues, which include patent rights to inventions and rights to data. Our analysis found that DOD personnel incorporated standard contract clauses more frequently to address intellectual property issues than in any other area we evaluated, with almost a third of the agreements, including at least one of the standard clauses. In cases in which the

¹³ With certain exceptions, the Truth-In-Negotiations Act (10 U.S.C. 2306a) requires contractors and subcontractors to submit cost or pricing data before the award of negotiated contracts exceeding \$500,000 and to certify that the data are accurate, complete, and current. If such data are later found defective, the government may seek to reduce the contract's price and, under certain conditions, seek civil or criminal penalties.

¹⁴ The National Defense Authorization Act for Fiscal Year 2000 included a provision that requires DOD to provide for GAO's access to agreements that provide payments of \$5 million or more. The act exempts agreements under certain circumstances and allows DOD to waive the requirement with prior notification to Congress and GAO.

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Allocation of Rights to Inventions

standard contract clauses were not used, DOD officials tailored the clauses by extending the time frames the contractor was given to provide DOD patent or data rights, accepting more limited rights, or in certain cases, declining the rights altogether. Only one of the agreements awarded to commercial firms included standard intellectual property contract clauses.

The government's general policy regarding patent rights in inventions developed with federal assistance is to facilitate the commercialization and public availability of inventions by enabling contractors to obtain title to and profit from such inventions. To obtain these rights, a contractor must notify the funding agency of an invention, inform the agency that it intends to take title to the invention, file a patent application, and provide the government a royalty-free license.¹⁵ The government may acquire title to the invention if the contractor fails to follow these requirements.

Our analysis found that DOD personnel incorporated the applicable standard contract provision governing patent rights in 25 agreements. These agreements were generally awarded to traditional defense contractors. In the other 72 agreements, DOD incorporated language that varied widely. For example, DOD personnel often provided contractors 4 to 12 months to notify the government of an invention under Section 845 agreements, compared to 2 months provided in a standard contract. In some cases, the contractor was allowed to maintain inventions as trade secrets or the government declined patent rights altogether. Finally, some agreements clarified the definition of an invention to specifically exclude pre-existing inventions.

¹⁵ A royalty-free license allows the government to use the invention without compensating the owner of the patent.

Rights to Technical Data

DOD's policy is to acquire only the technical data and the rights to that data necessary to satisfy agency needs. Toward that end, contracting officers, among other things, are to specify the data DOD needs at the beginning of an effort and to negotiate rights to that data commensurate with the government's needs. In general, the government obtains unlimited rights when technical data were developed or created exclusively with government funds, government purpose rights when the data were created with mixed funding, and limited rights when the data were created exclusively at private expense.¹⁶

DOD employed a mix of approaches with regard to obtaining data rights under Section 845 agreements. For example, while most agreements used tailored clauses, DOD personnel cited standard contract clauses in 19 agreements. Similar to what we found in patent rights, these agreements almost always involved traditional defense firms. These agreements were generally low dollar efforts without cost sharing. Tailoring could involve DOD declining any rights to data or accepting government purpose rights for 10 years.

Our review of the agreement officers' analyses¹⁷ indicates that they generally believed acquiring the standard rights to such data would either hinder efforts to attract a commercial firm or was unnecessary for the current phase of the effort. The following examples illustrate the use of the agreements to provide more flexible data rights:

- DARPA agreed to not accept any technical data in the effort to develop the unmanned aerial vehicle capable of vertical take-off and landing.

¹⁶ These rights differ in the degree to which DOD may provide or authorize parties outside of the government to use the data. Unlimited rights provide the government the ability to use, modify, reproduce, perform, display, release, or disclose technical data in whole or in part, in any manner, and for any purpose whatsoever, and to have or authorize others to do so. Government purpose rights enable the government to allow others to use the data for government purposes, while limited rights generally require the government to obtain the contractor's written permission before doing so.

¹⁷ While requirements varied, defense components generally required agreement officers to document the rationale for using Section 845 agreements. For example, the Navy required its agreement officers, among other things, to discuss the rationale for using a Section 845 agreement in terms of its expected benefits and establish that the use of the authority was legally appropriate as part of the initial planning process. They were to prepare a subsequent analysis that discussed the level of competition achieved, the agreement's cost or price, the payable milestones used, data and patent rights, and issues relevant to the particular project, such as government furnished property.

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The agreement provided DARPA options to subsequently acquire government purpose rights to the data at a cost ranging from \$20 million to \$45 million or by purchasing 300 vehicles. According to the agreement, the rights would be sufficient to establish a second source for competition.

- The Navy agreed that it would not take any rights to data produced during the competitive concept development phases of the DD-21 Land Attack Destroyer program. For these phases, the Navy has awarded a single Section 845 agreement, under which two teams will initially develop their systems' concepts and subsequently develop detailed designs. Further, the Navy indicated it would acquire only the technical data from the contractor team that was selected to design, construct, and support the vessel. Navy officials indicated they saw little value in obtaining technical data for a design they did not select and believed the teams and their suppliers would be more willing to utilize proprietary technology under the Navy's approach.

Mix of Standard and Tailored Clauses Also Found in Agreements Involving Government Property

We identified 60 agreements involving government property, which includes property provided by the government for use by the contractor and property acquired with government funds during the course of an effort. In 11 agreements—all with traditional defense contractors—the contractors were required to comply with the standard property management requirements specified by federal acquisition regulations. In 46 agreements, DOD personnel provided contractors discretion on the type of approaches they could use to manage government property or permitted contractors to retain title to property that had been acquired with government funds. For example, several agreements allowed traditional defense contractors the authority to maintain property in accordance with sound industrial practices. In other cases, the contractor was allowed to retain title to property acquired with government funds that had an acquisition value of up to \$50,000. DOD personnel had to approve the purchase of property greater than \$50,000, and the agreement included procedures for determining how such property was to be used or disposed of once the agreement was completed. We also found, however, that in three efforts involving government property, the agreement was silent on how such property was to be accounted for or managed.

**Use of Model Agreement
Contributed to Uniformity
in Approaches**

Our review found that the basis for many of the agreements was a model developed by DARPA, which contributed to the uniformity observed in the approaches taken under Section 845 agreements. DARPA officials noted that this model was developed for use on their assistance-type other transactions that generally involved dual-use technologies being developed by commercial firms under a cost-shared arrangement. Consequently, DARPA officials structured the terms and conditions to reflect the nature of these agreements. For example, the use of payable milestones, the more limited government audit rights, and the flexibility to use generally accepted accounting principles were designed, in part, to allow commercial firms to use their standard accounting systems and allay their concerns over government auditors reviewing their commercial finances. Similarly, the more generous intellectual property provisions were intended to provide time for the companies to commercialize the technology. Providing the contractor an ability to terminate an effort was premised on the belief that contractors would be making significant financial contributions to the effort. Finally, the model agreement did not initially include a property provision, since it was not believed these types of efforts would involve government property.

The initial reliance on model agreements by the services for many of their agreements, while reasonable during this period, may have led to agreements that were not tailored to address all relevant issues and may have resulted in terms and conditions that are not appropriate for prototype projects where costs were not shared between DOD and the contractor. For example, our review of the agreement officers' analyses found that the analyses often discussed only how the terms differed from the model agreement, rather than discussing the need for or expected benefits of employing a particular approach. Similarly, we found that in 26 agreements in which DOD provided all of the funding, the agreements provided the contractors the right to terminate, which DOD officials indicate would generally not be appropriate.

**Approach Taken Under
Evolved Expendable
Launch Vehicle Agreements
Generally Found Adequate
Except for Financial
Management**

At the request of Congress, the DOD Inspector General evaluated whether the use of Section 845 authority was appropriate for the Evolved Expendable Launch Vehicle program and whether the agreements included adequate safeguards to monitor program performance and protect the government's interests. Air Force officials indicated that they had used the authority because neither of the two contractors would sign a standard contract under which they were to contribute up to \$1 billion in cost sharing. According to the Air Force, the contractors stated that in doing so

they would have had to treat their investment as a loss against their earnings, which was unacceptable. Further, the contractors believed that given their investment, requiring that they adhere to government cost accounting standards would require them to make their commercial books and corporate investment available to government auditors and would require that their subcontractors comply with these and other financial management requirements. Further, the contractors expressed concern for the need to protect their proprietary data to maintain their competitive positions in the commercial space launch market. Consequently, the agreements enabled the companies to use generally accepted accounting principles and limited the government's access to financial records.

The Inspector General concluded that the use of Section 845 agreements was appropriate for the efforts as the agreements provided the best contracting instrument to allow DOD to develop a dual-use launch capability. Further, the Inspector General concluded that the agreements' terms and conditions provided sufficient technical insights and other safeguards to protect the government's interest. The Inspector General noted, for instance, that the agreements' terms and conditions incorporated

- payable milestones that tied payment of government funding to the completion of key program accomplishments and prohibited the contractors from receiving government funding if they were unable to demonstrate technical progress;
- provisions that would require the contractors to refund government payments, plus interest, that they received should DOD terminate for default or if a contractor terminates the agreement for convenience; and
- an alternative disputes resolution clause that was intended to resolve disputes in a timely, fair, and cost-effective manner.

However, the Inspector General faulted the Air Force for negotiating terms and conditions that provided it with only limited insight into the contractors' financial progress, which could hinder DOD's efforts to monitor program costs and reveal or provide insight into problems. The Inspector General noted that the Air Force included a clause providing the agreements officer, or a designee, direct access to sufficient records and information to ensure accountability for government funding, but only senior-level Air Force officials could request an executive-level briefing on the contractors' total investment. According to the Inspector General, Air Force officials had not performed any reviews or requested any briefings about total program costs as of September 1999. Air Force officials indicated that such insight was not needed, in part, due to the use of payable milestones, Air Force personnel's participation in program reviews and their access to the contractors' information systems, and a firm price for the agreements. Air Force officials indicated that they have since met with contractor officials to discuss their total investment on the program.¹⁸

Additional Guidance Being Developed

DOD initially provided limited guidance on the use of Section 845 agreements, in part because it did not want to unduly restrict their use. Over the past year, however, DOD began efforts to provide additional guidance to facilitate their use. In December 1998, DOD provided discretionary guidance on its Internet-based Defense Acquisition Deskbook.¹⁹ In turn, this discretionary guidance formed the basis for a document released for comment to industry groups and defense components in September 1999 by the Under Secretary of Defense for Acquisition, Technology, and Logistics. According to a DOD official, the Under Secretary wanted to obtain their comments and recommendations prior to issuing more formal guidance.

As proposed, the guidance would provide factors for DOD personnel to consider when deciding whether to use a Section 845 agreement and in

¹⁸ In late 1999, DOD released the findings of an independent review team that had been tasked to assess the causes of five launch failures that occurred between August 1998 and May 1999. The report included recommendations to the Air Force that may affect the structure and cost of the Evolved Expendable Launch Vehicle agreements. According to DOD officials, the Air Force is currently developing strategies to implement these recommendations.

¹⁹ The Deskbook is intended to provide DOD personnel an automated reference tool on acquisition policy and practices.

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structuring key provisions. It would also provide senior acquisition executives better insight on selected terms and conditions for agreements used on high-dollar efforts. Further, the guidance would also require DOD personnel to establish metrics to measure whether the expected benefits from Section 845 agreements were actually achieved. A DOD official noted that the proposed guidance is being revised in response to the extensive comments they received, but anticipates that it will provide revised guidance in April 2000.

**Factors Provided in
Determining Whether to Use
a Section 845 Agreement**

The guidance provides various factors to consider to assist DOD personnel in determining whether to use a Section 845 agreement. These factors include whether using a Section 845 agreement would attract firms that normally would not do business with the government or that would not accept a specific requirement (such as cost accounting standards or intellectual property requirements) normally required by federal acquisition regulations. The guidance also provides factors that tend to be more general in nature, such as whether the use of the agreement would enable DOD to acquire more affordable technology, reduce program costs, improve performance, or increase competition.

**Assistance Provided in
Structuring Agreements**

The proposed guidance provides various factors for DOD personnel to consider when structuring a Section 845 agreement. This guidance focuses on the most common approaches or clauses found in the 97 agreements we reviewed. For example, to appropriately structure agreements, the guidance advises that

- contractors should not be provided a right to terminate the agreement unless they were making considerable financial contributions. In 26 agreements, the agreements provided contractors this right although they were not providing cost sharing.
- while DOD is not required to take title to property, agreements should contain a list of any property that the government does intend to take title and should discuss the procedures governing the accountability, control, and disposition of the property. We found that three agreements did not include a property clause although government property was provided or acquired.
- agreements should contain an audit clause that provides agreement officers or their representatives direct access to sufficient records and information to ensure accountability for the government's funds. We found that five agreements did not contain any audit clause, while the

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DOD Inspector General has expressed concern that the audit clauses that had been included in Section 845 agreements it reviewed did not clearly indicate whether DOD had access to contractor records to verify whether the terms and conditions of the agreement were satisfied. In particular, the Inspector General noted in its December 1999 report that agreements that involved large amount of funds, were cost-based, or involved contractors with poor past performance or inadequate business practices, required a more detailed audit clause.

The guidance further indicates that agreement officers may use the standard contract clauses to address intellectual property and government property provisions. The guidance omits reference to using standard clauses in other areas, though it does not prohibit their use, and it is silent with regard to subcontractor-related provisions.

Additional Analyses Expected for Agreements Involving Major Weapon Systems

DOD's December 1996 guidance required DOD components intending to use agreements on projects that were to lead to major weapon systems to address how DOD's policies and procedures governing these systems were to be subsequently applied.²⁰ The proposed guidance would also require that analyses on the agreements' key terms and conditions be provided to senior DOD officials for Section 845 agreements used on efforts that have transitioned to or were initiated as major weapon systems prototype projects. DOD officials indicated that because most major acquisition programs use standard contracts, only the terms and conditions unique to the program are discussed. For major acquisition programs using Section 845 agreements, the proposed guidance would require a summary of the government's position on the provisions governing termination, payment method, audit requirements, technical data, patent rights, and government property, including the significance of the differences between the agreement term and the standard contract provision, and the rationale and benefit to the government of the agreement's term.

²⁰ DOD's principal regulations governing acquisition programs are embodied in DOD Directive 5000.1 and DOD Regulation 5000.2-R. DOD defines a major defense acquisition program as one that is either so designated by the Under Secretary of Defense for Acquisition, Technology, and Logistics, or one that is expected to require an eventual expenditure for research, development, test, and evaluation of more than \$355 million or for procurement of more than \$2.135 billion (as measured in constant fiscal year 1996 dollars). These regulations require program managers to develop an acquisition strategy, which is to include a discussion of the type of contracts contemplated for each phase.

Requirement to Establish Metrics May Not Result in Developing Meaningful Indicators of Expected Benefits

The proposed guidance would also require DOD personnel to establish metrics prior to the agreement's award to be used to measure the extent to which expected benefits were actually achieved. This requirement, however, may not result in meaningful indicators of the expected benefits. To be meaningful indicators, metrics should reflect only those benefits directly related to using a Section 845 agreement and for which quantifiable measures can be developed.

DOD is currently evaluating how to measure whether the agreements enabled DOD to attract commercial firms, which would, in our opinion, provide a reasonable indicator as to whether Section 845 agreements were achieving one of the cited benefits from their use. However, to be an accurate indicator requires that DOD establish a common definition of what constitutes a commercial firm, which it has not yet done. For example, representatives from the Office of the Secretary of Defense believed that the Inspector General's definition of a commercial firm—firms that had not accepted a cost-type research contract or had not been subject to an audit by the Defense Contract Audit Agency within the last 3 years—could result in counting as traditional defense contractors those firms that performed only a very small percentage of work for DOD or those that had both commercial and government divisions at the same location.²¹ DOD is also discussing the need for and means to collect information on the participation of commercial firms below the prime contractor level.

Further, the guidance does not provide guidelines for developing metrics that would serve as meaningful indicators. Our work indicates that establishing this requirement without providing guidelines may not result in the desired information. While recognizing that agreement officers were not specifically required to establish metrics, we surveyed them to determine whether they had done so on their own initiative. In 60 of 97 agreements, they had not done so, while another 3 did not respond to our inquiries. In the remaining 34 cases, DOD officials reported that they had established metrics. However, our review of the metrics found that

²¹ Determining which business unit performs the work seems critical to understanding whether the agreement attracts commercial firms. For example, a DOD component had cited attracting a cutting-edge, primarily commercial firm as a benefit in DOD's report to Congress. Contractor officials told us that they had anticipated using their commercial divisions, but after being unable to agree on a labor rate that was acceptable to the firm's commercial divisions and DOD, they decided to perform the research in their government division.

most were related to a program's performance, schedule, or cost goals. For example, one of the cited metrics was whether the contractor was able to reduce the cost of a particular material from \$60 per pound to between \$35 to \$40 per pound. It was unclear whether achieving these objectives could be directly attributed to the use of the Section 845 agreement.

DOD and contractor personnel provided various opinions about whether metrics could be established to reasonably measure various types of benefits. For example, one Air Force agreement officer noted that the use of a Section 845 agreement reduced his program's cost by reducing the negotiation and approval times typically encountered and that use of more flexible data rights encouraged technical innovation on the part of the contractor. While he had not established metrics, he believed that he could have measured (1) negotiation times compared to that required for a standard contract and (2) indirect cost savings directly attributable to the agreement's reduced administrative requirements. On another project, officials at one defense contractor noted that while the time spent on administering agreements is considerably less than the time spent administering a standard contract, their management information system does not track administration time by instrument type.

Similarly, measuring benefits such as cultural change, new ways of doing business, or technological innovation—some of the broad objectives cited by DOD components—may prove difficult. For example, DARPA officials noted that Section 845 agreements, when used in conjunction with other acquisition reform initiatives, represent attempts to encourage contractors to look at problems in new ways. As such, DARPA officials viewed these techniques as a set of interrelated means to achieve an overall program objective. They acknowledged that measuring the extent to which these objectives were achieved, or specifically attributing their achievement to the use of a Section 845 agreement, would be difficult.

Comments Reflected Desire to Maintain Flexibility, but Also Suggested Need for Further Clarification

DOD received comments from both defense components and industry groups²² on the proposed guidance. The comments reflected a desire to maintain the flexibility afforded by using Section 845 agreements, but also reflected a need to provide a better framework for identifying opportunities to use the agreements and for tailoring their terms and conditions to specific objectives. DOD officials told us that they hope to issue revised guidance by April 2000.

Industry representatives noted that their members found that agreement officers were reluctant to use Section 845 agreements on projects that did not appear to be "de facto" weapon systems; consequently, they believed that providing a broad definition of what constituted a prototype project would be useful. Further, these groups emphasized the value of Section 845 agreements in attracting commercial firms; consequently, they believed that additional guidance on tailoring intellectual property provisions and clarifying financial management requirements may be useful for agreement officers who were unfamiliar with commercial practices or who may be reluctant to vary from the model agreements.

Defense components generally concurred with the need for guidance, but did not agree on its role and content. The Inspector General, for example, suggested that the guidance define what constituted a prototype project or a commercial firm and clarify various administrative and financial management issues (such as the role of the Defense Contract Audit Agency and an appropriate access to records clause). Additionally, the Inspector General and DARPA officials believed examples of metrics should be included. On the other hand, Navy officials noted that the strength of the instrument was that there was little or no prescribed format or form and that there was still much to be learned from experimenting with the authority. Consequently, the Navy believed that while the guidance was useful in an advisory role, making it mandatory may diminish or negate the benefits derived from using Section 845 agreements.

Conclusions

Having gained experience in using Section 845 agreements, a new tool that embodies alternative approaches to standard contracts, DOD is taking the

²² DOD requested comments from the Council of Defense and Space Industry Associations (which is composed of 8 associations representing over 4,000 firms) and the Integrated Dual-Use Commercial Companies (a consortium of 8 predominately commercial firms).

necessary step of developing additional guidance to enable its personnel to both take advantage of the flexibility afforded by the agreements and protect the government's interests. DOD's challenge is to reconcile conflicting perspectives to maximize the benefits of using Section 845 agreements. Expediting this effort will help DOD personnel to identify opportunities to use and to better structure Section 845 agreements before the authority expires on September 30, 2001.

With experience that DOD has gained from the use of Section 845 agreements to date, there is a need to conduct a more rigorous analysis of the benefits from using Section 845 agreements. Existing information offers little in the way of useful indicators. Relevant indicators should be readily measurable and directly attributable to the agreement's use. Some of DOD's cited benefits, such as effecting cultural change, may not meet this test; others, such as attracting commercial firms providing cutting-edge technologies, would. Establishing a targeted set of valid metrics for which reliable data can be readily collected may impose less of a burden on DOD and contractor personnel than DOD's current approach, as well as provide useful information to DOD in its oversight responsibilities and Congress as it considers the authority's future.

Recommendations

To assist DOD personnel in determining whether to use a Section 845 agreement, we recommend that the Secretary of Defense provide updated guidance that lays out the conditions for using Section 845 agreements and provides a framework to tailor the terms and conditions appropriate for each agreement. Further, the Secretary of Defense should establish and require the use of a set of metrics, including the number of commercial firms participating in Section 845 agreements, which are measurable and directly related to the agreement's use. These requirements should be in place in time to assist in the deliberations on whether to extend the authority past September 30, 2001.

Agency Comments

In commenting on a draft of this report, DOD concurred with the need for revised guidance to help determine when Section 845 agreements should be used. DOD plans to issue an updated guide by April 2000. While the substance of the guide is still being discussed, DOD stated that the guidance will refine the conditions for using Section 845 authority and will provide a framework for tailoring the terms and conditions for each agreement.

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DOD partially agreed with the recommendation to establish and require the use of a set of metrics. DOD noted that it will continue to track the participation of commercial firms on Section 845 agreements and participants' cost-share, and provide information on the agreements' impact on the technology and industrial base and new relationships and practices. As we note in the report, commercial firms participate in various levels of DOD projects. Consequently, it will be important that DOD continue to track the participation of such firms at both the prime and subcontractor levels.

DOD expressed some concern, however, about establishing additional metrics, citing the difficulty in doing so and the potential for relying too heavily on only what can be quantified. DOD noted that it will continue to explore whether there are additional metrics that could be established that are measurable and directly related to the agreements' use. However, DOD did not establish any time frames for identifying these additional metrics. Without timely identification of these metrics, there may not be sufficient information that directly links the use of a Section 845 agreement to improved program outcomes before the authority expires on September 30, 2001.

DOD's comments are reprinted in appendix II. DOD also provided technical suggestions, which we have incorporated in the text where appropriate.

Scope and Methodology

To assess DOD's use of Section 845 agreements, we determined

- the extent to which DOD has used Section 845 agreements,
- the benefits reported from their use,
- how DOD tailored these agreements to address issues normally governed by standard contract provisions, and
- DOD's efforts to provide additional guidance on their use.

To determine the extent to which DOD has used Section 845 agreements, we reviewed DOD's annual reports for fiscal years 1994 through 1998 on its use of other transactions, as well as its February 1999 report that focused specifically on Section 845 agreements. From these reports, we identified 95 agreements.²³ We also included the two Section 845 agreements the Air Force awarded in October 1998 for the Evolved Expendable Launch Vehicle program. While these agreements were awarded in early fiscal year 1999, we included them because (1) DOD's financial commitment under these two agreements was significant and (2) we had expressed concern about the Air Force's plan to use other transactions on the program in a June 1998 report.²⁴ The conference report accompanying the DOD Appropriations Act, 1999, required the DOD Inspector General to certify that the use of other transaction authority was appropriate and that adequate safeguards exist to protect the government's interest and monitor program performance. To minimize duplication of efforts, we relied on the Inspector General's work.

We obtained copies of the 95 agreements awarded between fiscal year 1994 and 1998, of the two Evolved Expendable Launch Vehicle agreements, of modifications that were awarded through December 1998, and of other pertinent data. Such data included the agreement officer's analyses, legal reviews, and other pertinent information.

To determine the benefits that were expected from using Section 845 agreements, we reviewed the legislative history concerning the creation and extension of the authority as well as testimony provided by senior DOD officials in 1996. We reviewed the annual reports submitted by DOD to Congress on its use of other transactions, concentrating our efforts on the report provided in February 1999 that focused specifically on Section 845 agreements. We reviewed the data provided on each agreement to determine the benefits that DOD components ascribed to using Section 845 agreements on that project. After reviewing the data, we judgmentally grouped the reported benefits into various categories. We discussed with selected agreement officers their views on the expected benefits or

²³ In its February 1999 report to Congress on Section 845 agreements, DOD reported it awarded 111 Section 845 agreements between fiscal year 1994 and 1998. DOD's number is higher because it reported 16 options or task orders awarded under existing agreements separately.

²⁴ *Evolved Expendable Launch Vehicle: DOD Guidance Needed to Protect Government's Interests* (GAO/NSIAD-98-151, June 11, 1998).

potential risks in using a Section 845 agreement. We also surveyed agreement officers to obtain their views on using Section 845 agreements, including whether they had established metrics.

To determine how the agreements addressed various issues normally governed by standard contract provisions, we used the matrix contained in Part 52.301 of the Federal Acquisition Regulation to determine the clauses that would typically be included in either a fixed-price or cost-reimbursable research and development contract. We eliminated those clauses that were required only during the solicitation phase, were alternate versions of other clauses, or were optional, resulting in a universe of 169 clauses. Our final analysis focused on 25 clauses we considered the principal ones governing such areas as financial management, termination and dispute processes, intellectual property, government property, and subcontractor management. For each clause, we reviewed the legislative or regulatory background and assessed whether the pertinent statute or regulation was applicable to Section 845 agreements. We analyzed each of the 97 agreements to determine whether the agreement included any of the 25 clauses or contained language that addressed the area governed by the clause. We compared the agreement's language with the standard contract clause to assess whether and how they differed.

There is no consensus within DOD on what constitutes a commercial firm. Consequently, we relied on the DOD Inspector General's classification of recipients as either a traditional defense contractor or a commercial firm for our analyses. The Inspector General defined a commercial firm as one that had not performed research on cost-based contracts or been subject to an audit by the Defense Contract Audit Agency within the past 3 years. We did not provide agreement officers a definition of a commercial firm when we asked whether traditional defense contractors attracted commercial firms at the subcontract level.

To determine DOD's efforts to provide guidance on the use of Section 845 agreements, we reviewed DOD and defense component guidance, including discretionary guidance issued by DOD in December 1998 on DOD's Acquisition Deskbook and the guidance proposed by DOD in September 1999.

We also reviewed agreement files and discussed various issues with cognizant officials at the following locations:

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- U.S. Army Communications - Electronics Command, Fort Monmouth, New Jersey;
 - Defense Advanced Research Projects Agency, Arlington, Virginia;
 - National Imagery and Mapping Agency, Bethesda, Maryland;
 - U.S. Navy Naval Air Systems Command, Patuxent River, Maryland;
 - U.S. Navy Naval Sea Systems Command, Arlington, Virginia; and
 - U.S. Navy Space and Warfare Systems Command, San Diego, California.

To obtain the views on the benefits and risks of using Section 845 agreements from the contractors' perspective, we interviewed contractor officials at the following locations:

- Autometric, Incorporated, Springfield, Virginia;
- California Microwave, Incorporated, Belcamp, Maryland;
- Eastman Kodak Commercial and Government Systems, Rochester, New York;
- Lockheed Martin Federal Systems, Owego, New York;
- Raytheon Company, Falls Church, Virginia;
- Rochester Photonics Corporation, Rochester, New York;
- Signal Processing Systems, San Diego, California;
- ThermoTrex Corporation, San Diego, California;
- ViaSat, Incorporated, Carlsbad, California; and
- VisiCom, San Diego, California.

We also discussed the use of Section 845 agreements with representatives from the National Media Laboratory Strategic Alliance, a consortium of six contractors. We also discussed various issues with officials from the Office of the Director, Defense Procurement, Washington, D.C.

We performed our review from September 1998 through January 2000 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Honorable William S. Cohen, Secretary of Defense; the Honorable Louis Caldera, Secretary of the Army; the Honorable Richard Danzig, Secretary of the Navy; the Honorable F. Whitten Peters, Secretary of the Air Force; Dr. Fernando L. Fernandez, Director, Defense Advanced Research Projects Agency; Major General Timothy P. Malishenko, Commander, Defense Contract Management Command; Lieutenant General James C. King, Director, National Imagery and Mapping Agency; and the Honorable Jacob J. Lew, Director, Office of

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Management and Budget. Copies will also be made available to other interested parties upon request.

Please contact me at (202) 512-4841 if you or your staff have any questions concerning this report. Additional points of contact and key contributors to this report are listed in appendix III.

A handwritten signature in black ink, reading "Katherine V. Schinasi". The signature is written in a cursive, flowing style.

Katherine V. Schinasi
Associate Director
Defense Acquisitions

Treatment of Selected Issues Under Section 845 Agreements

Depending on such factors as the contract type¹ and dollar value, a Department of Defense (DOD) contract could incorporate more than 100 Federal Acquisition Regulation and Defense Federal Acquisition Regulation Supplement clauses. These clauses implement statutory or regulatory requirements involving financial management, termination and dispute processes, intellectual property rights, government property administration, and subcontractor management, among others. These requirements are intended to protect the government's and suppliers' interests and to delineate each party's respective rights and responsibilities. DOD agreement officers indicated that in most cases a standard contract could have been used to execute efforts performed using a Section 845 agreement. However, as Section 845 agreements are generally not subject to the federal laws and regulations governing standard contracts, DOD contracting officials need not include the standard contract clauses that address these issues. We compared how the 97 Section 845 agreements entered into by DOD through October 1998 addressed these issues in comparison to the approaches required by standard contract clauses.

Financial Management

Contractors are subject to a variety of statutes and regulations governing pricing and negotiation under standard DOD contracts. Three requirements—cost accounting standards, the cost principles specified under the Federal Acquisition Regulation, and the requirements prescribed under the Truth-In-Negotiations Act—are among the government's primary means of attempting to assure itself that it acquires goods and services at a

¹ Contracts are grouped into two broad categories—fixed-price and cost-reimbursement—which differ according to the degree of responsibility assumed by the contractor for the costs of performance and the amount and nature of profit incentive offered to the contractor for achieving or exceeding specified standards or goals. Fixed-price contracts are typically used when the risk involved is minimal or can be predicted with an acceptable degree of certainty; conversely, cost-reimbursement contracts are used when the uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy. Measured by dollar value, about 80 percent of DOD's research contracts are cost-reimbursement.

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fair and reasonable price on a cost-based contract.² The government reserves the right to audit a contractor's books, records, accounting procedures, and other data to ensure compliance with these requirements, and to adjust a contract's price for noncompliance.

We found that the financial management provisions typically used in Section 845 agreements provided contractors more flexibility in their business processes and were less prescriptive than standard contract clauses. With regard to accounting principles, 66 of the 77 agreements that would have been subject to cost accounting standards if a standard contract had been used were instead allowed to comply with generally accepted accounting principles, which are accounting principles widely used in commercial practice (see table 3).

² There are 19 cost accounting standards that deal with (1) overall cost accounting matters; (2) classes, categories, and elements of cost; and (3) the treatment of indirect costs. The rules were intended to achieve, among other things, more uniform and consistent practices, reduce the likelihood of the government being mischarged, and increase the reliability of contractor cost data. Part 31 of the Federal Acquisition Regulation articulates the cost principles and procedures for pricing contracts and subcontracts and their modifications. With certain exceptions, such as for commercial items, the Truth-In-Negotiations Act requires contractors and subcontractors to submit cost or pricing data before the award of negotiated contracts exceeding \$500,000 and certify that the data are accurate, complete and current. If such data are later found to be defective, the government may seek to reduce the contract's price, and under certain conditions seek civil or criminal penalties.

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Table 3: Accounting Requirements

FAR clause	Intent	Number of agreements by approach				
		Cited FAR clause	Used tailored clause	Allowed use of GAAP ^a	Did not address	Would not apply
52.230-2: Cost accounting standards	Prescribes accounting requirements to protect government from the risk of overpaying on cost-based contracts. Requires contractors to disclose and consistently follow accounting practices, permits government access to documents to assure compliance, and enables the government to adjust contract prices for failure to comply with disclosed practices.	3	7	66	1	18 ^b

Note: Number of agreements may not total to 97 as information was not available to make a determination in all cases.

^aGAAP stands for generally accepted accounting principles.

^bCost accounting standards would not have applied even if a standard contract had been used due to various exemptions.

Source: Our analysis.

Similarly, 46 agreements in which agreement officers indicated that the contractor would have been required to submit certified cost or pricing data had they used a standard contract did not include the provisions requiring such data. As these data were not required, the agreements did not include clauses that would enable DOD to reduce the contract's price if the data proved defective (see table 4). DOD personnel reported that among the techniques they used to evaluate the contractor's proposed prices included

- comparing a contractor's proposed labor rates with industrywide averages obtained from commercial sources;
- comparing the contractor's proposed price with its published catalogue price and other sources, for similar services; and
- obtaining cost and pricing data from the contractor and then, with the assistance of Defense Contract Management Command, Defense Contract Audit Agency or military personnel, evaluated the proposed cost and technical effort.

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DOD personnel rarely used two other pricing-related clauses, which are intended to discourage contractors from including unallowable costs in DOD contracts or which provide the policy and procedures for disallowing such costs (see table 4).

Table 4: Pricing-Related Issues

FAR clause	Intent	Number of agreements by approach			
		Cited FAR clause	Used tailored clause	Did not address	Did not apply
52.215-10: Price reduction for defective cost or pricing data	Provisions implement the Truth-in-Negotiations Act (10 U.S.C. 2306a). The act requires that prime contractors and subcontractors submit cost or pricing data supporting their proposed price for negotiated contracts exceeding certain thresholds and certify that the data were accurate, complete, and current. The clauses enable the government to reduce a contract's price if the submitted data were defective.	0	0	46	51*
52.215-12: Subcontractor cost or pricing data					
52.242-1: Notice of intent to disallow costs	Prescribes policy and procedures for disallowing costs.	1	1	76	18
52.242-3: Penalties for unallowable costs	Clause discourages contractors from including unallowable costs in indirect cost rate proposals by providing notice that contractors including such costs may be subject to penalties.	1	0	77	18

Note: Number of agreements may not total to 97 as information was not available to make a determination in all cases.

*DOD agreement officers reported that the clauses would not have been applicable even if a standard contract had been used, usually because the effort's dollar value fell below the threshold or there was adequate price competition.

Source: Our analysis.

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Almost all of the agreements—92 of 97—provided some form of audit capability, either by including the standard clause or employing a tailored clause (see table 5). Tailored clauses generally indicated that the recipient's records were to be made available to the agreement officer or a designee; however, the tailored clauses generally did not include a requirement that the clause be included in subcontracts or provide GAO access to either the prime contractor's or its subcontractors' books and records.³ Five agreements did not include a provision providing for audits.

Table 5: Audit Approaches

FAR clause	Intent	Number of agreements by approach		
		Cited FAR clause	Used tailored clause	Did not address
52.215-2: Audit and records—negotiation	Enables the government to exercise oversight on contracts. Requires contractors and subcontractors to maintain adequate records and to provide access to such records by the contracting officer and GAO.	4	88	5

Source: Our analysis.

DOD currently provides contract financing on research contracts by two general means. On cost-type contracts, DOD generally reimburses contractors for costs they have incurred. These costs must comply with federal cost principles. Under fixed-price contracts, contractors may receive progress payments, whereby they are partially reimbursed by DOD for the work they have performed. Both financing methods enable the government to audit the contractor's request for payment. In contrast, nearly all Section 845 agreements used some form of milestone payments, similar to a performance-based progress payment⁴ (see table 6). Under this method, the government and the contractor establish various milestones (usually based on achievement of a technical event) and negotiate a price.

³ The National Defense Authorization Act for Fiscal Year 2000 included a provision that requires DOD to provide for GAO's access to agreements that provide payments of \$5 million or more. The act exempts agreements under certain circumstances and allows DOD to waive the requirement with prior notification to Congress and GAO.

⁴ Performance-based payments are not currently authorized for research contracts. In February 1999, however, DOD proposed a change to the Federal Acquisition Regulation to make such payments available for use on fixed-price research contracts.

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Upon successful completion of the milestone, and review and approval by a designated DOD official, DOD generally pays the contractor the amount specified for the milestone.

Table 6: Financing Approaches

FAR clause	Intent	Number of agreements by approach		
		Cited FAR clause	Used tailored clause	Used milestone payments
52.232-16: Progress payments	Prescribes rules and procedures for invoicing and payment. Progress payment clauses are used on fixed-price contracts, while allowable cost and payment clauses are used on cost-reimbursement contracts.	6	5	86
52.216-7: Allowable cost and payment				

Source: Our analysis.

The Federal Acquisition Regulation also provides several financing-related clauses that are intended to protect the government against violations of the Antideficiency Act (31 U.S.C. §1341), which prohibits government officials from creating or authorizing an obligation in excess of funds available or in advance of appropriations. Agreements generally did not include language that notified the contractor that not all funds were available to execute the agreement, as would a standard contract; on the other hand, most agreements included language that limited the government's obligation to the amount of funds DOD had obligated on the contract (see table 7).

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Table 7: Financing-Related Issues

FAR clause	Intent	Number of agreements by approach			
		Cited FAR clause	Used tailored clause	Did not address	Did not apply
52.232-18: Availability of funds	Provides notice that the government's liability under the contract is contingent upon the availability of funds to be subsequently appropriated.	0	9	59	29 ^a
52.232-20: Limitation of cost	Requires contractor to notify the government when costs to be incurred through the next 60 days will exceed 75% of a contract's estimated costs. Clauses are used on cost-reimbursement contracts, with specific clause depending on whether the contract is incrementally or fully funded.	6	72	0	18 ^b
52.232-22: Limitation of funds					

Note: Number of agreements may not total to 97 as information was not available to make a determination in all cases.

^aThe clause would not have applied on 29 agreements because all funds were available at the time of agreement award.

^bAgreement officers indicated that they would have used a fixed-price type contract in 18 agreements; consequently, neither of the limitation clauses would have been applicable.

Source: Our analysis.

Termination and Dispute Procedures

The Federal Acquisition Regulation provides the policies and procedures for terminating standard contracts and for resolving claims arising from those contracts. The regulation prescribes the use of clauses that provide DOD a right to terminate a contract, either for its own convenience or for default on the contractor's part; discusses the rights and responsibilities of each party; and prescribes various procedures for audits, property inventories, and disposition, among other contract close-out procedures.⁵ While the government's policy is to try to resolve disputes at the contracting officer's level, the regulation also provides that upon failure to reach a mutual agreement, the parties can seek further remedy as provided

⁵ Under a termination for convenience, the contractor is compensated for the work done, including a reasonable profit. In a default termination, the government determines that the contractor has, or will, fail to perform its contractual obligations. Consequently, the government is not liable for the contractor's costs on undelivered work and is entitled to repayment of funds provided for that work. However, DOD infrequently terminates research contracts. For example, DOD terminated only 24 research contracts in fiscal year 1998.

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under the Contract Disputes Act of 1978, as amended.⁶ This act provides the procedures and requirements for asserting and resolving claims arising under or related to a standard contract. For example, under the act, the contractor must submit claims in writing to the contracting officer within 6 years after the events precipitating the dispute were known or should have been known.

All 97 Section 845 agreements contained termination provisions (see table 8). Unlike a standard contract, however, 64 of the 97 agreements provided both DOD and the contractor the option of terminating an agreement, while 20 agreements provided DOD a right to terminate for convenience only. The agreements generally called for both sides to negotiate in good faith without detailing the specific procedures or steps.

Table 8: Termination Procedures

FAR clauses	Intent	Number of agreements by approach				Other ^a
		Cited FAR clause	Provided DOD right to terminate for convenience or default	Provided DOD right to terminate only for convenience	Provided both contractor and DOD right to terminate for convenience	
52.249-6: Termination (used on cost-reimbursement contracts)	Provide DOD the right to terminate a contract for convenience or default, and specify termination processes and procedures.	0	4	20	64	8
52.249-2: Termination for the convenience of the government (used on fixed-price contracts)						
52.249-9: Default (used on fixed-price contracts)						

^aOther includes agreements that provided some other combination of termination rights.

Source: Our analysis.

Nearly all agreements called for an alternative dispute resolution process to resolve claims, which could include disagreements over termination

⁶ 41 U.S.C. § 601-613.

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expenses or other breach-of-contract issues (see table 9). This approach generally provided for more limited time frames for making a claim than under a standard contract and provided that the final decision authority resided with a senior official within the DOD component making the award. While agreements noted that the decision was not subject to further administrative review, each party could seek further legal remedy.

Table 9: Dispute Procedures

FAR clause	Intent	Number of agreements by approach		
		Cited FAR clause	Used tailored clause	Did not address
52.233-1: Disputes	Clause implements the Contracts Disputes Act, which establishes procedures and requirements for asserting and resolving contractor claims against the government.	1	96	0

Source: Our analysis.

Intellectual Property

Maximizing the value and usefulness of intellectual property (which includes patents and technical data) often requires a balancing of competing interests. For example, DOD may need to obtain or to have access to data produced or used during the performance of its contracts to carry out its mission and programs. However, contractors have expressed concerns that providing the government rights to certain data could decrease their competitive advantage and have cited intellectual property provisions as a reason for not accepting government research funding.

The government's general policy regarding patent rights in inventions developed with federal assistance is reflected in legislation commonly referred to as the Bayh-Dole Act.⁷ To facilitate the commercialization and public availability of inventions, this act enables small businesses, nonprofit organizations, and certain contractors operating government-owned laboratories to obtain title to and profit from inventions created under federally funded research projects. In 1987, Executive Order 12591 essentially extended these privileges to large businesses. To obtain these rights, a contractor must follow certain reporting requirements, including

⁷ 35 U.S.C. § 200 et seq.

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notifying the funding agency of an invention, informing the agency that it intends to take title to the invention, filing a patent application, and providing the government a royalty-free license. The government may acquire title to the invention if the contractor fails to follow these requirements.

DOD's policy is to acquire only the technical data, and the rights in that data, necessary to satisfy DOD's needs. Toward that end, contracting officers, among other things, are to specify the data DOD needs at the beginning of an effort and negotiate rights to that data commensurate with the government's needs. In general, the government obtains unlimited rights when technical data were developed or created exclusively with government funds, government purpose rights when the data were created with mixed funding, and limited rights when the data were created exclusively at private expense.

DOD personnel used the standard intellectual property clauses more frequently than any other clauses we evaluated. Overall, DOD personnel included the standard patent clause in 25 agreements and included the standard data rights clause in 19 agreements (see table 10). The standard clauses were generally incorporated in agreements awarded to traditional defense contractors; only one of the agreements awarded to commercial firms included the standard contract provisions. For agreements that used tailored clauses, DOD generally extended the time frames for the contractor to provide such rights, acquired more limited rights, or in certain cases, declined the rights altogether.

The government encourages the use of inventions in performing its contracts and may allow the contractor to infringe upon patents if it is believed necessary. To ensure that work under a contract is not stopped by allegations of patent infringement, the use of an authorization and consent clause enables a contractor to use patented inventions in executing the contract; in turn, the patent owner may seek monetary compensation in the U.S. Court of Federal Claims from the government. In 23 agreements, DOD personnel included the standard provision or a tailored clause providing such authorization.

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Table 10: Patent and Data Right Approaches

		Number of agreements by approach		
FAR clause	Intent	Cited FAR clause	Used tailored clause	Did not address
Patent rights				
52.227-11: Patent rights—retention by contractor (applies to small business and nonprofit organizations)	Clauses implement the Bayh-Dole Act, the purpose of which is to promote the use of inventions arising in federally funded research in the commercial marketplace and to provide the government with licenses to such inventions. Small businesses are generally provided more time to elect whether to retain title to inventions and are subject to fewer reporting requirements.	25	71	1
52.227-12: Patent rights—retention by contractor (applies to firms that are not small businesses or nonprofit organizations)				
52.227-13: Patent rights—Acquisition by the government (generally applies to work performed outside of the United States)				
Data rights				
52.227-14: Rights in data—general	Provides for the allocation of data rights under a contract. If the government funds the effort, the government generally is provided unlimited data rights. Clause may be tailored when the contractor contributes substantial funds or resources. DOD components are generally required to use the related Defense Federal Acquisition Regulation Supplement clauses.	19 ^a	78	0
Other related clauses				
52.227-1: Authorization and consent	Clause authorizes the contractor to use patented inventions and protects the government from work stoppage due to claims of patent infringement. The government generally assumes liability for patent infringement.	20	3	74

*Includes agreements that cited applicable Defense Federal Acquisition Regulation Supplement provisions.

Source: Our analysis.

Government Property Administration

Government property includes not only that property directly furnished by the government to the contractor, but also the property acquired by the contractor to which the government has title. The DOD Inspector General

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reported that contractors had custody of about \$91 billion of government property in fiscal year 1997. The Federal Acquisition Regulation prescribes the policies and procedures for providing government property to contractors, including the contractor's use, management, and disposal of the property. Contractors have expressed concerns that DOD's approach to government property administration involves excessive documentation and oversight, thereby increasing the cost of performing DOD contracts. DOD, the General Services Administration, and the National Aeronautics and Space Administration, proposed a change to the regulations in January 2000 that is intended to simplify procedures, reduce recordkeeping, and eliminate requirements related to government property administration. Under this change, contractors will be provided the option of managing government property using the same practice the contractors use to manage their own property.

In Section 845 agreements, DOD personnel used a mix of standard and tailored clauses to address government property administration (see table 11). Eleven agreements with traditional defense firms included the standard contract provision. Forty-six agreements, representing a mix of traditional defense contractors and commercial firms, included a tailored provision allowing contractors to use best commercial practices. In three agreements in which government property was provided or acquired, the agreement officer did not include a property clause.

Table 11: Government Property Approaches

FAR clause	Intent	Number of agreements by approach			
		Cited FAR clause	Used tailored clause	No property provided or acquired	Did not address
52.245-2: Government property (fixed-price contracts)	Prescribes policy and procedures for providing government property to contractors and for the contractor's use, management, accounting, and disposition of such property.	11	46	34	3
52.245-5: Government property (cost-reimbursement contracts)					

Note: Number of agreements may not total to 97 as information was not available to make a determination in all cases.

Source: Our analysis.

Subcontractor Requirements

DOD subcontractors often face the same type of government-unique requirements as prime contractors. Certain requirements, such as those aimed at increasing competition or providing the government the authority to approve a subcontract, are mainly imposed upon prime contractors. Other requirements, such as those requiring the submission of certified cost and pricing data or audits, require the prime contractor to include a similar provision in its subcontracts, if applicable.

We found that DOD's Section 845 agreements generally relaxed subcontractor-related requirements. For example, only two agreements included a clause that enables the government to review the contractor's selection of certain subcontractors. Similarly, only 5 agreements required that the prime contractor use competitive procedures to select and award subcontracts, while 15 agreements specifically authorized the prime contractors to waive competition requirements (see table 12). Unless the agreement incorporated the standard contract clause, the agreements generally did not require prime contractors to require subcontractors to comply with standard audit requirements.

Table 12: Subcontractor-Related Requirements

FAR clause	Intent	Number of agreements by approach			
		Cited FAR clause	Used tailored clause	Did not address	Not applicable
52.209-6: Protecting the government's interest when subcontracting with contractors debarred, suspended, or proposed for debarment	Prohibits federal agencies from allowing a party to participate in any procurement or nonprocurement activity if the party is debarred, suspended, or otherwise excluded.	1	0	96	0
52.244-2: Subcontracts (cost-reimbursement contracts)	Requires contractor to obtain government consent before awarding subcontracts, depending on the complexity of the effort and subcontract type and value.	2	0	75	18
52.244-5: Competition in subcontracting	Generally requires contractors to select subcontractors on a competitive basis.	0	5	87*	5

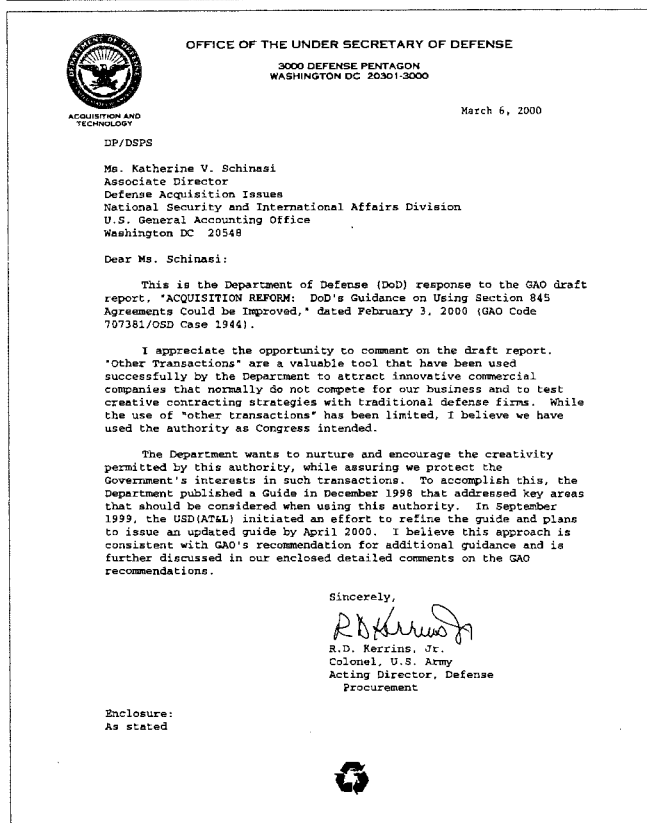
Note: Number of agreements may not total to 97 as information was not available to make a determination in all cases.

*Includes 15 agreements in which competition requirements were specifically waived.

Source: Our analysis.

Appendix II

Comments From the Department of Defense



Appendix II
Comments From the Department of Defense

GAO DRAFT REPORT DATED FEBRUARY 3, 2000
(GAO CODE 707381) OSD CASE 1944

"ACQUISITION REFORM: DOD'S GUIDANCE ON USING
SECTION 845 AGREEMENTS COULD BE IMPROVED"

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS

RECOMMENDATION 1: The GAO recommends that the Secretary of Defense provide guidance that lays out the conditions for using Section 845 agreements and provides a framework to tailor the terms and conditions appropriate for each agreement. The GAO states that the requirements should be in place in time to assist in the deliberations on whether to extend the authority past September 30, 2001.

DOD RESPONSE: Concur. In December 1998, a Guide on the use of Section 845 "Other Transactions" was made available in the DoD Deskbook internet site. The "other transactions" reviewed by the GAO were awarded prior to the Guide being issued. In September 1999, the Under Secretary of Defense for Acquisition, Technology and Logistics, USD(AT&L), requested comments on the Guide based on experience gained during the three years the authority has been available beyond the Defense Advanced Research Projects Agency.

Extensive comments were received from both within the Department and industry associations. The comments are currently being considered for inclusion in an updated guide expected to be issued by April 2000. The updated guide will refine the conditions for using section 845 authority and refine the framework to tailor the terms and conditions appropriate for each agreement. I envision that the guide will initially be issued by a policy memorandum, that will be superseded within 90 days after issuance by a DoD instruction.

RECOMMENDATION 2: The GAO recommends that the Secretary of Defense establish and require the use of a set of metrics, including the number of commercial firms participating in Section 845 agreements, which are measurable and directly related to the agreement's use. The GAO states that the requirements should be in place in time to assist in the deliberations on whether to extend the authority past September 30, 2001.

DOD RESPONSE: Partially concur. The updated guide will include an updated definition to measure the participation of new entrants. Though the Department has not officially revised the definition of "first-time DoD contractor" established by the Director of Defense Procurement's memorandum of October 16, 1997, the Department has tracked new entrants and identified participants below the prime

ENCLOSURE

Appendix II
Comments From the Department of Defense

GAO DRAFT REPORT DATED FEBRUARY 3, 2000
(GAO CODE 707381) OSD CASE 1944

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DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS

level to the Inspector General. In a February 2000 Report to Congress, the USD(AT&L) reported on the extent of new entrant participation. Our analysis indicates that approximately 36% of the Fiscal Year (FY) 1994-1998 agreements involved the participation of new entrants and that approximately 30% of the FY 1999 agreements involved new entrants. Of the 141 agreements awarded in FY 1994-1999, 18 or approximately 13% were awarded to new entrants as primes. Of the 475 total identified number of primes and participants (includes educational institutions, government entities and duplicative entities), 119 or 25% are considered to be new entrants. It is only reasonable to expect that the main players in weapons and weapons related prototyping will be traditional defense contractors, especially at the prime level. The Department believes the use of "other transactions" is a direct contributor to the progress made here in attracting new entrants to weapons and weapons related prototyping and will continue to track new entrants.

The Department previously explored whether there were additional metrics that are measurable and directly related to the agreement's use. We found, as the GAO draft report recognizes, that it is difficult to establish metrics that are directly related to the use of an "other transaction". In addition, many of the benefits attributed to the use of this authority do not lend themselves to quantifiable metrics. Requiring the use of a set of metrics sounds like a reasonable way to measure benefits, but could result in too much emphasis being placed on these measures while overlooking other benefits that do not lend themselves to quantifiable metrics.

Statute requires the Department to submit an annual report to Congress that addresses the extent of cost sharing from non-federal sources, the extent the use of an "other transaction" has contributed to a broadening of the technology and industrial base available for meeting DoD needs, and the extent the use of an "other transaction" has fostered within the technology and industrial base new relationships and practices that support the national security of the United States. In addition, USD(AT&L) has provided Congressionally-requested reports in February 1999 and February 2000 on the use of this authority. Our review and the GAO's review of the reported reasons for using this authority and the associated benefits, did not surface any obvious set of additional quantifiable

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Appendix II
Comments From the Department of Defense

GAO DRAFT REPORT DATED FEBRUARY 3, 2000
(GAO CODE 707381) OSD CASE 1944

"ACQUISITION REFORM: DOD'S GUIDANCE ON USING
SECTION 845 AGREEMENTS COULD BE IMPROVED"

DEPARTMENT OF DEFENSE COMMENTS
TO THE GAO RECOMMENDATIONS

metrics that could be established that are measurable and directly related to the agreements use.

Thus, the measures that DoD will continue to track include the extent of new entrant participation, participant cost-share, and the statutorily required reporting of impacts on the technology and industrial base and new relationships and practices. DoD will continue to explore whether there are additional metrics that can be added later to the guide that are measurable and directly related to the agreements use.

Appendix III

GAO Contacts and Staff Acknowledgments

Contact

Timothy J. DiNapoli (202) 512-3665

Acknowledgments

John K. Harper, Dwight D. Rowland, Clifton E. Spruill, John P. K. Ting, John Van Schaik, and William T. Woods also made significant contributions to this report.

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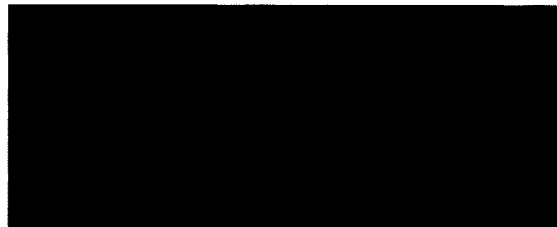
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Audit Report



COST CHARGED TO OTHER TRANSACTIONS

Report No. D-2000-065

December 27, 1999

This special version of the report has been revised to omit Contractor Proprietary data.

Office of the Inspector General
Department of Defense

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Acronyms

CAS	Cost Accounting Standards
DARPA	Defense Advanced Research Projects Agency
DCAA	Defense Contract Audit Agency
DDP	Director, Defense Procurement
DDR&E	Director, Defense Research and Engineering
IR&D	Independent Research and Development



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-2884

December 27, 1999

MEMORANDUM FOR DIRECTOR, DEFENSE RESEARCH AND ENGINEERING
DIRECTOR, DEFENSE PROCUREMENT

SUBJECT: Audit Report on Costs Charged to Other Transactions
(Report No. D-2000-065)

We are providing this redacted audit report for public release. The For Official Use Only report contained contractor proprietary information. We considered management comments on a draft of this report when preparing the final report.

DoD Directive 7650.3 requires that all findings and recommendations be resolved promptly. We request the Directors, Defense Research and Engineering and Defense Procurement, provide additional comments on the recommendations by February 28, 2000.

We appreciate the courtesies extended to the audit staff. For additional information on this report, please contact Mr. Raymond A. Spencer at (703) 604-9071 (DSN 664-9071) (rspencer@dodig.osd.mil) or Mr. Roger H. Florence at (703) 604-9067 (DSN 664-9067) (rflorence@dodig.osd.mil). See Appendix H for the report distribution. The audit team members are listed inside the back cover.

David K. Steensma

David K. Steensma
Deputy Assistant Inspector General
for Auditing

Office of the Inspector General, DoD

Report No. D-2000-065
(Project No. 7AB-0051.01)

December 27, 1999

Costs Charged to Other Transactions**Executive Summary**

Introduction. This audit was a joint effort involving the Inspector General, DoD, and the Defense Contract Audit Agency. The Inspector General, DoD, had overall cognizance for this review.

Other transactions are instruments other than contracts, grants, and cooperative agreements that are used to stimulate or support research or acquire a prototype. Other transactions were authorized to reduce barriers to commercial firms in DoD research, to broaden the technology and industrial base available to DoD, and to foster new relationships and practices within the technology and industrial base that supports national security. Other transactions are generally not subject to statutes or regulations associated with contracts, grants, or cooperative agreements.

The authority to use other transactions for a research project is in section 2371, title 10, United States Code, "Research Projects: Transactions Other Than Contracts and Grants." Section 845 of the National Defense Authorization Act for FY 1994 augmented the other transaction authority to allow development of prototype projects that are directly relevant to weapons or weapon systems.

From October 1, 1989, to October 16, 1998, the DoD issued 302 other transactions for research or prototype development, with a total Government and contractor value of about \$7 billion. This is the first review of contractor costs charged to other transactions in the 10 years of the authority.

Objectives. The overall audit objective was to review the financial and cost aspects of other transactions. Specifically, we reviewed the costs charged to the other transactions by the participating contractor(s), and identified whether cost shares were being met. During the audit, we also quantified the number of contractors participating in other transactions.

Results. The management of the financial and cost aspects of other transactions needed improvement.

- Issues were identified with \$83.4 million (27 percent) of the \$304.3 million contractor cost share for research other transactions. DoD inappropriately accepted \$60.2 million of prior independent research and development, \$19.7 million of research funded by the Government, and \$3.5 million for duplicative equipment depreciation as contractor cost share. No similar issues were identified with prototype other transactions. As a result, research contractors were allowed to reduce their actual cost share and risks under the other transaction. Further, access to records needs to be clarified and standardized in regulations (Finding A).

- DoD officials were not always aware of the actual cost to the Federal Government for other transactions. This occurs because portions of contractors cost contributions for other transactions were allocated to other Government contracts through indirect charges of contractor independent research and development costs. As a result, the Federal Government, in some cases, paid a greater cost share than shown for the other transactions, and although not required, DoD reports to Congress did not fully disclose the actual costs to the Federal Government for other transactions (Finding B).
- Research contractors' accounting treatment of cost shares was inconsistent, and contractors did not always use provisional overhead rates for other transactions. As a result of the accounting treatment, 10 contractors were in technical violation of Cost Accounting Standards for their other Government contracts, and DoD was prematurely charged at least \$850,000 more than if DoD provisional overhead rates had been used. Also, the majority of research contractors did not identify benefits from using other transactions (Finding C).

Summary of Recommendations. We recommend that the Directors, Defense Research and Engineering and Defense Procurement, issue other transaction guidance in DoD directives, instructions, or regulations. The guidance should preclude the use of Government-funded research as contractor cost share; provide for reasonable use charge of contractor assets; identify how to design an access-to-records clause; identify the roles and responsibilities of the Defense Contract Audit Agency; provide agreement officers training on the effects of independent research and development reimbursement on contractor cost shares, require agreement officers to inform the administrative contracting officer and the Defense Contract Audit Agency of the award of an other transaction for their review for potential inconsistent accounting treatment of cost shares, and require contractors to use DoD-approved overhead rates when available. In addition, reports to Congress for other transactions should show the effect of independent research and development reimbursements on contractor cost share.

Management Comments. The Directors, Defense Research and Engineering and Defense Procurement, generally agreed with the recommendations except for the ones related to use of the Defense Contract Audit Agency and the effect of independent research and development costs. The Directors agreed there was a role for the Defense Contract Audit Agency in other transactions but did not agree the role should be as broad a requirement to cite the need to use the audit agency for any required review of contractors. They also disagreed there was a need for training on the effects of independent research and development reimbursements and showing in reports the effect of the reimbursements on contractor cost share. A discussion of management comments on the recommendations is in the Findings section of this report, comments on the findings and audit responses are in Appendix G, and the complete text is in the Management Comments section.

Audit Response. The recommendations on use of the Defense Contract Audit Agency for other transactions, when needed for audits, will only help improve the management of other transactions. Further, training on the effects of independent research and development costs can only assist the personnel negotiating other transactions and disclosure of the costs will only help the DoD explain how other transactions work. We request clarification on the planned corrective actions for recommendations management concurred with and reconsideration of management's position on other recommendations. Comments from the Directors, Defense Research and Engineering and Defense Procurement, are requested by February 28, 2000.

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Background

History. Other transactions are instruments other than contracts, grants, and cooperative agreements that are used to stimulate, support, or acquire research or prototype projects. Other transactions were authorized as a way to encourage commercial firms to join with the DoD to advance dual-use technology, to broaden the technology and industrial base available to DoD, and to foster new relationships and practices within the technology and industrial base that supports national security. Other transactions are generally not required to comply with statutes or regulations that are applicable to contracts, grants, or cooperative agreements. Other transactions do not impose the requirements of the acquisition regulations established for contracts, including the Federal Acquisition Regulation and its Supplements, and Cost Accounting Standards.

Research Other Transactions. In 1989, Congress enacted section 2371, title 10, United States Code (10 U.S.C. 2371), which authorized the use of other transactions for basic, applied, and advanced research projects. Congress enacted 10 U.S.C. 2371, "Research Projects: Transactions Other Than Contracts and Grants," as a 2-year pilot program for the Defense Advanced Research Projects Agency (DARPA). The National Defense Authorization Act for FY 1991 broadened the authority to include the Military Departments and made the authority permanent. In issuing other transactions, the Military Departments and Defense agencies must ensure that DoD funding does not exceed that provided by the nonGovernment parties to the maximum extent practical, and that the research should not duplicate efforts already performed. Research other transactions are usually issued to a consortium consisting of private companies, not-for-profit agencies, universities, and Government organizations (hereafter, contractor(s)). Research other transactions are used to support or stimulate research and may be used when it is not appropriate or feasible to use a standard contract, grant, or cooperative agreement.

Prototype Other Transactions. The National Defense Authorization Act of FY 1994, section 845, augmented the other transactions authority to allow the use of the authority for prototype projects directly relevant to weapons or weapon systems. Section 845 was a 3-year pilot program allowing DARPA to use other transactions for prototype projects. The National Defense Authorization Act of FY 1997, section 804, further broadened the authority to include the Secretaries of the Military Departments and other officials designated by the Secretary of Defense. The authority to use prototype other transactions was extended until September 30, 2001. A prototype other transaction does not require cost sharing by the contractor(s), requires the use of competitive procedures to the maximum extent practical, and may be used even when a traditional contract would be feasible or appropriate. In FY 1997, the Commercial Operations and Support Savings Initiative (COSSI) Program started using prototype other transactions to develop commercial products to reduce system costs. Thirty of the 97 prototype other transactions awarded, valued at

\$102 million, were for the Commercial Operations and Support Savings Initiative Program. Funds were not appropriated for COSSI in FY 1998; however, funds were appropriated for FY 1999.

DoD Guidance for Using Other Transactions. DoD guidance for other transactions is determined by whether the principal purpose of the other transactions is to support or stimulate research or to develop a prototype. The Director, Defense Research and Engineering (DDR&E), is responsible for other transaction guidance for research. The Director, Defense Procurement (DDP), is responsible for other transaction guidance for prototype development.

Research Other Transaction Guidance. In 1994, the DDR&E issued interim guidance to the Military Departments and DARPA on using research other transactions to support or stimulate research efforts. The DDR&E updated the 1994 guidance in memorandums issued in December 1997, March 1998, and February 1999, as a result of legislative changes and lessons learned by using the agreements. The updated guidance adopted the term "technology investment agreements" for other transactions and cooperative agreements used by DARPA and the Military Departments. The DDR&E plans to incorporate the memorandum guidance in DoD 3210.6-R, "DoD Grant and Agreement Regulations," April 1998.

Prototype Other Transaction Guidance. In his memorandum of December 14, 1996, "10 U.S.C. 2371, section 845, Authority to Carry Out Certain Prototype Projects," the Under Secretary of Defense for Acquisition and Technology issued guidance for prototype other transactions. The memorandum implemented statutory requirements, established reporting requirements, and emphasized the importance of good business sense and appropriate safeguards to protect the Government's interest. The memorandum also lists statutes that may not necessarily apply to section 845 other transactions. In October 1997, the DDP issued a memorandum providing guidance for assigning identification numbers and collecting data for section 845 other transactions. On October 23, 1998, DDP issued a memorandum in response to Inspector General, DoD, recommendations. The October 1998 memorandum required agreement officers to adjust payable milestones when necessary, ensure receipt of progress reports, and to ensure that final technical reports are sent to a central depository. The Defense Acquisition Deskbook includes a guide that contains nonmandatory procedures for using prototype other transactions.

DoD Directive System. DoD Directive 5025.1, "DoD Directive System," June 24, 1994, states that policy memorandums must be reissued as DoD issuances within 90 days. Because the memorandums were never incorporated into a DoD directive, instruction, or regulation, the guidance in the memorandums on research and prototype projects is nonmandatory. As a result, public law applicable to other transactions is the only mandatory guidance. Even though the Federal Acquisition Streamlining Act of 1994, required the Secretary of Defense to issue regulations on other transactions, none were issued.

Use of Other Transactions. The Military Departments, DARPA, and Defense agencies issued other transactions for research (10 U.S.C. 2371) and prototypes (10 U.S.C. 2371, section 845), as shown in Table 1. Appendix B provides the details by awarding organization as reported to Congress.

Table 1. Research and Prototype Other Transactions Issued

FY 1990-1995		FY 1996		FY 1997		FY 1998		Total	
<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>
96	7	35	8	16	45	58	37 ¹	205	97 ¹
Value									
(millions)									
\$1,814.3	\$306.9	\$430.7	\$55.2	\$148.6	\$360.0	\$499.3	\$3,384.9 ¹	\$2,892.9	\$4,107.0 ¹

The Inspector General, DoD, developed a database of other transactions issued by DoD. In the database, participating contractors were classified as traditional or new contractors performing services for DoD based on whether the Defense Contract Audit Agency had performed incurred costs or related reviews at the contractor location. We also searched the Defense Contract Action Data System (DD350) to determine whether the contractors performed research on cost-type contracts with DoD. The Inspector General, DoD, database reflects all FY 1990 to FY 1997 other transactions and modifications as of September 30, 1997, and initial awards in FY 1998. Participating contractors or subcontractors were identified from the original other transaction or later modifications. Table 2 shows the DoD cost shares going to new and traditional DoD contractors. For research other transactions, cost shares were based on the funds provided by contractors as identified in the agreements. For prototype other transactions, the DoD cost share was equally divided by the number of participating contractors because the other transaction did not always identify the DoD cost share provided to each participating contractor.

¹Includes two prototype other transactions issued October 16, 1998, for the Evolved Expendable Launch Vehicle program by the Air Force that had FY 1998 agreement numbers with a DoD and contractor value of \$3.0 billion.

Table 2. Participation by New and Traditional Contractors

Type of Other Transaction	DoD Cost Share	DoD Cost Share to New Contractors		DoD Cost Share to Traditional Contractors	
	(millions)	(millions)	percent	(millions)	percent
Research	\$1,532	\$429	28.0	\$1,103	72.0
Prototype ²	<u>\$2,102</u>	<u>\$115</u>	5.0	<u>\$1,987</u>	95.0
Total	\$3,634	\$544		\$3,090	

One of the reasons that other transactions are used for research is to obtain services from the commercial sector, which normally does not do business with the Government because of Government procurement regulations and policies. Tables 3a and 3b provide the totals of new contractors and traditional contractors from FYs 1990 through 1998 for research and prototype other transactions. Appendix C provides the total of new contractors by fiscal year.

An analysis of the research other transactions shown in Table 3a shows that 25 percent of all contractors that participated in the research agreements were new contractors. The remaining 75 percent of the research participants were traditional Defense contractors or nonprofit universities or organizations.

Prototype other transactions rely more heavily on traditional DoD contractors (Table 2 and Table 3b). In addition, on February 27, 1999, in response to the Strom Thurmond National Defense Authorization Act for FY 1999, DoD submitted a report to the congressional Defense Committees on the use of prototype other transactions that identified the number of other transactions issued and DoD and contractor cost-share contributions.

² Included in the prototype values are the two other transactions issued October 16, 1998, for the Evolved Expendable Launch Vehicle program by the Air Force. The Air Force cost contribution was \$500 million to each contractor, and the two contractors planned to contribute a total of \$2 billion. Excluding this program from the prototype values in Table 2 would result in a DoD cost share to new contractors of 10 percent (as opposed to 5 percent) and 90 percent (as opposed to 95 percent).

**Table 3a. New and Traditional Contractor Participation
for Research Other Transactions**

	<u>1990-1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>Total</u>
New Contractors (Net) ¹	29	54	41	23	7	26	180
New Contractors (Total) ²	30	58	53	25	9	28	203
Traditional Contractors (Total)	104	168	132	95	31	77	607
Total Contractors	134	226	185	120	40	105	810

¹ New contractors that had not done cost-based research and development with DoD previously. New contractors are counted only once even if they participated in more than one other transaction.

² Total of new contractors that had not performed cost-based research and development before. A new contractor is counted more than once if performing on more than one other transaction.

**Table 3b. New and Traditional Contractor Participation
for Prototype Other Transactions**

	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>Total</u>
New Contractors ^{1,2}	0	2	2	32	24	60
Traditional Contractors (Total)	10	16	39	66	93 ³	224

¹ New contractors that had not done cost-based research and development before.

² There were no duplicate contractors.

³ Includes the two prime contractors for the Evolved Expendable Launch Vehicle program.

Officials in the Office of the Secretary of Defense believe that one sign of success of other transactions is demonstrated by the number of agreements that have new contractor participation. Table 1 identifies that 205 research other transactions were issued from FY 1990 through FY 1998. Of the 205 research other transactions, 114 included a new contractor that had not previously participated in a cost-type effort with DoD. Table 1 also identified that 97 prototype agreements (including the 2 other transactions for the Evolved Expendable Launch Vehicle program) were awarded. Of the 97 prototype other transactions, 88 included traditional DoD contractors and 34 included a new contractor.

Objectives

The overall audit objective was to review the financial and cost aspects of other transactions. Specifically, we reviewed costs charged to other transactions by contractor(s), and identified whether cost shares were being met. During the audit, we also quantified the number of contractors participating in other transactions. Appendix A describes the audit scope and methodology and prior audit coverage.

A. Contractor Cost Sharing

We reviewed five research other transactions that had a contractor cost share of \$304.3 million and identified issues of concern with \$83.4 million (27 percent). The issues involved DoD acceptance of \$60.2 million of contractor prior independent research and development (IR&D), \$19.7 million of research funded by the Government, and \$3.5 million for duplicative equipment depreciation as contractor cost share. We did not identify these issues for the two prototype other transactions included in this review. The research other transactions issues partly resulted from the DARPA interpretation of 10 U.S.C. 2512 (since repealed) as it related to contractor cost share, and a lack of definitive guidance and oversight of the process. As a result, the reports to Congress did not identify the reduced contractor cost share and risk under the other transactions, and the reports understated the cost to the Federal Government for research efforts.

Background

Section 2371, title 10, United States Code (10 U.S.C. 2371), requires cost sharing by contractors for research other transactions whenever practical; cost sharing for prototype other transactions is not required. Cost sharing is required to share the cost risks associated with research efforts and to ensure that contractors have a vested interest in the effort's success. Contractor cost sharing may consist of cash, cash equivalents, in-kind contributions, or current IR&D contributions. Cash equivalents represent the cost of acquiring material, buying equipment, and paying for labor costs associated with the research effort. In-kind contributions can also include labor cost, leases, special equipment, the value of goods and services, and the value of previously developed software or intellectual property. Current IR&D contributions are research efforts supported by contractor funds that apply to the other transaction effort. A portion of contractor IR&D is paid by DoD and other Federal agencies through indirect charges if other Government contracts are performed by contractor business segments. Contractors are reimbursed by DoD for IR&D based on the annual ratio of Government business to commercial business. Traditional DoD contractors for research that treated their cost share as an IR&D effort had an average Government business base of 64 percent and the reimbursement rate for 8 of the 21 contractors reviewed was more than 80 percent.

Evaluation of Other Transaction Agreements

The Defense Contract Audit Agency (DCAA) evaluated seven other transactions (five research and two prototype) in agreed-upon procedures for the Inspector General, DoD. The Federal Acquisition Regulations, cost principles, and cost accounting standards generally do not apply to other transactions, therefore standard contract audit procedures do not apply. The agreed-upon procedures

included reviews of billings, incurred costs, in-kind contributions and the basis of their valuation, indirect rates, the accounting system and practices, and compliance with the terms of the agreement. The seven other transactions consisted of contractors or universities that created consortiums or prime and subcontractor arrangements to perform research or to develop prototypes. The other transactions involved 77 contractors, interdivisional entities, subcontractors, universities, and nonprofit organizations (contractor(s)). DCAA evaluated 37 of the 77 contractors. Of the 37 contractor or their segments (34 of the 37 were different contractors); 28 contractors were on research other transactions and 9 contractors were on prototype other transactions.

**Table 4. Value of Other Transactions Reviewed
(in millions)**

	DoD		Contractor		Total
	Dollars	Percent	Dollars	Percent	
Research cost share	\$190.3	38	\$304.3	62	\$494.6
Prototype cost share	\$474.5	94	\$ 29.5	6	\$504.0
Total	\$664.8		\$333.8		\$998.6

Cost share reviewed \$754.5

Percentage of research cost reviewed by DCAA 76
Percentage of prototype cost reviewed by DCAA 76

Details of other transactions reviewed and DoD and contractors' cost shares are in Appendix D.

The DCAA evaluation identified issues of concern with contractor cost share for research other transactions. The DCAA did not find similar issues with the prototype agreements because these contractors treated the other transactions in the same manner as a DoD contract, and the prototype other transactions reviewed either did not require cost sharing or the cost did not reach the cost ceiling requiring the contractor to share costs. Finding C discusses accounting problems and other problems with research and prototype other transactions.

Contractor Cost Share and Financial Risks

DCAA reported that research contractors included prior IR&D, prior and current Government-funded research and development, and charges for fully depreciated items or overvalued assets as their cost share. This overstated the contractors' actual cost share and understated DoD financial risks associated with the research.

Table 5. Elements of Contractor Cost Share

Contractor cost share		\$304,275,546	100 percent
Less:			
Prior IR&D	60,211,690		
Prior Government funded	6,127,468		
Current Government funded	13,569,000		
Depreciable equipment	3,460,948		
Subtotal		83,369,106	27 percent
Revised contractor cost share		\$220,906,440	73 percent

The research contractors in Table 5 were actually at risk for \$220.9 million instead of \$304.3 million. Also, reports to DoD and Congress overstated the research to be achieved with contractor funds by \$83.4 million (27 percent).

Prior IR&D and Government-Funded Research. DCAA reported that 10 contractors participating in research other transactions provided \$60.2 million of prior IR&D and \$6.1 million of prior Government-funded research as contractor cost share. The inclusion of prior IR&D and Government research that was already paid by DoD was permitted by DARPA; however, it was inappropriate because it did not advance research efforts, did not meet the intent of cost share under 10 U.S.C. 2371, and reduced contractors' financial risks. Appendix E shows the effect on cost sharing for three research agreements.

Commercial-Military Integration Partnership Program Other Transaction. For example, a consortium for "Affordable Composites for Propulsion Cooperative Arrangement," (MDA972-94-3-0029), used prior contractor IR&D (\$59.6 million), prior and current Government-funded research (\$19.7 million), and depreciated equipment (\$1.7 million) as its cost share. The research other transaction was for \$370 million, the contractors' cost share was \$240 million (65 percent), and DARPA provided the remaining \$130 million (35 percent). The value of the prior IR&D and Government-funded research used as the contractors' cost share affected the actual cost share and cost risk. However, the contractors in the consortia were allowed to reduce their cost share to 55 percent by using prior IR&D, Government-funded research, and charges for depreciated equipment.

	DoD		Contractor		Total
	Dollars (millions)	Percent	Dollars (millions)	Percent	
Agreement Cost Share	130	35	240	65	\$370
Revised Cost Share	130	45	159	55	\$289

DARPA officials were aware that the consortium's cost share included prior and current Government-funded research. The DARPA officials stated that the research other transaction was issued under Section 2512, title 10, United States Code (10 U.S.C. 2512), "Commercial-Military Integration Partnership."

DARPA officials stated that the statute required the Secretary of Defense to ensure that the amount of funds provided by the Secretary (as opposed to the Government) under the partnership did not exceed the limits established in the statute. DARPA officials interpreted the statute to apply only to DoD funds; therefore, DARPA believed other Government-funded research was allowable as contractor cost share. Section 2512 was repealed in 1996.

The DARPA solicitation allowed contractors to use other Government efforts as part of the contractors' cost share. The solicitation was silent about charging prior IR&D. Section 2512, Title 10, United States Code, did not state that other Government efforts and prior IR&D could be used as part of the contractors' cost share. The DARPA interpretation of the statute allowed prior IR&D and other Government-funded research as part of contractor cost share, but the allowance did not advance research and it distorted the actual expenditures for research. DARPA stated that every Member of Congress received a copy of the program information package on the Technology Reinvestment Project that allowed the use of prior IR&D and Government-funded research, but that DARPA received no objection from Congress. However, DARPA did not explain the effect on contract cost share of including prior IR&D and other Government-funded research contracts to Congress, as does this report.

Defense Dual-Use Critical Technology Program Other Transaction.

Another research other transaction, "Precision Laser Machining Consortium" (MDA972-94-3-0020), had a cost share of \$75.2 million, with the contractor providing \$38.1 million (51 percent) and DARPA providing the remaining \$37.1 million (49 percent). DCAA reported that \$507,000 of the contractor's \$38.1 million cost share was associated with prior IR&D, and \$1.2 million was associated with fully depreciated equipment. As a result, the consortium's actual cost share was \$36.4 million, or 50 percent, of the estimated research costs as shown below.

	<u>DoD</u>		<u>Contractor</u>		<u>Total</u>
	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>	
	<u>(millions)</u>		<u>(millions)</u>		
Agreement Cost Share	37.1	49	38.1	51	\$75.2
Revised Cost Share	37.1	50	36.4	50	\$73.5

The research other transaction was issued under 10 U.S.C. 2511, "Defense Dual-Use Critical Technology Program," and other transaction authority of 10 U.S.C. 2371. Section 2511 requires that funds provided by the Federal Government for a project conducted under the program may not exceed 50 percent of the projected cost.

The May 1996 report of the Senate Committee on Armed Services, accompanying the National Defense Authorization Act for FY 1997, stated that costs of prior IR&D efforts by contractors should not be counted as cost share. In December 1997, in response to the Senate report, DDR&E issued memorandum guidance that prohibited the acceptance of contractor prior IR&D

as contractor cost share and stated that only additional contractor IR&D efforts would be allowed. The DDP issued similar nonmandatory guidance in the Defense Acquisition Deskbook for prototype other transactions.

In commercial business where risk is shared on research, participant No. 1 would not let participant No. 2 put up research that was funded by participant No. 1 as its cost share. The DoD should not allow contractors to use Government-funded research and development efforts as contractor cost share, and guidance should be issued to preclude its use.

Facility and Equipment Charges

DCAA reported that nine research contractors used \$3.5 million of rental expenses for existing assets and software as the contractors' cost share. These facilities and equipment charges were also charged to the contractors' overhead accounts, and using these items as cost share represents the same cost claimed twice. For example, DCAA reported that one research contractor's cost share included \$282,055 as the fair market value of facilities and equipment, of which \$193,048 was charged to the other transaction. The contractor estimated the fair market value of facilities and equipment and allocated the value as rental usage over the period of performance of the other transaction. DCAA also identified that the fair market value reflected the cost of purchasing new equipment; however, in many cases, the facilities and equipment were fully or partially depreciated assets that were originally purchased under other Government contracts. In addition, DCAA reported that the research contractor's fair market value estimates were not fully supported and, in some cases, exceeded the initial purchase price. This condition would not occur in a regular contract because there is adequate guidance that allows only a reasonable charge for a fully depreciated item and provides guidance on how to calculate the charges. However, no guidance exists on how to determine the appropriate charges for fully depreciated or overvalued equipment for other transactions.

Actual Costs Reporting

DCAA identified one research contractor that reported an other transaction cost of \$3,599,816; however, the actual cost was \$3,284,816. The difference of \$315,000 represented the double counting of in-kind contributions because the research contractor included the \$315,000 in both the contractor-incurred costs billed to the other transaction and also as in-kind contributions. Without the DCAA evaluation, this misreporting would not have been identified.

Actions Needed

We reviewed 5 research other transactions, with a total value of \$560 million, out of a universe of 205 research other transactions, valued at \$2.9 billion. Because this was the first evaluation of costs charged to other transactions, DARPA participated in the selection. The review identified issues with \$83.4 million out of \$304.3 million of the contractors' cost share for the 5 research other transactions.

DDR&E nonmandatory guidance precludes using prior IR&D, and research and development efforts funded by DoD or another Government organization as contractor cost share. DDP nonmandatory guidance preclude using prior IR&D but does not prohibit contractors from using research and development efforts funded by DoD or another Government organization. Neither DDR&E or DDP guidance discuss fully depreciated or overvalued assets. Contractor use of Government-funded research and development and fully depreciated or overvalued assets as part of their cost share reduces the contractor's cost risk and is not in accordance with the spirit of cost sharing. To resolve the issues, DDR&E and DDP need to issue additional guidance. Although these issues were not found in the prototype other transactions at the time of the DCAA review, we believe it would be prudent to issue guidance to prevent potential future issues.

Congressional Reporting and Research Achievement

DoD reports the use of other transactions annually to the House and Senate Committees on Armed Services. DoD overreported the benefits of research other transaction by about \$83.4 million because prior IR&D expenditures, Government-funded research and development, and fully depreciated and overvalued assets were used as contractor cost share. Similar issues were not found for prototype other transactions. The overreporting misrepresents contractor investment and actual research achieved because there was no additional research for the \$83.4 million. Because we reviewed only 5 of 205 research other transactions, the total amount of overreported benefits is unknown.

The incorrect reporting of contractors cost share also overstated the actual cost of research achieved. If other transaction costs were accurately reported, Congress, DoD, and contractors would better understand the true cost of achieving goals for different research areas. Finding B contains additional concerns we identified in the reports to Congress.

Access to Records Provisions

Other transactions are issued without many of the controls and safeguards associated with contracts and grants. In addition, the Military Departments and Defense agencies issued other transactions without establishing uniform audit

and access-to-records provisions. The seven other transactions identified a variety of audit provisions; three provided for a Government representative to evaluate costs, three provided for either a Government representative or nonGovernment auditor (independent public accounting firm) to evaluate costs, and one provided for only nonGovernment auditors to review costs. The variety of audit provisions did not comply with DoD audit policy, did not consider the use of DCAA audit resources, and did not consider provisions of the Single Audit Act. This problem was initially reported in the "Award and Administration of Contracts, Grants, and Other Transactions Issued by the Defense Advanced Research Projects Agency," Inspector General, DoD, Report No. 97-114, March 28, 1997. The Inspector General, DoD, and DDR&E agreed that this audit would help provide the basis for establishing audit provisions for other transactions.

Audit Policy. DoD Directive 7600.2, "Audit Policies" (the Directive), February 2, 1991, states that DoD Components will not contract for audit services unless the audit expertise is not available in DoD audit organizations. The Directive also requires DoD Components to obtain approval from the Office of the Inspector General, DoD, before they contract for audit services. Since issuance of the Directive, the Office of the Inspector General, DoD, has issued written and oral guidance to the Military Departments, the Audit Chiefs of the Military Departments, the Under Secretary of Defense for Acquisition and Technology, and the Under Secretary of Defense (Comptroller) that DoD Components must obtain approval from the Inspector General, DoD, before releasing solicitations for audit services from nonGovernment sources. The Inspector General, DoD, issued the guidance to ensure the appropriate use of nonGovernment auditors and to ensure compliance with applicable auditing standards. DoD Directive 7600.2 is under revision and will incorporate the specific requirement for the Office of the Inspector General, DoD, review and approval of any statements of work for contract audit services.

None of the four other transactions issued by DARPA, whose provisions allowed the use of nonGovernment auditors, obtained prior approval from the Inspector General, DoD. We asked how DARPA planned to use the audit provisions citing independent public accounting firms, DARPA officials stated that it had no plans to use the audit provisions, had no mechanism to hire auditors, and had no funds to pay the auditors without reducing the funds available for the research or prototype other transactions. Acquisition personnel are not usually expected to be aware of DoD Directive 7600.2. It would help if personnel issuing other transactions understood the audit policy so that future problems would be precluded. Therefore, other transaction guidance should reference the Directive and synopses its provisions.

DCAA Audit Resources. DCAA is the primary contract audit agency for DoD and many other Federal agencies, and it has the expertise to provide financial advice and audit costs associated with DoD-funded efforts. DCAA is responsible for performing contract audits for DoD and providing accounting and financial advisory services on contracts and subcontracts to all DoD Components. DCAA maintains audit staffs at numerous DoD contractor sites and conducts routine evaluations of contractor accounting systems and internal controls, assists in establishing provisional overhead rates, and performs final cost audits. DCAA

also performs audits at many contractor sites whose DoD business does not dictate resident offices. From 1997 to 1999, DCAA has conducted reviews at over 1,900 commercial contractors that were new to doing business with DoD. The DCAA reviews include cost or fixed price proposal evaluations, audit of costs on cost reimbursable contracts, review of fixed price contract progress payments, and preaward accounting system reviews. Other transactions have expanded from DARPA to include the Military Departments and defense agencies. In addition, the Defense Contract Management Command assists in administering these agreements in ways that are both different and similar to their administration of contracts. The DCAA is also a valued part of the acquisition corps and has been a major part of the acquisition reform effort in DoD. As part of acquisition reform, DCAA has been evolving its role and its services available. Guidance for prototype other transactions mentions DCAA and states that DCAA could provide financial services, provide the status of the contractors' accounting system, and help the agreement's officers determine a fair and reasonable price; however, guidance on the use of DCAA is not mandatory. Guidance for research other transactions makes no reference to DCAA services in the overall strategy for use of agreements. DCAA can provide many services other than traditional audits, such as helping agreement officers to properly value assistance-in-kind, evaluate and research the labor and other rates for traditional or nontraditional DoD contractors or the commercial business segments of traditional DoD contractors, and evaluate risk and materiality in agreements. Expanded definitions and purchases of commercial items are part of DoD acquisition reform changes, as are other transactions. In the FY 1999 National Defense Authorization Act, DoD was directed to determine the role and responsibility of DoD support organizations, of which DCAA is one, in procedures for determining the price reasonableness for commercial spare parts. We believe a similar type action was needed for other transactions. DoD needs to issue guidance that cites the availability, roles, services, and responsibilities that DCAA can contribute to other transactions. Other transactions started out in DARPA without a role for DCAA or the Defense Contract Management Command, but the Defense Contract Management Command was brought in on a partnership basis to help improve the use of other transactions. A similar role should be defined for DCAA because DCAA provides services for the negotiation, administration, and settlement of contracts and subcontracts. DCAA can also provide assistance to other transaction officers on valuing in-kind contributions, determining a reasonable charge for fully depreciated assets, and assisting in verifying whether the terms and conditions of the other transactions were met. Table 2 shows that 85 percent (research and prototypes combined) of all DoD cost share funding is provided to traditional DoD contractors, which makes defining a role for DCAA more important.

Single Audit Act. The Office of Management and Budget Circular A-133, "Audits of States, Local Governments, and Nonprofit Organizations," implements the Single Audit Act Amendments of 1996 (Public Law 104-156). The Single Audit Act streamlined and improved the effectiveness of Federal award audits and reduced the audit burden on States, local governments, and nonprofit organizations. The Single Audit Act requires audits of Federal awards to be performed in accordance with Government Auditing Standards; to include reviews of financial statements, expenditures, and internal controls; and to comply with contract or grant provisions. Circular A-133 also defines agency responsibilities for conducting audits under the Single Audit Act. The Single

Audit Act provides for annual and program-specific audits, and its provisions should be applied to funds received by educational and nonprofit institutions for other transactions. The annual audits already examine all Government funds received on contracts, grants, and cooperative agreements, and they serve as a basis for program managers to determine whether the necessary internal controls are in place and are effective. The DoD guidance on other transactions should reference DoD Directive 7600.10, "Audits of State and Local Governments, Institutions of Higher Education, and Other Nonprofit Institutions," May 20, 1991, which shows that funds received by an institution of higher education or nonprofit organization from an other transaction would be subject to the provisions of the Single Audit Act. As a proponent of DoD Directive 7600.10, the Inspector General, DoD, will modify the Directive, as appropriate, to reference other transactions. DDR&E and DDP should explain in regulations for other transaction how the agreements will be incorporated in the Single Audit Act for nonprofit institutions and universities.

Policy Needed for Access to Records. The DARPA provision allowing access to records for the seven other transactions did not specifically state whether DoD had access to contractor records to verify whether the terms and conditions of the other transactions were satisfied. In addition, DARPA officials stated that they did not plan to use the provisions to audit these agreements. The DoD had not issued guidance on providing a good access-to-records clause for other transactions. The access-to-records clause would be used to verify the terms and conditions of the other transaction. The access-to-records clause should permit access by the other transaction agreement officer, his or her designee, or an auditor based on the terms, conditions, materiality, and risks involved with the other transaction. Other transactions that include fixed prices, low risk, adequate financial reporting, contractors with excellent past performance, and contractors with adequate business systems may require minimal access to records. Conversely, other transactions that include large amounts of funds, are cost based, include contractors with below average past performance, or contractors with inadequate business systems may require a more detailed access-to-records clause. DCAA can assist the agreement officer in judging risk and materiality and can provide professional advice on writing an access-to-records clause so that DoD can actually access the needed contractor records, when and if they are needed. Not every other transaction will need an audit. Putting in an access to records clause does not mean an audit will occur. The inclusion of an appropriate access-to-records clause to verify terms and conditions and to use DCAA resources when audits are needed at contractors makes good business sense, acts as a deterrent to procurement scandals, and helps protect the public trust in DoD acquisition programs.

The Conference Report (HR 106-301) for the National Defense Authorization Act for FY 2000 states that the General Accounting Office shall be provided access to records for any party to a prototype other transaction that is valued in excess of \$5 million. The access to records for the General Accounting Office shall not apply with respect to a party that has not entered into any other transaction that provides for audit access by a Government entity in the year prior to the date of the other transaction. The head of the contracting activity can waive the General Accounting Office audit access if a determination is made that it would not be in the best interests of the Government and notification of

the waiver is sent to Congress and the Comptroller General. The support DCAA would provide to agreement officers is different than what the General Accounting Office would use access to records for. The congressional action shows there is an interest in providing audit access to other transactions and that we believe the DoD should move forward in involving the DCAA in other transactions.

The Acquisition Deskbook guide on prototype other transactions contains some nonmandatory audit guidance for prototype projects and states that other transactions should provide for access to financial records. An adequate access-to-records clause would also be beneficial and would protect DoD and the contractor if either party terminated the agreement. Termination settlements of the other transaction could occur if the contractors in the consortium disagree, if the research does not provide beneficial results commensurate with expenditures, if research priorities shift, or if a participant defaults. Terminations are often based on actual costs incurred and noncancellable obligations and could include license costs. Access to financial records and use of DCAA for reviewing costs on a terminated other transactions makes sound business sense.

Recommendations, Management Comments, and Audit Response

A. We recommend that the Directors, Defense Research and Engineering and Defense Procurement, include in DoD directives, instructions, or regulations other transaction guidance that:

- 1. Precludes using Government-funded research and overvalued assets and provides a reasonable-use charge for fully depreciated assets as contractor cost share.**

Management Comments. DDR&E partially concurred. DDR&E stated that guidance in the existing Technology Investment Agreements memorandum required recipients to provide their cost share from non-Federal resources and, therefore, additional guidance was not needed. DDR&E concurred with providing guidance on the use of fully depreciated assets as recipients' cost share. DDR&E will issue its guidance in a DoD Instruction 4 months after the issuance of the final audit report.

DDP concurred with the recommendation. DDP stated that the Under Secretary of Defense for Acquisition, Technology, and Logistics was considering issuing a Directive mandating the use of the prototype other transaction Guide. DDP stated that the Guide would include restrictions on research and development funded as a direct cost under a Government contract, grant, or other agreement from being used as contractor cost share. In addition, the Guide would include factors to consider in determining usage charges for fully depreciated assets.

Audit Response. DDR&E comments were partially responsive. We agree that DDR&E issued memorandum guidance for Technology Investment Agreements that states “to the maximum extent practicable, the non-Federal parties carrying out the research project under a Technology Investment Agreement are to provide at least half of the costs of the project from non-Federal resources that are available to them (unless there is specific authority to use other Federal resources for such cost sharing).” However, this guidance does not prohibit the use of Government-funded research as contractor cost share; the guidance implies that Federal resources should not be used as contractor cost share. Therefore, guidance is needed to prohibit the use of Government-funded research as contractor cost share. The required guidance needs to be issued in a DoD directive, instruction, or regulation. DoD Directive 5025.1, “DoD Directive System,” June 24, 1994, states that policy memorandums are valid for only 90 days and that the memorandums must be subsequently incorporated into a DoD directive, instruction, or regulation to require the guidance to be mandatory.

DDP comments were partially responsive. The DDP will issue guidance that restricts the use of Government-funded research and development as contractor cost share usage charges which is responsive to the recommendation. However, the DDP comments indicated that DDP is considering issuing a Directive that will implement a Guide. According to DoD Directive 5025.1, “DoD Directive System,” a Guide only provides information. DDP needs to be more specific as to how and when it plans on issuing the agreed upon guidance.

Therefore, we request additional comments from DDR&E and DDP that specifically address whether planned guidance will be issued in a directive, instruction, or regulation and DDP needs to state when the guidance will be issued.

2. Identifies how to design an appropriate access-to-records clause to verify the terms and conditions of the agreement. Guidance should include consideration of risks, materiality, funding involved, contractor past performance, adequacy of contractor business systems, and methodology of payment (cost based or performance based), and the need to verify Government and contractor cost share contributions. The guidance should reference and describe the application of DoD Directive 7600.2, “Audit Policies,” and DoD Directive 7600.10, “Audits of State and Local Governments, Institutions of Higher Education, and Other Nonprofit Institutions.”

Management Comments. DDR&E partially concurred. DDR&E stated that it would issue guidance on the Single Audit Act (DoD Directive 7600.10) but that it was unclear on whether DoD Directive 7600.2 applied to assistance instruments (as opposed to a procurement contract). However, DDR&E stated that it would issue guidance to DoD Components to coordinate with the Inspector General, DoD, when DoD Components contract with non-Federal auditors or when the recipient (contractor) hires an independent auditor to conduct an audit on behalf of the Government. DDR&E stated that it would

work with the Inspector General, DoD, to design a coordination process that does not delay negotiation of other transactions and would issue the guidance within 4 months after issuance of the final audit report.

DDP partially concurred with the recommendation. DDP stated it would issue guidance on access to records and the factors to be considered. However, DDP stated that guidance must be flexible in incorporating DoD Directive 7600.2. DDP stated that it would work with the Inspector General, DoD, to establish guidance with regards to DoD Directives 7600.2 and 7600.10, and would provide the Inspector General with an annual list of any independent auditors used.

Audit Response. The DDR&E and DDP comments were partially responsive. The Inspector General, DoD, is responsible for providing audit policy for DoD. The DoD audit policy is that, with the exception for the Single Audit Act, military departments and Defense agencies will not contract for audit services unless the audit expertise is not available within DoD. This audit policy applies to other transactions. DCAA is the preferred audit service provider for reviews of contractor records and because many of the other transactions are awarded to contractors where DCAA already has audit cognizance, the use of non-Federal auditors would duplicate audit effort and companies' resources would be wasted by having to comply with multiple sets of auditors. Therefore, any audit guidance issued by DDR&E or DDP must state that DCAA is the preferred audit service provider for other transactions and exceptions to the policy must be obtained from the Office of the Inspector General prior to soliciting any non-Federal audit services. The Inspector General, DoD, will update DoD Directive 7600.2 to specifically identify contract-like instruments such as other transactions.

We request DDR&E and DDP to reconsider their position and provide additional comments in response to the final report.

3. Identifies the roles and responsibilities that the Defense Contract Audit Agency has for other transactions and the services it can provide to agreement officers. The guidance should be developed in coordination with the Agency and state that agreement officers should use the Agency to verify terms and conditions of other transactions unless approval has been received from the Inspector General, DoD, to obtain the services of non-federal auditors.

Management Comments. DDR&E partially concurred. DDR&E stated that it would provide guidance on the DCAA role and would develop the necessary language in coordination with DCAA. DDR&E also stated that it would not issue guidance that explicitly states that DCAA will be used to verify recipients' (contractors) compliance with agreements even though DCAA may be present at the contractor. DDR&E stated that audit policy should not be more restrictive than existing policy for the DoD grants and cooperative agreements issued in 1998 in Part 34, "Administrative Requirements for Grants and Agreements with For-Profit Organizations." DDR&E said that policy provides that any for-profit recipient that expends \$300,000 or more per year in Federal awards shall have an audit. The recipient may use audits performed by the DCAA or other

Federal auditors, or may rely on a combination of non-Federal and Federal auditors in a coordinated audit approach. The policy does not require each recipient that has a DCAA audit presence to meet the requirement through DCAA audits, and the policy was adopted with IG, DoD, concurrence. The policy for other transactions should not be more restrictive than the policy in Part 34, and we are not aware of problems that have arisen to justify a policy change. DDR&E will work with the Inspector General, DoD, and DCAA to develop a reasonable approach to verify recipients' compliance with the other transaction terms. DDR&E will issue the guidance in 4 months after issuance of the final audit report.

DDP concurred. DDP stated that it would issue guidance that requires the use of DCAA where DCAA has audit cognizance. DDP also stated that where DCAA did not have audit cognizance, DDP would provide the Inspector General, DoD, with an annual list of any independent auditors used.

Audit Response. DDR&E and DDP comments are partially responsive. Based on comments received, we revised the wording of the recommendation to make it clear that this is an audit policy issue that needs implementing guidance for personnel writing other transactions. DDR&E and DDP must issue guidance for other transactions to ensure compliance with the DoD audit policy contained in DoD Directive 7600.2. The Inspector General, DoD, is responsible for issuing audit policy and, except for non-profit institutions and institutions of higher education, which are covered by the Single Audit Act, DCAA is the preferred audit service provider for review of contractor records. The policy is based on efficiency and effectiveness, and exceptions to this policy must be obtained from the Office of the Inspector General, DoD. The guidance cited in Part 34 covers grants and cooperative agreements that are low risk instruments and more definitive guidance is needed for other transactions. We do not agree that the guidance in Part 34 should apply to other transactions. Therefore, we request DDR&E and DDP to provide additional comments to the final report.

Management Comments on the Finding and Audit Response

Summaries of management comments on the finding and our audit response are in Appendix G.

B. Effect of Independent Research and Development Costs on Contractor Cost Share

DoD officials were not always aware of the actual cost to the Federal Government for other transactions. This condition occurred because portions of the cost contributions subsequently allocated to Government contracts were not visible to agreement officers and because agreement officers were not trained on the effect of current IR&D on contractor cost share. As a result, the Government, in some cases, paid a greater cost share than agreed upon. In addition, although not required, DoD reports to Congress did not fully disclose the actual costs to the Federal Government for other transactions.

Background

Congressional actions have furthered industry research and development through IR&D and research tax credits. Use of IR&D and research tax credits helps reduce the cost and risk associated with the contractors' cost share of an other transaction, which, in turn, furthers more research and development.

Independent Research and Development. DoD encourages contractors to engage in research and development activities of potential interest to DoD. DoD pays contractor IR&D costs through indirect charges to other Government contracts that are performed by contractor business segments. DoD reimburses contractors for IR&D based on an annual ratio of Government-to-commercial business. A nontraditional or new contractor to DoD who participates in an other transaction may not have an IR&D account and therefore could not be reimbursed by the Government because it had no other Government contracts to which it could allocate IR&D costs.

IR&D is that part of a contractor's total research and development program that is not directly funded by Government contracts or grants and is undertaken in areas at the discretion of the contractor. Section 403 of the FY 1970 Defense Authorization Act and, subsequently, Section 203 of the FY 1971 Defense Authorization Act allowed IR&D as long as there was a relationship to a military function or operation. Section 203 allowed DoD to negotiate advance agreements and dollar ceilings if the contractor received more than \$2 million in IR&D payments in a year. The agreements and ceilings were established to avoid recurrence of instances where DoD funds were used to fund research on commercial products.

The FY 1991 Defense Authorization Act repealed section 203 and established IR&D in 10 U.S.C. 2372 "Independent Research and Development and Bid and Proposal Costs: Payments to Contractors." Congress revised 10 U.S.C. 2372 in the National Defense Authorization Act for FYs 1992 and 1993 by eliminating the requirement for advance agreements, technical reviews, and cost ceilings. It was the intent of the Congress to encourage industry to increase

expenditures for IR&D and to fully reimburse IR&D costs to the extent that the costs were reasonable, allocable, and otherwise not disallowed under applicable laws. The Senate Committee on Armed Services, in a report to accompany the FY 1997 National Defense Authorization Act, stated that cost of prior IR&D efforts by contractors should not be counted as part of a contractor's cost share for other transactions.

IR&D is also discussed in 10 U.S.C. 2320, "Rights in Technical Data." The statute distinguishes between items developed at Federal expense and those developed at private expense. In the Conference Committee Report accompanying the National Defense Authorization Act for FY 1987, the committee expressed frustration that efforts had been ongoing in DoD since 1962 to define the terms "developed" and "at private expense" in regulations. At issue was who would own the rights to technical data. The Committee defined "at private expense" to include IR&D that was reimbursed by the Government as an indirect cost, but not by direct payment, and stated that such IR&D would be treated as contractor funds for purposes of the Section 2320, "Rights in Technical Data." In the FY 1988 and FY 1989 National Defense Authorization Act, the Congress amended 10 U.S.C. 2320 to state that IR&D costs would not be considered Federal funds only for the purposes of definitions in paragraph (a) (3) of 10 U.S.C. 2320.

Research Tax Credits. Research and Development Investment Tax Credit, 26 U.S.C. 41, allows companies to receive tax credits for qualified research expenditures. The Internal Revenue Code states that the amount of research tax credit is determined by a fixed percentage and the average annual gross receipts for 4 years prior to the year when the tax credit is determined. The actual tax credit allowed for research cannot exceed 10 percent of total research expenditures. However, based on discussion with Internal Revenue Service officials, Defense contractors are generally granted about 4 percent of their research expenditures as a tax credit. Companies can reduce the costs and risks associated with other transactions by using the tax credit. Traditional as well as new DoD contractors can use the research tax credit.

DoD personnel stated that Federal taxes were not relevant to DoD acquisitions. However, Federal taxes have been an issue in other DoD acquisitions. Congress addressed the effect of Federal taxes on leases for vessels or aircraft in 10 U.S.C. 2401. In this statute, Congress directed that DoD prepare an analysis, including lost tax revenues, which compared the cost to the United States of any lease compared to the cost of procurement of the vessel or aircraft. The issue was that, under the tax code, the tax credits and deductions permitted a company leasing an item to DoD, plus the lease payments by DoD, may exceed the cost of purchasing a vessel or aircraft.

Contractors Reviewed

The DCAA evaluation of the other transactions identified 21 contractors with \$266 million of cost share. These contractors treated their cost share as IR&D in their accounting system and had incurred costs of \$223 million at the time of the DCAA evaluation. Of the \$223 million incurred costs, \$159 million was recorded as current IR&D. These 21 contractors had a Government business base between 1 and 99 percent; therefore, considering the different business bases, Government programs would be charged an estimated \$56.9 million of the current IR&D through contractor indirect rates. For example, one research other transaction, the "Precision Laser Machining Consortium" (MDA972-94-3-0020), cost share included current IR&D costs of \$15.7 million. The contractors' amount of other Government business ranged between 23 and 99 percent. As a result, the contractors applied \$12.8 million of the \$15.7 million of IR&D costs to other Government contracts and, in effect, reduced their cost share by 11 percent (Table 7). In another research other transaction, the "Affordable Composites for Propulsion Cooperative Arrangement" (MDA972-94-3-0029), cost share included \$133 million of current IR&D costs. The amount of other Government business for the contractors ranged between 1 and 90 percent. Therefore, the contractors charged \$37.2 of the \$133 million of the current IR&D to other Government efforts and reduced their cost share by 7 percent (Table 8).

The allocation effect of current IR&D reimbursement for the five other transactions DCAA reviewed are shown below and detailed in Appendix E.

**Table 6. Trauma Care Information Management Systems Consortium
(DARPA Agreement No. MDA972-94-2-0010)**

	Government		Contractors		Total
	Dollars (millions)	Percent	Dollars (millions)	Percent	
Cost share	12.2	47	13.7	53	\$25.9
Revised cost share after IR&D reimbursement	12.2	51	11.6	49	\$23.8

**Table 7. Precision Laser Machining Consortium
(DARPA Agreement No. MDA972-94-3-0020)**

	<u>Government</u>		<u>Contractors</u>		<u>Total</u>
	<u>Dollars</u> (millions)	<u>Percent</u>	<u>Dollars</u> (millions)	<u>Percent</u>	
Cost share	37.1	50	36.4	50	\$73.5
Revised cost share after IR&D reimbursement	37.1	61	23.6	39	\$60.7

**Table 8. Affordable Composites for Propulsion Cooperative Arrangement
(DARPA Agreement No. MDA972-94-3-0029)**

	<u>Government</u>		<u>Contractors</u>		<u>Total</u>
	<u>Dollars</u> (millions)	<u>Percent</u>	<u>Dollars</u> (millions)	<u>Percent</u>	
Cost share	130.0	45	158.9	55	\$288.9
Revised cost share after IR&D reimbursement	130.0	52	121.7	48	\$251.7

**Table 9. Field Emission Flat Panel Display Technology
(DARPA Agreement No. MDA972-95-3-0026)**

	<u>Government</u>		<u>Contractor</u>		<u>Total</u>
	<u>Dollars</u> (millions)	<u>Percent</u>	<u>Dollars</u> (millions)	<u>Percent</u>	
Cost share	11.2	42	15.4	58	\$26.6
Revised cost share after IR&D reimbursement	11.2	49	11.7	51	\$22.9

**Table 10. Next Generation Electroluminescent Display Consortium
(DARPA Agreement No. MDA972-95-3-0029)**

	Government		Contractors		Total
	Dollars (millions)	Percent	Dollars (millions)	Percent	
Cost share	30.7	50	30.7	50	\$61.4
Revised cost share after IR&D reimbursement	30.7	51	29.7	49	\$60.4

Guidance, Training, and Knowledgeable Negotiators

DoD guidance and training do not discuss the implication of reimbursement of the contractor cost share when the contractor treats its cost share as an IR&D expense. Also, DoD personnel lack knowledge of the research and development tax credits that contractors receive from the Internal Revenue Code. These two elements reduce the contractor's actual cost and risk. We discussed this with DoD officials who stated that, under 10 U.S.C. 2320, Congress defined IR&D as private funds. The officials stated that it is not practical and in most cases not possible to determine if the contractor qualifies for the research tax credit or how much the credit could be. They further stated that Congress defined IR&D as private funds only for "Rights to Technical Data."

If the negotiator of an other transaction were knowledgeable of the effects of IR&D reimbursement, the negotiator might be able to better negotiate with the contractor. The DCAA can readily provide the IR&D reimbursement rates to the negotiator. It would be difficult for negotiators to determine the impact of the research and development tax credit on an other transaction, but it would be useful for them to understand that research tax credits exist.

DoD was trying to encourage new contractors to perform research and development with DoD through other transactions. A new contractor who does not have a contract with DoD might be at a disadvantage when competing against a traditional DoD contractor who will be reimbursed by the Government with a portion of its cost share through IR&D.

There is no commercial equivalent to DoD purchases of research and development and IR&D. Commercial industry normally conducts research and development in-house, uses currently available technologies or suppliers who may be able to rapidly develop technology, and, in cases where research and development must be purchased, makes payment on deliverables or purchases patents. However, in the fall of 1998, DoD learned from two different industry roundtables that industry accumulates knowledge about suppliers and develops professionals who are well trained in the market in which they buy and are knowledgeable of the supplier's business. It would be a commercial-like

practice for DoD to educate its agreement officers on the effect of IR&D and the existence of the research tax credit. Just as in the commercial world, a more knowledgeable agreement officer can negotiate better other transactions.

Other Transaction Reporting

DoD should show the effects of contractor IR&D reimbursement in its reports to Congress because the reports do not clearly disclose the full cost of other transactions to the Government. The IR&D reimbursement reduces the contractor's cost share and risk and increases the cost to other DoD and Government contracts. Excluding the IR&D reimbursement understates the actual cost to DoD and does not provide Congress and senior DoD officials with the full cost of the other transaction to the Government.

In its reports to Congress, DoD reported that it awarded 205 research other transactions with a DoD cost share of \$1.4 billion and a contractor cost share of \$1.5 billion. Our analysis shows that 72 percent of DoD cost-share funds went to traditional DoD contractors and nonprofit organizations for research other transactions (Table 2).

On February 26, 1999, a report to Congress on prototype other transactions showed that 97 prototype other transactions had been issued since inception of the program. The report on prototype other transactions showed a DoD cost share of \$2.3 billion and an estimated contractors' cost share of \$2.2 billion. About \$2 billion of the contractors' \$2.2 billion cost share was from two Evolved Expendable Launch Vehicle other transactions. These two other transactions did not require contractor cost contributions, but the contractors could not accomplish the agreement without investing their own funds. Congress directed the Inspector General, DoD, to review the two other transactions. A portion of a subsequent report will discuss IR&D and the costs for the Evolved Expendable Launch Vehicle. Excluding the Evolved Expendable Launch Vehicle program, the DoD and contractor cost share reported for prototype other transactions was \$1,337 million and \$250 million, respectively.³

The Inspector General, DoD, prototype other transactions database showed that 95 percent of the \$2.1 billion of DoD funds went to traditional DoD contractors (Table 2). Our analysis of the February 26, 1999, report to Congress showed that the five largest DoD contractors received 73 percent of the \$2.3 billion of DoD funds.³ The three largest DoD contractors accounted for 68 percent of all DoD funds for prototype other transactions. When we excluded the Evolved Expendable Launch Vehicle program from our analysis, the five largest traditional DoD contractors and three largest traditional DoD contractors received 53 and 44 percent of the DoD funds, respectively.

³ The \$2.3 billion and \$250 million was obtained from the February 26, 1999, DoD report on other transaction awards for prototype projects. Also, the \$2.3 billion includes subsequent agreement modifications not included in Table 2.

The large DoD contractors had IR&D accounts and high reimbursement rates. For example, the IR&D rate for a business segment for two of the top five contractors was 70 and 99 percent, respectively. To the extent the traditional DoD contractors provided cost sharing and charged their contribution to IR&D, the DoD costs for these two contractors was different than the values shown in the other transactions, and the contractors' cost risk was less than shown in report to Congress. It would be useful information to know the effect of current IR&D reimbursement on other transactions and DoD costs.

Use of other transactions is increasing. Senior acquisition officials and individual program managers can benefit from a better understanding of IR&D and its interrelationship with other transactions.

Recommendations, Management Comments, and Audit Response

B. We recommend that the Directors, Defense Research and Engineering and Defense Procurement:

1. Provide training to other transaction agreement officers on how to determine the effects of current independent research and development reimbursement on contractor cost share and provide information to agreement officers on the research tax credit.

2. Require that the annual report to Congress on research and prototype other transactions identify the estimated effects of independent research and development reimbursement on contractor cost share.

Management Comments. DDR&E and DDP nonconcurred with the recommendations, stating that agreement officer's consideration of Government reimbursement of current IR&D and tax credits were contrary to congressional intent and national policy. DDR&E and DDP stated that Government reimbursement of contractors' IR&D had no impact on the contractors' cost share. DDP stated that inclusion of IR&D in the report to Congress is inappropriate because it would result in treating the costs as Federal funds rather than private funds. DDP also stated that recipients cost share should not be reduced in some portion to reflect Government IR&D reimbursement.

Audit Response. It is difficult to understand why DoD does not want to permit other transaction agreement officers to become more knowledgeable about IR&D and the research tax credit. The more agreement officers know about the effects of Government reimbursements to the contractor while they are negotiating other transactions is beneficial to DoD. We believe that a more knowledgeable agreements officer is in a better position to negotiate the best possible deal for the Government.

A contractor's actual cost share and risk is reduced if it includes current IR&D costs and the contractor is reimbursed by the Government for a portion of these costs. We have never stated that DoD should reduce a contractor's cost share for IR&D. Disclosure of the impact of IR&D could occur by adding another column in the reports to Congress.

We request DDR&E and DDP to reconsider their positions and provide additional comments on the recommendations.

Management Comments on the Finding and Audit Response

Summaries of management comments on the finding and our audit response are in Appendix G.

C. Contractor Treatment of Other Transactions

The accounting and management of other transactions need improvement. Although all but one contractor that we reviewed used adequate accounting systems, research contractors' accounting treatment of cost share was inconsistent, and some contractors performing on research and prototype other transactions did not use provisionally approved overhead rates. These conditions existed because some contractors did not follow the suggested accounting treatment of cost share, were not required to use provisionally approved overhead rates, and treated other transactions as though they were contracts. As a result of the accounting treatment, 10 contractors were in technical violation of CAS, and DoD was prematurely charged at least \$850,000 more than if DoD provisional overhead rates had been used. Also, the majority of contractors did not identify specific benefits from using other transactions.

Summary of Evaluation Results

Table 6 summarizes the DCAA results for 28 research and 9 prototype contractors (see Appendix F for a discussion of details). The 37 contractors were traditional DoD contractors.

Table 11. Summary of Evaluation Results

	Number of Occurrences		Percent of Occurrences	
	<u>Research</u>	<u>Prototype</u>	<u>Research</u>	<u>Prototype</u>
Used adequate accounting systems	27 of 28	9 of 9	96	100
Used inconsistent accounting treatment for DoD and contractor cost shares	10 of 28	N/A	36	N/A
Did not use provisionally approved overhead rates ¹	4 of 27	1 of 6	15	17
Benefits of other transactions ²				
Quantifiable benefits	0 of 26	0 of 7	0	0
Administrative benefits	5 of 26	3 of 7	19	43
Procedural benefits	6 of 26	0 of 7	23	0
Technical benefits	6 of 26	2 of 7	23	29
Benefits not identified	0 of 26	2 of 7	0	29
No benefits derived	15 of 26	0 of 7	58	0

¹ One research and three prototype contractors did not have provisional overhead rates.

² Two research and two prototype contractors did not respond to the DCAA question on benefits derived from other transactions. Also, some contractors reported multiple benefits.

Accounting Systems

DCAA identified that 36 of 37 contractors used an adequate accounting system to track other transaction costs. All contractors used the same accounting systems that they used on other DoD contracts. The contractors' accounting systems were evaluated by DCAA as part of the evaluation of costs on DoD contracts. One research contractor's accounting system was considered inadequate because of deficiencies in the accounting system and the lack of written internal control procedures. However, DCAA stated that the effect of the deficiencies was not significant enough to preclude DCAA from accepting the contractors reported cost.

Accounting Treatment of Cost Share For Research Other Transactions

The DCAA review showed that research contractors treated the DoD and contractor cost shares differently which resulted in a potential violation of Cost Accounting Standards. Also, the contractor's accounting treatment impacts the application of general and administrative costs to the other transactions.

Cost Accounting Standard. Cost Accounting Standard (CAS) 402 requires that all costs incurred for the same purpose and in like circumstances be accounted for as either direct or indirect cost. The purpose of CAS 402 is to ensure that each type of cost is allocated only once and on the same basis to contracts or other cost objectives. Although CAS does not apply to other transactions, CAS violations occur when the contractor has other CAS-covered Government contracts. DCAA identified that 10 of the 28 research contractors treated the DoD and contractor cost share differently in the contractors' accounting systems (Appendix F). The 10 contractors treated the DoD cost share as a contract and treated the contractor cost share as IR&D resulting in a CAS 402 violation on the contractor's CAS-covered contracts. DCAA reported that it did not identify a material cost effect on the CAS-covered contracts and stated that only a technical noncompliance existed. DCAA did not identify inconsistencies in the contractor accounting treatment for prototype other transactions because, at the time of the evaluation, there was no cost sharing by the contractors.

The DDP emphasized this accounting guidance in a memorandum, "Allowability of Independent Research and Development and Bid and Proposal Costs Under the Technology Reinvestment Project," August 11, 1993, which addressed IR&D accounting treatment for other transactions issued for Technology Reinvestment Projects program. The DDP memorandum permitted cost-share to be charged to IR&D and provided notice that in order to avoid a potential CAS 402 violation when cost-share is charged to IR&D, all costs should be accounted for as IR&D with the funds provided by the Government treated as a credit to the IR&D project. Three of the other transactions reviewed by DCAA were issued under the Technology Reinvestment Project. These three other transactions included 19 contractors and DCAA reported that 10 of those contractors did not treat the DoD and contractor cost share as an

IR&D project in the contractors accounting systems. DoD does not dictate how contractors should treat DoD and contractor cost shares in their accounting systems. However, DDR&E and DDP should include a requirement that agreement officers be aware of contractor treatment of cost shares and should alert the administrative contracting officer and DCAA of a contractor's potential CAS 402 noncompliance on other Government contracts, when inconsistent treatment of cost shares exists.

General and Administrative Costs. The method of accounting that a contractor uses for the treatment of DoD and contractor cost share affects the general and administrative costs charged to the other transaction. DCAA reported that 17 of the 28 research contractors treated the DoD cost share as a contract, and 7 of the 28 contractors treated the contractor cost share as a contract. The treatment of the DoD or contractor cost share as a contract in the contractor's accounting system results in the application of general and administrative costs to the other transaction and reduces the amount available for research. If contractors treated the entire other transaction effort as IR&D, DoD would receive more direct research from the other transaction, but the DoD contract costs would increase by absorbing more general and administrative costs.

Provisionally Approved Overhead Rates

The DCAA evaluation of accounting practices at the 33 contractors or their segments identified that 28 contractors with provisionally approved overhead rates used them to calculate costs associated with other transactions. Contractors use the provisionally approved rates until the Government approves final year-end overhead rates. Contractors apply the provisionally approved rates to direct costs (for example, labor and material) to develop interim progress billings on DoD contracts. When the Government approves the final overhead rates, the contractor adjusts the interim billings to reflect actual allowable indirect costs.

DCAA identified five contractors (four for research and one for prototypes) that used rates other than the provisionally approved overhead rates (Appendix F). One contractor used nonapproved rates that resulted in billed costs of \$780,000 more than if it had used DoD provisional rates. Another contractor overstated incurred costs by \$63,000 because it used a proposed overhead rate instead of the approved rate. This is a timing issue because the contractor was reimbursed more than if provisional rates had been used. Eventually, the contractor should reduce claimed amounts to reflect negotiated final indirect costs.

Neither DDR&E nor DDP has an established policy for using overhead rates on other transactions. The DDR&E and DDP should establish policy that requires contractors to use overhead rates, if available, that do not exceed the provisionally approved DoD rates in determining costs for other transactions.

Benefits of Other Transactions

Many policies and regulations associated with standard contracts do not apply to other transactions; therefore, contractors may derive benefits that they otherwise would not. DCAA asked contractor business managers or contracting officials whether the contractor realized benefits resulting from the absence of the policies and regulations in using the other transaction authority. Of 37 contractors, 33 responded; 8 reported administrative benefits, 6 reported procedural benefits, 8 reported technical benefits, and 2 stated there were benefits but did not categorize them.⁴ Fifteen research participants reported no identifiable benefits.

The contractors who reported administrative benefits included the absence of documentation required by the Federal Acquisition Regulation, such as monthly vouchers, invention notifications, subcontract declarations, deliverable schedules, elimination of military specifications, and absence of cost and performance data. Procedural benefits included rapid turnaround time and expeditious program decisions. Technical benefits included the establishment of a forum for contractors to exchange knowledge. Another reported benefit was the retention of intellectual property rights while making the technology available to DoD. Two prototype contractors reported benefits but did not identify the nature and type. Another research contractor stated that the other transaction provided the essential approach for achieving a commercially sustainable product that enabled the contractor to retain the intellectual property rights and meet commercial and military requirements at the same time. None of the contractors that reported benefits quantified them. The contractors were not asked whether their unquantified benefits were considered to be minor or major.

Recommendations, Management Comments, and Audit Response

In response to DCAA comments, we revised Recommendation C.1. to include the requirement to alert the administrative contracting officer of an other transaction award as well as DCAA, so that the administrative contracting officer and DCAA can assess the contractor's accounting system.

C. We recommend that the Directors, Defense Research and Engineering and Defense Procurement, establish policy in DoD directives, instructions or regulations for other transactions that:

- 1. Require agreement officers to alert the administrative contracting officer and the Defense Contract Audit Agency when an other transaction has been awarded to a contractor so that the administrative contracting officer and the Defense Contract Audit Agency can assess the contractor's**

⁴ Some contractors reported more than one type of benefit; therefore, does not add to 33 responses.

accounting treatment of cost share to determine if a Cost Accounting Standard 402 noncompliance exists on the contractor's other Government contracts.

Management Comments. DDR&E concurred and stated that it would issue guidance to require agreement officers to notify DCAA if they become aware of a potential noncompliance with CAS 402. DDR&E will issue the guidance 4 months after the final audit report.

DDP concurred and will issue policy that requires agreement officers to notify DCAA of a potential noncompliance with CAS 402.

Audit Response. The DDR&E and DDP response to the draft report recommendation was responsive. However, we modified the draft report recommendation to include the agreement officer notification of the administrative contracting officer as well as DCAA. Therefore, we request additional comments on the revised recommendation.

2. Require contractors to use overhead rates, if available, that do not exceed the provisionally approved DoD overhead rates to determine other transaction costs.

Management Comments. DDR&E partially concurred. DDR&E stated that when reimbursement is based on cost incurred, contractors will be required to use provisionally approved DoD overhead rates. However, when reimbursement is based on milestone payment provisions, payments of agreed-upon amounts would occur when the milestone is completed.

DDP concurred that guidance on other transactions that provide for interim reimbursement based on actual costs incurred will require the use of provisionally approved indirect rates, when rates are available.

Audit Response. DDR&E comments are partially responsive to the recommendation. Other transactions that have payments based on milestone payment provisions should also require contractors to use provisionally approved DoD overhead rates in determining cost. Other transactions that have milestone payment provisions are not fixed-price research agreements and the provisional payments were based on estimates of costs associated with accomplishing the technical milestones. If DoD payments exceed estimated cost significantly, milestone payment provisions are adjusted to preclude overpayment. For this recommendation, we see no difference between other transactions that have cost payment schedules and those based on meeting technical milestones. Therefore, contractors should be required to use provisionally approved DoD overhead rates, when available, to determine other transaction costs. We request DDR&E to reconsider its position and provide comments to the final report.

DDP comments were responsive; however, it is unclear whether DDP agreed to require the use of provisionally approved DoD overhead rates when reimbursement is based on meeting technical milestones. Therefore, we request DDP to provide additional comments to clarify its position and state when the new guidance will be issued.

Management Comments on the Finding and Audit Response

Summaries of management comments on the finding and our audit response are in Appendix G.

Appendix A. Audit Process

Scope

Work Performed. DCAA performed this agreed-upon procedure evaluation at the request of the Inspector General, DoD, from January 1998 through August 1999. During this period, DCAA issued 38 separate reports to the Inspector General, DoD, which encompassed five other transactions for research, with a value of \$494.6 million, and two other transactions for prototype development, with a value of \$504 million.⁵ Of the \$494.6 million for research other transactions, DCAA evaluated costs billed to DARPA valued at \$373.8 million, or 76 percent of the costs. Of the \$504 million for prototype other transactions, DCAA evaluated costs billed to DARPA of \$380.6 million, or 76 percent of the costs. The research and prototype other transactions performance periods ranged from March 1994 through November 2000. See Appendix D for details of the seven other transactions.

DoD-Wide Corporate Level Government Performance and Results Act (GPRA) Goals. In response to the GPRA, the Department of Defense has established 2 DoD-wide goals and 7 subordinate performance goals. This report pertains to achievement of the following goal and subordinate performance goal:

Goal 2: Prepare now for an uncertain future by pursuing a focused modernization effort that maintains U.S. qualitative superiority in key warfighting capabilities. Transform the force by exploiting the Revolution in Military Affairs, and reengineer the Department to achieve a 21st century infrastructure. **Subordinate Performance Goal 2.4:** Meet combat forces' needs smarter and faster, with products and services that work better and cost less, by improving the efficiency of DoD acquisition processes. (00-DoD-2.4)

General Accounting Office High-Risk Area. The General Accounting Office has identified several high-risk areas in DoD. This report provides coverage of the Defense Contract Management high-risk area. Although other transactions are not considered to be contracts, we grouped the other transactions in this high-risk area because their purpose is similar to contracts.

⁵ DCAA did not review all the costs associated with the other transactions. The dollars only represent the value of the costs with contractors reviewed. Appendix C identifies the total number of contractors for each other transaction not reviewed and the total value of the agreement.

Methodology

DCAA evaluated seven other transactions issued by DARPA from FYs 1994 through 1995. The agreed-upon procedures required DCAA to:

- determine the accounting practices applied to the other transactions;
- determine incurred costs and billed amounts to the other transactions and determine the contractor cost share at the time of the evaluation;
- reconcile incurred cost to the amounts reported in the quarterly financial status report; and
- query contractors on the cost savings or other benefits achieved as a result of statutory and regulatory relief provided by the use of other transactions.

Auditing Period and Standards. We performed this financially related audit from September 1998 through August 1999, in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD. DCAA performed the evaluation from January 1998 through April 1999 in accordance with generally accepted Government auditing standards and issued reports or their supplements through August 1999.

Management Control Program Review

DoD Directive 5010.38, "Management Control (MC) Program," August 26, 1996, requires DoD organizations to implement a comprehensive system of management controls that provides reasonable assurance that programs are operating as intended and to evaluate the adequacy of the controls.

Scope of the Review of the Management Control Program. The scope of this audit only covered an examination of the management control program for costs charged to other transactions by the participating contractors. This report summarizes the results of cost evaluations performed by DCAA at the request of the Inspector General, DoD.

Adequacy of Management Controls. We identified material management control weaknesses as defined in DoD Directive 5010.38. Regulations are needed to ensure that contractors do not use Government-funded research and fully depreciated or overstated values for assets as part of contractor cost share. Also, procedures are needed that require agreement officers to alert DCAA to a potential Cost Accounting Standard 402 noncompliance on other Government

contracts when contractors treat cost share differently in their accounting systems. In addition, procedures are needed that require contractors to use overhead rates that do not exceed the DoD provisionally approved overhead rates in determining other transaction costs.

Recommendations A.1., C.1., and C.2., if implemented, will improve management controls for other transactions. A copy of the report will be provided to the senior official responsible for management controls in the Office of the Under Secretary of Defense for Acquisition and Technology.

Prior Coverage

General Accounting Office

General Accounting Office, National Security and International Affairs Division 96-11 (OSD Case No. 1074), "DoD Research, Acquiring Research by Nontraditional Means," March 29, 1996.

Inspector General, DoD

Inspector General, DoD, Report No. 98-191, "Financial and Cost Aspects of Other Transactions," August 24, 1998.

Inspector General, DoD, Report No. 97-114, "Award and Administration of Contracts, Grants, and Other Transactions Issued by the Defense Advanced Research Projects Agency," March 28, 1997.

Appendix B. Research and Prototype Other Transactions Issued

	FY 1990 – 1995		FY 1996		FY 1997		FY 1998	
	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>	<u>2371</u>	<u>845</u>
Army	0	0	10	0	1	10	24 ⁹	3
Navy	0	0	5	0	1 ^{5,7}	20	20	11
Air Force	0	0	2	0	1	8	7	7 ¹⁰
DARPA	96	7 ^{3,4}	18 ⁵	8 ^{3,6}	13 ⁵	4 ⁴	6 ⁵	15
NIMA ¹	0	0	0	0	0	3 ⁴	0	1 ¹¹
NSA ²	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>
Total	96	7^{3,4}	35	8^{3,6}	16	45⁴	58	37

Value (millions) \$1,814.3 \$306.9 \$430.7 \$55.2 \$148.6 \$360.0⁸ \$499.3⁸ \$3,384.9⁸

¹National Imagery and Mapping Agency.

²National Security Agency.

³Until FY 1997, DARPA was the only agency within DoD with the authority to issue other transactions for section 845 prototypes.

⁴Section 845 efforts with multiple phases were not counted as separate other transactions in this report. In FY 1994, DARPA issued 1 section 845 other transaction and no phased efforts. FY 1995, DARPA issued 6 section 845 other transactions and 1 phased agreement for a total of 7 new other transactions. In FY 1997, DARPA issued 3 phased efforts and NIMA issued 2 phased efforts for a total of 50 other transactions versus the 45 shown in the table total.

⁵Section 2371, bailment agreements, was not accounted for in this report. DARPA issued 1 bailment agreement in FY 1996, 4 bailment agreements in FY 1997, and 2 bailment agreements in FY 1998. In FY 1997, the Navy issued 1 bailment agreement.

⁶Total includes 1 DARPA section 845 other transaction that was not reported in the FY 1996 Annual Report to Congress.

⁷The Navy issued 1 section 2371 other transaction that was not reported in the FY 1997 Annual Report to Congress.

⁸Totals exclude phases, modifications, and orders made to previously issued other transactions. In FY 1997, DARPA issued 3 section 845 other transactions that added phases to existing agreements totaling \$45 million.

In FY 1998, the Army Research Laboratory modified an existing section 2371, FY 1997 other transaction totaling \$208,000. Further in FY 1998, NIMA issued 11 orders placed on 2 existing section 845, FY 1997 other transactions totaling \$32.4 million.

⁹For FY 1998, the Army Research Laboratory issued 1 FY 1997 other transaction included in the FY 1998 count.

¹⁰Includes two Air Force other transactions issued in FY 1999 for the Evolved Expendable Launch Vehicle program that had an FY 1998 other transaction number.

¹¹Section 845 efforts with multiple phases were not counted as separate other transactions in this report. For FY 1998, NIMA issued 11 phased efforts for a total of 46 other transactions versus the 35 shown in the table total.

Appendix C. New Contractor Participation in Research Other Transactions

	<u>1990-1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>Total</u>
New Contractors (Net) ¹	29	54	41	23	7	26	180
New Contractors (Total) ²	30	58	53	25	9	28	203
New Contractors							
Total (millions)	\$124.4³	\$104.0⁴	\$97.1⁵	\$47.0⁶	\$7.8⁷	\$99.2⁸	\$479.5
Total Contractor							
Share (millions)	\$267.7	\$638.2	\$309.7	\$180.9	\$79.5	\$243.6	\$1,719.6
Percentage of New							
Contractor Cost							
Share to Total							
Consortia Cost Share	46	16	31	26	10	41	28

¹ New contractors that had not done cost-based research and development before. New contractors are counted once even if they participated in more than one other transaction.

² Total of new contractors that had not performed cost based research and development before. A new contractor is counted more than once if performing on more than one other transaction.

³ Two contractors contributed \$94.4 million, 76 percent of the \$124.4 million.

⁴ One contractor contributed \$19.6 million, 19 percent of the \$104.0 million.

⁵ One contractor contributed \$45 million, 46 percent of the \$97.1 million.

⁶ One contractor contributed \$12.8 million, 27 percent of the \$47 million.

⁷ One contractor contributed \$5.4 million, 69 percent of the \$7.8 million.

⁸ Two contractors contributed \$86.1 million, 87 percent of the \$99.2 million.

Appendix D. Other Transactions Evaluated by the Defense Contract Audit Agency

Other Transactions – Research

Trauma Care Information Management Systems Consortium
Agreement No. MDA972-94-2-0010
Period of Performance: From March 1984 through March 1989

Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA ¹	Percentage of Cost Reviewed
\$12,236,600	\$14,284,000	\$26,500,600	\$6,870,688	26

Rockwell Collins, Incorporated
Rockwell Science Center, Incorporated
Science Applications International Corporation
Texas Instruments, Incorporated
Contractors not reviewed (10)

Total

Precision Laser Machining Consortium
Agreement No. MDA972-94-3-0020
Period of Performance: From May 1994 through April 1999

Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed

Boeing Defense and Space Group
Fibertek, Incorporated
General Electric Aircraft Engines
General Electric Company,
(Corporate Research and Development)
HRL Laboratories, Limited Liability Company
Northrop Grumman Corporation
(Electronics and Systems Integration Division)
Northrop Grumman Corporation
(Electronics Systems Division, Hawthorne Site)
SDIL, Incorporated
TRW, Incorporated, Space and Electronics Group
United Technologies Research Center
Contractors not reviewed (16)

Total

\$37,113,674	\$38,108,057	\$75,221,731	\$40,222,028	53

¹Defense Contract Audit Agency

²Where cost reviewed by DCAA exceeded the agreement amount, the agreement may or may not be revised.

Darkened area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Other Transactions - Research (cont'd)

Affordable Composites for Propulsion Cooperative Arrangement

Agreement No. MDA972-94-3-4029

Period of Performance: From May 1994 through May 2000

	Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed
Alliant Technologies, Incorporated, Bacchus Works					
Boeing Commercial Airplane Group					
Dow-United Technologies Corporation Products, Incorporated					
Cyclic Fibertec, Incorporated					
Advanced Materials and Structures					
Northrop Grumman Corporation (Commercial Aircraft Division)					
United Technologies Corporation					
(Pratt & Whitney, Florida Operations)					
United Technologies Corporation (Hamilton Standard Division) ^a					
(Large Commercial Engines Division)					
Contractors not reviewed (0)					
Total	\$130,000,000	\$240,000,000	\$370,000,000	\$285,102,356	80

Field Emission Flat Panel Display Technology

Agreement No. MDA972-95-3-4026

Period of Performance: From August 1995 through December 1997

	Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed
Raytheon Electronic Systems					
Contractors not reviewed (6)					
Total	\$11,228,314	\$15,448,867	\$26,677,181	\$9,320,869	35

^aWhere cost reviewed by DCAA exceeded the agreement amount, the agreement may or may not be revised.^bThese contractors represent subcontractors.

Darkened area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Other Transactions – Research (cont'd)

Next Generation Electroluminescent Display Consortium
 Agreement No. MDA972-95-3-0029
 Period of Performance: From March 1995 through December 1999

Planar America, Incorporated
 AlliedSignal Microelectronics and Technology Center
 Advanced Technology Materials, Incorporated³
 Georgia Institute of Technology/
 Georgia Tech Research Corporation
 Honeywell, Incorporated
 Contractors not reviewed (8)

Total

Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed
\$30,696,000		\$61,902,000	\$22,317,370	36

³These contractors represent subcontractors.

Darkened area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Other Transactions - Prototype

Tier III - Technology Demonstrator Acquisition Program
 Agreement No. MDA972-94-3-0042
 Period of Performance: From June 1994 through January 1999

	Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed
Lockheed Martin Skunk Works					
Boeing Defense and Space Group					
Lockheed Martin Corporation (Lockheed Martin Missile and Space)					
Contractors not reviewed (0)					
Total	\$244,218,000	\$29,522,000	\$273,740,000	\$188,425,110	69

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Tier II Plus
 Agreement No. MDA972-95-3-0013
 Period of Performance: From November 1994 through December 1999

	Total Cost Share Government	Contractor	Agreement Total	Total Cost Reviewed by DCAA	Percentage of Cost Reviewed
Teledyne Ryan Aeronautical					
The Boeing Company (Boeing Corporate Airplane Group) ³					
Raytheon Systems Company (Sensors and Communications Systems) ³					
(Subcontract 67-973-008D)					
Raytheon Systems Company (Sensors and Communications Systems) ³					
(Subcontract 64-564-001D)					
Raytheon E-Systems Company, Incorporated ³					
Vista Controls Corporation ³					
Allison Engine Company ³					
Contractors not reviewed (0)					
Total	\$230,250,000	\$0	\$230,250,000	\$192,227,863	83

³These contractors represent subcontractors.

⁴These contractors were under a cost reimbursement agreement.

Darkened area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Appendix E. Effect of Government-Paid Costs on Contractor Cost Share for Other Transactions

Trauma Care Information Management Systems Consortium
 Agreement No. MDA972-94-2-0010
 Period of Performance: From March 1994 through March 1998

	<u>Government</u>	<u>Contractor</u>	<u>Total</u>
Initial agreement	\$12,236,600	\$14,264,000	\$26,500,600
Percent of cost sharing	46	54	
Cost review by DCAA ¹			\$ 6,870,666 ²
Percent of cost reviewed by DCAA			26
Finding A			
Less:			
Prior IR&D ³		25,000	
Prior Government funded		None	
Current Government funded		None	
Depreciable equipment		563,200	
Revised costs	\$12,236,600	\$13,675,800	\$25,912,400
Revised percent	47	53	
Finding B			
Less:			
Estimated current IR&D Reimbursement		2,069,034	
Estimated costs	\$12,236,600	\$11,606,766	\$23,843,366
Revised cost percent	51	49	

¹ Defense Contract Audit Agency

² DCAA reviewed \$6,870,666 of contractor cost share and identified issues with \$588,200 (9 percent).

³ Independent Research and Development

Precision Laser Machining Consortium
 Agreement No. MDA972-94-3-0020
 Period of Performance: From May 1994 through April 1999

	<u>Government</u>	<u>Contractor</u>	<u>Total</u>
Initial agreement	\$37,113,674	\$38,108,057	\$75,221,731
Percent of cost sharing	49	51	
Cost review by DCAA ¹			\$40,222,028 ²
Percent of cost reviewed by DCAA			53
Finding A			
Less:			
Prior IR&D ³		507,000	
Prior Government funded		None	
Current Government funded		None	
Depreciable equipment		1,194,700	
Revised costs	\$37,113,674	\$36,406,357	\$73,520,031
Revised percent	50	50	
Finding B			
Less:			
Estimated current IR&D			
Reimbursement		12,829,810	
Estimated costs	\$37,113,674	\$23,576,547	\$60,690,221
Revised cost percent	61	39	

¹ Defense Contract Audit Agency

² DCAA reviewed \$40,223,028 of contractor cost share and identified issues with \$1,701,700 (4 percent).

³ Independent Research and Development

Affordable Composites for Propulsion Cooperative Arrangement
 Agreement No. MDA972-94-3-0029
 Period of Performance: From May 1994 through May 2000

	<u>Government</u>	<u>Contractor</u>	<u>Total</u>
Initial agreement	\$130,000,000	\$240,000,000	\$370,000,000
Percent of cost sharing	35	65	
Cost Review by DCAA ¹			\$295,102,358 ²
Percent of cost reviewed by DCAA			80
Finding A			
Less:			
Prior IR&D ³		59,679,690	
Prior Government funded		6,127,468	
Current Government funded		13,569,000	
Depreciable equipment		1,703,048	
Revised costs	\$130,000,000	\$158,920,794	\$288,920,794
Revised percent	45	55	
Finding B			
Less:			
Estimated current IR&D			
Reimbursement		37,193,837	
Estimated costs	\$130,000,000	\$121,726,957	\$251,726,957
Revised cost percent	52	48	

¹ Defense Contract Audit Agency

² DCAA reviewed \$295,102,358 of contractor cost share and identified issues with \$81,079,206 (27 percent).

³ Independent Research and Development.

Field Emission Flat Panel Display Technology
 Agreement No. MDA972-95-3-0026
 Period of Performance: From August 1995 through December 1997

	<u>Government</u>	<u>Contractor</u>	<u>Total</u>
Initial agreement	\$11,228,314	\$15,448,867	\$26,677,181
Percent of cost sharing	42	58	
Cost review by DCAA ¹			\$9,320,869
Percent of cost reviewed by DCAA			35
Finding A			
Less:			
Prior IR&D ²		None	
Prior Government funded		None	
Current Government funded		None	
Depreciable equipment		None	
Revised costs	\$11,228,314	\$15,448,867	\$26,677,181
Revised percent	42	58	
Finding B			
Less:			
Estimated current IR&D		3,781,516	
Reimbursement			
Estimated costs	\$11,228,314	\$11,667,351	\$22,895,665
Revised cost percent	49	51	

¹ Defense Contract Audit Agency

² Independent Research and Development.

Next Generation Electroluminescent Display Consortium
 Agreement No. MDA972-95-3-0029
 Period of Performance: From March 1995 through December 1999

	<u>Government</u>	<u>Contractor</u>	<u>Total</u>
Initial agreement	\$30,696,000	\$30,696,000	\$61,392,000
Percent of cost sharing	50	50	
Cost review by DCAA ¹			\$22,317,370
Percent of cost reviewed by DCAA			36
Finding A			
Less:			
Prior IR&D ²		None	
Prior Government funded		None	
Current Government funded		None	
Depreciable equipment		None	
Revised costs	\$30,696,000	\$30,696,000	\$61,392,000
Revised percent	50	50	
Finding B			
Less:			
Estimated current IR&D reimbursement		1,020,231	
Estimated costs	\$30,696,000	\$29,675,769	\$60,371,769
Revised cost percent	51	49	

¹ Defense Contract Audit Agency

² Independent Research and Development.

Appendix F. Summary Data on Other Transactions

Other Transactions - Research									
	Accounting Treatment of Cost Shares		Contractor Cost Share		Provisionally Approved Overhead Rates Used		Benefits From Other Transactions		
	Government Share	Contractor Share	Prior DoD Funded	Prior Government Contractor Funded	Prior R&D ¹ Contractor Funded				
Trauma Care Information Management Systems Consortium, (MDA972-94-2-0010)									
Rockwell Collins, Incorporated							Yes	Yes	Yes
Rockwell Science Center, Incorporated							Yes	Yes	None
Science Applications International Corporation							Yes	Yes	None
Texas Instruments, Incorporated							Yes	Yes	None
Precision Laser Machining Consortium, (MDA972-94-3-0020)									
Boeing Defense and Space Group							Yes	Yes	None
Fibertek, Incorporated							Yes	Yes	None
General Electric Aircraft Engines							Yes	Yes	None
General Electric Company,							Yes	Yes	None
(Corporate Research and Development)							Yes	Yes	Yes
HRL Laboratories, Limited Liability Company							Yes	Yes	None
Northrop Grumman Corporation							Yes	Yes	None
(Electronic and Systems Integration Division)							Yes	Yes	None
Northrop Grumman Corporation							No	No Comment	
(Electronic Systems Division, Hawthorne Site)							No	Yes	Yes
SDL, Incorporated							Yes	Yes	Yes
TRW, Incorporated, Space and Electronics Group							Yes	Yes	None
United Technologies Research Center									

¹Independent Research and Development

²Not Applicable

Darked area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Other Transactions- Research (cont'd)

Affordable Composites for Propulsion Cooperative Arrangement, (MDA972-94-3-0029)	Accounting Treatment of Cost Shares Government Contractor Share	Prior DOD Funded	Contractor Cost Share Prior Government Funded	Prior R&D Contractor Funded	Provisionally Approved Contractor Based Upon Transactions	Benefits From Other Transactions
Alliant Technologies, Incorporated, Bacchus Works					Yes	Yes
Boeing Commercial Airplane Group					Yes	None
Dow-United Technologies Corporation Products, Incorporated					Yes	No Comment
Cytec Fiberte, Incorporated,					N/A	Yes
Advanced Materials and Structures						
Nortrop Grumman Corporation (Commercial Aircraft Division)					No	Yes
United Technologies Corporation					Yes	Yes
(Pratt and Whitney, Florida Operations)						
United Technologies Corporation (Hamilton Standard Division)					Yes	None
United Technologies Corporation					Yes	Yes
(Large Commercial Engines Division)						
Field Emission Flat Panel Display Technology (MDA972-95-3-0026)						
Raytheon Electronic Systems					Yes	None
Next Generation Electroluminescent Display Consortium, (MDA972-95-3-0029)						
Planar America, Incorporated					Yes	Yes
AlliedSignal Microelectronics and Technology Center					Yes	None
Advanced Technology Materials, Incorporated*					Yes	Yes
Georgia Institute of Technology/					Yes	None
Georgia Tech Research Corporation						
Honeywell, Incorporated					No	None
Frequency of Inconsistent Treatment of Cost Shares:	10/28	1/14	4/14	10/14	4/27	11/26
Frequency of Yes Answers						
Frequency of No Answers						

*These contractors represent subcontractors.

Dated area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Other Transactions- Prototype

	Accounting Treatment of Cost Shares		Contractor Cost Share		Provisionally Approved Overhead Rates Used		Benefits From Other Transactions
	Government Share	Contractor Share	Prior DoD Funded	Prior Government Funded	Prior IR&D Contractor Funded		
Tier III - Technology Demonstrator Acquisition Program, (MDA972-94-3-0042)							
Lockheed Martin Skunk Works						Yes	Yes
Boeing Defense and Space Group						Yes	Yes
Lockheed Martin Corporation						Yes	Yes
(Lockheed Martin Missile and Space)							
Tier II Plus, (MDA972-95-3-0013)							
Teledyne Ryan Aeronautical						N/A	Yes
The Boeing Company (Boeing Corporate Airplane Group) ³						N/A	Yes
Raytheon Systems Company						No	Yes
(Sensors and Communications Systems) ³							
(Subcontract 84-973-0080)							
(Subcontract 84-564-001D)						N/A	N/A
Raytheon E-Systems Company, Incorporated ³						Yes	No Comment ⁵
Vista Controls Corporation ³						N/A	Yes
Allison Engine Company ³						Yes	No Comment ⁵
Frequency of Inconsistent Treatment of Cost Shares:	N/A	N/A	N/A	N/A	N/A		
Frequency of Yes Answers						1/5	7/7
Frequency of No Answers							

³These contractors represent subcontractors.⁴These two contractors agreed to cost share if cost exceed a specified level. At the time of the Defense Contract Audit Agency Review, cost had not reached the amount required for the cost share provision.⁵Contractor did not perform any analysis of benefits or the question was not asked of the contractor.

Dashed area (blank spaces) of this report represent data considered contractor proprietary which has been deleted.

Appendix G. Audit Response to Specific Management Comments

The Directors, Defense Research and Engineering and Defense Procurement, provided specific comments on the body of the draft report. Below we discuss each management comment and provide our response. The complete text is in the Management Comments Section.

Director, Defense Research and Engineering

Comments. DDR&E disagreed with the statement, “even though the 1989 statute authorizing other transactions requires the Secretary of Defense to issue regulations, none were issued.” DDR&E stated that it is true that DoD had not yet issued a complete set of regulations governing these instruments, but it had issued some regulations that applied to them in the “DoD Grant and Agreement Regulations,” DoD 3210.6-R. DoD Grant and Agreement Regulations apply to assistance or nonprocurement instruments generally. Also, the statutory requirement to issue regulations was a 1994 amendment, not the 1989 statute.

Audit Response. We agree that some guidance on assistance instruments is provided in the “DoD Grant and Agreement Regulations;” however, the guidance generally applies to grants and cooperative agreements. DDR&E issued a memorandum, “Technology Investment Agreements,” that addressed assistance instruments such as other transactions, and DDR&E planned to incorporate the memorandum into the “DoD Grant and Agreement Regulations.” However, as of December 1999, the advisory policy had not been incorporated as required policy.

We modified the final report to reflect the 1994 amendment time period.

Comments. DDR&E disagreed with the implications that DoD reports to Congress understated the cost to the Federal Government for research efforts, DoD financial risks associated with the research were understated, and recipients’ actual cost share were overstated. DDR&E stated that there was no basis for those statements and the implication that agreement officers intentionally misreported cost share, thereby misleading Congress. DDR&E stated that agreement officers reported only those amounts that were negotiated. DDR&E stated that the numbers did not appear to include additional cost sharing that DCAA found over and above what the agreement required, which was unfair. The audit report should show actual amounts; however, for the agreements that are not complete, the report can only give an interim status of actual amounts.

Audit Response. We never stated that agreement officers attempted to deceive Congress or that they did not comply with guidance on reporting agreement cost share. This audit went beyond the negotiated cost in the agreement and tried to capture the actual cost of the research efforts to the Government. The DoD can provide more disclosure on its reporting of the cost of other transactions to Congress by including reimbursements of current IR&D by the Government.

DCAA did identify five contractors that apparently contributed more to the research efforts than negotiated in the other transaction (Appendix D). Additional contributions were about 5.5 percent more than the other transaction value for five contractors. However, none of the research efforts were completed and it was unclear whether the other transactions would be revised or whether other research contractors in the consortium would provide less contributions, thereby, offsetting other members' cost sharing.

Comments. DDR&E stated that the report should not state recipients "reduced their cost share" by agreement officers accepting prior IR&D, Government-funded research, and charges for depreciated assets. The statement unfairly impugned the recipients for complying with the terms of the agreements negotiated with the Government.

Audit Response. We agree that research contractors were complying with the terms of the agreements negotiated with the Government. The report is only disclosing that research contractors received Government reimbursements for portions of their cost share.

Comments. DDR&E agreed that better guidance was needed on how to value contributions related to fully depreciated assets. The finding implied that the entire \$3.5 million should be disallowed as cost sharing. However, reasonable usage charges are allowable for fully depreciated assets, in accordance with Federal cost principles. Therefore, the finding should identify specific amounts of excess usage charges or revised to recognize that a portion of the \$3.5 million is allowable.

Audit Response. The report acknowledged that, under a contract, a reasonable charge for fully depreciated items is an allowable cost and similar guidance is needed for other transactions. However, the DCAA reports did not identify how much of the \$3.5 million would represent a reasonable usage charge.

Comments. DDR&E stated that the report was factually incorrect as guidance was issued that states contractors are to provide their cost share from non-Federal resources unless otherwise specified.

Audit Response. We agree that DDR&E has issued a memorandum for Technology Investment Agreements that states "to the maximum extent practicable, the non-Federal parties carrying out the research project under a Technology Investment Agreement are to provide at least half of the costs of the project from non-Federal resources that are available to them (unless there is specific authority to use other Federal resources for such cost sharing)." However, the memorandum has expired, the memorandum does not prohibit the use of Government-funded research as contractor cost share and the memorandum implies that Federal resources should not be used as contractor cost share. Therefore, we believe that guidance is needed in a DoD directive, instruction, or regulation that prohibits the use of Government funded research as contractor cost share.

Comments. DDR&E stated that the issue of noncompliance with DoD audit policy was not justified because it related to DoD Directive 7600.2, "Audit Policies" that only applies to internal audits of DoD organizations and to audits of contractors and subcontractors that receive procurement contracts. The Directive for audits of

agreement type (other transactions) are not clearly delineated; therefore, the finding of noncompliance appears to be unwarranted. DDR&E stated the focus instead should be on what policy the DoD should establish.

Audit Response. In 1996, we informed DDR&E about the audit policies in DoD Directive 7600.2 and the problem with the audit clauses for other transactions. DoD Directive 7600.2 clearly states that "DoD Components shall not contract for audit services . . . unless expertise required to perform the audit is not available with the DoD audit organization . . ." The Directive also states that prior approval from the Office of the Inspector General, DoD, is required for exceptions to this policy. This is clear guidance.

Comments. DDR&E stated that it was incorrect to imply that DoD officials were not aware of the actual cost of other transactions. DDR&E believes that the finding was incorrect because it was based on the assumption that IR&D costs, if later reimbursed by the Government, are Federal funds. DDR&E stated that Congress indicated that it believes IR&D are considered private funds.

Audit Response. Contractors' IR&D expenditures are considered private funds even when they are Government reimbursed only for paragraph (a)(3) of 10 U.S.C. 2320. However, the issue that we were expressing is that Government reimbursement of contractor IR&D cost used as contractor cost share in an other transaction impacts the actual cost share of DoD and the contractor. A contractor's cost risk is reduced when the contractor is subsequently reimbursed for the IR&D and the actual cost to DoD for the research is increased.

Comments. DDR&E disagreed that nontraditional or new contractors who participated in an other transaction were at a competitive disadvantage with traditional DoD contractors because the nontraditional contractors were not Government reimbursed for their IR&D costs. DDR&E stated that nontraditional contractors pass on the cost of IR&D to its private sector customers through prices of its products. DDR&E stated that this is analogous to Government contractors passing those costs to the Government.

Audit Response. We agree that nontraditional contractors can pass on IR&D costs to their commercial customers as long as commercial market forces make this possible. However, if a traditional DoD contractor is guaranteed reimbursement from DoD for a portion of its IR&D, the contractor's risk and actual costs associated with the other transaction is reduced.

Comments. DDR&E disagreed that the increased use of other transactions would affect the amount of IR&D and that senior acquisition officials and program managers needed to understand that increases in indirect costs on contractors' contracts could result from increased use of the agreements. DDR&E stated that firms make business decisions on the amount of investment in research and development and its effect on the business competitiveness.

Audit Response. We revised the report on this issue. There is a relationship between IR&D and other transactions and that is what the report is disclosing.

Comments. DDR&E disagreed that the use of research tax credits reduces contractors' cost and also that training should be provided to agreement officers so they could better negotiate the agreements. DDR&E stated that adjusting cost sharing to compensate for research and development tax credits would undercut the national policy basis for the tax credit.

Audit Response. We identified the research tax credit as an issue that should be disclosed to other transaction agreement officers. If agreement officers are familiar with research tax credits, as well as reimbursement of IR&D, they would be more knowledgeable when negotiating cost shares. Negotiating the best possible deal for the Government supports an overall national policy of better government for less money.

Comments. DDR&E stated that audit report statements that identify benefits from the use of other transactions are not very meaningful because only traditional DoD contractors and no nontraditional contractors were included in the audit. DDR&E stated that the survey should include nontraditional contractors or the audit statements should be deleted from the report.

Audit Response. The audit included only traditional contractors because nontraditional contractors were not significant participants in those selected agreements. For example, 77 contractors participated in the seven agreements reviewed by DCAA. Of the 77 contractors, 11 (14 percent) were nontraditional and represented 2 percent of the total other transactions' costs.

Comments. DDR&E stated that the finding incorrectly implied that the Government paid \$63,000 to a contractor sooner than if provisionally approved indirect rates had been used. However, payments were based on programmatic milestones and not on cost incurred.

Audit Response. Other transactions that have programmatic (technical milestone) payment provisions are not fixed-price research agreements, and the payment structure was developed early in the agreement and was based on cost estimates. If DoD payments exceed estimated cost significantly, payments are supposed to be adjusted. The finding acknowledged that this is a timing issue and that eventually the contractor should reduce claimed amounts to reflect final costs.

Director, Defense Procurement

Comments. DDP stated that 302 other transactions issued from October 1, 1989, to October 16, 1998, included two FY 1999 EELV awards for \$3 billion and were the only FY 1999 awards in the Inspector General, DoD, numbers. DDP stated that the inclusion of the EELV in the report significantly distorted the data and urged the Inspector General, DoD, to exclude the EELV from the baseline throughout the report to be consistent with the Under Secretary of Defense (Acquisition and Technology), February 1999 report to Congress.

Audit Response. We kept the EELV in the report because the EELV prototype other transaction awards were the most significant other transactions issued by the DoD. We disagree that excluding the EELV would be consistent with the February 1999 report to

Congress because the EELV agreements were included in the report. However, we were sensitive to how the EELV impacted the data and identified the impact throughout the report.

Comments. DDP stated that the Inspector General, DoD, database did not include all new contractors participating in prototype other transactions. DDP stated that Table 2 should be revised to include an analysis of the number and value of agreements involving new contractors that was based on updated information provided to the Inspector General, DoD, after the draft report was issued.

Audit Response. In response to DDP comments, we updated Table 2 to include the 68 traditional and 41 new contractors for the final report. As a result, the DoD cost share to traditional DoD contractors is 95 percent.

Comments. DDP stated that not all new contractors participating in the prototype agreements were included in the Inspector General, DoD, database used to support Table 3b. The DDP review identified 41 additional new contractors participating in prototype agreements.

Audit Response. After issuance of the draft audit report, DDP queried the Military Departments and Defense agencies to verify the Inspector General, DoD, database categorization of traditional and nontraditional contractors (new contractors) and to identify additional contractors that were not included in the database. The DDP effort identified 41 new contractors and 68 traditional contractors. The new contractors were identified as participants at the first, second, and third tier subcontractor level, and were not identified in the other transaction. In response to the DDP request, we revised Table 3b.

Comments. The DDP stated that the report recognizes that OSD officials believe new contractors participation is appropriately measured by the number of agreements that have “new contractor” participation. DDP requested that the audit report be revised to display the alternative measures as the tables reflect the Inspector General, DoD, philosophy. DDP stated that the number of agreements involving new contractors increased to 34 (36 percent) when the additional 41 new contractors identified by the Military Departments and Defense agencies were included.

Audit Response. We revised the report to reflect the additional contractors identified by the Military Departments and Defense agencies.

Comments. The DDP stated that the DoD audit policy in DoD Directive 7600.2 applies to contracts and is ambiguous about whether it also applies to other transactions. DDP stated that the criticism of activities not considering this policy is unwarranted because when the audit policy was written, other transactions were not contemplated. However, DDP agreed to work with the Inspector General, DoD, to incorporate appropriate audit guidance.

Audit Response. Although DoD Directive 7600.2 does not specifically list applicability to other transactions, we believe that the policy clearly applies to these instruments. The Directive will be revised to identify its specific applicability to all contract like instruments to include other transactions. The audit policy was written to cover all situations and development of a new acquisition instrument does not make audit policy moot.

Comments. DDP recommended deleting the report narrative that states “since other transactions are somewhat like the buying of commercial spare parts in that standard procurement policies and practices do not apply” DDP stated that the reference was incorrect and commercial items are procured by use of the Federal Acquisition Regulation. Other transactions do not use standard procurement policies because they are a different type of agreement and are not a subset of contracts.

Audit Response. We clarified that section of the report. We acknowledge that other transactions are not contracts. However, it is important to issue policy to identify the services that DCAA can provide for other transactions.

Comments. The DDP stated that it is incorrect to imply that the use of IR&D helps reduce contractors cost and risk and that DoD officials were not always aware of the actual cost to the Government of other transactions because portions of cost contributions are subsequently allocated to Federal contracts. DDP stated that these statements are based on the incorrect assumptions that a company’s IR&D are Federal funds rather than private-sector funds.

Audit Response. Contractor’s cost share and risks are reduced through the subsequent reimbursement of IR&D costs through other Government contract charges. There should be recognition of the reimbursement and adequate disclosure of the costs. We have difficulty understanding why DoD does not want to recognize that there is a relationship between IR&D and contractor cost share for other transactions.

Comments. The DDP disagreed with the Inspector General, DoD, analysis showing that the five largest DoD contractors received 73 percent of the \$2.3 billion of DoD funds for prototype other transactions and that, excluding the EELV, these five contractors received 53 percent of DoD funds. DDP also disagreed that the large DoD contractors had IR&D accounts and high Government reimbursement rates. DDP stated that the Inspector General, DoD, analysis did not go below the prime contractor level and that it overstated the extent of the DoD dollars to traditional contractors. DDP also stated that information was not readily available on the extent to which recipients’ investments (cost share) were funded by IR&D and for the majority of the EELV contractor cost share did not come from IR&D accounts. DDP recommended that the Inspector General, DoD, analysis be removed from the report.

Audit Response. We wanted to disclose that the largest DoD contractors are also the largest recipients of funds for prototype other transactions. For prototype other transactions, 95 percent of DoD funds go to traditional DoD contractors. Our database identified that traditional DoD contractors participated in 88 of the 97 prototype agreements. That information is important because many of the regulations and policies relating to contracts do not apply to other transactions. We allocated costs to prime contractors and any subcontractors identified. The DoD database for contracts allocates amounts for contract awards only to the prime contractor. We have fairly disclosed the participation of traditional DoD contractors in this report.

Comments. The DDP stated that it is incorrect to assume “increases in contractors’ indirect costs could result from increased use of other transactions to attract more contractor IR&D.” DDP stated that this assumes a company does not budget for IR&D funds. A company’s IR&D funds are limited and therefore allocated to the highest priority. It is incorrect to assume that the IR&D budget will increase when an other transaction is awarded.

Audit Response. DoD officials can benefit from understanding the relationship of current IR&D and contracts. Based on the DDP comment, we modified the report.

Comments. The DDP stated that the Inspector General, DoD, used the audit to accomplish a limited assessment of the benefits of other transactions. DDP stated that the small sample of responses from only seven business managers and contracting officials could not be a reasonable representation. DDP recommended deleting the discussion in the final report or at least recognizing other efforts to access the benefits of the authority. The DDP stated that the DoD annual reports to Congress; the Global Hawk and Arsenal Ship, an IDA study of research agreements; and the Potomac Institute for Policy studies would provide reported benefits.

Audit Response. It should be noted that the DoD did not develop performance metrics on the use of the other transactions since the authority was authorized; therefore, quantifying benefits from the agreements is difficult. Our analysis attempted to measure the benefits resulting from these other transactions audited.

As suggested by the DDP, we reviewed the reports to identify benefits derived from other transactions. All the reports were either funded by or conducted for DARPA and examined the use of other transactions for research and prototypes. The reports identified benefits in the administration and technical management of these agreements. Benefits were derived from attracting contractors to participate that otherwise would not under a FAR contract; waiving of CAS and military standards and specifications; more timely decision-making processes; and eliminating oversight functions. One report stated that a contractor estimated a 23 percent cost reduction while another contractor estimated a 50 percent cost reduction and schedule. However, the report stated that estimating savings was difficult and validity of estimates could not be determined.

Appendix H. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition, Technology, and Logistics
 Director, Defense Research and Engineering
 Director, Defense Procurement
 Deputy Under Secretary of Defense (Acquisition Reform)
 Director, Defense Logistics Studies Information Exchange
 Under Secretary of Defense (Comptroller)
 Deputy Chief Financial Officer
 Deputy Comptroller (Program/Budget)

Department of the Army

Assistant Secretary of the Army (Financial Management and Comptroller)
 Assistant Secretary of the Army (Research, Development, and Acquisition)
 Auditor General, Department of the Army

Department of the Navy

Naval Inspector General
 Assistant Secretary of the Navy (Research, Development, and Acquisition)
 Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Acquisition)
 Assistant Secretary of the Air Force (Financial Management and Comptroller)
 Commander, Air Force Materiel Command
 Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Advanced Research Projects Agency
 Director, Defense Contract Audit Agency
 Director, Defense Logistics Agency
 Director, Defense Contract Management Command
 Director, Defense Contract Management Command - Atlanta
 Director, Defense Contract Management Command - San Diego
 Director, Defense Contract Management Command - Seattle
 Director, Defense Contract Management Command - Syracuse
 Director, National Imagery and Mapping Agency
 Director, National Security Agency
 Inspector General, National Security Agency
 Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations

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

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 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 Management, Information, and Technology,
 Committee on Government Reform
 House Subcommittee on National Security, Veterans Affairs, and International
 Relations, Committee on Government Reform

Defense Research and Engineering Comments



DIRECTOR OF DEFENSE RESEARCH AND ENGINEERING
3030 DEFENSE PENTAGON
WASHINGTON, D C 20301-3030

OCT 13 1999

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL (AUDITING)

SUBJECT: Draft Audit Report on Costs Charged to "Other Transaction" Agreements

This memorandum provides comments on a draft audit report from the Office of the Inspector General (OIG) entitled "Costs Charged to 'Other Transaction' Agreements" (Project Number 7AB-0051.01). This memorandum responds to the draft report as it applies to agreements used to stimulate or support research; the Director of Defense Procurement is responding separately for "other transactions" used to acquire prototypes. The draft OIG report, dated September 2, 1999, requested comments that indicate concurrence or nonconcurrence with the findings and recommendations. Attachment 1 to this memorandum provides comments on findings in the text of the report and Attachment 2 responds to the recommendations.

The draft report is the result of a joint effort of the OIG and the Defense Contract Audit Agency (DCAA). The DCAA reviewed costs charged to five research agreements that were awarded in 1994 and 1995. There weren't many "other transactions" awarded before 1994, so the review examined some of the earlier agreements of this type.

The report's assessment of the costs charged to the agreements identified some areas where additional guidance is needed for cost sharing contributions. However, we are pleased that the review raised no issues with the \$190 million charged to the Government funds provided by the agreements, nor with \$221 million of the \$304 million that agreements officers accepted as recipients' cost sharing. The latter fact is notable in that cost sharing in assistance awards to for-profit firms was relatively new to the DoD in 1994-1995; agreements officers therefore went through a learning process as they negotiated these instruments.

We also noted that DCAA reports from the review suggest that some recipients contributed more cost sharing to the projects than the agreements required of them. If that is the case, the amounts of cost sharing and the total costs of the projects as performed are both higher than the amounts negotiated. The three types of questioned contributions then would have less effect on cost sharing percentages than the draft report states and the report should be revised to assess actual cost shares, which are more significant than negotiated shares.

It still is important to address the issues the report raises with \$83 million in three types of cost sharing contributions. About \$60 million of the \$83 million is due to prior independent research and development used as cost share. The report correctly notes that the issue was resolved in 1997, so what the review found was a vestige of a past problem that already had been identified and corrected. The second largest issue, with \$20 million of the \$83 million, is with Government-funded research used as cost share. The report should be revised to state that the guidance for the agreements already addresses Government-funded research, although the issue



in the report really is an issue with the specific program involved, rather than the agreements. We appreciate the OIG identifying the last issue with about \$3 million in costs related to depreciated assets, an area where we still need to improve the guidance for the agreements.

The review sought in two ways to identify benefits of using the agreements. One way was to see if they achieved one of their main goals and reached "nontraditional" firms, companies that had not been participating in cost-based, DoD research business. It is encouraging that the OIG looked at the consortia that received more than 200 agreements between 1990 and 1998 and found that 56 percent of the consortia included at least one nontraditional firm. Moreover, the firms' participation in consortia with traditional DoD performers should build new relationships within the technology and industrial base, another Congressional goal for the agreements.

The second way that the OIG used to try to identify benefits of using the instruments was to ask for-profit consortium members about the advantages that they perceived. The draft report's stated result is that "the majority of research contractors did not identify specific benefits from using 'other transaction' agreements." However, the 28 firms that were surveyed were all traditional DoD contractors. Since the agreements are designed to remove barriers to nontraditional firms' participation in DoD research, one might expect that the 12 nontraditional firms involved in the five agreements would be the firms most likely to perceive the benefits. In order to make a meaningful evaluation of the benefits of the instruments, therefore, the OIG's survey should include at least a representative sample of nontraditional firms. Otherwise, we believe that the OIG should drop this portion of the report.

The report is helpful in pointing out areas where improvements are needed, because we strongly believe in providing good stewardship of Federal funds while trying to reduce unnecessary barriers to participation of nontraditional firms. However, I ask that you consider carefully the way that the draft report characterizes some areas, to ensure that the final product is fair, balanced, and objective. For example, the draft report includes statements that statutory reports to the DoD and Congress overstated or misrepresented recipients' cost sharing. Some of the statements are easily misread to mean that agreements officers intentionally reported exaggerated amounts for cost sharing, thereby deliberately misleading the DoD and the Congress. That would be a very serious allegation but it is not supported by the facts in the report. The report should state its findings as clearly as possible, so that it does not inadvertently mislead readers. Attachment 1 to this memorandum identifies other areas where rewording would help prevent misleading readers, as well as areas where there are factual errors.

We appreciate having the opportunity to comment on the draft report. We look forward to continuing to work with you as we make improvements based on the report.


Hans Mark

Attachments

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**ATTACHMENT 1:
COMMENTS ON FINDINGS IN THE DRAFT REPORT**

SUMMARY OF FINDING	LOCATION(S) IN DRAFT REPORT	COMMENT
Even though the 1989 statute authorizing "other transactions" requires the Secretary of Defense to issue regulations, none were issued.	Background, p. 2, 4 th ¶.	We do not agree with the finding that "none were issued." It is true that the DoD has not yet issued a complete set of regulations governing the award and administration of these instruments, but it has issued some regulations that apply to them. These regulations are selected portions of the DoD Grant and Agreement Regulations (DoD 3210.6-R) that apply to assistance or nonprocurement instruments generally (which include the type of "other transaction" that the OIG reviewed). Further, the finding should be corrected to state that the statutory requirement to issue regulations was due to a 1994 amendment, and was not in the 1989 statute.
Because prior IR&D, Government-funded research, and fully depreciated assets were included in recipients' cost sharing contributions: - DoD reports to Congress understated the cost to the Federal Government for research efforts; - Statutory reports to DoD and Congress overstated the research to be achieved with recipient funds; - DoD financial risks associated with the research were understated; and - The recipients' actual cost share was overstated.	Executive Summary, p. ii, 2 nd ¶. Section A., p. 7, 1 st ¶. Section A., p. 9, 1 st ¶. Section A., p. 12, 3 rd ¶. Section A., p. 12, 4 th ¶. Section A., p. 8, last ¶. Section A., p. 8, last ¶. Section A., p. 9, 3 rd ¶. Section A., p. 12, 3 rd ¶. Section A., p. 12, 4 th ¶.	We disagree for three reasons. First, there is no basis for these statements' implication that agreements officers intentionally misreported cost sharing amounts, thereby misleading Congress. To the best of our knowledge, agreements officers accurately reported the amounts of recipient cost sharing that they negotiated. Guidance for the instruments now precludes accepting some types of costs that agreements officers accepted as recipients' cost sharing for agreements reviewed by the OIG, but the awards were made in 1994-1995, before that guidance was issued. Second, the anticipated "cost to the Federal Government for research efforts" and the "DoD financial risks associated with the research" are the amounts of Federal funds awarded through the agreements. Those amounts do not depend on the amounts of recipients' cost sharing. To the best of our knowledge, agreements officers accurately reported the amounts of Federal funds awarded for the agreements. Third, while the draft report uses the term "actual" cost share, it does not seem to properly assess recipients' actual cost share. The numbers do not appear to include additional cost sharing that the DCAA found some recipients contributing voluntarily to the research efforts, over and above what the agreements required of them. "Actual" cost shares include those voluntary contributions. Ignoring the amounts is unfair to recipients, in that it understates their cost share. The report should be revised to show actual amounts (in the case of agreements that were not completed as of the date of the DCAA review, the report can give only an interim status of actual cost shares).

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SUMMARY OF FINDING	LOCATION(s) IN DRAFT REPORT	COMMENT
The recipients reduced their cost share by using prior IR&D, Government-funded research, and charges for depreciated equipment.	Executive Summary, p. ii, 1 st ¶. Section A., p. 9, 3 rd ¶.	The report should not state that recipients "reduced their cost share." Insofar as agreements officers accepted prior IR&D, Government-funded research, and charges for depreciated assets as recipients' cost sharing contributions, this statement unfairly impugns the recipients for complying with the terms of the agreements they had negotiated with the Government.
In March 1998, the DDR&E issued guidance that prohibited the acceptance of prior IR&D as recipient cost share.	Section A., p. 10, last ¶.	The DDR&E issued that guidance in December 1997.
Nine recipient consortium members used \$3.5 million of rental expenses for existing assets and software as cost share. These facilities and equipment charges were also charged to the consortium members' overhead accounts, and using the items as cost share represents the same costs claimed twice. In many cases, the facilities and equipment were fully or partially depreciated assets that were originally purchased under other Government awards. In addition DCAA reported that the consortium members' fair market value estimates were not fully supported and, in some cases, exceeded the initial purchase price.	Section A., p. 11, 3 rd ¶.	We agree with the OIG that there needs to be better guidance on how to value contributions related to fully depreciated assets because the DCAA reports suggest that some of these contributions were not good-quality cost sharing. However, this finding appears to generalize from a few examples to imply that the entire \$3.5 million should have been disallowed as cost sharing, and that is not necessarily the case. Reasonable use charges for fully depreciated assets are allowable charges to Government contracts, grants, and cooperative agreements, in accordance with all of the Federal cost principles (Part 31 of the Federal Acquisition Regulation and OMB Circulars A-21, A-87, and A-122). Therefore, the finding should either identify the specific amounts for the nine consortium members that the OIG believes are in excess of reasonable use charges, or revise the statement to recognize that a portion of the \$3.5 million may be reasonable and allowable.
The DDR&E guidance does not prohibit recipients from using Government-funded research as cost sharing.	Section A., p. 12, 2 nd ¶.	The finding is factually incorrect. The report should be revised to recognize that the DDR&E guidance states that recipients are to provide their cost share from non-Federal resources that are available to them unless there is specific authority to use other Federal resources for the cost share.
The audit provisions in the agreements did not comply with DoD audit policy.	Section A., p. 13, 1 st ¶.	We believe that a finding of noncompliance is not justified in this case. The finding appears to relate to the two subsequent paragraphs of the draft report, which describe requirements in DoD Directive 7600.2, "Audit Policies." That Directive applies to internal audits of DoD organizations and to audits of contractors and subcontractors that receive procurement contracts. Procedures for audits of agreement types other than contracts are not clearly delineated. Therefore, the Directive is ambiguous in its application to audits of recipients of assistance instruments. A finding of noncompliance with the audit policy in the Directive appears to be unwarranted, and the focus instead should be on what policy the DoD should establish.

ATTACHMENT 1: Comments on the Findings of the Draft Report

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SUMMARY OF FINDING	LOCATION(S) IN DRAFT REPORT	COMMENT
DoD officials were not always aware of the actual cost to the Federal Government for "other transaction" agreements. This condition occurred because portions of the cost contributions subsequently allocated to Federal contracts were not visible to agreements officers and because agreements officers were not trained on the effect of current IR&D on recipient cost share.	Executive Summary, p. ii, 2 nd ¶ Section B., p. 17, 1 st ¶	We believe that this finding is incorrect because it is based on the assumption that a recipient's IR&D costs, if later reimbursed by the Government, are Federal funds. However, as noted in Attachment 2, in the response to recommendation B.1.: -The Congress has stated that R&D costs incurred by a firm through participation in consortia or cooperative agreements should be fully reimbursable as IR&D, to the extent that they are otherwise reasonable, allocable, and allowable. This statement viewed from the perspective of the consortia or cooperative agreements, rather than from the perspective of procurement contracts to which the IR&D later is charged, essentially is that Federally reimbursed IR&D may be used as recipients' cost share. -That statement is consistent with an earlier policy that Congress set in law, that amounts spent for IR&D are to be considered as private funds of the recipient, rather than Federal funds, for purposes of determining technical data rights; and -IR&D costs are legitimate and necessary costs of doing business for firms in technology-dependent sectors and the firms pass those costs along to their customers.
Use of IR&D helps reduce the cost and risk associated with a recipient's cost share.	Section B., p. 17, 2 nd ¶ Section B., p. 19, 1 st ¶ (for two specific agreements). Section B., p. 19, 2 nd ¶	We disagree. We think that a company in a sector dependent on new technology invests its own funds in R&D in order to stay competitive. There is risk involved in every investment of those R&D dollars, whether the cost subsequently is passed along to Government customers or private sector customers. A firm has incentive to invest only in the projects that it deems likely to succeed; nonproductive R&D projects lead to higher prices for future products and processes with no commensurate technological advances. Those could be prices quoted to the Government. If the firm does Government business, which affects the firm's ability to compete for future Government contracts.
A nontraditional or new contractor to DoD who participates in an "other transaction" agreement may not have an IR&D account and therefore could not be reimbursed by the Government because it had no Government contracts to which it could allocate IR&D costs. It therefore would be at a competitive disadvantage relative to a traditional DoD contractor.	Section B., p. 17, 3 rd ¶ Section B., p. 20, 2 nd ¶	We do not agree that a nontraditional firm with no other Government business would be at a competitive disadvantage. A nontraditional firm passes the costs of its internal R&D investment to its private sector customers through the prices it charges them for its products. That is analogous to a Government contractor passing those costs of doing business along to its customer, the Government.

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SUMMARY OF FINDING	LOCATION(S) IN DRAFT REPORT	COMMENT
If training on IR&D was provided to agreements officers, they would understand recipients' actual and potential costs and could better negotiate "other transaction" agreements. and If the negotiator were knowledgeable of the effects of IR&D reimbursement, the negotiator might be able to better negotiate and increase the recipient's actual cost contribution.	Section B, p. 19, 2nd ¶. Section B, pp. 19-20, Examples 1-3. Section B, p. 20, 1st ¶.	We do not agree that agreements officers should negotiate to get recipients to provide higher amounts of cost sharing, to compensate for IR&D reimbursements. Trying to offset for IR&D contradicts Congressional intent that current IR&D be allowed as recipients' cost sharing contributions. Moreover, there's a consistency issue. The draft report proposes to devalue a Government contractor's IR&D as cost sharing because the Government reimburses a portion of those costs. To be consistent, one would also have to devalue a nontraditional firm's contribution of its internal R&D funds if the firm recovered those costs of doing business from its commercial customers. However, we believe that neither of these devaluations is appropriate.
DoD should show the effects of IR&D reimbursement in its reports to Congress because excluding those reimbursements from the reports does not fully disclose to Congress and senior DoD officials the full cost of "other transactions" to the Government.	Section B, p. 21, 2 nd ¶.	We disagree. IR&D funds are private funds of the recipient, notwithstanding later reimbursement of those costs of doing business by either Government or private sector customers.
"Other transactions" are increasing, which may affect the amount of IR&D. Senior acquisition officials and individual program managers need to understand that increases in indirect costs on recipients' Government contracts could result from increased use of "other transactions" to attract more recipient IR&D.	Section B, p. 22, 2 nd ¶.	We do not think that the increased use of these agreements is likely to have a significant effect on the overall amount of IR&D. Generally, we think that a firm makes a business decision on how much to invest in R&D at the "macro" level, taking into account its total sales and how the R&D investment would increase prices to its Government and/or private sector customers and thereby affect its competitiveness. For a Government contractor, that latter factor involves the effect of IR&D on its indirect cost rates. At the "micro" level, project-by-project decisions on where to invest the R&D funds should not alter the higher level business decision on total R&D investment.
Use of research tax credits helps reduce the cost and risk associated with a recipient's cost share. and If training on the R&D tax credit was provided to agreements officers, they would understand recipients' actual and potential costs and could better negotiate "other transaction" agreements.	Section B, p. 17, 2nd ¶. Section B, p. 18, 3rd ¶. Section B, p. 19, 2nd ¶. Section B, p. 19, 2nd ¶. Section B, pp. 19-20, Examples 1-3.	We disagree because we believe that adjusting cost sharing amounts to compensate for the R&D tax credit would undercut the national policy basis for that tax credit, as explained further in our response to recommendation B.1. (see Attachment 2).

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SUMMARY OF FINDING	LOCATION(S) IN DRAFT REPORT	COMMENT
The majority of research recipients did not identify specific benefits from using "other transactions."	Executive Summary, p. ii, 3 rd ¶. Section C., p. 23, 1 st ¶. Section C., pp. 25-26, subsection entitled "Benefits of 'Other Transactions' Agreements."	As stated in the memorandum covering this attachment, this statement is not very meaningful because the review included only traditional DoD contractors and none of the nontraditional firms involved in the consortia. The portion of the report addressing this survey of firms should be deleted unless the survey is broadened to include a representative sample of nontraditional firms.
DCAA identified four firms for research agreements that used indirect cost rates other than their provisionally approved DoD rates (i.e., the rates that they use to develop interim progress billings on their DoD contracts). One firm under a research agreement overstated incurred costs by \$63,000 because it had a proposed overhead rate instead of the approved rate. This is a timing issue because the firm was reimbursed more than if provisional rates had been used.	Section C., p. 25, 4 th ¶.	The finding incorrectly implies that the Government paid \$63,000 to the recipient consortium sooner than it would have done if the firm had used a provisionally approved indirect cost rate. However, the research agreements reviewed by the OIG provided for Government payments to the consortia based on programmatic milestones and not on incurred costs.

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**ATTACHMENT 2:
RESPONSES TO THE RECOMMENDATIONS**

SECTION A., "CONTRACTOR COST SHARING" (pp. 7-16)

Recommendation A.1. We recommend that the Director, Defense Research and Engineering (DDR&E) include in DoD directives, instructions, or regulations "other transaction" agreement guidance that precludes using Government-funded research and provides a reasonable use charge for fully depreciated assets as contractor cost share.

Response: The DDR&E partially concurs with this two-part recommendation.

The DDR&E does not concur with the first part of the recommendation on Government-funded research for two reasons. One reason is that the DDR&E guidance for Technology Investment Agreements (TIAs) already states that recipients are to provide their cost share from non-Federal resources that are available to them unless there is specific authority to use other Federal resources for the cost share (the OIG therefore should correct the statement to the contrary in the first sentence of the second paragraph on page 12 of the draft report). The other reason is that the issue raised in the audit report relates to the Commercial-Military Integration Partnership Program, the particular program involved. The OIG finding is that the program office interpreted the statute for that program as providing specific authority to use other Government-funded research as cost sharing. The DDR&E guidance for TIAs is not the appropriate vehicle for addressing this program-specific issue, because the same issue applies for any type of agreement (i.e., procurement contract, grant, cooperative agreement, or other instrument) used to carry out the program.

The DDR&E concurs with the second part of the recommendation on the need for additional guidance concerning the use of fully depreciated assets as recipients' cost share. We intend to issue a DoD Instruction to provide the additional guidance four months after the issuance of the final OIG report.

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Recommendation A.2. We recommend that the Director, Defense Research and Engineering (DDR&E) include in DoD directives, instructions, or regulations "other transaction" agreement guidance that identifies how to design an appropriate access-to-records clause to verify the terms and conditions of the agreement. Guidance should include consideration of risks, materiality, funding involved, contractor past performance, adequacy of contractor business systems, and methodology of payment (cost based or performance based), and the need to verify Government-funded and contractor cost share contributions. The guidance should reference and describe the application of DoD Directive 7600.2, "Audit Policies," and DoD Directive 7600.10, "Audits of State and Local Governments, Institutions of Higher Education, and Other Nonprofit Institutions."

Response: The DDR&E partially concurs. The DDR&E concurs with adding to the TIA guidance references, as appropriate, to the Single Audit Act as implemented by OMB

ATTACHMENT 2: Responses to the Recommendations of the Draft Report

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Circular A-133 and DoD Directive 7600.10, as well as a discussion of access-to-records provisions. The discussion of the access-to-records provisions will recognize that a purpose of TIAs is to involve commercial firms that traditionally have been reluctant to do cost-type business with the Government due to Government-unique requirements. Consistent with that purpose, the guidance may provide for access-to-records provisions that vary in who is given access, Federal auditors or other independent auditors, and in the records to which they are given access for the purpose of reviewing project expenditures. For any internal guidance that may be issued appropriately without an opportunity for public comment, the DDR&E intends to do so by a DoD Instruction four months after the issuance of the final OIG report. Additional guidance, if needed, would be issued through publication of a proposed and final rule in the Federal Register, a process that may take a year or more.

However, the guidance should not refer to DoD Directive 7600.2, which does not clearly apply to assistance instruments. We restate a 1997 response to this recommendation, from OIG Audit Report 97-114, "Award and Administration of Contracts, Grants, and Other Transactions Issued by the Defense Advanced Research Projects Agency:"

"Although it is ambiguous whether the limitation on contracting for audit services in DoD Directive 7600.2 applies to instruments other than procurement contracts, the DDR&E concurs with including in the guidance for all types of OTs a requirement for a DoD component to coordinate with the IG, DoD, in individual cases where it either: (1) contracts with a non-Federal independent auditor for audit of a recipient; or (2) requires a recipient to hire an independent auditor (other than the independent auditor that audits the recipient's financial statements, as described in the following paragraph) to conduct an award-specific audit on behalf of the Government.

"However, there should not be a requirement for the IG, DoD, to be consulted in each individual case if DoD policy or the award terms require the recipient to have a "single audit" performed by the independent auditor that audits the recipient's financial statements. A "single audit" would be an expansion upon the audit of the financial statements, to include a review of the internal control structure to provide assurances that the recipient is managing Federal awards in compliance with Federal laws and regulations, and with the terms and conditions of the awards. The assurances provided by "single audits" can obviate or greatly reduce the need for final cost audits of individual awards."

We will work with the OIG to design a process for any coordination with the IG, DoD, that does not delay negotiation of agreements.

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Recommendation A.3. We recommend that the Director, Defense Research and Engineering (DDR&E) include in DoD directives, instructions, or regulations "other transaction" agreement guidance that identifies the roles and responsibilities that the Defense Contract Audit Agency has for "other transactions" and the services it can provide to agreement officers. The guidance should be developed in coordination with the Agency and state that agreement officers should

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use the Agency to verify terms and conditions of "other transaction" agreements where the Agency has audit cognizance.

Response: The DDR&E partially concurs. The DDR&E concurs with including language in the TIA guidance to address the roles of the Defense Contract Audit Agency. We intend to develop that language in coordination with the DCAA and issue it by a DoD instruction four months after the publication of the final OIG report.

The DDR&E does not concur with issuing guidance that explicitly states that the DCAA will be used to verify recipients' compliance with terms and conditions in every case in which the DCAA currently has an audit presence at the recipient. Rather, the policy should parallel the one for other assistance awards to for-profit organizations that was issued in 1998 in Part 34 of DoD 3210.6-R, "The DoD Grant and Agreement Regulations." The policy in Part 34, "Administrative Requirements for Grants and Agreements with For-Profit Organizations," is that any for-profit recipient that expends \$300,000 or more per year in Federal awards shall have an audit made for that year. The recipient may elect to engage independent, non-Federal auditors to meet the requirement, may use audits performed by the DCAA or other Federal auditors, or may rely on a combination of non-Federal and Federal auditors in a coordinated audit approach. This policy does not require each recipient that has a DCAA audit presence to meet the requirement through DCAA audits, and the policy was adopted with the concurrence of the IG, DoD. The policy for TIAs should not be more restrictive than the policy in Part 34, and we are not aware of problems that have arisen to justify a policy change in Part 34. Therefore, we intend to work with the OIG and the DCAA to develop a reasonable approach to verification of recipients' compliance with award terms and conditions, and to issue guidance incorporating that policy by a DoD Instruction four months after reaching closure with the OIG on the substance of the policy, if the guidance can be issued appropriately without opportunity for public comment.

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SECTION B., "EFFECT OF INDEPENDENT RESEARCH AND DEVELOPMENT COSTS ON CONTRACTOR COST SHARE" (pp. 17-22)

Recommendation B.1. We recommend that the Director, Defense Research and Engineering provide training to "other transaction" agreement officers on how to determine the effects of current independent research and development reimbursement on contractor cost share and provide information to agreement officers on the research tax credit.

Response: The DDR&E does not concur with this two-part recommendation.

With respect to the first part of the recommendation, we do not believe that the Government's determination of the value of a firm's cost sharing contribution should be affected by the amount of independent research and development (IR&D) that is included in the contribution. The Congress has recognized (page 568 of House of Representatives report 102-311, the conference report accompanying the National Defense Authorization Act for Fiscal Years 1992 and 1993) that IR&D costs incurred by a firm through

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participation in consortia or cooperative agreements should be fully reimbursable to the extent that the costs are reasonable, allocable, and otherwise allowable. This statement viewed from the perspective of the consortia or cooperative agreements, rather than from the perspective of procurement contracts to which the IR&D later is charged, essentially is that Federally reimbursed IR&D may be used as recipients' cost share. That's consistent with an earlier policy set by the Congress, in 10 U.S.C. 2320, that amounts spent for IR&D are to be considered as private funds of the recipient, rather than Federal funds, for purposes of determining technical data rights.

Firms invest their internal funds in R&D for future products and processes. Firms that do business in the commercial marketplace recover their R&D investment costs through the prices they charge their customers for goods and services. Firms that do business with the Government under cost-type awards recover the costs in part through indirect costs charged to those awards. In both cases, R&D costs are legitimate and necessary costs of doing business for firms in technology-dependent sectors and the firms pass those costs along to their customers. The customers' reimbursements of a firm's investment of its own funds in R&D should not be a factor in evaluating the firm's cost sharing commitments; whether or not the Government is one of the customers that provided the reimbursements, the funds still should be viewed as the firm's internal funds and not Federal funds or other customers' funds.

With respect to the second part of the recommendation concerning R&D tax credits, we believe that this credit is a matter of national policy. The intent of the credit is to encourage private firms' investment in R&D. Therefore, it would be undercutting national policy if an agreements officer required a firm to invest additional cost sharing to offset the effect of the tax credit. Doing so would be somewhat analogous to reducing a Federal employee's salary if he or she borrowed money to buy a home and received a tax deduction for the mortgage interest; the salary reduction would undercut the national policy basis for the mortgage interest deduction.

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Recommendation B.2. We recommend that the Director, Defense Research and Engineering (DDR&E) require that the annual report to Congress on research "other transaction" agreements identify the estimated effects of current independent research and development reimbursement on contractor cost share.

Response: The DDR&E does not concur with this recommendation. The rationale, which is the same as that given in recommendation B.1., is that IR&D reimbursement does not affect a recipient's cost share.

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SECTION C., "CONTRACTOR TREATMENT OF 'OTHER TRANSACTION' AGREEMENTS" (pp. 23-26)

Recommendation C.1. We recommend that the Director, Defense Research and Engineering establish policy in DoD directives, instructions, or regulations for "other transaction" agreements that requires agreement officers to alert the Defense Contract Audit Agency of a potential Cost Accounting Standard 402 noncompliance on other Government contracts resulting from the contractor's inconsistent accounting treatment of cost shares associated with an "other transaction" agreement.

Response: The DDR&E concurs with amending the guidance to require agreements officers notify the DCAA if they become aware of a potential noncompliance with the Cost Accounting Standard 402. The DDR&E intends to issue guidance to that effect by a DoD Instruction four months after the issuance of the final OIG report.

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Recommendation C.2. We recommend that the Director, Defense Research and Engineering establish policy in DoD directives, instructions, or regulations for "other transaction" agreements that require contractors to use overhead rates, if available, that do not exceed the provisionally approved DoD overhead rates to determine "other transaction" costs.

Response: The DDR&E concurs in part with this recommendation. For any agreement that is structured to provide for Government payments to a firm or consortium based on incurred costs, it is appropriate to issue guidance that requires the firm or any for-profit consortium member with provisional Government billing rates to use those rates or lower rates for accumulating and reporting costs and for requesting payments. For agreements with milestone payment provisions, the Government would make payments of agreed-upon amounts when the milestones are completed. The DDR&E intends to issue guidance on this issue by a DoD Instruction four months after issuance of the final OIG report, if the guidance appropriately can be issued without an opportunity for public comment.

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Defense Procurement Comments



OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

October 26, 1999

DP/DSFS

MEMORANDUM FOR ASSISTANT INSPECTOR GENERAL (AUDITING)

SUBJECT: Draft Audit Report on Costs Charged to "Other Transaction" Agreements (Project No. 7AB-0051.01)

I appreciate the opportunity to comment on the subject draft DoD IG audit report. My response addresses the findings and recommendations regarding "other transactions" for prototype projects. The Director, Defense Research & Engineering is responding separately for "other transactions" used for research. "Other transaction" authority is a valuable tool that permits the Department to create business arrangements necessary to attract traditionally non-defense commercial companies and to develop beneficial and innovative strategies when contracting with companies who normally do business with the government.

The IG report reviewed the financial and cost aspects of two early DARPA prototype "other transactions" totaling \$466M, out of a FY94-98 universe of 95 "other transactions" totaling \$1.1B. I am pleased that there were no reported deficiencies impacting final costs paid by the government for prototype "other transactions". While several of the IG recommendations are based upon circumstances not found on the "other transactions" for prototype projects reviewed, some of these recommendations will add value to our current framework for implementing prototype "other transactions", and I have agreed to incorporate them in any guidance we may issue.

There are two issues in the IG report that are of particular concern.

Congressional Reports - IR&D and Research Tax Credit. The IG believes that agreements officers should reduce offeror proposals to reflect potential IR&D costs to be reimbursed under government contracts, and research tax credits that will result in reduced income to the U.S. Treasury. Based on this belief, the IG states that DoD reports to Congress have not fully disclosed the cost of the agreements. I strongly disagree. The reports to Congress were based on the negotiated amounts included in the agreements.



I do not agree that the recipient cost share should be reduced if some portion is reimbursed by the government as IR&D costs. We have always treated IR&D costs as private contractor expenditures when determining technical data rights, and it would be inconsistent to treat them as federal funds for determining cost share for "other transactions". We believe the Congressional intent on this matter is clear.

I also do not agree that the recipient cost share should be reduced if the recipient is entitled to a research tax credit. We have never considered the implications of federal taxes in pricing our contracts, in part because we do not want to interfere with the tax incentives that have been granted by the Congress without regard to whether a company does business with the government. It would be virtually impossible to predict the amount of any tax credit a company might be entitled to receive, and there would be no benefit to the government from doing so.

It is inappropriate to portray this disagreement on the treatment of complex overhead and tax issues as a failure to disclose the cost of the agreements. The report needs to be changed to remove this inaccurate portrayal.

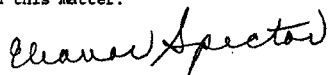
"New Contractors". The IG report asserts that 2.5% of DoD cost on prototype "other transactions" went to "new contractors". I believe the appropriate measure of "new contractor" participation is by agreement rather than by company. Using this as the basis after updating the OIG database for other known participants, we found that approximately 36% of the agreements attracted at least one "new contractor". The DoD cost on these agreements is approximately 24% of total DoD prototype cost.

In addition, I believe modification to the percentage of new participants is required because I understand that companies that formed new business units and those that do a very small percentage of Defense work were categorized as traditional contractors. Further, categorization based on location may not be a valid measure of "new contractors" because a location may be comprised of multiple segments (commercial and government).

Our percentages appropriately exclude the two FY99 EELV awards. These awards are the only FY99 awards included in the IG numbers. Inclusion of these two high value awards to traditional DoD contractors in a database of FY90-98 information, significantly distorts the data. I urge you to expand the Table 2 analysis to include the Department's measures

of "new contractor" participation by agreement and to use the FY90-FY98 information as the baseline throughout this report, with supplemental information provided on EELV.

Attached are concerns I have with the accuracy of a number of statements made in the report. I appreciate having the opportunity to comment on the draft report and look forward to continuing to work with you on this matter.



Eleanor R. Spector
Director, Defense Procurement

Attachments:

1. Comments on Recommendations
2. Comments on Findings

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Recommendation A.1: DDP include in DoD directives, instructions, or regulations "other transaction" agreement guidance that precludes using Government-funded research and overvalued assets and provides a reasonable use charge for fully depreciated assets as contractor cost share.

DDP Response: Concur. USD(AT&L) is considering issuing a Directive that would mandate the use of the "Other Transactions" Guide for Prototype Projects. I plan to include in the guide a restriction on research and development funded as a direct cost under a government contract, grant, or other agreement from being used as a contractor cost share unless specifically authorized. The guide will also provide the key factors to consider in determining the amount, if any, of a usage charge for fully depreciated assets used as a contractor cost share.

Recommendation A.2: DDP include in DoD directives, instructions, or regulations "other transaction" agreement guidance that identifies how to design an appropriate access-to-records clause to verify the terms and conditions of the agreement. Guidance should include consideration of risks, materiality, funding involved, contractor past performance, adequacy of contractor business systems, and methodology of payment (cost based or performance based), and the need to verify Government and contractor cost share contributions. The guidance should reference and describe the application of DoD Directive 7600.2, "Audit Policies", and DoD Directive 7600.10, "Audits of State and Local Governments, Institutions of Higher Education, and Other Nonprofit Institutions".

DDP Response: Partially Concur. The "other transaction" guide will include the various factors to be considered in developing clauses that permit access to the records that are necessary to verify compliance with the requirements of agreements that provide for interim or final reimbursement based on actual costs incurred. DDP will work with the IG to establish appropriate policy regarding the applicability of DoD Directives 7600.2 and 7600.10. There must be some flexibility incorporated into the application of DoD Directive 7600.2 to "other transactions" that permits the use of independent auditors when government auditors do not have audit cognizance. DDP will work with the IG to establish guidelines for determining when independent auditors

Attachment 1

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may be used and will provide the IG with an annual listing of any independent auditors used.

Recommendation A.3: DDP include in DoD directives, instructions, or regulations "other transaction" agreement guidance that identifies the role and responsibilities that the Defense Contract Audit Agency has for "other transactions" and the services it can provide to agreement officers. The guidance should be developed in coordination with the Agency and state that agreement officers should use the Agency to verify the terms and conditions of "other transaction" agreement where the Agency has audit cognizance.

DDP Response: Concur. The audit guidance I will issue for coordination for inclusion in the "other transaction" guide will require agreement officers to use DCAA when a company business segment has DCAA audit cognizance and the agreement provides for interim or final reimbursement based on actual costs incurred. Use of auditors other than DCAA in such situations would require approval by the IG. For those company business segments that do not have DCAA audit cognizance, DDP would provide the IG with an annual listing of any independent auditors used.

Recommendation B.1: DDP provide training to "other transaction" agreement officers on how to determine effects of current independent research and development reimbursement on contractor cost share and provide information to agreement officers on the research tax credit.

DDP Response: Nonconcur. Adjusting recipient cost shares for IR&D costs treats such costs as government funds. This ignores the Congressional mandate that IR&D costs be treated as private funds. In addressing the issue of technical data rights, Congress specified in 10 U.S.C. 2320(a)(3) that IR&D funds shall not be considered to be federal funds. It would be inconsistent for the Department to treat IR&D funds as private funds for purposes of determining technical data rights, and as federal funds for purposes of determining cost shares for "other transactions".

In addition, in discussing the use of research "other transactions", the Senate Committee on Armed Services in report

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104-267 stated that it intended that the sunk cost of prior research efforts not count as recipient cost share, and that only "the additional resources provided by the private sector needed to carry out the specific project should be counted." Clearly, Congress recognized that because current IR&D costs are private funds, they may be used as a recipient's cost share.

The IG expresses concern that government contractors have an unfair advantage because they may charge their government contracts for part of the cost of the "other transaction". Commercial companies may also charge their other contracts for the cost of independent research and development effort.

Congress also provided an incentive for research through the research tax credit. Adjusting cost shares for recipients that are eligible to take the credit would inappropriately penalize recipients. This recommendation is also inconsistent with how DoD treats federal income taxes for contracts. DoD does not include federal income taxes in determining reimbursement or computing refunds due under cost-based contracts. Furthermore, it is not practical, and in most cases not possible, to determine if the company qualifies for the research tax credit or how much the credit will be.

Recommendation B.2: DDP require that the annual report to Congress on research and prototype "other transaction" agreements identify the estimated effects of independent research and development reimbursements on contractor cost share.

DDP Response: Nonconcur. For the same reasons stated in our response to Recommendation B.1, inclusion of IR&D costs in the report to Congress is inappropriate because it would result in treating the costs as federal funds rather than private funds.

Recommendation C.1: DDP establish policy in DoD directives, instructions, or regulations for "other transaction" agreements that requires agreement officers to alert the Defense Contract Audit Agency of a potential Cost Accounting Standard 402 noncompliance on other Government contracts resulting from the contractor's inconsistent accounting treatment of cost shares associated with an "other transaction" agreement.

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DDP Response: Concur. There will be a requirement that agreement officers notify DCAA if they become aware of a potential noncompliance with CAS 402.

Recommendation C.2: DDP establish policy in DoD directives, instructions, or regulations for "other transaction" agreements that require contractors to use DoD provisionally approved overhead rates, if available, to determine the "other transaction" cost.

DDP Response: Concur. The "other transaction" guide is planned to include a requirement that, for "other transactions" that provide for interim reimbursement based on actual costs incurred, the interim reimbursement rates will be no higher than provisionally approved indirect rates, when such rates are available.

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Revised

1. Page 1, 2nd paragraph, 2nd sentence - This sentence erroneously implies "other transactions" were authorized solely to reduce barriers to commercial companies. Recommend change as follows: "Other transaction" agreements were authorized to reduce barriers to commercial firms in DoD research, to hereby broadening the technology and industrial base available to DoD, and to fostering new relationships and practices within the technology and industrial base that supports national security.

Revised

2. Page 1, 2nd paragraph, last sentence does not recognize the complete scope of the "other transaction" authority - Technical correction recommended as follows: "Other transaction" agreements are generally not subject to statutes or regulations limited in applicability to associated with contracts, grants or cooperative agreements.

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3. Page 1 - The 4th paragraph states that from October 1, 1989 to October 16, 1998, the DoD issued 302 "other transaction" agreements of about \$7 billion. This dollar amount represents FY90-FY98 awards and the two FY99 EELV awards for \$3B. The EELV awards are the only FY99 awards included in the IG numbers. Inclusion of these two high value awards in an aggregate reporting of what is otherwise FY90-98 information, significantly distorts the data. The Department urges the IG to use the FY90-FY98 information as the baseline through out this report, with supplemental information provided on EELV. This is consistent with the approach used by the USD(A&T) in its February 1999 Report to Congress.

Revised

4. Page 1, 1st paragraph, 3rd sentence - Same comment as #1 above. Revise "foster new relationships and practices with commercial technology and industrial firms" to "foster new relationships and practices within the technology and industrial base" consistent with 10 USC 2371(h)(2)(C)(ii).

Revised

5. Page 2, last paragraph, states that "the 1989 statute authorizing 'other transactions' requires the Secretary of Defense to issue regulations." and that "guidance in the memorandums on research and prototype projects is nonmandatory". The statute did not require regulations until the Federal Acquisition Streamlining Act of 1994. Prototype authority was authorized for DARPA in the National Defense Authorization Act

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for Fiscal Year 1994. It was not extended to the military departments until the National Defense Authorization Act for Fiscal Year 1997 and has not been enacted as permanent authority. Consistent with the temporary nature of the authority, the USD(A&T) issued policy guidance on December 14, 1996 and DDP has issued two follow-on memoranda. There is no evidence that the USD(A&T) or DDP policy memoranda are being treated as non-mandatory guidance.

6. Page 3, Table 1, includes the \$3B FY99 ERLV awards in the FY 1998 \$45 totals - Consistent with rationale discussed in comment #3, the table should not include the ERLV awards in the FY 1998 totals.

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7. Page 3, last paragraph, last sentence begins with a discussion of how DoD cost share was prorated among contractors, but inappropriately concludes by referencing whether contractors were providing funds. The appropriate conclusion should be that the agreements did not always identify the DoD cost share provided to each participating contractor.

Revised

8. Page 4, Table 2, identifies a DoD cost-share to new contractors as 2.5% based on a prorated distribution of government dollars (including ERLV) to all DoDIG identified prototype contractors. See comments in the DDP cover memorandum and in Comment #3 above. The IG figures derive from a database that does not include all "new contractors" participating in prototype "other transactions" and should be updated. Table 2 should be revised also to include an analysis of the number and value of agreements that involved "new contractors" based on updated information provided to the IG regarding participants not currently included in the database.

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9. Page 5, Table 3b, identifies the number of new and traditional contractors. Not all "new contractors" participating in the prototype "other transactions" are included in the IG database that was used as the source for Table 3b. Our review identified an additional 41 (5 duplicate entities) "new contractors" participating in prototype "other transactions".

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10. Page 5, last paragraph, recognizes that OSD officials believe "new contractor" participation is appropriately measured by the number of agreements that have "new contractor" participation. This alternative measure should be as prominently displayed as are the tables that reflect the IG philosophy. The number of prototype agreements involving "new contractors" increases to 34 (or 36%) vice 16 (or 17%) when the additional "new contractors" identified by the military departments and defense agencies are included for prototype projects.

11. Page 13, 1st and 2nd paragraphs, state that "The variety of audit provisions did not comply with DoD audit policy..." and "DoD Directive 7600.2, 'Audit Policies'... states that DoD components will not contract for audit services unless the audit expertise is not available in DoD audit organizations." Because "other transactions" were not contemplated at the time of issuance of this directive, it is ambiguous whether agreement types other than contracts were covered, especially since solicitations were not issued specifically for audit services. Identifying this as a failure to comply appears to be unwarranted. We agree to work with the IG and incorporate appropriate audit guidance in the "other transactions" guide for prototype projects.

12. Page 14, 1st paragraph, states that "Guidance for prototype 'other transactions' mentions DCAA.". This paragraph should be revised to include the words on page 11 of the draft DoDIG report on the EELV Program (Project No. 9AD-0085 dated October 15, 1999) regarding DCAA. That quote is: "Director, Defense Procurement, stated in the 'Guide...' that DCAA could provide financial services during the review of the 'other transaction' proposal, during the 'other transaction' period of performance, and on completion of the 'other transaction' agreement. In addition, the guide stated that DCAA could also provide information on the status of the contractors' accounting system or help the agreement's officer determine a fair and reasonable price." The existing guide also states that DCAA is available to provide financial advisory services to the agreements officer to help determine price fairness and reasonableness.

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13. Page 14, 1st paragraph, states that "since 'other transactions' are somewhat like the buying of commercial spare parts in that standard procurement policies and practices do not apply...". This is incorrect. Recommend deletion of the discussion of commercial items from this paragraph. Commercial items are procured by the use of FAR Part 12, a subset of "standard" contracts. "Other transactions" do not use standard procurement policies because they are a different type of agreement, not because they are a unique subset of contracts.

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14. Page 14, 1st paragraph, last sentence, refers back to the Table 2 calculations of DoD cost share funding provided to traditional contractors - See above comments above regarding the apparent understatement of "new contractor" participation in "other transactions".

Page 55

15. Page 15, last paragraph, states "We did not identify anyone using these non-mandatory procedures." The IG audit involved awards made by DARPA in 1994 and 1995. The Deskbook Guide on "Other Transactions" for prototype projects was published in December 1998. It is not evident that the IG reviewed solicitations issued after this date to support the above statement. The military departments and defense agencies indicate that the guide is being used when an "other transaction" is being considered for a prototype project.

Sentence
Deleted

16. Page 15, last paragraph states that "DCAA was not involved in drafting the procedures...". DCAA's written comments of October 9, 1998 were discussed with the DCAA and agreed upon changes were incorporated into the prototype guide.

Sentence
Deleted

17. Page 17, 1st & 2nd paragraphs. The report states that the "Use of IR&D helps reduce the cost and risk associated with the contractors cost share..." and that "DoD officials were not always aware of the actual cost to the Federal Government for "other transaction" agreements...because portions of cost contributions subsequently allocated to Federal contracts was not visible to agreement officers...". These findings are incorrect because they are based on the invalid assumption that a company's IR&D costs are federal rather than private funds. Congress specified in 10 USC 2320(a)(3) that IR&D funds shall not be considered to be federal funds for purposes of determining technical data rights.

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Additionally, the Senate Armed Services Committee (Sen. Rep. 104-267) indicated it intended that the sunk cost of prior research efforts not count as recipient cost share. We can only conclude that future research (including IR&D) is acceptable as recipient cost share. A company invests its own funds in R&D in order to stay competitive. IR&D costs are legitimate and necessary costs of doing business for firms in technology-dependent sectors, and those firms pass those costs along to both their government and commercial customers.

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18. Page 17, 1st paragraph, states "...reports to congressional and DoD officials did not fully disclose the actual cost to the Federal Government for 'other transaction' agreements" and page 21, 2nd paragraph, states "DoD should show the effects of contractor IR&D reimbursement in its reports to Congress because the reports do not clearly disclose the full cost of 'other transactions' to the Government". Disagree for the same reasons discussed in the cover memorandum and above.

Revised
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19. Page 18, 1st paragraph, references the FY 1977 National Defense Authorization Act. The appropriate reference appears to be the FY 1997 National Defense Authorization Act.

Page 22

20. Page 20, 1st full paragraph, "If the negotiator were knowledgeable of the effects of IR&D reimbursement, the negotiator might be able to better negotiate and increase the contractor's actual cost contribution." For the reasons already discussed, we disagree with the contention that a company's cost share from IR&D should be adjusted based on the extent it is reimbursed by the government.

Page 24

21. Page 20, 2nd paragraph states that "If the agreement negotiator understands the effect of IR&D on contractor proposals, the negotiator can better understand that a new contractor may be at a cost disadvantage in competing with a traditional DoD contractor." Disagree as discussed in our response to Recommendation B.1.

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22. Page 21, 4th paragraph states that "On February 26, 1999, a report to Congress showed a DoD cost share of \$2.3 billion and an estimated contractors' cost share of \$2.2 billion." It later recognizes that without ER&V "the DoD and contractor cost share

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reported for prototype agreements was \$1,337 million and \$250 million, respectively." We again recommend that the baseline discussion be of the FY94-98 awards and that the EELV be discussed separately. This is how it was reported in the February 26, 1999 Report's Executive Summary.

23. Page 21-22, last and first paragraph, respectively, states that "Our analysis of the prototype 'other transaction' ... showed that the five largest DoD contractors received 73 percent of the \$2.3 billion DoD funds" and that when EELV is excluded "the five largest traditional contractors... received 53 percent of the DoD funds...". "The large DoD contractors had IR&D accounts and high IR&D reimbursement rates." The DoD IG analysis did not go below the prime "contractor" level and thus overstates the extent of DoD dollars that ultimately end up with traditional contractors. The relevant factor in an analysis regarding IR&D accounts is not the recipients of DoD cost-share dollars, but should be of the recipients who provided cost-share that was credited to an IR&D account. During FY94-FY98 prototype recipient's cost-share amounted to approximately \$250 million. Information is not readily available on the extent the recipients' investment was funded by IR&D. For the EELV awards we know that the majority of the companies' cost share is not coming from IR&D funds. I recommend that this misleading analysis be removed from the audit report.

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24. Page 22, 2nd paragraph states that "...increases in contractors' indirect costs could result from increased use of 'other transaction' agreements to attract more contractor IR&D". This statement incorrectly assumes that a company does not budget for IR&D funds. However, a company's IR&D funds are limited and allocated to projects having the highest priority. Thus, "other transactions" compete against other potential projects for company IR&D funds. It is incorrect to assume that the IR&D budget will be increased when an "other transaction" is awarded.

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25. Page 24, last paragraph states that "...10 of those contractors did not treat the DoD and contractor cost share as an IR&D project in the contractors accounting systems and therefore did not follow the guidance in the DDP memorandum". The DDP guidance is misrepresented in this paragraph. The DDP

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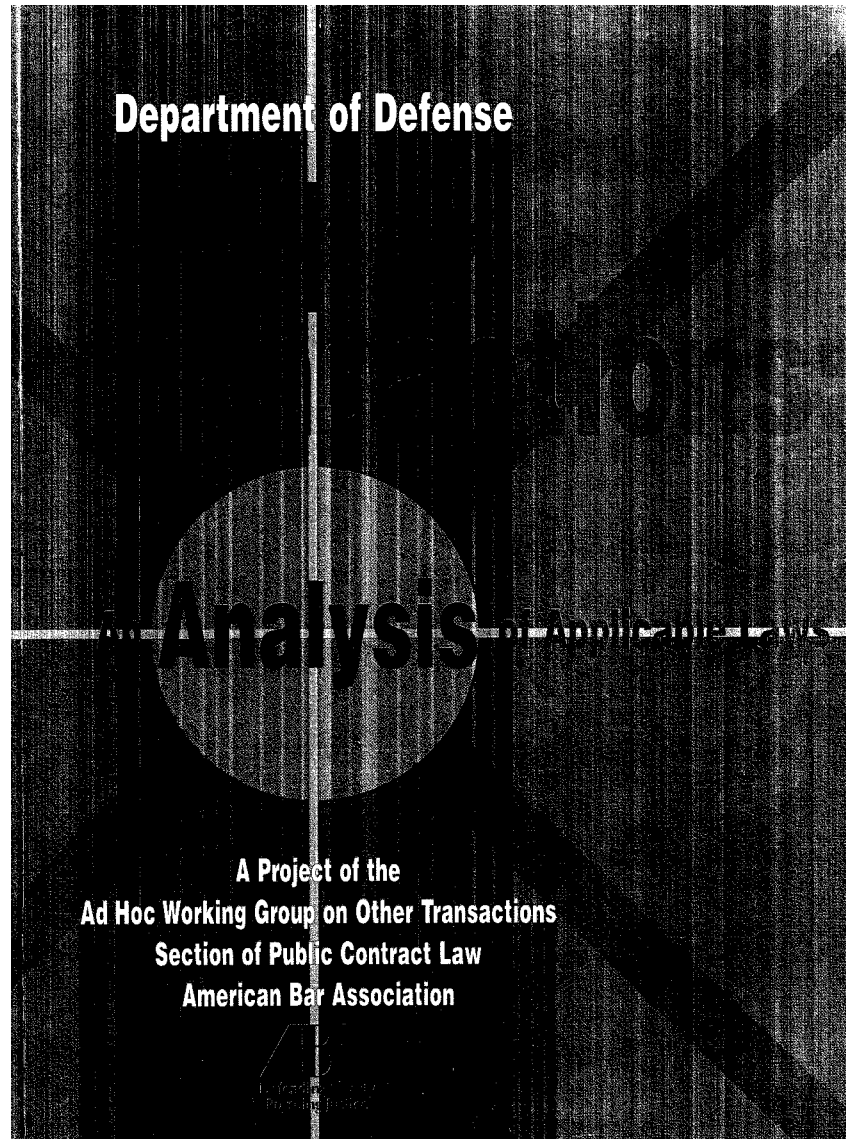
guidance did not require participants cost share to be charged to IR&D for Technology Reinvestment Projects program. It permitted cost-share to be charged to IR&D if otherwise authorized by FAR 31.205-18(e) and provided notice that, in order to avoid a potential CAS 402 violation when cost-share is charged to IR&D, all costs included pursuant to these agreements should be accounted for as IR&D, with the funds provided by the government treated as a credit to the IR&D project.

26. Page 25, Benefits of "Other Transaction" Agreements. The IG used this audit to accomplish a limited survey of seven contractor business managers and contracting officials involved in two prototype "other transactions" to assess the benefits of "other transaction" agreements. Even though all seven prototype respondents identified benefits, such a small sample size can not reasonably be considered a representative analysis of the benefits associated with the use of "other transaction" authority. I recommend the IG consider deleting this discussion from the final report, or at least recognize other efforts undertaken to access the benefits of the "other transaction" authority. Namely, the Department's annual reports to Congress, USD(A&T)'s February 1999 report to Congress, RAND's studies of the Global Hawk and Arsenal Ship, IDA's November 1999 study of research agreements, and the Potomac Institute for Policy Studies January 1999 review of the Technology Reinvestment Program.

Audit Team Members

The Acquisition Management Directorate, Office of the Assistant Inspector General for Auditing, DoD, prepared this report.

Thomas F. Gimble
Raymond A. Spencer
Roger H. Florence
Vonna D. Holbrook
Krista S. Gordon



Department of Defense
“Other Transactions”:
An Analysis of Applicable Laws

A Project of the
***Ad Hoc* Working Group on Other Transactions**
Section of Public Contract Law
American Bar Association

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Co-Chairs, Ad Hoc Working Group on Other Transactions:

Ruth C. Burg, *Administrative Judge, Armed Services Board of Contract Appeals (Retired)*

Scott E. Pickens, *Miller & Chevalier, Chartered*

Participants and Contributors:

William J. Bierbower, *William J. Bierbower, P.C.*

George M. Coburn, *Coburn Legal Consulting*

C. Stanley Dees, *McKenna & Cuneo, L.L.P.*

Agnes P. Dover, *Hogan & Hartson, L.L.P.*

Donald Featherstun, *Seyfarth, Shaw, Fairweather & Geraldson*

Robert J. Gomez, *Administrative Judge, Armed Services Board of Contract Appeals (Retired)*

Harvey J. Gordon, *Lockheed Martin Corporation*

Richard N. Kuyath, *3M Company*

Alan E. Land, *Lockheed Martin Skunk Works*

Herman D. Levy, *Legal Editor*

Holly Emrick Svetz, *Piper Marbury Rudnick & Wolfe LLP*

Dennis H. Trosch, *Consultant*

Carl L. Vacketta, *Piper Marbury Rudnick & Wolfe LLP*

Benjamin D. M. Wood, *United States International Trade Commission*

William T. Woods, *United States General Accounting Office*

Donna Lee Yesner, *Pepper Hamilton LLP*

Dated January 5, 2000

The views expressed in the following monograph are solely those of the authors and do not reflect the views or positions of the organizations with which the authors are affiliated, the American Bar Association, or the ABA Section of Public Contract Law. The monograph is intended to be a reference work and does not constitute legal advice.

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2. 41 U.S.C. §§ 601 <i>et seq.</i> , the Contract Disputes Act of 1978, Pub. L. No. 95-563, 92 Stat. 2383 (1978), as amended (Kaminski Memorandum, Item 2.)	A-2
3. 31 U.S.C. §§ 3551 <i>et seq.</i> , Procurement Protest System, Subtitle D of the Competition in Contracting Act, Division B, Title VII, Subtitle D of Pub. L. No. 98-369, 98 Stat. 494 (1984) (Kaminski Memorandum, Item 3.).....	A-3
4. 50 U.S.C. §§ 1431-1435, Extraordinary Contractual Authority and Relief Act, Pub. L. No. 85-804, 72 Stat. 972 (1958) (Kaminski Memorandum, Item 4.)	A-5
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**DEPARTMENT OF DEFENSE “OTHER TRANSACTIONS”:
AN ANALYSIS OF APPLICABLE LAWS**

INTRODUCTION

The American Bar Association’s Section of Public Contract Law formed an *ad hoc* Working Group to review the applicability of certain procurement-related statutes to the use of “Other Transactions” (“OTs”) for research and development (R&D) and for the development of weapons and weapon systems. This paper presents the Working Group’s analysis and conclusions resulting from that review.

Within the last several years Congress has bestowed upon various Department of Defense (DoD) organizations the authority to enter into “transactions . . . *other than* contracts, cooperative agreements and grants” to fund research and development (R&D) and to develop or “prototype” new weapon systems. 10 U.S.C. § 2371, and note (emphasis added). The term “Other Transaction” (or “OT”) is derived from this statutory language. DoD has viewed the use of its OT authority to be virtually exempt from the statutes and regulations that normally govern DoD’s R&D and prototyping efforts. For example, in December 1996 then Under Secretary for Acquisition and Technology Paul G. Kaminski identified 21 procurement-related statutes that “are not necessarily applicable to ‘other transactions.’” Memorandum from Under Secretary of Defense for Acquisition and Technology Paul G. Kaminski to Secretaries of the Military Departments and Directors of Defense Agencies, Dec. 14, 1996 [hereinafter, “Kaminski Memorandum”; Attachment 1]. Such statutory exemption has profound implications. For example, the Working Group recognizes the significant benefits that the use of OT authority may bring to the funding of research and development (R&D) by the Government, especially the development of dual-use R&D technology from commercial companies and other entities

unwilling to agree to statutorily mandated intellectual property provisions and cost accounting procedures. In addition, the Government may benefit from the leveraging of private-sector R&D investment. But to the extent that certain statutes and regulations do not apply to OTs, the parties may encounter increased risks and uncertainties in areas such as funding limitations and dispute resolution. Inapplicability of some provisions also may raise significant questions of accountability for the public fisc and other matters of public policy.

Thus, the touted benefits and potential pitfalls of OTs follow from the statutory exemption that OTs enjoy. And yet the extent to which OTs are exempt from procurement-related statutes is less than clear. Confusion over OTs' statutory exemption can be costly either in litigation or in the misuse of OTs. The objective of this monograph, then, is to consider the extent to which OTs are exempt from the panoply of statutes normally governing DoD's R&D and weapon system development efforts. Specifically, this monograph considers as a legal matter whether the 21 statutes identified by Kaminski, plus 11 statutes that the Working Group found to be significant, do in fact apply to OTs. The result is intended to help clear up the confusion surrounding OTs' statutory exemption, and to identify those areas where legislative clarification may be necessary to avoid confusion. The first section discusses the development and implementation of OT authority, including a discussion of recent DoD guidance on the use of OTs. The second section discusses the various approaches the Working Group used to analyze the applicability of procurement-related statutes to OTs, and summarizes the results of the Working Group's analysis. Appendix A contains the specific analyses of the applicability of the statutes to OTs.

BACKGROUND**I. EVOLUTION OF OTHER TRANSACTION AUTHORITY**

The term “Other Transactions” apparently originated in 1958 with the enactment of the National Aeronautics and Space Act of 1958 (“Space Act”), Pub. L. No. 85-569, 72 Stat. 426, 42 U.S.C. §§ 2451 *et seq.* The term was coined by the drafter of this legislation, Paul Dembling, who later served as General Counsel of NASA and then as General Counsel at the General Accounting Office. The relevant section of the Space Act authorized NASA to:

enter into and perform such contracts, leases, cooperative agreements, or other transactions as may be necessary in the conduct of its work and on such terms as it may deem appropriate, with any agency or instrumentality of the United States, or with any State, Territory, or possession or with any political subdivision thereof, or any person, firm, association, corporation, or educational institution.

42 U.S.C. § 2473(c)(5) (emphasis added).

NASA used this authority frequently in the first decade of its existence to conduct cutting edge research and development. Nevertheless, with the enactment of more expansive procurement laws and regulations and with the enactment of the Federal Grant and Cooperative Agreements Act (“Chiles Act”), 31 U.S.C. §§ 6301-6308, NASA used its OT authority more restrictively. Beginning in the 1970’s, NASA used OTs only in situations where a procurement contract, cooperative agreement, or grant could not be used as described in the Chiles Act. As a result, NASA narrowed its use of OT authority to situations involving “unfunded transactions,” *i.e.*, where no Federal funds were provided to non-NASA organizations. Today, NASA uses OT authority for “unfunded” collaborative research projects with industry and academia partners, instead of Cooperative Research and Development Agreements (CRADAs) used by other agencies for similar purposes.

A. Other Transactions (OTs) For Cost-Shared Dual-Use
Research & Development

In 1989, Congress enacted 10 U.S.C. § 2371, which authorized the Defense Advanced Research Projects Agency (DARPA) to enter into OTs on a test basis for research and development related to weapons systems. (The text of the statute is at Attachment 2.) The statute provided that the non-government party to the OT share the cost of the research, with the Government paying no more than 50 percent of the total (to the extent determined practicable). The statute also limited the use of OTs to research projects where the use of a standard contract, grant or cooperative agreement was “not feasible or appropriate.” This legislative language was proposed by the newly installed DARPA General Counsel, Richard Dunn, a former Deputy Associate General Counsel at NASA. DARPA used its OT authority to permit multiparty cost-shared research collaborations in an effort to streamline its R&D efforts and to attract more commercial companies to perform R&D for DARPA.

The reporting requirements in the statute (*see* 10 U.S.C. § 2371(h)(2)) and the legislative history (e.g., 139 Cong. Rec. S11158, S11288 (daily ed., Sept. 9, 1993)) indicate that the goals for the use of these cost-shared OTs were to: (a) contribute to a broadening of the technology and industrial base available for meeting Department of Defense needs, (b) foster within the technology and industrial base new relationships and practices that support the national security of the United States, and (c) encourage commercial firms to join with the Government in the advancement of dual-use technologies. Specifically, the legislation was aimed at permitting DoD to draw upon the research investments of commercial entities and non-profit research organizations that would not or could not comply with (a) the traditional procurement rules set forth in the Armed Services Procurement Act of 1947 and the Federal Acquisition Regulation

(FAR), or (b) the laws, regulations and OMB Circulars applicable to grants and cooperative agreements. OTs were intended to be unimpaired by rigid procurement laws and regulations and permitted more flexible intellectual property clauses than those required by the Bayh-Dole Act for procurement contracts, grants, and cooperative agreements.

B. Extension Of OT Authority To Military
Weapon System Prototypes

In 1991, the legislation was amended to expand the authority to enter into OTs to all of DoD and to make such authority permanent. Initially, this authority was limited to research projects that either related to weapons systems or were of potential interest to DoD. In 1994, Congress passed section 845 of the Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, 107 Stat. 1547 (1993), which expanded section 2371 authority by authorizing DARPA to use OTs to carry out prototype projects directly relevant to weapons or weapon systems proposed to be acquired or developed by DoD. For these projects, section 845 made inapplicable the provision that the Government fund no more than half the costs, and eliminated the requirement limiting use of OTs to situations where a standard contract, grant, or cooperative agreement was not feasible or appropriate. Section 845 required that DARPA use competitive procedures to the maximum extent practicable before awarding an OT for a weapon system prototype.

Section 804 of the Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, 110 Stat. 2422, 2605 (1996), extended the authority under section 845 through September 1999, and also extended to the Military Departments (and other DoD elements to be designated by the Secretary) the authority to use OTs to carry out prototype projects relevant to weapons or weapon systems. The limited legislative history in the conference report accompanying section 804

noted that the authority to use OTs for prototypes was being reauthorized “to allow additional flexibility in the acquisition of prototype technologies and systems.” H.R. Conf. Rep. No. 104-724, at 768 (1996).

Section 241 of the National Defense Authorization Act for Fiscal Year 1999, Pub. L. No. 105-261, 112 Stat. 1920, 1954 (1998), further extended section 845 authority through September 30, 2001. The conference report on the legislation stated that any further extension would be based on a conclusion by the congressional defense committees that the authority had been used in a limited and responsible manner:

[S]ection 845 authority should only be used in the exceptional cases where it can be clearly demonstrated that a normal contract or grant will not allow sufficient access to affordable technologies. The conferees are especially concerned that such authority not be used to circumvent the appropriate management controls in the standard acquisition and budgeting process.

H.R. Conf. Rep. No. 105-736, at 590 (1998) (emphasis added). The conferees directed the Secretary of Defense to report to the congressional defense committees by March 1, 1999 on the use of section 845 OT authority. *Id.*

C. Possible Extension Of Prototype Authority To Production

In testimony before a subcommittee of the House Committee on National Security in February 1997, the deputy director of DARPA suggested that the authority in section 845 might appropriately be expanded as the prototype projects transitioned into the production phase. In March 1997, DoD developed a legislative proposal that would have provided authority to enter into OTs for follow-on production programs on a pilot basis. DoD forwarded this revised legislative proposal to Congress, but it was not part of the final DoD legislation. DoD again forwarded such a proposal to OMB in March 1998, but it was not part of the legislation presented

to Congress. It is expected that in a future legislative proposal DoD again will seek authority for a pilot test of the use of OTs for follow-on production. It is likely that the proposal will be limited to items that were developed through the prototype phase under section 845.¹

II. TWO TYPES OF OTHER TRANSACTIONS

In summary, there are two principal types of OTs authorized by section 2371. These categories of transactions are different in purpose and authorized use and arise under separate statutory authority. The first principal type of OT, created in 1989 to enable DARPA and later DoD to access commercial technology for use in R&D efforts, is termed "OT used for assistance," "§ 2371 OT," or the term we shall use for purposes of this analysis, "S&T [science and technology] OT." S&T OTs may be used when the following conditions are satisfied:

- (1) the private party contributes a cost share of at least 50% (to the extent practicable),² and
- (2) "when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate." 10 U.S.C. § 2371(e)(2).³

They are used primarily to develop "dual-use" technologies that may have potential civilian as well as military applications (thus explaining the cost-sharing requirement). See Defense Advanced Research Projects Agency, *Draft Guidance for the Use of Other Transactions* (Feb. 1995).

¹ The Department of Transportation recently received authority similar to OT authority in the Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 107 (1998). Section 3015 of that law authorizes DOT to enter into grants, contracts, cooperative agreements, and "other agreements" with consortia (which must pay 50 percent of the costs) for innovation in mass transportation. Section 5102 authorizes the Secretary to enter into "other transactions" for research and development relating to surface transportation.

² The requirement that the Government's cost share not exceed 50% may be waived under February 8, 1994, DoD guidance issued by the Deputy Director, Research and Engineering (DDR&E), and March 24, 1998 guidance issued by the acting DDR&E. Such waivers appear to be infrequent.

The second principal type of OT, which was initially authorized by the National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, 107 Stat. 1547, 1721 (1993), section 845, is termed "Prototype OT," "Section 845/804 OT," or the term we shall use for purposes of this analysis "section 845 OT." Section 845 OTs are authorized "to carry out prototype projects that are directly relevant to weapons or weapon systems proposed to be acquired or developed by the Department of Defense." Section 845 OTs need not meet the cost share and appropriateness/ feasibility tests that are required for S&T OTs. National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, § 845(b), 107 Stat. 1547, 1722 (1993), *as amended by* the National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, § 804, 110 Stat. 2422, 2605 (1996) (*see* 10 U.S.C. § 2371 note). A recent Conference Report suggests, however, Congressional concern that section 845 OTs not be used indiscriminately to avoid "appropriate management controls." H.R. Conf. Rep. No. 105-736, at 590 (1998). Competitive procedures are to be used (to the maximum extent practicable) when entering into section 845 OTs.⁴

(continued from previous page)

³ 10 U.S.C. § 2371 refers to "standard" contracts. Although it is not entirely clear, Congress apparently intended that term to mean procurement contracts subject to the uniform procurement system, because that is the term used in 31 U.S.C. § 6303, as distinguished from grants and cooperative agreements.

⁴ Although 10 U.S.C. § 2371 does not require that competitive procedures be used for S&T OTs, nearly all of DARPA's S&T OTs entered into to date have been awarded using competitive procedures. DoD has recently issued guidance on Technology Investment Agreements (TIAs) stating that TIAs, including S&T Other Transactions, "are to be awarded using competitive procedures, to the maximum extent practicable." DDR&E Memorandum, "Subject: Instruments for Stimulation or Support of Research" (Dec. 2, 1997), Attachment: "Guidance on 'Technology Investment Agreements' for Military Departments and Defense Advanced Research Projects Agency," 4; Acting DDR&E Memorandum, "Revision 1 to Guidance on Instruments for Stimulation or Support of Research," 4 (Mar. 24, 1998).

III. IMPLEMENTATION OF OTHER TRANSACTION AUTHORITY

The following is a brief summary, in chronological order, of guidance that DoD and other agencies have issued regarding the use of OTs.

A. DARPA's Draft Guidance

In draft guidance on the use of OTs issued in February 1995, DARPA stated that OTs are not traditional procurement contracts because they are not used to acquire goods or services for the direct benefit of the Federal Government. Defense Advanced Research Projects Agency, *Draft Guidance for the Use of Other Transactions* (Feb. 1995). Therefore, DARPA concluded that it was not required to include FAR or Defense FAR Supplement (DFARS) clauses and was free to negotiate provisions that make sense for a particular project and that were mutually agreeable to the parties. The guidance document also said that S&T OTs should be used when the principal purpose is to stimulate or support research and development and that the transactions should be characterized by a strong mutuality of benefit.

B. General Accounting Office Report

In March 1996, the GAO issued a report to the congressional committees on armed services and national security, indicating that OTs (and cooperative agreements) have provided DoD a way to obtain technological know-how and financial investment from firms that normally would not perform research for DoD. General Accounting Office, *DoD Research: Acquiring Research by Nontraditional Means*, GAO/NSIAD-96-11 (Mar. 29, 1996). The GAO analysis did not specifically address the additional authority to use OTs for prototype projects as set forth in section 845.

C. DoD Integrated Product Team Report

A DoD Integrated Product Team (“IPT”) reported in June 1996 that DARPA had used the section 845 OT authority to enter into a few commercial-type agreements for prototypes of weapon systems. Department of Defense, *Final Report of the Integrated Product Team on the Services’ Use of 10 U.S.C. § 2371 “Other Transactions” and 845 Prototype Authorities* (June 10, 1996). These transactions reportedly employed commercial practices and did not involve traditional Government contracts requirements for audits, socio-economic clauses, or standard termination or disputes clauses. *Id.* at 24. The report indicated that DARPA awarded a total of 40 OTs in fiscal year 1995 with a value of more than \$400 million. *Id.* at 18. Within this total, six projects valued at more than \$130 million were awarded for section 845 OTs in fiscal year 1995. (More recently, projects authorized or contemplated under section 845 include two Unmanned Aerial Vehicle programs, the Arsenal Ship Program, the DD21 Destroyer, and the Affordable Multi-missile Manufacturing Program.) The IPT report encouraged the expanded use of section 845 OT authority as an alternative to the traditional FAR-based system for prototype development by military departments. *Id.* at 29.

Some of the advantages of section 845 OTs covered in the IPT report included (1) significant flexibility in negotiating terms and conditions because of the nonapplicability of procurement statutes, (2) the ability of commercial companies to participate as prime contractors or subcontractors because commercial practices can be utilized, (3) lack of Defense Contract Audit Agency (DCAA) involvement, (4) minimum socio-economic clauses (e.g., no subcontracting plans are required, and the Buy American Act is inapplicable), and (5) better Government and contractor teamwork (Government termination and disputes clauses are replaced by cooperative decisions). *Id.* at 24-25.

D. The Kaminski Memorandum

In December 1996, the Under Secretary of Defense for Acquisition and Technology, Paul G. Kaminski, issued to the Secretaries of the military departments and directors of the defense agencies a guidance memorandum regarding section 845 OTs. The memorandum noted that sections 845 and 804 authorized the use of alternatives to procurement contracts for the covered prototype projects. The memorandum further stated that to the extent a particular statute or regulation is limited to the use of a procurement contract, it would generally not apply to an OT. Attached to the memorandum was a list of twenty-one statutes that the memorandum stated “apply to procurement contracts, but that are not necessarily applicable to ‘other transactions’.” Kaminski Memorandum at 1. The list included, among others, the Competition in Contracting Act, the Contract Disputes Act, Public Law No. 85-804 (extraordinary contractual relief), the prohibition against doing business with those who engage in criminal conduct, the Anti-Kickback Act, the Procurement Integrity Act, the Drug-Free Workplace Act, and the Buy American Act. *Id.* The Kaminski memorandum specifically noted that the list was provided for guidance only and was not intended to be definitive. The memorandum advised:

To the extent that a particular requirement is a funding or program requirement or is not tied to the type of instrument used, it would generally apply to an “other transaction.” Each statute must be looked at to assure that it does or does not apply to a particular funding arrangement using an “other transaction.” Use of § 845 authority does not eliminate the applicability of all laws and regulations. Thus, it is essential that counsel be consulted when an “other transaction” will be used.

Id.

The Kaminski memorandum specifically authorized the secretaries of the military departments and the directors of the defense agencies to issue any further guidance they deemed necessary. *Id.* at 2.

E. 1997 DoD Inspector General Report

In March 1997, the DoD Office of Inspector General (DoD IG) issued a report on DARPA's administration of contracts, grants, and S&T OTs. Department of Defense, Office of Inspector General, *Award and Administration of Contracts, Grants, and Other Transactions Issued By The Defense Advanced Research Projects Agency*, Rep. No. 97-114, (Mar. 28, 1997). The DoD IG was critical of some failures by contracting officers (a) to sufficiently document the justification for using S&T OTs, (b) to document the review of cost proposals, and (c) to monitor actual research costs. *Id.* The report identified four OTs issued pursuant to section 845, but did not address those OTs in any substantial way.

F. 1998 DoD Inspector General Report

In August 1998 the DoD IG reported that administration of OTs was improving and was "generally adequate" for the OTs reviewed. Department of Defense, Office of Inspector General, *Financial and Cost Aspects of Other Transactions*, Rep. No. 98-191, (Aug. 24, 1998) at ii. Nevertheless, the DoD IG recommended that policy guidance be issued to improve research and prototype performance reporting and to establish quantifiable performance measures for OTs. *Id.*

G. Director of Defense Research and Engineering Guidance

DoD has issued guidance on a new type of assistance agreement called a "technology investment agreement" (TIA), combining OTs and Cooperative Agreements. When the agreement, as negotiated, includes a non-standard patent rights clause (i.e., that does not meet Bayh-Dole Act requirements) it is issued under the authority of 10 U.S.C. § 2371. Acting

DDR&E Memorandum, "Revision 1 to Guidance on Instruments for Stimulation or Support of Research," (Mar. 24, 1998).

IV. ISSUES IN USING OTHER TRANSACTIONS

Both S&T and section 845 OTs offer the potential for significant benefits to both the Government and the private sector. For example, using either S&T or sections 845/804 OTs can, in many instances, accomplish the following objectives:

- (1) Obtain dual-use technology in return for shared investment. The Government can leverage private sector technological "know how" and financial investment.
- (2) Tap into the commercial marketplace to obtain affordable high technology. Achievement of this objective can be facilitated by waiving standard clauses concerning audits, socioeconomic plans, and required systems; flexibility on intellectual property rights; and minimizing the flow-down of requirements to lower tiers.
- (3) Compress the time required for all phases of development of a weapon system by moving more quickly from early planning stages through development to production of prototypes.
- (4) Utilize short, flexible statements of work and specifications.

In the case of section 845 OTs, however, there are issues not generally applicable to S&T OTs that should be considered.

- (1) The potential for leveraging private sector resources would be diminished in the development of a weapon system or other military-unique end item.
- (2) Cost sharing, which is not required, is likely to be appropriate only to the extent there is a potential commercial benefit.

(3) The right of either party to terminate the agreement should be assured, particularly if the agreement were to contain a fixed or not-to-exceed price for production quantities (if authorized by future legislation).

(4) Because many of the statutes and regulations that apply to traditional procurement contracts may not apply to a section 845 OT, the parties should ensure that the agreement contains alternative provisions dealing with such matters as funding, data rights, dispute resolution and audits.

V. THE APPLICABILITY OF THE STATUTES IDENTIFIED IN THE KAMINSKI MEMORANDUM

This section analyzes whether OT instruments are indeed exempt from the 21 statutes identified in the Kaminski memorandum and from 11 additional statutes identified by the Working Group. In doing so, the Working Group developed the following analytical framework: First, we considered what specifically section 2371 and section 845 authorized, and determined that these statutes authorize transactions other than *procurement* contracts, cooperative agreements, and grants, as the latter terms are defined in the Chiles Act. Second, we reviewed the statutory language and legislative history of each of the 32 statutes under consideration to determine whether that statute applied only to Chiles Act procurement contracts, grants and/or cooperative agreements, or whether the statute applied more broadly. Third, we concluded (a) that statutes applying only to procurement contracts would not apply to OTs, regardless of the specific terms of the OTs, and (b) that statutes applying more broadly than to procurement contracts would likely apply to OTs, but such application may depend on the terms of the OT.

A. OTs Are Other Than *Procurement* Contracts, Cooperative Agreements, And Grants, As Defined In The Chiles Act

In authorizing the use of OTs, Congress distinguished them from “standard contract(s).” 10 U.S.C. § 2371(e)(2) (1998). While the term “standard contract” is not expressly defined, DARPA, the first DoD agency authorized to use OTs, considers this term to mean “procurement contract” as defined in the Chiles Act. *See* Defense Advanced Research Projects Agency, *Legal Opinion - Use of ‘Other Transactions’* (Mar. 17, 1997). Congress has arguably ratified this interpretation by renewing and expanding DARPA’s OT authority five times (in 1991, 1993, 1994, 1996 and 1998) making only relatively minor changes.⁵ *See, e.g.*, 110 Stat. 2422, 2605 (1996), National Defense Authorization Act for Fiscal Year 1994, Pub. L. No. 103-160, § 845(b), 107 Stat. 1547, 1722 (1993), *as amended by* National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, § 804.

DARPA’s interpretation of its OT authority is supported by a careful reading of the statute and its structure. 10 U.S.C. § 2371(a) states:

The Secretary of Defense and the Secretary of each military department may enter into transactions (other than contracts, cooperative agreements, and grants) under the authority of this subsection in carrying out basic, applied, and advanced research projects. The authority under this subsection is *in addition to the authority provided in [10 U.S.C. § 2358] to use contracts, cooperative agreements, and grants* in carrying out such projects.

10 U.S.C. § 2371(a) (emphasis added).

⁵ Since 1989 (the year DARPA was given OT authority), Congress has appropriated millions of dollars for DARPA’s use in connection with OTs, without objection to DARPA’s interpretation.

Thus, OTs are not just “other than” contracts in general, but more narrowly, they are other than the type of contracts authorized in 10 U.S.C. § 2358. Section 2358, in turn, refers to the Chiles Act, chapter 63 of title 31:

(b) Authorized means -- The Secretary of Defense or the Secretary of a military department may perform research and development projects -- (1) *by contract, cooperative agreement, or grant, in accordance with chapter 63 of title 31.*

10 U.S.C. § 2358(b) (emphasis added).

An OT is therefore “other than” a contract entered into in accordance with Chapter 63 of Title 31, the Chiles Act. A “contract . . . in accordance with” this Act is a *procurement contract* used when “(1) the principal purpose of the instrument is to acquire (by purchase, lease, or barter) property or services for the direct benefit or use of the United States Government; or (2) the agency decides in a specific instance that the use of a procurement contract is appropriate.” 31 U.S.C. § 6303. On the basis of these three statutory provisions, OTs are “other than” and “in addition to” procurement contracts issued to acquire property or services for the direct benefit of the United States Government. The term “contract” in section 2371 is thus synonymous with the term “procurement contract” as used in 31 U.S.C. §§ 6301 *et seq.*, -- a contract to acquire goods or services for the direct benefit or use of the Government.

Under this analysis, section 2371 does not state that OTs are not “contracts” in the common law sense of mutual intent to contract based on offer, acceptance, and consideration. *See Total Med. Management, Inc. v. United States*, 104 F.3d 1314, 1317 (Fed. Cir. 1997) (holding that a “memorandum of understanding” between the Army and plaintiff was a valid contract). Thus it is incorrect to assume that all statutes and regulations governing “contracts”

generally do not also govern OTs; OTs can be contracts, but by statute are not procurement contracts.

B. Determining Whether “Procurement-Related” Statutes
Apply Only To Procurement Contracts

Because OTs are other than procurement contracts, a particular statute that applies only to procurement contracts would not apply to OTs. Determining the applicability of the statutes at issue is not always simple, however. The starting point for such an analysis is the express language of the statute itself. In many cases, it is clear from the language whether or not the statute applies only to procurement contracts. In other cases, however, it is not so clear. In such cases, the Working Group considered the statute’s legislative history, and to a lesser extent, the title in which a particular statute is codified, *i.e.*, whether the particular statute under review is codified in a title that was specifically concerned with “procurement” contracts, or was located in a title that suggested more general applicability.

Various statutes authorizing the Government to conduct business transactions are codified in title 10 of the United States Code, entitled “Armed Forces,” and in Title III of the Federal Property and Administrative Service Act of 1949 (the “Property Act”), subchapter IV of chapter 4 of title 41, United States Code. Title 10 of the U.S. Code distinguishes procurement, research and development, and other topics by placing them in different chapters. The statutory authority for OTs, 10 U.S.C. § 2371, is contained in chapter 139, “Research and Development,” which includes §§ 2351-2374.⁶ Title 10 also includes a separate chapter 137, “Procurement

⁶ Chapter 139 includes the following sections:

§ 2351 Availability of Appropriations.
§ 2358 Research and Development Projects.

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Generally” in §§ 2302a-2331,⁷ and chapter 141, “Miscellaneous Procurement Provisions.”⁸

Title 41 of the U.S. Code includes, among others, Title III of the Property Act, “Procurement

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- § 2361 Award of Grants and Contracts to Colleges and Universities: Requirement of Competition.
- § 2364 Coordination and Communication of Defense Research Activities.
- § 2366 Major Systems and Munitions Programs: Survivability Testing and Lethality Testing Required Before Full-Scale Production.
- § 2367 Use of Federally Funded Research and Development Centers.
- § 2370a Medical Countermeasures Against Bio-Warfare Threats: Allocation of Funding Between Near-Term and Other Threats.
- § 2371 Research Projects: Transactions Other Than Contracts and Grants.
- § 2371a Cooperative Research and Development Agreements (“CRADAs”) under Stevenson-Wydler Technology Innovation Act of 1980.
- § 2372 Independent Research and Development and Bid and Proposal Costs: Payments to Contractors.
- § 2373 Procurement for Experimental Purposes.
- § 2374 Merit-based Award of Grants for Research and Development.

⁷ Chapter 137 contains the following sections:

- § 2302a Simplified Acquisition Threshold.
- § 2302b Implementation of Simplified Acquisition Procedures.
- § 2302c Implementation of Electronic Commerce Capability.
- § 2302d Major System: Definitional Threshold Amounts.
- § 2304 Contracts: Competition Requirements.
- § 2304a Task and Delivery Order Contracts: General Authority.
- § 2304b Task Order Contracts: Advisory and Assistance Services.
- § 2304c Task and Delivery Order Contracts: Orders.
- § 2304d Task and Delivery Order Contracts: Definitions.
- § 2304e Contracts: Prohibition on Competition Between Department of Defense and Small Business and Certain Other Entities.
- § 2305 Contracts: Planning, Solicitation, Evaluation, and Award Procedures.
- § 2305a Design-Build Selection Procedures.
- § 2306 Kinds of Contracts.
- § 2306a Cost or Pricing Data: Truth in Negotiations.
- § 2306b Multiyear Contracts.
- § 2307 Contract Financing.
- § 2311 Assignment and Delegation of Procurement Functions and Responsibilities.
- § 2313 Examination of Records of Contractor.
- § 2318 Advocates for Competition.
- § 2319 Encouragement of New Competitors.
- § 2320 Rights in Technical Data.
- § 2321 Validation of Proprietary Data Restrictions.
- § 2323 Contract Goal for Small Disadvantaged Businesses and Certain Institutions of Higher Education.
- § 2323a Credit for Indian Contracting in Meeting Certain Subcontracting Goals for Small Disadvantaged Businesses and Certain Institutions of Higher Education.
- § 2324 Allowable Costs Under Defense Contracts.
- § 2326 Unfinalized Contractual Actions: Restrictions.

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Provisions,” found in §§ 251-266.⁹ The Office of Federal Procurement Policy Act, 41 U.S.C.

§§ 401-435, also contains procurement-related provisions of general applicability.

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- § 2327 Contracts: Consideration of National Security Objectives.
- § 2328 Release of Technical Data Under Freedom of Information Act: Recovery of Costs.
- § 2331 Contracts for Professional and Technical Services.

8 Chapter 141 includes the following:

- 2384 Supplies: identification of supplies and sources.
- 2384a Supplies: economic order quantities.
- 2388 Liquid fuels and natural gas: contracts for storage, handling, or distribution.
- 2390 Prohibition on the sale of certain defense articles from the stocks of the Department of Defense.
- 2399 Operational test and evaluation of defense acquisition programs.
- 2400 Low-rate initial production of new systems.
- 2401 Requirement for authorization by law of certain contracts relating to vessels and aircraft.
- 2401a Lease of vehicles, equipment, vessels, and aircraft.
- 2402 Prohibition of contractors limiting subcontractor sales directly to the United States.
- 2403 Major weapon systems: contractor guarantees.
- 2404 Acquisition of petroleum and natural gas: authority to waive contract procedures; acquisition by exchange; sales authority.
- 2406 Limitation on adjustment of shipbuilding contracts.
- 2408 Prohibition on persons convicted of defense-contract related felonies and related criminal penalty on defense contractors.
- 2409 Contractor employees: protection from reprisal for disclosure of certain information.
- 2410 Requests for equitable adjustment or other relief: certification.
- 2410a Appropriated funds: availability for certain contracts for 12 months.
- 2410b Contractor inventory accounting systems: standards.
- 2410c Preference for energy efficient electric equipment.
- 2410d Subcontracting plans: credit for certain purchases.
- 2410f Debarment of persons convicted of fraudulent use of “Made in America” labels.
- 2410g Advance notification of contract performance outside the United States.
- 2410h Acquisition fellowship program.
- 2410i Prohibition on contracting with entities that comply with the secondary Arab boycott of Israel.
- 2410j Displaced contractor employees: assistance to obtain certification and employment as teachers or employment as teachers’ aides.
- 2410k Defense contracts: listing of suitable employment openings with local employment service office.
- 2410l Contracts for advisory and assistance services cost comparisons studies.

9 Title III of the Property Act consists of:

- § 251 Declaration of Purpose.
- § 252 Purchases and Contracts for Property.
- § 252a Simplified Acquisition Threshold.
- § 252b Implementation of Simplified Acquisition Procedures.
- § 252c Implementation of Electronic Commerce Capability.

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For these reasons, the statutes contained in title 10, chapters 137 and 141, and Title III of the Property Act, probably apply to procurement contracts only, and therefore probably would not apply to OTs, unless the language of the particular statute or its legislative history indicates otherwise.

C. Determining Which Statutes Apply To OTs
(And Historical Background On The Chiles Act)

Finally, the Working Group concluded that statutes applying only to procurement contracts necessarily do not apply to OTs, regardless of the terms of the OT; those statutes that apply more broadly would probably apply to OTs, depending on their terms. Because the Working Group has interpreted OTs to be essentially an exemption to the Chiles Act requirements, some analysis of the Chiles Act's requirements is useful in understanding this conclusion.

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§ 253	Competition Requirements.
§ 253a	Planning and Solicitation Requirements.
§ 253b	Evaluation and Award.
§ 253g	Prohibition of Contractors Limiting Subcontractor Sales Directly to United States.
§ 253h	Task and Delivery Order Contracts: General Authority.
§ 253i	Task Order Contracts: Advisory and Assistance Services.
§ 253j	Task and Delivery Order Contracts: Orders.
§ 253k	Task and Delivery Order Contracts: Definitions.
§ 253l	Severable Services Contracts for Periods Crossing Fiscal Years.
§ 254	Contract Requirements.
§ 254a	Cost-Type Research and Development Contracts with Educational Institutions.
§ 254b	Cost or Pricing Data: Truth in Negotiations.
§ 254c	Multiyear Contracts.
§ 254d	Examination of Records of Contractor.
§ 255	Contract Financing.
§ 256	Allowable Costs.
§ 261	Assignment and Delegation of Procurement Functions and Responsibilities.
§ 262	Determinations and Decisions.
§ 263	Performance Based Management: Acquisition Programs.
§ 264	Relationship of Commercial Item Provisions to Other Provisions of Law.
§ 264a	Definitions Relating to Procurement of Commercial Items.
§ 264b	Preference for Acquisition of Commercial Items.
§ 265	Contractor Employees: Protection From Reprisal for Disclosure of Certain Information.
§ 266	Merit-Based Award of Grants for Research and Development.

Before Congress enacted the Chiles Act, the Government expended appropriated funds in furtherance of Federal programs using different types of legal instruments, depending on the relationship between the Government and the recipient of the funds. Federal agencies always have had inherent authority to enter into contracts related to their administrative purposes, including contracts for the acquisition of goods or services for their own use, unless legislatively prohibited. *See* General Accounting Office (GAO), *Principles of Federal Appropriations Law* 10-11 (2d ed. 1992). Thus, although Congress could place and has placed restrictions on their inherent procurement authority, agencies did not need special legislation to enter into legally binding contracts in which they committed to pay appropriated funds for goods or services.

By contrast, agencies have no inherent authority to give away public money or property or release vested rights to benefit parties other than the Government. Such assistance must be specifically authorized by Congress, either in the agency's enabling legislation or legislation authorizing a specific program. Consequently, the purpose underlying the expenditure and the relationship between the agency and the recipient of the funds is the critical distinction between funding agreements and is therefore central to any analysis of laws applicable to some or all types of funding agreements.

The Chiles Act was enacted to distinguish between assistance and procurement relationships and clarify which type of instrument an agency should use to accomplish its objectives, assuming it had the requisite authority to choose. S. Rep. No. 95-449 at 6 (1977), *reprinted in* 1978 U.S.C.C.A.N. 11, 16. As the Senate Committee on Governmental Affairs observed when amending the statute in 1982, the Chiles Act did not create independent statutory authority to enter into legal relationships, but was "intended to force agencies to use a legal instrument that, according to the criteria established by the Act, matches the intended and

authorized relationship – regardless of the terminology used in existing legislation to characterize the instrument to be used in the transaction.” S. Rep. No. 97-180 at 4 (1981), *reprinted in* 1982 U.S.C.C.A.N. 3, 6.

According to the legislative history of the Chiles Act, congressional action was necessary because failure to distinguish between procurement and assistance relationships had led to the inappropriate use of grants “to avoid the requirements of the procurement system,” and conversely to the imposition of unnecessary red tape and administrative requirements on assistance recipients. S. Rep. No. 95-449 at 6, *reprinted in* 1978 U.S.C.C.A.N. 11, 16; S. Rep. No. 97-180 at 1, *reprinted in* 1982 U.S.C.C.A.N. 3. In order to create congressionally mandated standards, the Chiles Act defined and established selection criteria for three types of legal instruments that could be used to fund agency objectives: “procurement contracts,” “grants,” and “cooperative agreements.”¹⁰ S. Rep. No. 97-180 at 2, *reprinted in* 1982 U.S.C.C.A.N. at 3-4. The Chiles Act is not exhaustive: It does not cover any other funding transactions, such as real estate transactions or loans; nor does it recognize activities for which a procurement contract, grant, or cooperative agreement, as defined, would be unavailable.

Grants and cooperative agreements are considered to be “assistance” agreements, the principal purpose of which is to transfer something of value to the recipient in order to carry out the public purpose of support or stimulation authorized by a law of the United States, instead of acquiring property or services for the direct benefit or use of the United States Government. 31 U.S.C. §§ 6304-6305. Cooperative agreements and grants differ in the degree of involvement between the funding agency and the recipient when carrying out the contemplated activity.

Cooperative agreements are to be used when the expected involvement of the agency in the funded assistance activity is substantial, whereas grants are to be used when the agency's involvement is essentially administrative. *Id.*

The Chiles Act is silent on whether the promises by the United States embodied in these three instruments would qualify as "contracts" under the common law and does not distinguish among the instruments on this basis. Indeed, the legislation used the term "contract" simply to distinguish assistance relationships as a class from transactions that are part of the procurement system. S. Rep. 95-449 at 4, 6, *reprinted in* 1978 U.S.C.C.A.N. 11, 16. In establishing standards for use of different types of instruments, the statute directs agencies to use "procurement contracts" when the principal purpose of the instrument is to acquire property or services for the direct benefit or use of the United States Government. 31 U.S.C. § 6303.

Subsequent to the enactment of the Chiles Act, the GAO determined whether a procurement contract rather than an assistance agreement was the proper instrument for funding a project -- and therefore subject to procurement laws and regulations. *See, e.g., Council on Env'tl. Quality and Office of Env'tl. Quality--Coop. Agreement with Nat'l Academy of Sciences*, 65 Comp. Gen. 605 (1986), (agency prohibited from using a cooperative agreement to fund a study); *Electronic Space Systems Corp.*, 61 Comp. Gen. 428, 82-1 CPD ¶505 (1982) (cooperative agreement authorized and procurement contract not required because primary purpose of funding activity was to encourage development of a prototype and early market entry rather than acquiring the particular item for Government's own use even though it would eventually have

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¹⁰ Another type of instrument, the "Cooperative Research and Development Agreement" (CRADA), involves no transfer of federal funds to the recipient and thus is not governed by the Chiles Act. 15 U.S.C. § 3710a.

governmental applications). In addition to examining the nature of the relationship memorialized in a funding instrument, GAO has considered whether special legislation has exempted a transaction from the requirements of the Chiles Act. In a letter to The Honorable Parren J. Mitchell, Chairman, Committee on Small Business, House of Representatives, B-222665 (July 2, 1986), the Comptroller General determined that contracts the Department of Interior awarded to Native American tribes were statutorily exempt from the Chiles Act. The courts also have had occasion to apply the Chiles Act in determining whether the relationship between an agency and a funding recipient is subject to laws applicable to procurement contracts rather than assistance agreements. *See, e.g., Hammond v. Donovan*, 538 F. Supp. 1106 (W.D. Mo. 1982) (statute requiring affirmative action for veterans not applicable to relationship more in the nature of a grant than a contract as defined by the Chiles Act because its purpose was to benefit the general public and not a particular agency).

By separately authorizing (outside of the Chiles Act) DoD to use OTs to fund research activities, Congress effectively exempted such research activities from the requirements of the Chiles Act, regardless of the terms of the OT. In short, under section 845 agencies were given independent authority to enter into binding agreements that might include significant funding for the acquisition of goods or services, but were not subject to the formalities and cumbersome rules applicable by statute to procurement contracts. For example, section 845 OTs are to be used for the development of “purely military” weapon systems. *See* analysis at section 21, *infra* (quoting legislative history of section 845 as providing for “purely military research”). Such a use can only reasonably be described as the acquiring of a service for the direct benefit or use of the Government, for which, absent section 845, the Chiles Act would require the use of a procurement contract. Likewise, S&T OTs might include substantial assistance, but would not

be subject to rules applicable specifically to grants and cooperative agreements. The Chiles Act would require the use of a grant or cooperative agreement for the performance of cost-shared R&D, absent the OT authority of 10 U.S.C. § 2371. Because, absent OT authority, a Chiles Act instrument would be required to perform the functions permitted under OTs, one cannot look at the substance of the OT to determine whether, for example, a statute applying only to procurement contracts would apply to OTs. The OT authority constitutes a “safe harbor” against the applicability of such statutes to OTs, regardless of the substance and terms of the OTs.

In particular, OT statutory authority creates a blanket exception or “safe harbor” for OTs against the applicability of statutes that apply only to procurement contracts, regardless of the terms of the OT. Therefore, there is no requirement in the OT legislation (section 2371 and section 845) that these transactions be distinguishable in nature or purpose from procurement contracts or assistance agreements in order to be exempt from those statutes that apply only to procurement contracts or assistance agreements. Only the statutory conditions for entering into an OT need be satisfied. Thus, even if the agreement embodied in an OT instrument would also meet the criteria for using one of the recognized traditional instruments, it would not be considered as such and would only be subject to laws applicable to funding agreements or contracts generally, not laws specifically aimed at procurement contracts or assistance agreements. Thus, in the analyses in Appendix A, once it is determined that a particular statute applies only to procurement contracts, we conclude that the statute necessarily does not apply to OTs. But statutes that apply more broadly may apply to OTs, depending on the substance of such OTs.

VI. RESULTS OF ANALYSES

The Working Group analyzed 32 statutes to determine their applicability to OTs. Tables I and II summarize the results of these analyses. The detailed analyses are set forth at Appendix A. Although the Working Group considers its analyses to be correct, in a number of cases the conclusions are somewhat tenuous. For example, in many cases it is simply not clear from the text of the statute whether it applies only to procurement contracts, or whether it applies more broadly. In such cases the analysis turns on factors such as the placement of the statute in a particular statutory scheme, its legislative history, etc. This uncertainty may lead to unnecessary litigation.

Table I

Item No.	Statute	Applicability of Statute to OTs
1.	Competition in Contracting Act, Pub. L. No. 98-369 (1984), as amended (Kaminski Memorandum, Item 1).	CICA does not apply to OTs.
2.	41 U.S.C. §§ 601 <i>et seq.</i> , the Contract Disputes Act, Pub. L. No. 95-563 (1987), as amended (Kaminski Memorandum, Item 2).	CDA does not apply to OTs.
3.	31 U.S.C. §§ 3551 <i>et seq.</i> , Procurement Protest System, Subtitle D of the Competition in Contracting Act, Pub. L. No. 98-369 (1984) (Kaminski Memorandum, Item 3).	The protest system at GAO does not apply to protests over the award of OTs. However, the GAO will likely review the agency's use of OTs to determine whether the statutory requirements of 10 U.S.C. § 2371 and § 845 are met.
4.	50 U.S.C. §§ 1431-1435, Extraordinary Contractual Authority and Relief Act, Pub. L. No. 85-804, 72 Stat. 972 (1958) (Kaminski Memorandum, Item 4).	Public Law No. 85-804 applies to OTs.
5.	10 U.S.C. § 2207, Expenditure of Appropriations: Limitation (Kaminski Memorandum, Item 5).	Section 2207 applies to OTs.
6.	10 U.S.C. § 2306, Kinds of Contracts (Kaminski Memorandum, Item 6).	Section 2306 does not apply to OTs.
7.	10 U.S.C. § 2313, Examination of records of contractor (Kaminski Memorandum, Item 7).	Section 2313 does not apply to OTs.
8.	10 U.S.C. § 2353, Contracts: acquisition, construction, or furnishing of test facilities and equipment [to R&D contractors] (Kaminski Memorandum, Item 8).	Section 2353 does not apply to OTs.
9.	10 U.S.C. § 2354, Contracts: indemnification provisions (Kaminski Memorandum, Item 9).	Section 2354 does not apply to OTs.
10.	10 U.S.C. § 2393, Prohibition against doing business with certain offerors (Kaminski Memorandum, Item 10).	Section 2393 does not apply to OTs.
11.	10 U.S.C. § 2403, Major Weapon Systems: Contractor Guarantees (Warranties) (Kaminski Memorandum Item 11).	Section 2403 does not apply to OTs.
12.	10 U.S.C. § 2408, Prohibition on persons convicted of defense contract related felonies and related criminal penalty as defense contractors (Kaminski Memorandum, Item 12).	Section 2408 does not apply to OTs.
13.	10 U.S.C. § 2409, Contractor employees: protection from reprisal for disclosure of certain information (Kaminski Memorandum, Item 13).	Section 2409 does not apply to OTs.

Item No.	Statute	Applicability of Statute to OTs
14.	31 U.S.C. § 1352, Limitation on the use of appropriated funds to influence certain Federal contracting and financial transactions (Kaminski Memorandum, Item 14).	Section 1352 does not apply to OTs.
15.	41 U.S.C. §§ 51-58, Anti-Kickback Act of 1986 (Kaminski Memorandum, Item 15).	The Anti-Kickback Act may apply to section 845 OTs. The Act does not apply to S&T OTs.
16.	41 U.S.C. § 423, Procurement Integrity Act, § 27 of the Office of Procurement Policy Act (Kaminski Memorandum, Item 16).	The Procurement Integrity Act does not apply to OTs.
17.	a. 41 U.S.C. §§ 351 <i>et seq.</i>, Service Contract Act. b. 41 U.S.C. §§ 35-45, Walsh-Healey Act. c. 29 U.S.C. §§ 201-219, Fair Labor Standards Act.	a. The Service Contract Act generally applies to OTs. b. The Walsh-Healey Act could theoretically apply to section 845 OTs, but not to S&T OTs. c. Subject to the exemptions under section 13 of the Act (29 U.S.C. § 213), generally it applies to employers engaging in S&T and section 845 OTs.
18.	41 U.S.C. §§ 701-707, Drug-Free Workplace Act of 1988 (Kaminski Memorandum, Item 18).	The Drug-Free Workplace Act does not apply to OTs.
19.	41 U.S.C. §§ 10a - 10d, Buy American Act (Kaminski Memorandum, Item 19).	The Buy American Act does not apply to OTs.
20.	28 U.S.C. § 1491, Tucker Act (Added by Working Group.)	The Tucker Act applies to OTs, and the Court of Federal Claims has jurisdiction over matters involving such instruments.
21.	35 U.S.C. §§ 200-212 (1980) (Bayh-Dole Act) (Added by Working Group.)	The Bayh-Dole Act does not apply to OTs.
22.	10 U.S.C. § 2320 and § 2321, Technical data provisions applicable to DoD (Added by Working Group.)	These provisions do not apply to OTs.
23.	18 U.S.C. § 1905, Trade Secrets Act (Added by Working Group.)	The Trade Secrets Act applies to information obtained by the Government in connection with OTs.
24.	5 U.S.C. § 552, Freedom Of Information Act, (FOIA), as amended by the Clinger-Cohen Act of 1996 (Added by Working Group.)	FOIA applies to OTs. In addition, the National Defense Authorization Act of 1998, Pub. L. No. 105-85, § 832, 111 Stat. 1629 (1997), codified at 10 U.S.C. § 2371(i), expressly exempts OT proposals, business plans, supporting documents, and confidential technical information from disclosure under FOIA for 5 years.

Item No.	Statute	Applicability of Statute to OTs
25.	31 U.S.C. § 1304, Judgments, awards, and compromise settlements (Added by Working Group.)	Section 1304 applies to OTs.
26.	31 U.S.C. § 1341, Limitations on expending and obligating amounts (Added by Working Group.)	Section 1341 applies to OTs.
27.	31 U.S.C. §§ 3801 <i>et seq.</i> , Administrative Remedies for False Claims and Statements (Added by Working Group.)	Section 3801 applies to OTs.
28.	10 U.S.C. § 2306a, Truth in Negotiations Act (added by Working Group.)	TINA does not apply to OTs.
29.	41 U.S.C. § 422, Cost Accounting Standards (added by Working Group.)	Cost Accounting Standards do not apply to OTs.
30.	10 U.S.C. § 2334, Cost Principles (added by Working Group.)	Cost Principles do not apply to OTs.

Table II

Item No.	Statute	Applies to OTs	Does Not Apply to OTs
1.	Competition in Contracting Act		X
2.	The Contract Disputes Act.		X
3.	Procurement Protest System, Subtitle D of the Competition in Contracting Act.		X
4.	Extraordinary Contractual Authority and Relief, Pub. L. No. 85-804, 72 Stat. 972 (1958).	X	
5.	10 U.S.C. § 2207, Expenditure of Appropriations: Limitation	X	
6.	10 U.S.C. § 2306, Kinds of Contracts		X
7.	10 U.S.C. § 2313, Examination of records of contractor.		X
8.	10 U.S.C. § 2353, Contracts: acquisition, construction, or furnishing of test facilities and equipment [to R&D contractors]		X
9.	10 U.S.C. § 2354, Contracts: indemnification provisions.		X
10.	10 U.S.C. § 2393, Prohibition against doing business with certain offerors.		X
11.	10 U.S.C. § 2403, Major Weapon Systems: Contractor Guarantees.		X
12.	10 U.S.C. § 2408, Prohibition on persons convicted of defense contract related felonies and related criminal penalty as defense contractors.		X
13.	10 U.S.C. § 2409, Contractor employees: protection from reprisal for disclosure of certain information.		X
14.	31 U.S.C. § 1352, Limitation on the use of appropriated funds to influence certain Federal contracting and financial transactions.		X
15.	41 U.S.C. §§ 51-58, Anti-Kickback Act.	May apply to prototype OTs	Does not apply to S&T OTs
16.	41 U.S.C. § 423, Procurement Integrity Act.		X

Item No.	Statute	Applies to OTs	Does Not Apply to OTs
17.	a. 41 U.S.C. §§ 351 <i>et seq.</i> , Service Contract Act.	X	
	b. 41 U.S.C. §§ 35-45, Walsh-Healey Act.	May apply to § 845 OTs	Does not Apply to S&T OTs
	c. 29 U.S.C. §§ 201-219, Fair Labor Standards Act.	X	
18.	41 U.S.C. §§ 701-707, Drug-Free Workplace Act.		X
19.	41 U.S.C. §§ 10a - 10d, Buy American Act.		X
20.	28 U.S.C. § 1491, Tucker Act.	X	
21.	35 U.S.C. §§ 200-212 (1980), Bayh-Dole Act.		X
22.	10 U.S.C. § 2320 and § 2321, Technical data provisions applicable to DoD.		X
23.	18 U.S.C. § 1905, Trade Secrets Act.	X	
24.	5 U.S.C. § 552, Freedom Of Information Act, (FOIA).	X	
25.	31 U.S.C. § 1304, Judgments, awards, and compromise settlements.	X	
26.	31 U.S.C. § 1341, Limitations on expending and obligating amounts.	X	
27.	31 U.S.C. §§ 3801 <i>et seq.</i> , Administrative Remedies for False Claims and Statements.	X	
28.	10 U.S.C. § 2306a, Truth in Negotiations Act.		X
29.	41 U.S.C. § 422, Cost Accounting Standards.		X
30.	10 U.S.C. § 2324, Cost Principles.		X

APPENDIX A

APPENDIX A

Analysis of Applicability of Specific Statutory Provisions

1. **The Competition in Contracting Act, Division B, Title VII of Pub. L. No. 98-369, 98 Stat. 494 (1984), codified as amended, at 10 U.S.C. §§ 2301 *et seq.*; 41 U.S.C. §§ 253 *et seq.* (Kaminski Memorandum, Item 1.)**

Purpose of the Statute: To promote the use of competitive procedures and prescribe uniform Government-wide policies and procedures regarding contract formation, award, publication, and submission of cost or pricing data.

Summary Conclusion on Applicability: The Competition in Contracting Act (CICA) does not apply to OTs.

Analysis: CICA does not apply to OTs because CICA applies only to procurement contracts. CICA applies to an “agency in conducting a procurement for property or services,” 41 U.S.C. § 253(a)(1)(A); 10 U.S.C. § 2304(a)(1)(A). Under the Chiles Act, the procurement of property or services must be done under a procurement contract. Therefore, CICA applies only to procurement contracts. As discussed above, OT’s are “other than” procurement contracts, so CICA does not apply to OTs.

Additional evidence that CICA does not apply to OTs can be found in section 845, which establishes a standard of competition different than that found in CICA. Section 845 (as amended by section 804) requires the “maximum practical” competition, as opposed to the “full and open” standard of competition that is at the heart of CICA. Established rules of statutory construction dictate that a specific statute covering a particular area always controls over a statute covering the same and other subjects in more general terms, and the more specific statute is

considered to be an exception to the general terms of the more comprehensive statute. 73 Am. Jur. 2d, *Statutes* § 257 (1998).

2. **41 U.S.C. §§ 601 *et seq.*, the Contract Disputes Act of 1978, Pub. L. No. 95-563, 92 Stat. 2383 (1978), as amended (Kaminski Memorandum, Item 2.)**

Purpose of the Statute: To create a comprehensive, fair, and balanced statutory scheme of administrative and legal remedies for claims under Government contracts.

Summary Conclusion on Applicability: The CDA does not apply to OTs.

Analysis: Because the Government waived sovereign immunity to suit in the CDA, the statute, as well as the contracts to which it applies, must be strictly construed. *Fidelity Constr. Co. v. United States*, 700 F.2d 1379 (Fed. Cir.), *cert. denied*, 464 U.S. 826 (1983).

In the section entitled “Applicability of law,” the CDA states:

(a) Executive agency contracts.

Unless otherwise specifically provided herein, this Act applies to any express or implied *contract* (including those of the nonappropriated fund activities described in §§ 1346 and 1491 of title 28) entered into by an executive agency for --

- (1) the *procurement of property*, other than real property in being;
- (2) the *procurement of services*;
- (3) the procurement of construction, alteration, repair or maintenance of real property; or
- (4) the disposal of personal property.

41 U.S.C. § 602(a) (emphasis added).

On its face, the use of the term “procurement” is a fairly persuasive indication that Congress intended for the CDA to apply only to procurement contracts, and not all instruments through which the Government acquires property or services.

The House Bill also included a clause that stated, “[t]his Act shall also apply to any other contract or agreement with the United States which by its terms is expressly made subject to the provisions of this Act.” H.R. 11002, 95th Cong., § 3 (1978). This provision, however, was deleted from the Public Law for no reason discussed in the legislative history. Contract Disputes Act of 1978, Pub. L. No. 95-563, § 3, 92 Stat. 2383-84 (1978). It could be argued that Congress did not intend to permit Federal agencies to invoke the CDA by including the Disputes clause in a contract that otherwise was not covered. In the absence of further explanation of its action, however, deletion of the provision is not strong evidence.

As a policy matter, it is unlikely that when Congress granted separate statutory authority for OTs, as distinguished from procurement contracts, it intended to apply procurement laws and regulations to some OTs and not to others. And, as discussed, the term “procurement” in the CDA suggests Congress intended to limit the applicability of the CDA to standard procurement contracts.

3. 31 U.S.C. §§ 3551 *et seq.*, Procurement Protest System, Subtitle D of the Competition in Contracting Act, Division B, Title VII, Subtitle D of Pub. L. No. 98-369, 98 Stat. 494 (1984) (Kaminski Memorandum, Item 3.)

Purpose of the Statute: To provide a statutory basis for procurement protests by interested parties to the Comptroller General.

Summary Conclusion on Applicability: The statute does not apply to OTs. Nevertheless, the GAO will likely review the agency’s use of OTs to determine whether the statutory requirements of 10 U.S.C. § 2371 and section 845 are met.

Analysis: The relevant sections of CICA require that a protest to the GAO “concern[] an alleged violation of a procurement statute or regulation.” 31 U.S.C. § 3552. S&T OTs

involve cost-shared, collaborative research efforts with the potential for both government and commercial applications. The statute that authorizes S&T OTs – 10 U.S.C. § 2371 – specifically authorizes use of OTs when a procurement contract is “not feasible or appropriate.” As long as the OT is entered into as authorized by the statute, the procurement protest provisions under CICA, including the GAO bid protest system, are inapplicable because S&T OTs are “assistance” agreements rather than procurement contracts.

The Comptroller General has applied this analysis to DARPA’s S&T OTs for cost-shared, “dual-use” technology development, characterized as “assistance” transactions. *See Energy Conversion Devices, Inc.*, B-260514, June 16, 1995, 95-2 CPD ¶ 121 (protest of selection leading to an “other transaction” following Broad Agency Announcement for development and demonstration of vapor phase manufacturing technology in the area of thin-film photovoltaics). The GAO acknowledged the restriction of its jurisdiction under CICA to review only protests involving violations of procurement statutes or regulations. The GAO also acknowledged its general practice of not reviewing protests involving cooperative agreements or “other non-procurement instruments” because they do not involve the award of a “contract.” The Comptroller General reviewed only whether a procurement contract was required in this instance, or whether DARPA might be attempting to avoid the requirements of procurement laws and regulations. In its analysis, the GAO cited the criteria of 31 U.S.C. §§ 6301 *et seq.* (Chiles Act), for use of procurement contracts (purchase of goods or services for the direct benefit or use of the Government) versus cooperative agreements (support or stimulation). The GAO held that the protester failed to refute DARPA’s position that the “primary” purpose of the transaction was not to acquire goods or services for the direct benefit or use of the Government, but instead to “advance the state-of-the-art by supporting and stimulating research and development.” Thus it

appears that the GAO will only determine whether the use of an OT is permitted under section 2371.

The expansion of OT authority blurs the distinction between (a) “assistance”-type OTs for “dual use” research, and (b) section 845 agreements to “carry out prototype projects that are directly relevant to weapons development or weapon systems proposed to be acquired or developed by the Department of Defense.” Section 845 specifically exempts such “prototype projects” from 10 U.S.C. § 2371(c)(2) and (c)(3), permitting use of section 845 OTs even if use of a procurement contract would be “feasible or appropriate.” Thus, Congress exempted section 845 OTs from the restrictions of those statutes that apply to procurement contracts. Because the Procurement Protest System applies only to procurement contracts, it would not apply to section 845 OTs.

4. **50 U.S.C. §§ 1431-1435, Extraordinary Contractual Authority and Relief Act, Pub. L. No. 85-804, 72 Stat. 972 (1958) (Kaminski Memorandum, Item 4.)**

Purpose of the Statute: To authorize certain remedies for contractors such as formalization of informal commitments, amendments without consideration, and correction of mistakes, and to permit indemnification for unusually hazardous risks.

Summary Conclusion on Applicability: The statute applies to OTs.

Analysis: The statute and legislative history indicate that the Extraordinary Contractual Authority and Relief Act (ECARA) applies to both S&T and section 845 OTs. Moreover, it is in the interests of both the Government and the contractor to include both types of OTs within coverage of the statute. The Extraordinary Contractual Authority and Relief Act, Public Law No. 85-804, 72 Stat. 972 (1958), codified as amended at 50 U.S.C. §§ 1431-35, authorizes the

Government to make payments and enter into contracts, amendments, or modifications to contracts, when not otherwise provided by law and for national defense purposes, as follows:

The President may authorize any department or agency of the Government which exercises functions in connection with the national defense, acting in accordance with regulations prescribed by the President for the protection of the Government, to enter into contracts or into amendments or modifications of contracts heretofore or hereafter made and to make advance payments thereon, without regard to other provisions of law relating to the making, performance, amendment, or modification of contracts, whenever he deems that such action would facilitate the national defense.

50 U.S.C. § 1431.

Specific instructions, which are contained in Executive Order No. 10789, define the contracts covered. These contracts include:

agreements of all kinds (whether in the form of letters of intent, purchase orders, or otherwise, for all types and kinds of property or services necessary, appropriate, or convenient for the national defense, or for the invention, development, or production of, or research concerning, any such property or services . . . *without any restriction of any kind as to type, character, location, or form.*

Exec. Order No. 10789, *reprinted at* 50 U.S.C. § 1431 note (emphasis added).

The Executive Order describes a broad application of Governmental authority, to include agreements for “research concerning any such property or services” “without any restriction of any kind as to . . . form.” This language does not limit the authority to contracts for property or services themselves. Because S&T and section 845 OTs are for research and development, the statute appears to include them.

The legislative history of ECARA makes it clear that neither the interests of the contractor or subcontractor, nor the form of the transaction, is relevant to the exercise of this Act’s authority. Rather, only the national defense may be considered:

The authority contained in this bill is not, therefore, authority by which the departments and agencies of Government may dispense aid solely for the benefit of contractors or subcontractors. While contractors or subcontractors may be the recipients of aid in some instances, the primary consideration is, and must be, whether such aid will facilitate the national defense.

S. Rep. No. 85-2281 at 3 (1958), *reprinted in* 1958 U.S.C.C.A.N. 4043, 4045, *also reprinted in* Current Materials, Indexes, Guide, ECR 3021, 3023 (1958).

Because S&T and section 845 OTs are already outside the standard procurement system, ECARA's contractual authority and relief may seem unnecessary. But in the event that indemnity clauses for unusually hazardous work or ratification of informal commitments are needed, ECARA has potential application. *See* analysis of the applicability of 10 U.S.C. § 2354, item 9, *infra* (concluding that 10 U.S.C. § 2354 would not be available to authorize the Government's indemnification of the other party to an OT for unusually hazardous activities). A prototype or other research and development project under an OT well might become a necessity in a national defense emergency. In that event, it would be in the Government's interest to have the authority to amend or modify the OT to require immediate delivery or production of any or all of the prototypes or research results.

5. 10 U.S.C. § 2207, Expenditure of Appropriations: Limitation (Kaminski Memorandum, Item 5.)

Purpose of the Statute: To discourage bribery to obtain a contract.

Summary Conclusion on Applicability: Section 2207 applies to OTs.

Analysis: Section 2207 prohibits the expenditure of appropriated funds "under a contract other than a contract for personal services" unless certain conditions are included in the contract. Specifically, the contract must permit the Government to terminate the contract if the Govern-

ment finds that the contractor has given any gifts or gratuities to Government officials to influence the award or administration of that contract.

While it is not entirely clear, it appears that section 2207 applies to both S&T and section 845 OTs. First, while section 2207 does not define “contract”¹ or otherwise state expressly whether or not it applies only to procurement contracts, there is nothing in the text of this section that suggests such a limitation. By comparison, the CDA expressly states that it applies only to contracts “for the procurement of property [etc.],” 41 U.S.C. § 602(a), and we have concluded the CDA does not apply to OTs. *See* A-2, *supra*. Second, section 2207 is codified in chapter 131 of U.S.C. title 10, entitled “Planning and Coordination,” which, unlike chapter 137 (“Procurement Generally”) does not apply only to procurement-related matters.

Based on the above, there is no reason to conclude that the reference to “contract” in section 2207 is limited to “procurement contracts.” Thus section 2207 applies to contracts whether or not they are procurement contracts and therefore that section applies to both S&T OTs and section 845 OTs.

6. 10 U.S.C. § 2306, Kinds of Contracts (Kaminski Memorandum, Item 6.)

Purpose of the Statute: To establish various restrictions on the terms and conditions of contracts.

Summary Conclusion on Applicability: This statute does not apply to OTs.

¹ The FAR defines “contract” as “a mutually binding legal relationship obligating the seller to furnish the supplies or services (including construction) and the buyer to pay for them.” FAR 2.101. The notion of “furnishing” services or supplies seems consistent with the concept of “acquiring property or services” that is used to define “procurement contract” under 31 U.S.C. § 6303. On the other hand, the Department of Labor defines the “furnishing” of services under the Service Contract Act to be different than the acquiring of services for the direct benefit of the government. *See* analysis at § 17a, *infra*.

Analysis: This section prohibits cost-plus-percentage-of-costs type contracts, requires contractors to provide covenants against contingent fees paid to obtain contracts, and limits fee amounts on certain types of cost-type contracts.

It appears that section 2306 applies only to procurement contracts. Section 2306 is in chapter 137 of title 10, entitled "Procurement Generally," which specifically states that it applies "to the *procurement* . . . of all property (other than land) and all services for which payment is to be made from appropriated funds." 10 U.S.C. § 2303(a) (emphasis added). Additionally, the chapter applies to contracts for the installation or alteration of property acquired under procurement contracts. 10 U.S.C. § 2303(b).

The clear limitation of the scope of chapter 137 leads to the conclusion that it does not apply to OTs; such transactions specifically are not procurement contracts.

7. 10 U.S.C. § 2313, Examination of Records of Contractor (Kaminski Memorandum, Item 7.)

Purpose of the Statute: To provide authority to the contracting agency to access a contractor's records or plants in order to perform audits of the contractor.

Summary Conclusion on Applicability: This section does not apply to OTs.

Analysis: Consistent with the conclusion set forth in Item 6 above, section 2313 arguably does not apply to either S&T or section 845 OTs, because by statute such OTs are not "procurement contracts." Furthermore, OT's frequently do not have payment schemes that would require the contracting agency to conduct the audits contemplated by section 2313. Section 2313 provides the authority to inspect a contractor's records in two situations. Because OTs are not negotiated under either of these situations, the audit authority of section 2313 logically would not apply to OTs.

First, section 2313 provides that the contracting agency is authorized to examine a contractor's records when "a contractor is performing a cost-reimbursement, incentive, time-and-materials, labor-hour, or price-determinable contract, or any combination of such contracts, made by that agency under this chapter." 10 U.S.C. § 2313(a)(1)(A). "This chapter" refers to U.S.C. title 10, chapter 137, which addresses "procurement generally." Thus section 2313 applies only to certain types of procurement contracts, and would therefore not apply to OTs.

Nor would it make sense to apply section 2313 to OTs. In administering OTs, the Government essentially allots funds to a project and wants to make certain the funds are expended on the project. Because OTs frequently do not have the same payment schemes as cost-reimbursement, incentive, time and materials, labor-hour, or price redeterminable contracts, the need for the contracting agency to audit the contractor's records is less compelling.

The second situation under section 2313 in which the contracting agency may inspect a contractor's records or plant arises when an audit is needed to evaluate the accuracy, completeness, and currency of certified cost or pricing data required to be submitted pursuant to 10 U.S.C. § 2306a, the Truth in Negotiations Act (TINA). Based on the discussion of the application of chapter 137 above, and here, OTs are not procurement contracts. Neither TINA nor this second requirement under section 2313 applies. See item 28, *infra*. In other words, because the parties do not negotiate a price of an OT based on certified cost and pricing data under TINA -- there is no need to audit certified data. Therefore, the second situation in which a contracting agency may exercise audit authority does not apply to OTs.

8. **10 U.S.C. § 2353, Contracts: acquisition, construction, or furnishing of test facilities and equipment (Kaminski Memorandum, Item 8.)**

Purpose of the Statute: To provide authority for acquisition, construction, or furnishing of test facilities or equipment in connection with R&D contracts.

Summary Conclusion on Applicability: This statute does not apply to OTs.

Analysis: Section 2353 of title 10 pertains to acquisition, construction or furnishing of test facilities or equipment in connection with contracts. It provides as follows:

- (a) A contract of a military department for research or development, or both, may provide for the acquisition or construction by, or furnishing to, the contractor, of research, developmental, or test facilities and equipment that the Secretary of the military department concerned determines to be necessary for the performance of the contract. The facilities and equipment, and specialized housing for them, may be acquired or constructed at the expense of the United States, and may be lent or leased to the contractor with or without reimbursement, or may be sold to him at fair value. This subsection does not authorize new construction or improvements having general utility.
- (b) Facilities that would not be readily removable or separable without unreasonable expense or unreasonable loss of value may not be installed or constructed under this section on property not owned by the United States, unless the contract contains --
 - (1) a provision for reimbursing the United States for the fair value of the facilities at the completion or termination of the contract or within a reasonable time thereafter;
 - (2) an option in the United States to acquire the underlying land; or
 - (3) an alternative provision that the Secretary concerned considers to be adequate to protect the interests of the United States in the facilities.
- (c) Proceeds of sales or reimbursements under this section shall be paid into the Treasury as miscellaneous receipts, except to the extent otherwise authorized by law with respect to property acquired by the contractor.

10 U.S.C. § 2353.

The Kaminski memorandum identifies this statute as not applicable to section 845 OTs. The statute applies to *contracts* for research and development. The statute that authorizes OTs (section 2371) identifies them as transactions “other than” *contracts* for research and development; the section 2371 authority is “in addition to” the authority under section 2358 to enter into contracts for research and development. Therefore, section 2353, which applies by its terms to contracts for research and development, presents perhaps the clearest case of a requirement that would not apply to either section 2371 or section 845 OTs.

9. **10 U.S.C. § 2354, Contracts: Indemnification Provisions (Kaminski Memorandum, Item 9.)**

Purpose of the Statute: To authorize the Military Departments to include provisions in DoD R&D contracts indemnifying the contractor for certain claims and losses.

Summary Conclusion on Applicability: This statute does not apply to OTs. Nevertheless, to the extent that statutory authority is required for DoD to indemnify an R&D provider under an OT, ECARA (Public Law No. 85-804) may provide such authority under certain conditions.

Analysis: 10 U.S.C. § 2354 provides that any “contract of a military department for research or development, or both” may provide that the Government will indemnify the contractor against claims for injury to persons or property resulting from “unusually hazardous” activities conducted in the performance of the R&D contract. Any such indemnification provision must be approved by the Secretary of the military department concerned (§ 2354(a)), and must allow the Government to control the defense of the claim (§ 2354(b)). In addition, no payment can be made under the indemnification provision unless the Secretary or a designee certifies that the amount is “just and reasonable.”

Section 2354 does not apply to either S&T or section 845 OTs, because OTs are expressly “other than” the contracts to which section 2354 does apply. Like section 2371 (authorizing OTs) and section 2358 (describing the authorized means for obtaining R&D), section 2354 is contained in chapter 139 of title 10, entitled “Research and Development.” Section 2354 applies only to contracts entered into under the authority of section 2358.² But section 2371 authorizes transactions other than contracts authorized under section 2358. 10 U.S.C. § 2371(a). Therefore, section 2371 authorizes transactions “other than” the contracts for which section 2354 is applicable; therefore, section 2354 does not apply to OTs, and does not provide DoD authority to indemnify a party to an OT for unusually hazardous R&D activities.

This result may not be very significant. Although it is conceivable that activities conducted in the performance of an OT would be “unusually hazardous,” and commercial organizations would not be able to insure against that risk, DoD still may be able to provide the necessary indemnification. To the extent that statutory authority is required to provide for the Government’s indemnification of the R&D provider,³ ECARA may authorize such indemnity under certain conditions. Ralph C. Nash, Jr. & John Cibinic, Jr., *Federal Procurement Law* 1934 (3d ed. 1980). We conclude in item 4 of this Appendix, *supra*, that the ECARA applies to OTs.

² Section 2354 only applies to R&D contracts (§ 2354(a)), and section 2358 provides the authority for and places restrictions upon DoD’s execution of R&D contracts (§ 2358(b)).

³ It is believed that, at least regarding fixed-price contracts, special statutory authority is required for the inclusion of indemnity clauses because of statutory provisions (still applicable to OTs, we conclude) barring the Government from making contractual obligations in advance of appropriations. Ralph C. Nash, Jr. & John Cibinic, Jr., *Federal Procurement Law* 1931 (3d ed. 1980).

10. **10 U.S.C. § 2393, Prohibition against doing business with certain offerors (Kaminski Memorandum, Item 10.)**

Purpose of the Statute: To prohibit the award by the Department of Defense of contracts, or in some cases subcontracts, to firms that have been debarred or suspended by another agency.

Summary Conclusion on Applicability: This statute does not apply to OTs.

Analysis: The operative part of section 2393 provides as follows:

(a)(1) Except as provided in paragraph (2), the Secretary of a military department may not solicit an offer from, award a contract to, extend an existing contract with, or, when approval by the Secretary of the award of a subcontract is required, approve the award of a subcontract to, an offeror or contractor which to the Secretary's knowledge has been debarred or suspended by another Federal agency unless --

(A) in the case of a debarment, the debarment of the offeror or contractor by all other agencies has been terminated or the period of time specified for such debarment has expired; and

(B) in the case of a suspension, the period of time specified by all other agencies for the suspension of the offeror or contractor has expired.

(2) Paragraph (1) does not apply in any case in which the Secretary concerned determines that there is a compelling reason to solicit an offer from, award a contract to, extend a contract with, or approve a subcontract with such offeror or contractor.

10 U.S.C. § 2393.

The section is codified in chapter 141 of U.S.C. title 10, "Miscellaneous Procurement Provisions," suggesting that it applies only to procurement contracts. The legislative history of the section is not helpful on the issue of its applicability to other than procurement contracts. See, e.g. H.R. Conf. Rep. No. 97-311, at 129 (1981). The section was amended by the Federal Acquisition Streamlining Act of 1994 (FASA), Pub. L. No. 103-355, to exempt from certain

reporting requirements subcontracts for commercial items or subcontracts below the simplified acquisition threshold of \$100,000. Because the statute applies by its terms to "contracts," and by its location in title 10 appears to envision "procurement" contracts, it does not apply to OTs under section 2371 or section 845.

It should be noted, however, that OTs (under either section 2371 or section 845) arguably would be subject to the "common rule" uniform system of nonprocurement debarment and suspension, adopted by DoD and 27 other Federal agencies. *See* 53 Fed. Reg. 19161, 19204-210 (1988). Thus an OT recipient arguably could be excluded from Federal non-procurement programs and activities under different authority.

11. 10 U.S.C. § 2403, Major Weapon Systems: Contractor Guarantees (Warranties) (Kaminski Memorandum, Item 11.)

Purpose of the Statute: To provide warranty protection to the Government for major weapons systems it acquires.

Summary Conclusion on Applicability: This statute does not apply to OTs. [NOTE: This law was repealed by the National Defense Authorization Act for Fiscal Year 1998, Pub. L. No. 105-85, Div. A, Title VIII, § 847(a), 111 Stat. 1629, 1845 (1997)].

Analysis: The Weapon System Warranty Act, 10 U.S.C. § 2403, requires performance warranties to the effect that:

- the item provided under the contract conforms to the design and manufacturing requirements specifically delineated in the production contract (or in any amendment to that contract);
- the item provided under the contract, at the time it is delivered to the Government, is free of defects in material and workmanship;

- the item provided under the contract conforms to the essential performance requirements of the item as specifically delineated in the production contract (or in any amendment to that contract);
- if the item provided under the contract fails to meet the specified guarantees set forth above, the contractor will at the election of the Secretary of Defense or as otherwise provided in the contract:
 - promptly take such corrective action as may be necessary to correct the failure at no additional cost to the Government; or
 - pay costs reasonably incurred by the Government in taking such corrective action.

The FY 1985 Defense Department Authorization Act required that DoD obtain warranties in all its weapon system production contracts for systems that exceed \$100,000 in unit cost, or when the total procurement cost exceeds \$10 million. A contract for mature, full-scale production of weapon systems may not be entered into unless the prime contractor guarantees that the weapon system and subsystems meet performance, reliability, and mission capability requirements as agreed to in the contract. The FY 1998 Defense Department Authorization Act directed that a finding of cost-effectiveness be made prior to the use of warranties.

DoD has authority under the statute to waive the warranty requirements, if necessary, in the interest of national defense or if the warranty would not be cost effective. DoD must give Congress written notice of its intention to waive any or all of the guarantee requirements on a major defense acquisition, as well as the reason for doing so.⁴

⁴ There have been only nine waivers of the warranty requirements in the DoD since enactment of the statutory requirement. There are several reasons for this:

- (a) waiver authority has been retained at the Service secretarial level, which has discouraged pursuit of waivers because of the added time, effort and associated reviews;
- (b) procuring activities are reluctant to predetermine and characterize, from among the many requirements set forth in the contract and its specifications, which are essential and which are nonessential; and,

(continued on next page)

Section 2403(f) states, in pertinent part, *that the requirement for a guarantee under subsection (b)(3) applies only in the case of a contract for a weapon system that is in mature full-scale production*. Consequently, by virtue of the clear language of the statute, performance warranties are not intended to be applicable to the acquisition of “prototypes” under a section 845 OT, however procured or acquired, and certainly not for cost-shared R&D efforts under an S&T OT.⁵ In addition, production programs would have to be performed pursuant to procurement contracts under the Chiles Act, so the application of this provision is therefore limited to procurement contracts.

12. 10 U.S.C. § 2408, Prohibition on persons convicted of defense-contract related felonies and related criminal penalty on defense contractors (Kaminski Memorandum, Item 12.)

Purpose of the Statute: To prevent persons convicted of fraud or any other felony arising out of a defense contract from further participating in contracts with the Department of Defense for a specified statutory period. This statute complements the goals of other statutes designed to protect the public fisc, such as the Major Fraud Act and the False Claims Act.

Summary Conclusion on Applicability: This section does not apply to OTs.

Analysis: Consistent with other sections of this analysis, section 2408 *arguably* does not apply to OTs because section 2408 applies only to procurement contracts. This conclusion rests

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- (c) it is difficult, if not impossible, to accurately determine “cost effectiveness” of a warranty provision in the case of weapon systems not previously produced or fielded in the absence of empirical data.

⁵ Selectively employed performance warranties are in the interest of the Government and can be a cost-effective contract provision. Nevertheless, the effect of the Warranties Act has been the inclusion of warranty provisions in virtually every potentially applicable contract for a major system or subsystem without any consideration of cost effectiveness, utility, or national security needs. As noted in numerous GAO and other studies, (continued on next page)

on the facts that (1) 10 U.S.C. section 2408 is in chapter 141 of title 10, entitled "Miscellaneous Procurement Provisions"; (2) several portions of 10 U.S.C. § 2408 refer specifically to procurement statutes, and (3) the statute has been implemented in the Defense Federal Acquisition Regulation Supplement (DFARS). To accept this argument, however, one has to presume that when Congress passed 10 U.S.C. § 2408, it intended the statute to only apply to procurement contracts. Although there is some evidence that this is true, there is no clear expression of congressional intent upon which to rely.

The provisions of 10 U.S.C. § 2408 state:

- (a) An individual who is convicted of fraud or any other felony arising out of a contract with the Department of Defense shall be prohibited from each of the following:
 - (A) Working in a management or supervisory capacity on any *defense contract* or any first tier subcontract of a defense contract.
 - (B) Serving on the board of directors of any defense contractor or any subcontractor awarded a *contract* directly by a defense contractor.
 - (C) Serving as a consultant to any defense contractor or any subcontractor awarded a *contract* directly by a defense contractor.
 - (D) Being involved in any other way, as determined under regulations prescribed by the Secretary of Defense, with a *defense contract* or first tier subcontract of a *defense contract*.

10 U.S.C. § 2408(a) (emphasis added).

Under the above listed prohibitions, the question becomes what type of "contracts" are referred to in 10 U.S.C. § 2408 (a)(1) (A), (B), (C) and (D). There is, unfortunately, no legislative history indicating whether Congress intended to limit this statute to procurement

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 these warranties have added considerable non-value added cost to the acquisition of major weapon systems and subsystems. In many instances, the Act replicates remedies otherwise available to the Government.

contracts, or to include all other forms of contracts with the Department of Defense.

Furthermore, there is no case law to provide any guidance.

The statutory framework within which 10 U.S.C. § 2408 is codified, however, supports a finding that only procurement contracts were intended to be covered. This provision is codified within chapter 141 of title 10, entitled “Miscellaneous Procurement Provisions.”

At the same time, several provisions of 10 U.S.C. § 2408 appear to indicate that this statute was intended to apply only to procurement contracts. In particular, 10 U.S.C. § 2408(a)(4) exempts (1) contracts below the simplified acquisition threshold, (2) commercial item contracts and (3) a subcontract under either (1) or (2).

It should also be noted that 10 U.S.C. § 2408 has been implemented in the DFARS. In particular, DFARS section 203.570 implements 10 U.S.C. § 2408. This supports its application to procurement contracts.

Unfortunately, this analysis only provides the conclusion that 10 U.S.C. § 2408 definitely applies to procurement contracts. Left unanswered is whether it applies only to procurement contracts. Unlike 10 U.S.C. § 2403 discussed above, nothing in the statute specifically excludes contracts other than procurement contracts from coverage of 10 U.S.C. § 2408. As such, a court could adopt the commonly accepted definition of the term “contract” in interpreting 10 U.S.C. § 2408.

As noted above, OTs contain the elements of offer, acceptance, and mutual manifestation of intent to be bound to certain requirements that the courts have held sufficient to constitute a contract. See *Trauma Serv. Group v. United States*, 104 F.3d 1321 (Fed. Cir. 1997); *Thermalon Indus. v. United States*, 34 Fed. Cl. 411 (1995); and *Total Med. Management, Inc. v. United States*, 104 F.3d 1314 (Fed. Cir. 1997). If an OT therefore constitutes a non-procurement

contract, 10 U.S.C. § 2408 could apply. The statute refers repeatedly to a “contract” without limiting its application.

In conclusion, it appears that the strong argument can be made that 10 U.S.C. § 2408 only applies to procurement contracts. This is due to the inclusion of this section in chapter 141 of title 10, references in the statute to procurement contracts, and the implementation of the statute in the DFARS.

13. 10 U.S.C. § 2409, Contractor employees: protection from reprisal for disclosure of certain information (Kaminski Memorandum, Item 13.)

Purpose of the Statute: To prohibit contractors from discharging, demoting, or discriminating against employees who disclose substantial violations of law related to contracts.

Summary Conclusion on Applicability: The statute does not apply to OTs.

Analysis: Section 2409, which is contained in chapter 141 of title 10, "Miscellaneous Procurement Provisions," by its terms only applies to procurement contracts and contractors. It provides, in pertinent part, as follows:

(a) Prohibition of reprisals. -- An employee of a contractor may not be discharged, demoted, or otherwise discriminated against as a reprisal for disclosing to a Member of Congress or an authorized official of an agency or the Department of Justice information relating to a substantial violation of law related to a contract (including the competition for or negotiation of a contract).

* * * * *

(e) Definitions. -- In this section:

- (1) The term “agency” means an agency named in § 2303 of this title.
- (2) The term “head of an agency” has the meaning provided by § 2302(1) of this title.
- (3) The term “contract” means a contract awarded by the head of an agency.

- (4) The term “contractor” means a person awarded a contract with an agency.
- (5) The term “Inspector General” means an Inspector General appointed under the Inspector General Act of 1978.

10 U.S.C. § 2409.

Section 2409 was enacted as part of the National Defense Authorization Act for Fiscal Year 1987, Pub. L. No. 99-661, § 942, 100 Stat. 3816, 3942 (1986). The Federal Acquisition Streamlining Act (FASA) recodified the section and enacted a similar prohibition applicable to employees of civilian agency contractors. Federal Acquisition Streamlining Act of 1994, Pub. L. No. 103-355, §§ 6005, 6006, 108 Stat. 3243, 3364-66 (1994). There is nothing in the relevant committee reports suggesting any intent that application of the section extend beyond procurement contracts. *See, e.g.* H. R. Conf. Rep. No. 99-1001, at 507 (1986). The prohibition is implemented in FAR subpart 3.9, which also does not suggest any applicability beyond procurement contracts. Because the section by its terms applies only to “contracts,” it does not apply to OTs under section 2371 or section 845.

14. 31 U.S.C. § 1352, Limitation on the use of appropriated funds to influence certain Federal contracting and financial transactions (The Byrd Amendment) (Kaminski Memorandum, Item 14.)

Purpose of the Statute: To prohibit recipients and requesters of Federal contracts, grants, or cooperative agreements from using appropriated funds to pay any person to influence or to attempt to influence executive or legislative decision-making in connection with the awarding of any Federal contract or grant, the making of any Federal loan, or the entering into of any cooperative agreement. 31 U.S.C. § 1352(a).

Summary Conclusion on Applicability: This statute does not apply to OTs.

Analysis: This is a close call; nevertheless, because the statute applies by its terms only to applicants for, or recipients of, contracts, grants, and cooperative agreements, it does not apply to OTs. Section 1352, first enacted by section 319 of the 1990 Interior Department Appropriation Act, Pub. L. No. 101-121, 103 Stat. 701, 750-56 (1989), the so-called “Byrd Amendment,” provides in pertinent part:

- (a)(1) None of the funds appropriated by any Act may be expended by the recipient of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any Federal action described in paragraph (2) of this subsection.
- (2) The prohibition in paragraph (1) of this subsection applies with respect to the following Federal actions:
 - (A) The awarding of any Federal contract.
 - (B) The making of any Federal grant.
 - (C) The making of any Federal loan.
 - (D) The entering into of any cooperative agreement.
 - (E) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

10 U.S.C. § 1352.

Violators of the Byrd Amendment are subject to civil penalties. For all but Federal contracts, the Byrd Amendment is implemented by a common rule of OMB and 28 Federal agencies. New Restrictions on Lobbying, Interim Final Rule, 55 Fed. Reg. 6736 (1990). For contracts, the Byrd Amendment is implemented at FAR subpart 3.8. Neither of these sources is particularly helpful on the issue of applicability to OTs.

The statute is quite specific concerning the types of instruments and relationships to which it applies, *i.e.* Federal contracts, grants, loans, and cooperative agreements. The Byrd Amendment defines "Federal contract" merely as "a contract awarded by an agency." Despite the fairly broad sweep of the statute, there is no indication that it was intended to cover every possible public-private relationship, and in fact there are relationships that are not listed. For example, it does not list loan guarantees or subsidies among the covered transactions. Therefore, because S&T OTs are not listed among the relationships covered by section 1352, it appears that section 1352 does not apply to them.

The question is a close one because "Federal contract" is defined simply as "a contract awarded by an agency," without limiting such definition to "procurement contracts" or contracts for the acquisition of goods or services for the direct benefit of the Government. 31 U.S.C. § 1352(g)(6)(A)(i). Under this view, because OTs are "contracts" in the common law sense of the term and are necessarily awarded by a Federal agency (DoD), arguably they could be within this definition.

On the other hand, if the term "Federal contract" were meant to encompass all common law contracts, it would automatically encompass "grants," "loans," and "cooperative agreements." *See, e.g., Thermalon Indus., Ltd. v. United States*, 34 Fed. Cl. 411 (1995) (Federal grants are common law contracts for purposes of Tucker Act jurisdiction). Section 1352(a)(2) would not need to separately list these three types of transactions. The fact that these three items *are* specified in this section suggests a more limited definition of the term "Federal contract" than "common law contract." It is reasonable to conclude that section 1352 applies only to those transactions expressly mentioned in the text of this section, and does not apply to items not expressly mentioned, even if the excluded items are common law contracts (*expressio unius est*

exclusio alterius). Because OTs are not specified in the text of section 1352, this provision does not apply to them.

This latter result – that section 1352 does not apply to OTs – is supported by the legislative history of the Byrd Amendment. The Senate Report (S. Rep. No. 101-85 at 128 (1989)), states that the terms “ ‘Federal contract,’ ‘Federal grant,’ and ‘Federal Cooperative Agreement’ refer primarily to these three instruments as described in 31 U.S.C. §§ 6303-6305.” 31 U.S.C. § 6303 defines a “procurement contract.” This suggests that “Federal contract” means “procurement contract” only, and that the term is not intended to encompass every instrument that can be described as a common law contract. Because OTs are *other than* procurement contracts, grants, and cooperative agreements, and the Byrd Amendment applies only to procurement contracts, grants, and cooperative agreements (as suggested by this Senate Report), the Byrd Amendment would not apply to either S&T or section 845 OTs.

15. 41 U.S.C. §§ 51-58, Anti-Kickback Act of 1986 (Kaminski Memorandum, Item 15.)

Purpose of the Statute: To eliminate the practice of subcontractors paying kickbacks in the form of fees, gifts, gratuities, or credits to higher tier subcontractors or prime contractors for the purpose of securing the award of subcontracts or orders.

Summary Conclusion on Applicability: The Anti-Kickback Act generally applies to section 845 OTs, but not to S&T OTs.

Analysis: The statute defines the term “prime contract” as a “contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.” 41 U.S.C. § 52(4).

Originally the Act was narrowly tailored and only applied to cost-type contracts, but it was first expanded to cover all “negotiated” contracts, and was finally expanded to cover all Federal contracts. Although not totally clear, this statute applies to more than just procurement contracts, and thus would generally apply to section 845 OTs, but not to S&T OTs. The Anti-Kickback Act applies more broadly than procurement contracts because (1) the statute’s application to any “contract or contractual action” is very broad, (2) the legislative history indicates Congress’ intent for the statute to have a broad reach, and (3) this statute is contained in chapter 1, “General Provisions,” of title 41, which includes sections that arguably have broad application beyond procurement contracts.

Congress has authorized DoD to enter into both S&T OTs, where generally nothing is “acquired,” and section 845 OTs, where generally services (“purely military research and development”) are “acquired.” See *Final Report of the Integrated Product Team on the Services’ Use of 10 U.S.C. § 2371 OTs and 845 Prototype Authorities* (10 June 1996). Therefore, a section 845 OT obtains “services” using a “contract or contractual action,” and therefore the Anti-Kickback Act generally applies to prototype OTs. In the case of S&T OTs, the Government does not acquire anything; therefore the Anti-Kickback Act does not apply.

16. 41 U.S.C. § 423, Procurement Integrity Act (Section 27 of the Office of Procurement Policy Act) (Kaminski Memorandum, Item 16.)

Purpose of the Statute: To ensure the ethical conduct of Federal agency procurements by prohibiting certain Government officials from accepting compensation from or discussing future employment with bidders or offerors, and prohibiting the unauthorized receipt or disclosure of contractor bid and proposal information or source selection information before the award of a Federal agency procurement contract.

Summary Conclusion on Applicability: The Act does not apply to OTs.

Analysis: The Procurement Integrity Act was enacted as section 27 of the Office of Federal Procurement Policy Act (“OFPP Act”), and is codified at 41 U.S.C. § 423. Section 27 was originally added to the OFPP Act when that statute was reauthorized by the Office of Federal Procurement Policy Act Amendments of 1988, Pub. L. No. 100-679, 102 Stat. 4055, and has since been modified through the Clinger-Cohen Act of 1996, Pub. L. No. 104-106, § 4304, 110 Stat. 186, 659 (1996). The OFPP Act, which contains the procurement integrity provisions, authorizes the establishment of policies, procedures, and practices applicable to procurement contracts awarded by executive agencies, and mandates a single uniform procurement regulation to be maintained by GSA, DoD, and NASA under the authority of the Federal Property and Administrative Services Act of 1949 (“FPASA”), 41 U.S.C. §§ 251 *et seq.*; chapter 137 of title 10; and the National Aeronautics and Space Act of 1958, 42 U.S.C. §§ 2451 *et seq.*

The OFPP Act does not apply to contractual agreements entered into by Executive agencies that are not procurement contracts. Nor does it apply to grants and cooperative agreements, which by statute are defined as separate types of legal instruments distinct from procurement contracts. 31 U.S.C. §§ 6303-6305. Congress’ placement of the Procurement Integrity Act within the OFPP Act and the terms of the statute indicate Congress intended these provisions to apply only to conduct in connection with procurement contracts that are subject to the requirements of the general procurement statutes and the uniform Federal Acquisition Regulation system. Nothing in the legislative history suggests the Act has a broader scope than the OFPP Act of which it is a part or that it applies to transactions that are by statute not procurement contracts.

It should be noted that although the Procurement Integrity Act does not apply to either type of OT, other statutes that do apply to OTs may achieve the same results. The prohibition against theft of property under a contract with the United States, codified at 18 U.S.C. § 641, applies to both types of OTs because it is a statute of general applicability. This statute was successfully used in several Ill Wind prosecutions for improper receipt of insider information covered by the Procurement Integrity Act.

17. 41 U.S.C. §§ 351 *et seq.*, Service Contract Act; 41 U.S.C. §§ 35-45, Walsh-Healey Act; 29 U.S.C. §§ 201-219, Fair Labor Standards Act (Kaminski Memorandum, Item 17.)

In General: The applicability of these labor statutes to OTs turns on the *substance* of the OT, and not on its form. These statutes apply to OTs to the same extent that they apply to procurement contracts. Entities engaged in OTs are neither afforded relief from such statutes nor additionally burdened by them.

17a. 41 U.S.C. §§ 351 *et seq.*, Service Contract Act.

Purpose of the Statute: To establish minimum wages and fringe benefits for service employees working under covered contracts and related subcontracts and to prohibit the contractor or subcontractor from exposing its service employees to unsafe or hazardous working conditions.

Summary Conclusion on Applicability: Depending on the terms of the OT instrument, the Service Contract Act (SCA) could apply.

Analysis: The Service Contract Act applies to every “*contract* entered into by the United States or the District of Columbia in excess of \$2,500 . . . the *principal purpose* of which is to *furnish services* in the United States through the use of service employees.” 41 U.S.C. § 351(a)

(emphasis added).⁶ The Service Contract Act does not define “contract” for purposes of applying its terms.

To determine whether the SCA applies only to procurement contracts (and therefore not to OTs), or whether it applies more broadly, one would have to determine whether “furnishing services in the U.S.” is the same as “acquiring services for the direct benefit or use of the Government” as procurement contracts are defined under 31 U.S.C. § 6303. According to the Department of Labor, which is charged with the enforcement of this Act, these terms do not mean the same thing; the Service Contract Act covers contracts “other than” procurement contracts (and therefore would cover OTs). DoL regulations interpreting the Service Contract Act make clear that there is no requirement that the services in question must be provided directly to the U.S. Government or even for its benefit:

[T]here is no limitation in the Act regarding the beneficiary of the services, nor is there any indication that only contracts for services of direct benefit to the Government, as distinguished from the general public, are subject to the Act. Therefore, where the principal purpose of the Government contract is to provide services through the use of service employees, the contract is covered by the Act, regardless of the direct beneficiary of the services or the source of the funds from which the contractor is paid for the service. . . .

29 C.F.R. § 4.133.

An OT, in general, would be a contract for the furnishing of research services in the United States by service employees. The Service Contract Act would therefore apply to S&T OTs (which are used to develop dual-use technologies), because there is no requirement that the

⁶ There are some statutory exemptions that would not generally apply here. *See also* FAR § 22.1001; 29 C.F.R. § 4.104.

Government “acquire” those services. It would also apply to section 845 OTs, instruments through which DoD acquires “purely military” research and development services.

This result is consistent with the remedial nature of the Service Contract Act, which is to be liberally construed. *See Menlo Serv. Corp. v. United States*, 765 F.2d 805 (9th Cir. 1985).

This conclusion is also consistent with a provision found in DoD’s prior request to extend its OT authority to certain pilot production programs:

The Secretary of Defense may enter, on a pilot basis, into other transactions authorized by § 2371 of title 10, United States Code, for follow-on production of programs initiated as prototype projects under section 845 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law No. 103-160), as amended. Pilot production programs designated pursuant to this section are subject to such limitations, terms and conditions. . . as the Secretary may determine. Section 2371(e) of such title 10 is not applicable to the other transactions conducted under the authority of this section. *Nothing in this subsection shall be construed to waive civil rights or labor standards applicable to Federal contracts.*

Letter from Judith A. Miller, DoD General Counsel, to Albert Gore, Vice President of the United States, enclosure at 1 (Mar. 28, 1997) (emphasis added).

One cannot waive what is inapplicable in the first place; it stands to reason that the drafter of this proposed legislation considered that the “labor standards applicable to Federal contracts” do, in fact, apply to OTs.

A recent opinion of the D.C. Circuit supports this analysis as well. *See Ober United Travel Agency v. Department of Labor*, No. 97-5046 (D.C. Cir. Feb. 13, 1998). The *Ober* court considered whether the Service Contract Act applied to a no-cost contract allowing appellant travel agency to provide travel-related services to Federal employees. The travel agency argued that the Service Contract act applied only to procurement contracts, and that the travel manage-

ment contract at issue was not a procurement contract under 31 U.S.C. § 6303(1) (the Chiles Act) and department regulations because it did not draw upon appropriated funds. *Id.* slip op. at 4. The court rejected this argument in part by suggesting that the Service Contract Act applies more broadly than to procurement contracts under the Chiles Act. The court recognized that the Service Contract Act and the Chiles Act have “different purposes” and that the word “contract” may have a different meaning under the two statutes. *Id.* slip op. at 5.

17b. 41 U.S.C. §§ 35-45, Walsh-Healey Act.

Purpose of the Statute: To require all covered contracts to contain stipulations regarding minimum wages, maximum hours, safe and sanitary working conditions, child labor, and convict labor requirements.

Summary Conclusion on Applicability: The Walsh-Healey Act may apply to section 845 OTs but not to S&T OTs.

Analysis: The Walsh-Healey Act applies to contracts made and entered into by an agency of the United States “for the manufacture or furnishing of materials, supplies, articles, and equipment in any amount exceeding \$10,000.” 41 U.S.C. § 35. This act

was to impose obligations upon those favored with Government business and to obviate the possibility that any part of our tremendous national expenditures would go to forces tending to depress wages and purchasing power and offending fair social standards of employment.

Perkins v. Lukens Steel Co., 310 U.S. 113, 128 (1940). Thus, this Act’s application to “*any part* of the expenditures of the Government,” and its use of the term “furnishing” rather than “procurement” of materials, etc., suggests that the Walsh-Healey Act’s scope includes contracts other than procurement contracts and could include section 845 OTs. As a practical matter,

however, S&T OTs would not be characterized as for the manufacture or furnishing of materials, but rather for the furnishing of R&D services. Therefore, it is unlikely that the Walsh-Healey Act would apply to these OTs.

17c. 29 U.S.C. §§ 201-219, Fair Labor Standards Act.

Purpose of the Statute: To establish minimum wage, maximum hours, and child labor requirements on an industry-wide basis.

Summary Conclusion on Applicability: The Fair Labor Standards Act (FLSA) applies to OTs, subject to the exemptions under § 13 of the Act, 29 U.S.C. § 213.

Analysis: FLSA applies to employers with employees “engaged in commerce or in the production of goods for commerce, or . . . employed in an enterprise engaged in commerce or in the production of goods for commerce.” 29 U.S.C. §§ 206, 207, 212. The Act defines “commerce” broadly as “trade, commerce, transportation, transmission, or communication among the several States or between any State and any place outside thereof.” 29 U.S.C. § 203(b). An entity that is a party to an OT is as likely as any other entity to be so engaged. Clearly, the applicability of this Act has nothing to do with the type of transaction in which such employer may be engaged, so the FLSA would apply to entities that are parties to S&T and section 845 OTs.

18. 41 U.S.C. §§ 701-707, Drug-Free Workplace Act of 1988 (Kaminski Memorandum, Item 18.)

Purpose of the Statute: To eliminate any connection between drug use or distribution and Federal contracts, cooperative agreements, or grants.

Summary Conclusion on Applicability: The Drug-Free Workplace Act does not apply to OTs.

Analysis: With respect to contracts, the statute states:

No person, other than an individual, shall be considered a responsible source, under the meaning of such term as defined in [§ 403(8) of this title], for the purposes of being awarded a contract for the procurement of any property or services of a value greater than the simplified acquisition threshold . . . by any Federal agency, other than a contract for the procurement of commercial items . . . unless such person has certified to the contracting agency that it will provide a drug-free workplace by

41 U.S.C. § 701(a)(1).

There is a similar requirement for contracts with individuals. 41 U.S.C. § 701(a)(2).

With respect to grants, the statute says:

No person, other than an individual, shall receive a grant from any Federal agency unless such person has certified to the granting agency that it will provide a drug-free workplace by

Id.

There is a similar provision for grants to individuals. 41 U.S.C. § 702(a)(1).

The statute applies to both procurement contracts and grants. Because OTs are other than procurement contracts, grants, and cooperative agreements, this statute by its own terms does not apply to OTs. It also refers to the definition of “responsible source” in 41 U.S.C. § 403. This reference is to the Office of Federal Procurement Policy Act found in chapter 7 of title 41, discussed above, which covers procurement contracts. Because OTs are not expressly included in the Drug-Free Workplace Act and because the application of the Act does not extend beyond procurement contracts and grants, the Drug-Free Workplace Act does not apply to any type of OT.

19. 41 U.S.C. §§ 10a -10d, Buy American Act (Kaminski Memorandum, Item 19.)

Purpose of the Statute: To provide a preference for domestic products in government acquisition for public use.

Summary Conclusion on Applicability: The statute does not apply to OTs. In view of the strong policies embodied in the statute, it may be appropriate to apply it, as a matter of policy if not law, to section 845 OTs.

Analysis: The requirements of the Buy American Act are found at 41 U.S.C. § 10a. The policies and procedures to implement it are found at FAR part 25. The statute provides, in relevant part:

Notwithstanding any other provision of law, and unless the head of the department or independent establishment concerned shall determine it to be inconsistent with the public interest, or the cost to be unreasonable, only such *unmanufactured articles, materials, and supplies* as have been mined or produced in the United States, and only such *manufactured articles, materials, and supplies* as have been manufactured in the United States substantially all from articles, materials, or supplies mined, produced or manufactured, as the case may be, in the United States, *shall be acquired for public use*. This section shall not apply . . . if articles, materials, or supplies of the class or kind to be used or the articles, materials or supplies from which they are manufactured are not mined, produced or manufactured, as the case may be, in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality. This section shall not apply to manufactured articles, materials, or supplies procured under any contract the award value of which is less than or equal to the micro-purchase threshold under [section 428 of this title].

41 U.S.C. § 10a (emphasis added).⁷

A related provision, § 10d, provides as follows:

§ 10d. Clarification of Congressional intent regarding §§ 10a and 10b(a)

In order to clarify the original intent of Congress, hereafter, [§ 10a of this title] and that part of section [10b(a) of this title] preceding the words "*Provided, however,*" shall be regarded as *requiring the*

⁷ The provisions of the Buy American Act applicable to construction of public works and buildings, located at 41 U.S.C. § 10b, appear to be irrelevant to the present analysis.

purchase, for public use within the United States, of articles, materials, or supplies manufactured in the United States in sufficient and reasonably available commercial quantities and of a satisfactory quality, unless the head of the Federal agency concerned shall determine their purchase to be inconsistent with the public interest or their cost to be unreasonable.

41 U.S.C. § 10d (emphasis added).

The Act's basic requirements were enacted in 1933, Act of Mar. 3, 1933, ch. 212, Title III, 47 Stat. 1489, 1520, and it was amended in 1988 and 1994.

The Buy American Act is concerned with manufactured and unmanufactured articles, materials, and supplies "acquired for public use,"⁸ a term used interchangeably with "procured" in the statute. Because any statute that applies only to procurement contracts does not apply to OTs, and the Buy American Act applies only to procurement contracts, the Buy American Act does not apply to OTs.

It has been stated that the purpose of the Act is to foster and protect American industry, American workers and American invested capital. *Textron, Inc. v. Adams*, 493 F. Supp. 824, 830 (D.D.C. 1980). Moreover, the Act represents such a significant, deeply ingrained national policy for public procurement that it has been held that the correct Buy American Act clause is to be read into construction contracts by operation of law under the Christian doctrine where an incorrect clause had been included. *S.J. Amoroso Constr. Co. v. United States*, 12 F.3d 1072, 1075-76 (Fed. Cir. 1993). It would appear consistent with the purpose and policy of the statute to extend it, as a matter of policy, to OTs.

⁸ The terms "articles," "materials," and "supplies" are not defined in the statute. The term "public use" means use by the United States. 41 U.S.C. § 10c(b).

The Kaminski memorandum states that the Buy American Act, “[a]pplies only in part to ‘Other Transactions’.” It is unclear what this qualification means.⁹

20. 28 U.S.C. § 1491, Tucker Act (Added by Working Group)

Purpose of the Statute: To provide jurisdiction to the Court of Federal Claims and U.S. District Courts in certain contract matters.

Summary Conclusion on Applicability: OTs can be considered contracts, although not necessarily “procurement contracts.” Accordingly, both types of OTs would be subject to the Tucker Act; the Court of Federal Claims would have jurisdiction over matters arising from such instruments.

Analysis: The Tucker Act, at 28 U.S.C. § 1491(a)(1), provides that the “Court of Federal Claims shall have jurisdiction to render judgment upon any claim against the United States founded . . . upon any express or implied contract with the United States.” The Court of Federal Claims has held that a party alleging this contract jurisdiction must show, in addition to the agent’s authority to bind the Government, “a mutual intent to contract including an offer, an acceptance, and consideration passing between the parties.” *Thermalon Indus. v. United States*, 34 Fed. Cl. 411, 414 (1995) (citing *City of El Centro v. United States*, 922 F.2d 816, 829 (Fed. Cir. 1990)); *Fincke v. United States*, 675 F.2d 289, 295 (Ct. Cl. 1982). *Accord Total Med. Management, Inc. v. United States*, 104 F.3d 1314, 1319-20 (Fed. Cir. 1997) (rejecting the holding of *Trauma Serv. Group, Ltd. v. United States*, 33 Fed. Cl. 426 (1995), that CHAMPUS

⁹ In addition to the Buy American Act, annual appropriation acts for some years have contained provisions requiring domestic products for certain items.

Memoranda of Understanding are unenforceable agreements under the Tucker Act); *Trauma Serv. Group v. United States*, 104 F.3d 1321, 1325-26 (Fed. Cir. 1997).

In *Thermalon Industries*, the court rejected the Government's challenges to the court's contract jurisdiction in the case of a suit for damages under a research grant from the National Science Foundation. The court found that the grant embodied the above contractual elements. It also rejected the Government's argument that, under the Chiles Act, only Federal procurement contracts came within the court's contract jurisdiction because that act distinguishes the use of procurement contracts from use of grants or cooperative agreements. Judge Andewelt, in a well-reasoned opinion, found that "[t]here is no suggestion in the Grant [Chiles] Act that procurement contracts are the only type of contracts enforceable under the Tucker Act or that grant agreements that satisfy all of the ordinary requirements for a Government contract should not be classified as contracts enforceable under the Tucker Act." *Thermalon Indus.*, 34 Fed. Cl. at 417.

The OT authority under 10 U.S.C. § 2371 is the authority of DoD to "enter into transactions (other than contracts, cooperative agreements, and grants)" for "basic, applied, and advanced research projects"; under section 845 is the authority "to carry out prototype projects that are directly relevant to weapons or weapons systems proposed to be acquired or developed by the Department of Defense." Any argument that the phrase "transactions (other than contracts, cooperative agreements, and grants)" deprives the Federal courts of Tucker Act contract jurisdiction should be rejected for the closely similar reasons stated by Judge Andewelt in *Thermalon Industries* in interpreting the Chiles Act.

Under section 12 of the Administrative Dispute Resolution Act of 1996, Pub. L. 104-320, 110 Stat. 3870, 3874-76 (effective Dec. 31, 1996), the U.S. Court of Federal Claims and the Federal district courts have concurrent jurisdiction under amended 28 U.S.C. § 1491(b)(1) "to

render judgment on an action by an interested party objecting to a solicitation by a Federal agency for *bids or proposals for a proposed contract* or to a *proposed award or the award of a contract* or any alleged violation of statute or regulation in connection with a procurement or a proposed procurement.” 28 U.S.C. § 1491(b)(1) (emphasis added). The highlighted language would seem broad enough to reach solicitations and awards relating to “contracts” (not necessarily limited to procurement contracts) under the S&T and section 845 OT authorities.

Nevertheless, because OTs generally involve significantly fewer specific terms and conditions than do contracts, and because few statutes or regulations govern the makeup of OTs, agencies possess broad discretion in the award of OTs. Thus the question of standing to sue would be more likely to arise with OTs than with contracts. *See, e.g.*, 5 U.S.C. § 701(a)(2) (judicial review not available when agency action committed to agency discretion by law). A protester probably would find it far more difficult to establish that the Government materially and prejudicially departed from the terms and conditions of the solicitation for an OT than from those for a contract. Presently there is no statutory, regulatory or decisional guidance on the question of standing for OT protests.¹⁰

21. 35 U.S.C. §§ 200-212, Bayh-Dole Act (Added by Working Group)

Purpose of the Statute: To set forth the Government’s policy regarding allocation of patent rights to inventions conceived or first actually reduced to practice under contracts, grants, and cooperative agreements with small business firms and educational and other nonprofit

¹⁰ For a detailed discussion of bid protests at the CoFC, *see* American Bar Association, Section of Public Contract Law, Bid Protest Committee, *Post Award Bid Protests at the U.S. Court of Federal Claims* (1998).

organizations. This policy has been extended to large businesses by Executive Order No. 12,591, 3 C.F.R. 220 (1988).

Summary Conclusion on Applicability: The requirements of the Bayh-Dole Act are not applicable to OTs. DARPA, however, applies such requirements as a matter of policy unless the contractor can demonstrate a need to deviate from such policy.

Analysis: The Bayh-Dole Act sets forth the Government's policy regarding allocation of patent rights to inventions conceived or first actually reduced to practice under contracts, grants, and cooperative agreements with small business firms and educational and other nonprofit organizations (subject inventions). This patent policy also has been extended to large businesses by Presidential Memorandum dated February 18, 1983 and Executive Order No. 12,591. 19 Weekly Comp. Pres. Doc. 252 (Feb. 18, 1983); 3 C.F.R. 2201 (1988). The contractor (or recipient, in the case of grants and cooperative agreements) is permitted to retain title to subject inventions and the Government receives a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced subject inventions on behalf of the United States throughout the world.

The Bayh-Dole Act is applicable when research is conducted under a Government "funding agreement," which is defined in the Act at 35 U.S.C. § 201(b) to be a contract, grant, or cooperative agreement. Congress evidently intended here that the term "contract" meant "procurement contract" rather than a common law contract, because grants and cooperative agreements are contracts under standard contract law. *Thermalon Indus., Ltd. v. United States*, 34 Fed. Cl. 411 (1995) ("grant" was a "contract" for Tucker Act purposes). See analysis of the applicability of the Byrd Amendment, item 14, *supra*.

In addition, the legislative history of the statute authorizing S&T OTs (10 U.S.C. § 2371) expressly indicates that the Bayh-Dole Act is not intended to apply to such transactions because they are not a contract, grant, or cooperative agreement. The conference report on the National Defense Authorization Act for Fiscal Year 1992 reads as follows:

The conferees also recognize that the regulations applicable to the allocation of patent and data rights under the procurement statutes may not be appropriate to partnership arrangements in certain cases. The conferees believe that the option to support “partnership,” pursuant to section 2371 of title 10, United States Code, provides adequate flexibility for the Defense Department and other partnership participants to agree to *allocations of intellectual property rights* in a manner that will meet the needs of all parties involved in a transaction.

H.R. Conf. Rep. No. 102-311, at 576 (1991), *reprinted* in 1991 U.S.C.C.A.N. 918, 1132 (emphasis added).

Additionally, the House Armed Services Committee report on the 1995 National Defense Authorization Act reads as follows:

It is the general policy of the Technology Reinvestment Project (TRP) to negotiate intellectual property rights in “partnerships” so as to optimize the chances of successful commercialization. TRP policy provides that the Federal Government should avoid acquiring rights if that will impede commercialization. Foreign access to technology is scrutinized and, if deemed necessary, restricted. Broad exposure of the technology among partnerships participants is encouraged.

The Advanced Research Projects Agency (ARPA) can fully effectuate these policies because it has great flexibility to tailor *patent and other intellectual property rights* provisions under its “other transactions” authority. Other TRP agencies are to some degree constrained by their organic statutes; government-wide policies applicable to technology developments supported by *contracts, grants, or by cooperative agreements*, or by agency policies developed years ago. The committee encourages the other DoD agencies participating in the TRP and the non-DoD agencies

cooperating in the TRP to review their policies on intellectual property rights.”¹¹

H.R. Rep. No. 103-499, at 285 (1994) (emphasis added).

In addition, the Senate Armed Services Committee has stated that “the committee did not intend that such transactions be subject to the provisions of Public Law No. 96-517, as amended [the Bayh-Dole Act].” S. Rep. No. 104-267 at 314 (1996).

The interpretation that the Bayh-Dole Act does not apply to DoD OTs is consistent with NASA’s interpretation that the Act does not apply to OTs issued by NASA under NASA’s separate statutory authority found at 42 U.S.C. § 2473(c)(5). NASA Memorandum re: “Technology Reinvestment Project (TRP): Funded Space Act Agreements and Intellectual Property Rights,” from G. P. Miller through G. P. Mannix to G. Frankle (May 28, 1993).

At the request of Congress, GAO recently conducted an extensive study of DARPA’s use of S&T OTs. Although the GAO study indicated that some in DoD believed that the Bayh-Dole Act applied to OTs, GAO believed this position was wrong. See General Accounting Office, *DoD Research: Acquiring Research by Nontraditional Means*, GAO/NSIAD-96-11 (Mar. 29, 1996).

As noted above, in 1996 a DoD Integrated Product Team (IPT) conducted a study of the military services’ use of both S&T OTs and those under section 845. The study agreed with DARPA’s¹² and GAO’s interpretation that the Bayh-Dole Act does not apply to either S&T or

¹¹ In 1991, ARPA’s test authority to enter into OTs for R&D was broadened to cover all of DoD and made permanent. Pub. L. No. 102-190, § 826, 105 Stat. 1290, 1442 (1991).

¹² The Advanced Research Projects Agency (ARPA) was renamed the Defense Advanced Research Projects Agency (DARPA) by Pub. L. No. 104-106, § 908, 110 Stat. 186, 406 (1996).

section 845 OTs. *See Final Report of the Integrated Product Team on the Services' Use of 10 U.S.C. 2371 'Other Transactions' and 845 Prototype Authorities* (1996), at 10.

On December 2, 1997, DoD issued guidance on Technology Investment Agreements stating that OTs are not subject to the Bayh-Dole Act. DDR&E Memorandum, "Subject: Instruments for Stimulation or Support of Research" (Dec. 2, 1997) (attaching "Guidance on 'Technology Investment Agreements' for Military Departments and Defense Advanced Research Projects Agency (DARPA)," at 7). DoD updated this guidance on March 24, 1998, with the same interpretation. DDR&E Memorandum, "Subject: Revision 1 to Guidance on Instruments for Stimulation or Support of Research (Mar. 24, 1998) (attaching Revision 1).

The legislative history of section 845 shows that it was the intent of Congress to expand DARPA's use of the flexible "other transaction" authority, on a test basis, to include prototype projects directly relevant to weapons systems. The legislative history of this section indicates no change was intended regarding the non-applicability of the Bayh-Dole Act to section 845 OTs. The legislative history of section 845 reads in pertinent part as follows:

Mr. BINGAMAN. Mr. President, the amendment which I am offering would allow the Advanced Research Projects Agency to use cooperative agreements authority on a pilot basis to execute some of its defense projects. ARPA already has the authority to use cooperative agreements and other transactions to implement its dual-use projects, where industry contributes its own resources, and use of contracts would not be appropriate. Indeed ARPA expects to utilize that authority extensively to implement the programs under the Technology Reinvestment Project.

My amendment would permit ARPA on a pilot test basis over the next 3 years to experiment with use of cooperative agreements in carrying out its purely military research and development projects, to which we should not expect industry to contribute its own resources. Use of this more flexible authority is consistent with the thrust of the National Performance Review which the Vice President submitted to the President yesterday and with the desire

for more flexibility in the defense acquisition system. ARPA led the way in use of cooperative agreements for dual-use projects, such as the high performance computing program. I am sure the agency will make good use of this new authority and urge my colleagues to support this amendment.

Mr. NUNN. This amendment allows ARPA to use the authority in § 2371 of title X, U.S.C. to carry out pilot projects that are directly relevant to weapon or weapons systems. This amendment will allow ARPA to use the cooperative agreements of purely military research as a 3-year test.

The PRESIDING OFFICER. The chair, hearing no further debate, without objection, the amendment offered on behalf of the Senator from New Mexico [Mr. Bingaman] is agreed to.

139 Cong. Rec. S11158, S11288 (daily ed. Sept. 9, 1993)

Section 804 of the National Defense Authorization Act for Fiscal Year 1997 (Pub L. No. 104-201, 110 Stat. 2422 (1996)) extended the section 845 test authority for 3 years, through September 30, 1999, and broadened the authority to permit use by all of DoD. There is nothing in the legislative history of section 804 that indicates a change in Congressional intent that the Bayh-Dole Act does not apply to section 845 OTs for prototype projects. The House Report on section 804 reads in pertinent part as follows:

This section would reauthorize and expand to the military services the authority provided by § 845 of the National Defense Authorization Act for Fiscal Year 1994 (Public Law No. 103-160) to allow additional flexibility in the acquisition of prototype technologies and systems.

H.R. Rep. No. 104-563, at 325-26 (1996).

The legislative history of both 10 U.S.C. § 2371 and section 845 indicates that the Bayh-Dole Act is not intended to apply to such transactions. GAO and DoD agree with this interpretation. Nevertheless, although DoD has flexibility under OTs to deviate from the general policy of the Bayh-Dole Act, DARPA rarely deviates from the general policy of Bayh-Dole

when negotiating OTs. To obtain an exemption from the general policy, DARPA requires that OT contractors demonstrate that the general policy is inconsistent with the goals of a particular research project. Moreover, in all cases the OT contractor must provide for “march-in rights” to allow the Government to license subject inventions for commercial purposes if the title holder fails to take reasonable steps to achieve practical application or if other specified conditions occur.¹³

Some of the concessions granted by DARPA when compelling justification is shown include delaying the effective date of the Government purpose license (*e.g.*, the license begins 5 years after the end of the term of the OT) and specifically defining what are reasonable efforts toward practical application that preclude exercise of march-in rights.¹⁴

22. 10 U.S.C. § 2320 and § 2321, Technical data provisions applicable to DoD (Added by Working Group)

Purpose of the Statute: To provide for regulations to define the legitimate interest of the U.S. and of a contractor or subcontractor in technical data pertaining to an item or process.

Summary Conclusion on Applicability: The statute does not apply to OTs.

Analysis: The legislative history cited above with respect to the applicability of the Bayh-Dole Act to OTs indicates that 10 U.S.C. § 2320 and 10 U.S.C. § 2321 and their implementing regulations are not applicable to OTs. In 1984, Congress enacted 10 U.S.C. § 2320 and 10 U.S.C. § 2321, Defense Procurement Reform Act of 1984, Pub. L. No. 98-525,

¹³ Richard L. Dunn, “Using Other Transactions in Cooperative Government-Industry Relationships to Support the Development and Application of Affordable Technology,” 5-6 (1995).

¹⁴ Advanced Research Projects Agency, *Draft Guidance for Use of Other Transactions*, 9 (Feb. 1995).

§ 1216, 98 Stat. 2588, 2595-98 (1984).¹⁵ 10 U.S.C. § 2320 directed DoD to issue regulations covering rights in technical data developed under DoD contracts. Such regulations were issued as an interim rule in the DoD FAR Supplement (DFARS) in October 1988 and as a final rule in June 1995. 10 U.S.C. § 2321 established procedures for validation of proprietary data delivered under DoD contracts. Implementing regulations were issued in the DFARS in the technical data rights interim rule in October 1988 and in the technical data rights final rule in June 1995. 60 Fed. Reg. 33,464 (1995).

Section 2320 is included in chapter 137, title 10 of the U.S. Code, which is concerned with procurement contracts. 10 U.S.C. § 2320(a)(1) requires DoD to prescribe regulations to define the legitimate interest of the U.S. and of a contractor or subcontractor in technical data pertaining to an item or process. 10 U.S.C. § 2320(a)(1) also requires that such regulations be made a part of the DFARS. The FAR and its supplements only apply to procurement contracts. FAR §§ 1.101, 1.301, 2.101 (definitions of “acquisition” and “contract”); Advanced Research Projects Agency, *Draft Guidance for Use of Other Transactions*, 1 (Feb. 1995). Therefore, 10 U.S.C. § 2320 applies only to procurement contracts and does not apply to OTs.

Similarly, 10 U.S.C. § 2321 (validation procedures) is also included in chapter 137, title 10 of the U.S. Code, which is applicable only to procurement contracts. 10 U.S.C. § 2321 states that it applies to any contract for supplies or services entered into by DoD that includes provisions for the delivery of technical data. 10 U.S.C. § 2321 was implemented in the October 1988 DFARS interim rule pertaining to technical data and the June 1995 final rule. The FAR and its

¹⁵ Section 2320 limits in certain ways the conduct of both DoD and its contractors in negotiating rights in technical data. Sections 2320 and 2321 do not cover rights in computer software.

supplements apply only to procurement contracts. Again, therefore, 10 U.S.C. § 2321 and its implementing regulations should not apply to OTs.

The legislative history cited above with respect to the applicability of the Bayh-Dole Act to OTs indicates that 10 U.S.C. § 2320 and 10 U.S.C. § 2321 and their implementing regulations are not applicable to OTs. The conference report on the National Defense Authorization Act for Fiscal Year 1992 reads as follows.

The conferees also recognize that the regulations applicable to the allocation of patent *and data rights* under the procurement statutes may not be appropriate to partnership arrangements in certain cases. The conferees believe that the option to support partnerships pursuant to § 2371 of title 10, United States Code, provides adequate flexibility for the Defense Department and other partnership participants to agree to allocations of intellectual property rights in a manner that will meet the needs of all parties involved in a transaction.¹⁶

Additionally, the House Armed Services Committee report on the 1995 Fiscal Year National Defense Authorization Act reads as follows:

It is the general policy of the Technology Reinvestment Project (TRP) to negotiate intellectual property rights in “partnerships” so as to optimize the chances of successful commercialization. TRP policy provides that the Federal Government should avoid acquiring rights if that will impede commercialization. Foreign access to technology is scrutinized and, if deemed necessary, restricted. Broad exposure of the technology among partnerships participants is encouraged.

The Advanced Research Projects Agency (ARPA) can fully effectuate these policies because it has great flexibility to tailor *patent and other intellectual property rights provisions* under its “other transactions” authority. Other TRP agencies are to some degree constrained by their organic statutes; government-wide policies applicable to technology developments supported by

¹⁶ H.R. Conf. Rep. No. 102-311, at 576 (1991).

contracts, grants, or by cooperative agreements, or by agency policies developed years ago. The committee encourages the other DoD agencies participating in the TRP and the non-DoD agencies cooperating in the TRP to review their policies on intellectual property rights.

H.R. Rep. No. 103-499, at 285 (1994) (emphasis added).

23. 18 U.S.C. § 1905, Trade Secrets Act (Added by Working Group)

Purpose of the Statute: To protect trade secrets or other confidential information obtained by the Government.

Summary Conclusion on Applicability: The Trade Secrets Act applies to OTs.

Analysis: The Trade Secret Act makes it a crime for an employee of the U.S. to publish or disclose trade secrets or other confidential information obtained as a result of Government employment. The Trade Secrets Act reads as follows:

§ 1905. Disclosure of confidential information generally

Whoever, being an officer or employee of the United States or of any department or agency thereof, any person acting on behalf of the Office of Federal Housing Enterprise Oversight, or agent of the Department of Justice as defined in the Antitrust Civil Process Act (15 U.S.C. 1311-1314), publishes, divulges, discloses, or makes known in any manner or to any extent not authorized by law any information coming to him in the course of his employment or official duties or by reason of any examination or investigation made by, or return, report or record made to or filed with, such department or agency or officer or employee thereof, which information concerns, or relates to the trade secrets, processes, operations, style of work, or apparatus, or to the identity, confidential statistical data, amount or source of any income, profits, losses, or expenditures of any person, firm, partnership, corporation, or association; or permits any income return or copy thereof or any book containing any abstract or particulars thereof to be seen or examined by any person except as provided by law; shall be fined under this title, or imprisoned not more than one year, or both; and shall be removed from office or employment.

18 U.S.C. § 1905, (as amended by Pub. L. No. 102-550, § 1353, 106 Stat. 3970 (1992)).

Statutes of general applicability apply to OTs.¹⁷ The language in 18 U.S.C. § 1905 applies generally and is not limited by either the type of funding instrument used by the Government or by the nature of the transaction. In fact, no Government funding instrument need be involved. Therefore, the Trade Secrets Act applies to both categories of OTs.

24. 5 U.S.C. § 552, Freedom Of Information Act (FOIA) (Added by Working Group)

Purpose of the Statute: To create uniform agency procedures designed to open the administrative process to the scrutiny of the public by increasing access to documents in Government files.

Summary Conclusion on Applicability: The Act applies to OTs.

Analysis: There is nothing in the FOIA that would apply to a procurement contract yet not apply to an S&T or section 845 OT. The FOIA makes available “records,” which would cover contract documents as well as any documents memorializing OTs. 5 U.S.C. § 552(a)(3). The exceptions to FOIA availability under 5 U.S.C. § 552(b) similarly do not turn on the form of the document but rather on the content.

Nevertheless, section 821 of the National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, 110 Stat. 2422, 2609 (1996), in effect created a new exception to FOIA availability that may affect OTs differently from contracts. Section 821 created new subsections 10 U.S.C. § 2305 (g) and 41 U.S.C. § 253b(m), which prohibit the release of

¹⁷ Richard L. Dunn, “Using Other Transactions in Cooperative Government-Industry Relationships to Support the Development and Application of Affordable Technology,” 6 (1995).

unsuccessful proposals under the FOIA. "Proposal" is defined in section 821 as any proposal submitted by a contractor in response to a solicitation for a competitive proposal. It may be that proposals for OTs are more likely to be unsolicited or otherwise submitted in a non-competitive context than are proposals for traditional procurement contracts. To that extent, unsuccessful OT proposals may be less likely to be excluded from FOIA coverage. On the other hand, section 804 of the National Defense Authorization Act for Fiscal Year 1997, Pub. L. No. 104-201, which extended section 845 authorization for 3 more years, requires that competitive procedures be used to the maximum extent possible on section 845 projects. This may bring more OT proposals within the scope of the FOIA exception created by section 821 for normal competitive proposals.

The National Defense Authorization Act for Fiscal Year 1998, Pub. L. No. 105-85, § 832, 111 Stat. 1629, 1842 (1997), (codified at 10 U.S.C. § 2371(i)), rectifies this situation. This provision expressly exempts from release under FOIA the following types of information submitted to DoD in a competitive or noncompetitive process having the potential for award of an OT: (1) a proposal, proposal abstract, and supporting documents, (2) a business plan submitted on a confidential basis, and (3) technical information submitted on a confidential basis. The foregoing types of information are exempt from release under FOIA for 5 years after receipt by DoD.

25. 31 U.S.C. § 1304, Judgments, awards, and compromise settlements (Added by Working Group)

Purpose of the Statute: To provide an appropriation to pay judgments, awards, compromise settlements, interest, and costs under a number of prescribed circumstances, including a board of contract appeals decision.

Summary Conclusion on Applicability: The statute applies to OTs.

Analysis: Payment from the Judgment Fund would be permitted for OTs, provided one of the circumstances described in section 1304 exists. The operative part of section 1304 is as follows:

- (a) Necessary amounts are appropriated to pay final judgments, awards, compromise settlements, and interest and costs specified in the judgments or otherwise authorized by law when -
 - (1) payment is not otherwise provided for;
 - (2) payment is certified by the Secretary of the Treasury; and
 - (3) the judgment, award, or settlement is payable--
 - (A) under §§ 2414, 2517, 2672, or 2677 of title 28;
 - (B) under § 3723 of this title;
 - (C) under a decision of a board of contract appeals; or
 - (D) in excess of an amount payable from the appropriations of an agency for a meritorious claim under § 2733 or § 2734 of title 10, § 715 of title 32, or § 203 of the National Aeronautics and Space Act of 1958 42 U.S.C. § 2473).

31 U.S.C. § 1304.

Provided one of the circumstances listed in (a)(3) exists, the Judgment Fund would be available in the case of a S&T or section 845 OT.

26. 31 U.S.C. § 1341, Limitations on expending and obligating amounts (Added by Working Group)

Purpose of the Statute: To prohibit involving the Government in a contract or obligation for the payment of money in advance of an appropriation.

Summary Conclusion on Applicability: The statute applies to OTs.

Analysis: Because the statute applies to “obligations,” in addition to “contracts,” it would apply to any OTs that commit the Government to expend funds. Section 1341 of title 31, the “Anti-Deficiency Act,” provides as follows:

- (a)(1) An officer or employee of the United States Government or of the District of Columbia government may not --
 - (A) make or authorize an expenditure or obligation exceeding an amount available in an appropriation or fund for the expenditure or obligation;
 - (B) involve either government in a contract or obligation for the payment of money before an appropriation is made unless authorized by law;
 - (C) make or authorize an expenditure or obligation of funds required to be sequestered under § 252 of the Balanced Budget and Emergency Deficit Control Act of 1985 [2 U.S.C. 902]; or
 - (D) involve either government in a contract or obligation for the payment of money required to be sequestered under § 252 of the Balanced Budget and Emergency Deficit Control Act of 1985 [2 U.S.C. 902].
- (2) This subsection does not apply to a corporation getting amounts to make loans (except paid in capital amounts) without legal liability of the United States Government.
- (b) An article to be used by an executive department in the District of Columbia that could be bought out of an appropriation made to a regular contingent fund of the department may not be bought out of another amount available for obligation.

31 U.S.C. § 1341.

The section applies to any “expenditure or obligation,” regardless of the nature or form of the instrument or transaction involved. The Comptroller General has applied the prohibition in a number of circumstances other than contracts.

27. **31 U.S.C. §§ 3801 *et seq.*, Administrative Remedies for False Claims and Statements (Added by Working Group)**

Purpose of the Statute: To provide civil penalties for any person who knowingly submits a false claim.

Summary Conclusion on Applicability: The statute applies to OTs.

Analysis: The Civil False Claims Act is chapter 38 of title 31. The coverage of the statute is very broad, and would appear to include both S&T and section 845 OTs. A "claim" is defined in § 3801(a)(3) as:

- (3) "claim" means any request, demand, or submission --
 - (A) made to an authority for property, services, or money (including money representing grants, loans, insurance, or benefits);

If a party to either category of OT submits a false claim, as defined, to the Government, the administrative sanctions of section 3801 *et seq.* would apply.

28. **10 U.S.C. § 2306a and 41 U.S.C. § 254b, Truth in Negotiations Act (Added by Working Group)**

Purpose of the Statute: To require the submission of cost or pricing data on negotiated contracts in excess of \$500,000, as well as for certain subcontracts and contract modifications.

Summary Conclusion on Applicability: The statute does not apply to OTs.

Analysis: The Truth in Negotiations Act, as amended, provides that an agency must require offerors, contractors, and subcontractors to submit cost or pricing data for negotiated contracts and contract modifications in excess of \$500,000. The term "cost or pricing data" is defined as all facts that, as of an agreed upon date, a prudent buyer or seller reasonably would expect to affect price negotiations significantly. The data must be certified as accurate, complete, and current; the Government is entitled to a price adjustment if the data prove to be defective,

i.e., inaccurate, incomplete, or not current. Certified cost or pricing data are not required to be submitted when the contract price is based on adequate price competition, the price is set by law or regulation, or the contract is for the acquisition of a commercial item.

The statutory requirement for the submission of cost or pricing data initially applied only to the Department of Defense and the National Aeronautics and Space Administration. The provision, now codified at 10 U.S.C. § 2306a, was enacted in 1962 as an amendment to the Armed Services Procurement Act of 1947. Section 2306a is part of chapter 137 of title 10, entitled "Procurement Generally." Although for many years the requirement applied to civilian agencies by regulation, Congress extended the statute to civilian agencies in section 2712 of the Competition in Contracting Act of 1984 (CICA), Pub. L. No. 98-369, 98 Stat. 1175, 1181 (1984), which added a TINA requirement to Title III ("Procurement Provisions") of the Federal Property and Administrative Services Act, now codified at 41 U.S.C. § 254b.

The legislative history of the original TINA statute indicates that it was one of a number of "changes in the law controlling procurement of property and services . . ." S. Rep. No. 87-1884 at 1 (1962). The Senate report cited audits by the General Accounting Office disclosing "unwarranted profits" on defense procurement contracts because of deficiencies in the data used to price the contracts. Requiring contractors to provide cost or pricing data was designed to place the Government on equal footing with the contractor when negotiating prices in a noncompetitive environment. The reports accompanying CICA indicate that the intent was to extend the statutory requirement to civilian agencies and create a uniform dollar-value threshold at which the requirement would apply. *See, e.g.* H.R. Rep. Conf. No. 98-861 at 1429 (1984). There is nothing in the legislative history of either enactment that would suggest an intent for the requirements of TINA to apply outside the procurement arena.

Under 10 U.S.C. § 2371, an OT is an instrument other than a contract, grant, or cooperative agreement that is used to carry out a research project. Generally, the authority may be used when a "standard contract, grant, or cooperative agreement for such project is not feasible or appropriate." 10 U.S.C. § 2371(e)(2). OTs for prototypes under section 845, however, are not subject to this limitation. Nevertheless, as used in section 2371, "standard contract" refers to a "procurement contract" under the Chiles Act. Thus, S&T and section 845 OTs are a means for carrying out research and acquiring prototypes without using procurement contracts. Although such OTs may contain the elements of common law contracts, under this statutory scheme they are not procurement contracts.

Based on the statutory enactments and their legislative histories, it is clear that the requirement of TINA for cost or pricing data applies only to procurement contracts. The requirement is part of the general procurement-related provisions found in chapter 137 of title 10, U. S. Code, and Title III of the Federal Property and Administrative Services Act. "Cost or pricing data" is defined in terms of the expectations of buyers and sellers in procurement transactions. The legislative history of TINA indicates that Congress was concerned about procurement issues, and there is no suggestion that the requirements were intended to apply to instruments other than procurement contracts. Because OTs are not procurement contracts, the requirements of TINA do not apply to them.

29. 41 U.S.C. § 422, Cost Accounting Standards (Added by Working Group)

Purpose of the Statute: To provide for the promulgation of uniform standards for allocating costs to Government contracts.

Summary Conclusion on Applicability: The statute does not apply to OTs.

Analysis: Section 26 of the Office of Federal Procurement Policy Act (OFPPA), 41 U.S.C. § 422, established within OFPP an independent Cost Accounting Standards (CAS) Board. The Board has the exclusive authority to make, amend, and interpret cost accounting standards designed to achieve uniformity and consistency in the measurement, assignment, and allocation of costs to Government contracts. The standards promulgated by the Board must be used on "all negotiated prime contract and subcontract procurements with the United States in excess of \$500,000." The standards need not be used, however, in an acquisition of commercial items or when the negotiated price is based on prices set by law or regulation.

The legislative history of OFPPA § 26 indicates that Congress believed there was a need to update and revise the cost accounting standards promulgated by a predecessor board, which had gone out of existence in 1980 for lack of an appropriation. *See* S. Rep. No. 100-424 at 15 (1988). The Senate report cited pension costs and insurance costs as examples of areas in need of attention. The standards of the previous board applied only to procurement contracts, and there is no indication that Congress intended to extend the applicability of cost accounting standards to other types of arrangements or instruments.

Under 10 U.S.C. § 2371, an OT is an instrument other than a contract, grant, or cooperative agreement that is used to carry out a research project or, under section 845, carry out weapon system prototype projects. Section 2371 distinguishes an OT from a "contract" which it implicitly defines as a "procurement contract." Although OTs under section 2371 and section 845 may contain the elements of common law contracts, under this statutory scheme they are not procurement contracts.

The statute requiring the use of cost accounting standards applies only to procurement contracts, and therefore does not apply to OTs under section 2371 or section 845. Section 422 of

title 41, U.S.C., was enacted as section 26 of the OFPPA, a Government-wide procurement statute. The only instruments referenced in the statute are contracts and subcontracts. In terms of applicability, section 26 specifically provides that the cost accounting standards promulgated under the section are required for use on "all negotiated prime contract and subcontract *procurements*." 41 U.S.C. § 422(f)(2)(A) (emphasis added). There is nothing in the legislative history to suggest an intent that statutory cost accounting standards would be required for use on other than procurement contracts. Because OTs are not procurement contracts, section 26 of the OFPPA, 41 U.S.C. § 422, does not apply.

The Defense Contract Audit Agency (DCAA) has said, however, that although OTs are not subject to CAS, the treatment by a party of its costs under an OT may have implications for that party's CAS-covered contracts. In this regard, § 31.205-18(e) of the FAR provides that costs contributed by a party in performing an agreement under 10 U.S.C. § 2371 may constitute independent research and development (IR&D) costs that could be recovered as allowable costs under that party's Government contracts. The DCAA points out that CAS 402, which deals with consistency in accounting for similar costs, would require that costs incurred in performing an OT be treated either as a direct cost or an indirect IR&D cost, but not both. Otherwise, the contractor would be in noncompliance with CAS 402. *See* DCAA Memorandum 98-PSP-077(R) (May 12, 1998).

30. 10 U.S.C. § 2324, Cost Principles (Added by Working Group)

Purpose of the Statute: To provide for the disallowance of certain costs under flexibly priced contracts and prescribe penalties for the submission of claims for unallowable costs.

Summary Conclusion on Applicability: The statute does not apply to OTs.

Analysis: Section 2324 of title 10 provides, in part:

The head of an agency shall require that a covered contract provide that if the contractor submits to the agency a proposal for settlement of indirect costs incurred by the contractor for any period after such costs have been accrued and if that proposal includes the submission of a cost which is unallowable because the cost violates a cost principle in the Federal Acquisition Regulation or applicable agency supplement to the Federal Acquisition Regulation, the cost shall be disallowed.

A "covered contract" is defined as a contract in excess of \$500,000, except for fixed-price contracts without cost incentives and fixed-price contracts for commercial items.

Under 10 U.S.C. § 2371, an OT is an instrument other than a contract, grant, or cooperative agreement that is used to carry out a research project or, under section 845, a weapon system prototype project. Section 2371 distinguishes an OT from a "contract" which it implicitly defines as a "procurement contract." Although OTs under 10 U.S.C. § 2371 and section 845 may contain elements of common law contracts, under this statutory scheme they are not procurement contracts.

For a variety of reasons it appears that section 2324 applies only to procurement contracts, and therefore does not apply to OTs under either 10 U.S.C. § 2371 or section 845. First, section 2324 is part of chapter 137 of title 10, which deals with "Procurement Generally." Second, section 2324 is directed only at cost submissions that violate cost principles in the FAR. The FAR provides at § 2.101 that "acquisition" means acquiring by contract goods and services for use by the Federal Government. Third, there is nothing in the legislative history to suggest that in enacting section 2324 Congress was concerned about anything other than contracts for the procurement of goods or services. *See, e.g.* H.R. Rep. Conf. No. 99-235, at 447-450 (1985). In this regard, the extent to which the Federal Government reimburses costs incurred in sponsoring

research outside the procurement context is covered by a set of rules independent of the FAR. *See, e.g.,* Office of Management and Budget Circular A-21, "Cost Principles for Educational Institutions."

It should be noted, however, that although OTs generally are not subject to the FAR, in some cases provisions of the FAR will dictate whether costs incurred in performing an OT may be reimbursed by the Government. In this regard, § 31.205-18(e) of the FAR provides that costs contributed by a party in performing an agreement under 10 U.S.C. § 2371 may constitute independent research and development (IR&D) costs that could be recovered as allowable costs under that party's Government procurement contracts. The Defense Contract Audit Agency (DCAA) has pointed out that if a Government contractor accounts for OT costs as IR&D and allocates those costs to Government procurement contracts, the costs must comply with applicable FAR provisions. *See* DCAA Memorandum 98-PSP-077(R) (May 12, 1998).

THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010

14 DEC 1996

MEMORANDUM FOR SECRETARIES OF THE MILITARY
DEPARTMENTS

DIRECTORS OF DEFENSE AGENCIES

SUBJECT: 10 U.S.C. 2371, Section 845, Authority to Carry Out
Certain Prototype Projects

Section 845 of the National Defense Authorization Act for Fiscal Year 1994, Public Law 103-160, authorizes the Director of DARPA to enter into transactions (other than contracts) under 10 U.S.C. 2371, for certain prototype projects. The authority under section 845 was to terminate November 30, 1996. Section 804 of the National Defense Authorization Act for Fiscal Year 1997, Public Law 104-201, extends the authority of section 845 through September 30, 1999, and makes it available to the Secretaries of the Military Departments and any other official designated by the Secretary of Defense. The Secretary of Defense delegated his authority and assigned his responsibilities, under the amendments made to section 845 by section 804, to me. I designate the Directors of the Defense Agencies as having the authority to use section 845 as authorized by subsection 804(a).

Section 845 authorizes use of instruments that are alternatives to contracts for the covered prototype projects. Section 845 requires, to the maximum extent practicable, use of competitive procedures when entering into "other transactions." To the extent that a particular statute or regulation is limited in its applicability to the use of a contract, it would generally not apply to an "other transaction." Attachment 1 is a list of statutes that apply to procurement contracts, but that are not necessarily applicable to "other transactions." The list is provided for guidance only, and is not intended to be definitive. To the extent that a particular requirement is a funding or program requirement or is not tied to the type of instrument used, it would generally apply to an "other transaction." Each statute must be looked at to assure it does or does not apply to a particular funding arrangement using an "other transaction." Use of section 845 authority does not eliminate the applicability of all laws and regulations. Thus, it is essential that counsel be consulted when an "other transaction" will be used.

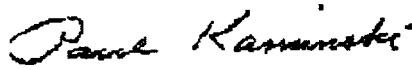
ATTACHMENT 1

Section 845 may be used to carry out prototype projects that are directly relevant to weapons or weapon systems proposed to be acquired or developed by the Department. When a prototype project, under the authority of section 845, is used as a precursor to a major defense acquisition program, I expect to be advised of the transition strategy for follow-on contracts at least 30 days prior to award of the "other transaction" that initiates the prototype project. The transition strategy must also address how the DoDD 5000.1 and DoD 5000.2R requirements will be applied to the acquisition program.

I believe it is essential that section 845 instruments incorporate good business sense and appropriate safeguards to protect the government's interest. This includes assurances that the cost to the government is reasonable, the schedule and other requirements are enforceable, and the payment arrangements promote on-time performance.

Annual congressional reporting requirements are established in 10 U.S.C. 2371(h), as modified by section 267 of Public Law 104-201. These requirements also apply to prototype projects under section 845. Each military department and defense agency using section 845 authority shall submit a report to OUSD(A&T)/DDP annually, by November 15, that includes all information required by 10 U.S.C. 2371(h), and that summarizes section 845 lessons learned for each prototype project. The format and content for this submission are at Attachment 2. In addition, users of section 845 may submit lessons learned at any time for inclusion in the Defense Acquisition Deskbook. The Deskbook will also be used to provide discretionary guidance and further information.

I encourage you to use the flexibility provided by this authority and to issue any further guidance you deem necessary. If you delegate authority to use section 845, I expect it will be to officials whose level of responsibility, business acumen, and judgment enable them to operate in this relatively unstructured environment. If we use this authority wisely, I will request that it be extended or made permanent by the Congress.


Paul G. Kaminski

Statutes Inapplicable to "Other Transactions"

1. Competition in Contracting Act, Pub. L. No. 98-369 (1984), as amended - Promotes the use of competitive procurement procedures and prescribes uniform government-wide policies and procedures regarding contract formation, award, publication, and cost or pricing data (truth in negotiations). See DoD coverage generally at chapter 137 of title 10, United States Code, particularly sections 2301-2305.
2. Contract Disputes Act, Pub. L. No. 95-563 (1987) as amended, 41 U.S.C. 601 et seq. - Provides for the resolution of claims and disputes relating to government contracts.
3. Procurement Protest System, Subtitle D of Competition in Contracting Act, Pub. L. No. 98-369(1984), 31 U.S.C. 3551 et seq. - Provides statutory basis for procurement protests by interested parties to the Comptroller General.
4. Public Law 85-804, 50 U.S.C. 1431-1435, Extraordinary contractual relief - Authorizes such remedies to contractors as formalization of informal commitments, amendments without consideration, and correction of mistakes, and permits indemnification for unusually hazardous risks.
5. 10 U.S.C. 2207. Expenditure of appropriations: limitation - Permits termination of contracts upon a finding that the contractor has offered or given gratuities to obtain a contract.
6. 10 U.S.C. 2306. Kinds of contracts - Prohibits use of cost- plus-a-percentage-of-cost system of contracting; requires a covenant against contingent fees paid to obtain contracts; limits fee amount on virtually all cost-type contracts.
7. 10 U.S.C. 2313. Examination of records of contractor - Provides agency and GAO access to contractors facilities to audit contractor and subcontractor records and gives the DCAA subpoena authority.
8. 10 U.S.C. 2353. Contracts: acquisition, construction, or furnishing of test facilities and equipment (to R&D contractors).
9. 10 U.S.C. 2354. Contracts: indemnification provisions - Indemnification authority against unusually hazardous risks for R&D contractors.
10. 10 U.S.C. 2393. Prohibition against doing business with certain offerors - Prohibition with respect to solicitation of offers and contract awards to contractors that have engaged or are suspected to have engaged in criminal, fraudulent, or seriously improper conduct.

11. 10 U.S.C. 2403. Major weapon systems: contractor guarantees.
12. 10 U.S.C. 2408. Prohibition of persons convicted of defense-contract related felonies and related criminal penalty on defense contractors - Generally, convicted felons precluded from working in a managerial capacity on DoD contracts.
13. 10 U.S.C. 2409. Contractor Employees: protection from reprisal for disclosure of certain information. Whistle blower protection to contractor employees.
14. 31 U.S.C. 1352. Limitation on the use of appropriated funds to influence certain Federal contracting and financial transactions - Prohibits use of funds to influence or attempt to influence government officials or members of Congress in connection with the award of contracts, grants, loans, or cooperative agreements.
15. Antikickback Act of 1986, 41 U.S.C. 51-58 - Prohibits kickbacks in connection with government contracts; provides civil and criminal penalties.
16. Procurement Integrity Act, section 27 of the Office of Federal Procurement Policy Act, 41 U.S.C. 423 - Imposes civil, criminal, and administrative sanctions against individuals who inappropriately disclose or obtain source selection information or contractor bid and proposal information.
17. Service Contract Act, 41 U.S.C. 351 et seq., Walsh Healey Act, 41 U.S.C. 35-45; Fair Labor Standards Act, 29 U.S.C. 201-219 - Provide protections for contractor employees.
18. Drug-Free workplace Act of 1988, 41 U.S.C. 701-707 - Applies to contracts and grants.
19. Buy American Act, 41 U.S.C. 10a-d. Applies only in part to "other transactions".

SECTION 845 ANNUAL REPORT REQUIREMENTS

Awarding Activity: Identify the military department or defense agency, a point of contact, and a phone number.

General Description: Provide a general description and discuss the objectives of the 845 prototype project, including the technology areas for which research is conducted.

Reasons for Use of 845 Authority: Explain the reason for choosing to use 845 authority and address the expected benefits.

Extent of Cost-sharing, if any: [Section 845 is exempt from the 10 USC 2371(e)(1)(B) requirement for cost-sharing.]

Technology and Industrial Base Implications: Discuss the extent the use of an "other transaction" (i) has contributed to a broadening of the technology and industrial base available for meeting DOD needs; and (ii) has fostered within the technology and industrial base new relationships and practices that support the national security of the United States.

Payments Received and Credited, if any: [10 USC 2371(d) allows an "other transaction" to require payment to the Department as a condition for receiving support under an "other transaction" and permits any such payment to be credited to support accounts.]

Lessons Learned: Contrast the actual benefits or drawbacks experienced to the expected benefits discussed above, being as quantitative as possible, and provide any additional lessons learned. This section is not required by statute, but will be used to decide whether the Department should pursue extension of the authority prior to its expiration in 1999. This section should be updated annually and reported for all section 845 prototype projects until the prototype project is complete.

10 USC Sec. 2371

01/05/99

TITLE 10 - ARMED FORCES
Subtitle A - General Military Law
PART IV - SERVICE, SUPPLY, AND PROCUREMENT
CHAPTER 139 - RESEARCH AND DEVELOPMENT

Sec. 2371. Research projects: transactions other than contracts and grants

(a) Additional Forms of Transactions Authorized. - The Secretary of Defense and the Secretary of each military department may enter into transactions (other than contracts, cooperative agreements, and grants) under the authority of this subsection in carrying out basic, applied, and advanced research projects. The authority under this subsection is in addition to the authority provided in section 2358 of this title to use contracts, cooperative agreements, and grants in carrying out such projects.

(b) Exercise of Authority by Secretary of Defense. - In any exercise of the authority in subsection (a), the Secretary of Defense shall act through the Defense Advanced Research Projects Agency or any other element of the Department of Defense that the Secretary may designate.

(c) Advance Payments. - The authority provided under subsection (a) may be exercised without regard to section 3324 of title 31.

(d) Recovery of Funds.

(1) A cooperative agreement for performance of basic, applied, or advanced research authorized by section 2358 of this title and a transaction authorized by subsection (a) may include a clause that requires a person or other entity to make payments to the Department of Defense or any other department or agency of the Federal Government as a condition for receiving support under the agreement or other transaction.

(2) The amount of any payment received by the Federal Government pursuant to a requirement imposed under paragraph (1) may be credited, to the extent authorized by the Secretary of Defense, to the appropriate account established under subsection (f). Amounts so credited shall be merged with other funds in the account and shall be available for the same purposes and the same period for which other funds in such account are available.

(e) Conditions. -

(1) The Secretary of Defense shall ensure that -

(A) to the maximum extent practicable, no cooperative agreement containing a clause under subsection (d) and no transaction entered into under subsection (a) provides for

ATTACHMENT 2

research that duplicates research being conducted under existing programs carried out by the Department of Defense; and

(B) to the extent that the Secretary determines practicable, the funds provided by the Government under a cooperative agreement containing a clause under subsection (d) or a transaction authorized by subsection (a) do not exceed the total amount provided by other parties to the cooperative agreement or other transaction.

(2) A cooperative agreement containing a clause under subsection (d) or a transaction authorized by subsection (a) may be used for a research project when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate.

(f) Support Accounts. - There is hereby established on the books of the Treasury separate accounts for each of the military departments and the Defense Advanced Research Projects Agency for support of research projects and development projects provided for in cooperative agreements containing a clause under subsection (d) and research projects provided for in transactions entered into under subsection (a). Funds in those accounts shall be available for the payment of such support.

(g) Regulations. - The Secretary of Defense shall prescribe regulations to carry out this section.

(h) Annual Report. -

(1) Not later than 90 days after the end of each fiscal year, the Secretary of Defense shall submit to the Committee on Armed Services of the Senate and the Committee on National Security of the House of Representatives a report on the use by the Department of Defense during such fiscal year of -

(A) cooperative agreements authorized under section 2358 of this title that contain a clause under subsection (d); and

(B) transactions authorized by subsection (a).

(2) The report shall include, with respect to the cooperative agreements and other transactions covered by the report, the following:

(A) The technology areas in which research projects were conducted under such agreements or other transactions.

(B) The extent of the cost-sharing among Federal Government and non-Federal sources.

(C) The extent to which the use of the cooperative agreements and other transactions -

(i) has contributed to a broadening of the technology and industrial base available for meeting Department of Defense needs; and

(ii) has fostered within the technology and industrial base new relationships and practices that support the national security of the United States.

(D) The total amount of payments, if any, that were received by the Federal Government during the fiscal year covered by the report pursuant to a clause described in subsection (d) that was included in the cooperative agreements and other transactions, and the amount of such payments, if any, that were credited to each account established under subsection (f).

(i) Protection of Certain Information From Disclosure. - (1) Disclosure of information described in paragraph (2) is not required, and may not be compelled, under section 552 of title 5 for five years after the date on which the information is received by the Department of Defense.

(2) (A) Paragraph (1) applies to information described in subparagraph (B) that is in the records of the Department of Defense if the information was submitted to the Department in a competitive or noncompetitive process having the potential for resulting in an award, to the party submitting the information, of a cooperative agreement for performance of basic, applied, or advanced research authorized by section 2358 of this title or another transaction authorized by subsection (a).

(B) The information referred to in subparagraph (A) is the following:

- (i) A proposal, proposal abstract, and supporting documents.
- (ii) A business plan submitted on a confidential basis.
- (iii) Technical information submitted on a confidential basis.

-SOURCE-

(Added Pub. L. 101-189, div. A, title II, Sec. 251(a)(1), Nov. 29, 1989, 103 Stat. 1403; amended Pub. L. 101-510, div. A, title XIV, Sec. 1484(k)(9), Nov. 5, 1990, 104 Stat. 1719; Pub. L. 102-190, div. A, title VIII, Sec. 826, Dec. 5, 1991, 105 Stat. 1442; Pub. L. 102-484, div. A, title II, Sec. 217, Oct. 23, 1992, 106 Stat. 2352; Pub. L. 103-35, title II, Sec. 201(c)(4), May 31, 1993, 107 Stat. 98; Pub. L. 103-160, div. A, title VIII, Sec. 827(b), title XI, Sec. 1182(a)(6), Nov. 30, 1993, 107 Stat. 1712, 1771; Pub. L. 103-355, title I, Sec. 1301(b), Oct. 13, 1994, 108 Stat. 3285; Pub. L. 104-106, div. A, title XV, Sec. 1502(a)(1), Feb. 10, 1996, 110 Stat. 502; Pub. L. 104-201, div. A, title II, Sec. 267(a)-(c)(1)(A), title X, Sec. 1073(e)(1)(B), Sept. 23, 1996, 110 Stat. 2467, 2468, 2658; Pub. L. 105-85, div. A, title VIII, Sec. 832, Nov. 18, 1997, 111 Stat. 1842; Pub. L. 105-261, div. A, title VIII, Sec. 817, Oct. 17, 1998, 112 Stat. 2089.)

AMENDMENTS

1998 - Subsec. (i)(2)(A). Pub. L. 105-261 substituted "cooperative agreement for performance of basic, applied, or advanced research authorized by section 2358 of this title" for "cooperative agreement that includes a clause described in subsection (d)".

1997 - Subsec. (i). Pub. L. 105-85 added subsec. (i).

1996 - Subsec. (b). Pub. L. 104-201, Sec. 1073(e)(1)(B), inserted "Defense" before "Advanced Research Projects Agency".

Subsec. (e). Pub. L. 104-201, Sec. 267(a), inserted "(1)" before "The Secretary of Defense", redesignated former pars. (1) and (2) as subpars. (A) and (B), respectively, inserted "and" after semicolon at end of subpar. (A), substituted a period for "; and" at end of subpar. (B), added par. (2), and struck out par. (3) which read as follows: "a cooperative agreement containing a clause under subsection (d) or a transaction authorized under subsection (a) is used for a research project only when the use of a standard contract, grant, or cooperative agreement for such project is not feasible or appropriate."

Subsec. (f). Pub. L. 104-201, Sec. 1073(e)(1)(B), inserted "Defense" before "Advanced Research Projects Agency".

Subsec. (h). Pub. L. 104-201, Sec. 267(b), reenacted heading without change and amended text generally. Prior to amendment, text read as follows: "Not later than 60 days after the end of each fiscal year, the Secretary of Defense shall submit to the Committee on Armed Services of the Senate and the Committee on National Security of the House of Representatives a report on all cooperative agreements entered into under section 2358 of this title during such fiscal year that contain a clause authorized by subsection (d) and on all transactions entered into under subsection (a) during such fiscal year. The report shall contain, with respect to each such cooperative agreement and transaction, the following:

"(1) A general description of the cooperative agreement or other transaction (as the case may be), including the technologies for which research is provided for under such agreement or transaction.

"(2) The potential military and, if any, commercial utility of such technologies.

"(3) The reasons for not using a contract or grant to provide support for such research.

"(4) The amount of the payments, if any, that were received by the Federal Government during the fiscal year covered by the report pursuant to a clause included in such cooperative agreement or other transaction pursuant to subsection (d).

"(5) The amount of the payments reported under paragraph (4), if any, that were credited to each account established under subsection (f)."

Pub. L. 104-106 substituted "Committee on Armed Services of the Senate and the Committee on National Security of the House of Representatives" for "Committees on Armed Services of the Senate and House of Representatives".

Subsec. (i). Pub. L. 104-201, Sec. 1073(e)(1)(B), which directed amendment of subsec. (i) by inserting "Defense" before "Advanced Research Projects Agency", could not be executed because of the renumbering of subsec. (i) as section 2371a of this title by Pub. L. 104-201, Sec. 267(c)(1)(A). See below.

Pub. L. 104-201, Sec. 267(c)(1)(A), renumbered subsec. (i) of this section as section 2371a of this title.

1994 - Pub. L. 103-355 amended section generally. Prior to amendment section related to cooperative agreements and other transactions for advanced research projects.

1993 - Subsec. (a). Pub. L. 103-160, Sec. 827(b)(1)(C), substituted "section 2358 of this title" for "subsection (a)" in par. (1) and "subsection (d)" for "subsection (e)" in par. (2).

Pub. L. 103-160, Sec. 827(b)(1)(A), (B), redesignated subsec. (b) as (a) and struck out former subsec. (a), as amended by Pub. L. 103-160, Sec. 1182(a)(6), (h), which read as follows: "The Secretary of Defense, in carrying out advanced research projects through the Advanced Research Projects Agency, and the Secretary of each military department, in carrying out advanced research projects, may enter into cooperative agreements and other transactions with any person, any agency or instrumentality of the United States, any unit of State or local government, any educational institution, and any other entity."

Pub. L. 103-160, Sec. 1182(a)(6), substituted "Advanced Research Projects Agency" for "Defense Advanced Research Projects Agency".

Subsec. (b). Pub. L. 103-160, Sec. 827(b)(1)(B), redesignated subsec. (c) as (b). Former subsec. (b) redesignated (a).

Subsec. (c). Pub. L. 103-160, Sec. 827(b)(1)(B), (2)(A), redesignated subsec. (d) as (c) and inserted "and development" after "research" in two places in par. (1). Former subsec. (c) redesignated (b).

Subsec. (d). Pub. L. 103-160, Sec. 827(b)(1)(B), (D), (2)(B), redesignated subsec. (e), as amended by Pub. L. 103-160, Sec. 1182(a)(6), (h), as (d) and substituted "section 2358 of this title" for "subsection (a)" and "research and development" for "advanced research". Former subsec. (d) redesignated (c).

Subsec. (e). Pub. L. 103-160, Sec. 827(b)(1)(B), (E), (2)(B), (C), redesignated subsec. (f) as (e), in par. (1) substituted "research and development are" for "advanced research is", in par. (3) substituted "research and development" for "advanced research", in par. (4) substituted

"subsection (a)" for "subsection (b)", and in par. (5) substituted "subsection (d)" for "subsection (e)". Former subsec. (e) redesignated (d).

Pub. L. 103-160, Sec. 1182(a)(6), substituted "Advanced Research Projects Agency" for "Defense Advanced Research Projects Agency".

Subsec. (f). Pub. L. 103-160, Sec. 827(b)(1)(B), redesignated subsec. (g), as amended by Pub. L. 103-160, Sec. 1182(a)(6), (h), as (f). Former subsec. (f) redesignated (e).

Subsec. (g). Pub. L. 103-160, Sec. 827(b)(1)(B), redesignated subsec. (g), as amended by Pub. L. 103-160, Sec. 1182(a)(6), (h), as (f).

Pub. L. 103-160, Sec. 1182(a)(6), substituted "Advanced Research Projects Agency" for "Defense Advanced Research Projects Agency".

Pub. L. 103-35 substituted "granted by section 12" for "granted by section 11" and "provisions of sections 11 and 12" for "provisions of sections 10 and 11".

1992 - Subsec. (g). Pub. L. 102-484 added subsec. (g).

1991 - Subsec. (a). Pub. L. 102-190, Sec. 826(a), inserted "and the Secretary of each military department, in carrying out advanced research projects,".

Subsec. (b)(1). Pub. L. 102-190, Sec. 826(b)(1)(A), struck out "by the Secretary" after "transactions entered into".

Subsec. (b)(2). Pub. L. 102-190, Sec. 826(b)(1)(B), substituted "to the appropriate account" for "to the account".

Subsec. (d). Pub. L. 102-190, Sec. 826(b)(2), substituted "The Secretary of Defense" for "The Secretary" in introductory provisions.

Subsec. (e). Pub. L. 102-190, Sec. 826(b)(3), substituted "separate accounts for each of the military departments and the Defense Advanced Research Projects Agency" for "an account" and "those accounts" for "such account".

Subsec. (f)(5). Pub. L. 102-190, Sec. 826(b)(4), substituted "each account" for "the account".

Subsec. (g). Pub. L. 102-190, Sec. 826(c), struck out subsec. (g) which read as follows: "The authority of the Secretary to enter into cooperative agreements and other transactions under this section expires at the close of September 30, 1991."

1990 - Subsec. (f). Pub. L. 101-510 substituted "Committees on" for "Committees of" in introductory provisions.

CHANGE OF NAME

Committee on National Security of House of Representatives changed to Committee on Armed Services of House of Representatives by House Resolution No. 5, One Hundred Sixth Congress, Jan. 6, 1999.

EFFECTIVE DATE OF 1994 AMENDMENT

For effective date and applicability of amendment by Pub. L. 103-355, see section 10001 of Pub. L. 103-355, set out as a note under section 251 of Title 41, Public Contracts.

AUTHORITY OF DEFENSE ADVANCED RESEARCH PROJECTS AGENCY TO CARRY OUT CERTAIN PROTOTYPE PROJECTS

Section 845 of Pub. L. 103-160, as amended by Pub. L. 104-201, div. A, title VIII, Sec. 804, title X, Sec. 1073(e)(1)(D), (2)(A), Sept. 23, 1996, 110 Stat. 2605, 2658; Pub. L. 105-261, div. A, title II, Sec. 241, Oct. 17, 1998, 112 Stat. 1954, provided that:

"(a) Authority. - The Director of the Defense Advanced Research Projects Agency, the Secretary of a military department, or any other official designated by the Secretary of Defense may, under the authority of section 2371 of title 10, United States Code, carry out prototype projects that are directly relevant to weapons or weapon systems proposed to be acquired or developed by the Department of Defense.

"(b) Exercise of Authority. -

"(1) Subsections (e)(2) and (e)(3) of such section 2371 shall not apply to projects carried out under subsection (a).

"(2) To the maximum extent practicable, competitive procedures shall be used when entering into agreements to carry out projects under subsection (a).

"(c) Period of Authority. - The authority to carry out projects under subsection (a) shall terminate at the end of September 30, 2001."

SECTION REFERRED TO IN OTHER SECTIONS

This section is referred to in sections 2358, 2511, 2519 of this title.

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Senator McCAIN. Senator Lieberman.

STATEMENT OF SENATOR JOSEPH I. LIEBERMAN

Senator LIEBERMAN. Thank you, Mr. Chairman. It has been my honor to be either the chairman or ranking member of this Airland Subcommittee now for the past 6 years, more often, unfortunately, the ranking member, but that is a longer story that we can get to at another time.

Needless to say, the Senator from Arizona is one of my dearest friends and closest colleagues in the Senate, and I am thrilled that he has assumed the chairmanship of this subcommittee and look forward to working with him on the problems and challenges facing the Army and the Air Force. I am sure he will bring to this task his normal clear sense of national interest, his demanding intellect, and his truly terrible sense of humor. [Laughter.]

The Army, followed closely by the Marine Corps, is clearly pulling the heaviest load among the Services in the operations that we are involved in now in Iraq and Afghanistan.

Prior to September 11, 2001, in some ways the Army might have been described as the Rodney Dangerfield among its peer Services, not getting quite the respect or the sense of priority that it deserved. Well, what a difference 3 years makes.

The Army has been, in my opinion, severely underfunded and struggling to maintain its two major modernization programs, the Comanche and the FCSs. In doing so, as it struggled, it terminated well over 100 programs, including the Crusader artillery system. The current force was, in many ways, neglected in an attempt to keep its transformation to the future force on track.

After September 11, it was clear that the strategic pause the Army was depending on to effect its transformation no longer existed. The Army is now heavily engaged in combat operations at the same time it is transforming, reorganizing, and increasing the capability of its current force. There is now more of a balance between the current and future forces than had been the case prior to September 11.

However, to a great extent, the Army is still being forced to pay for its transformation out of its own hide. The Army canceled the Comanche to pay for urgent requirements in the rest of its aviation battlefield operating system and it has delayed the FCS program to pay for improvements in the current force.

The Army is obviously very busy, engaging in combat operations in Iraq and Afghanistan, resetting the force as units rotate out of the combat zones and prepare for redeployment in as little as a year's time, reorganizing the ground force into modular brigade combat teams and the aviation force into multi-functional aviation brigades, and pursuing programs to field the FCS and to spiral promising technologies from the future force program to the current force after testing and experimentation by a soon-to-be-created experimental unit. That is a lot happening at once.

We as a subcommittee must thoroughly understand the Army's vision for the first half of this new century, what missions across the spectrum of conflict the Army expects to get, how the Army intends to fight, and how it intends to organize and equip itself for that fight, and particularly to understand what the Army will look

like in size and organization at the completion of its conversion to a modular brigade combat team system and at the completion of its transition to the future force.

It is our responsibility to ensure that the Army has the right number of personnel and the right kind of equipment and enough of it to prevail in its missions, and of course, adequate resources to effect those transformations while conducting ongoing combat operations. This is a very tall order and a very large challenge.

I begin this process and the series of hearings that Senator McCain will chair and I will be privileged to participate in, with a belief that our Army needs to be bigger and the recipient of considerably more resources, to meet the challenges our Nation is giving it.

Mr. Chairman, thanks for your leadership and I look forward to working with you to make our Army and Air Force even better than the best they are today. Thank you.

Senator MCCAIN. Thank you very much, Senator Lieberman.

Secretary Bolton, welcome and please proceed.

Mr. BOLTON. With the chairman's indulgence, in order to set the stage, I would like to have the Vice Chief of Staff of the Army, General Cody lead off and set the stage and then I will follow.

Senator MCCAIN. That will be fine. General Cody.

STATEMENT OF GEN RICHARD A. CODY, USA, VICE CHIEF OF STAFF, UNITED STATES ARMY

General CODY. Thank you, Secretary Bolton.

Chairman McCain, Senator Lieberman, the Army has submitted written testimony and we request for the record that you accept it. I have a slight recap of that testimony.

First, I would like to express our appreciation for the opportunity to appear before you to discuss your Army's transformation and particularly the modular Army and the FCS Army. Because of the complexity of these subjects, I have brought some charts that I may ask your permission to reference as we proceed in your questions. We have also provided paper copies of those charts.

Sir, I have two of your soldiers here with me today: 1st Lieutenant Rob McChrystal and Staff Sergeant Benjamin Hanner, both from our Stryker brigade, 5th Battalion, 20th Infantry. They just returned from Iraq. During their tour, their unit conducted a 2-day, 270-mile movement from Mosul to An Najaf to fight the Mahdi Army, involving enemy engagements and navigating around blown bridges and fighting the terrorists. This effort highlights the increased maneuverability, combat effectiveness, and combat situational awareness that our Stryker Brigade Combat Team has but also gives us a glimpse to where we want to go with the modular Army and the FCS.

Senator MCCAIN. Welcome to both of you and thank you for your service.

General CODY. Both of these soldiers have been decorated for their actions during the successful recovery of a downed Kiowa helicopter where they saved two of the pilots in a fierce fire fight.

Lieutenant McChrystal was decorated for his actions during ambushes elsewhere in Iraq.

Staff Sergeant Hanner also was the staff sergeant that did about 8,000 worth of truck convoys where he only lost 4 trucks during his tour. He was also awarded the Purple Heart when his Stryker vehicle was hit by a roadside daisy chain bomb where five of his other Stryker fellows were also wounded. They all survived that improvised explosive device (IED) because of the advanced survivability of the Stryker.

Your Stryker units have exhibited superior performance and operational capabilities to meet the combatant commanders' requirements in Iraq and successfully fight the fight. Again, as I said, they give us an insight, especially with their embedded battle command systems, of where we want to go with our FCS.

The Nation expects this Army to operate over the full spectrum of conflict and the Army, with your assistance, is doing so now and looks forward to be able to do it with the FCS. The Army modularity that we are going to brief you on today helps us set up moving toward the FCS.

Change anytime while a nation is fighting a war requires dealing concurrently with both the current force and the future force capability gaps. The Army Modular Force addresses the immediate, urgent current force capability gaps using organizational changes and systems and technologies available immediately off the shelf to reset the force but also meet the combatant commanders' requirements. The Army Modular Force reflects a continuing cycle of innovation, experimentation, experience, and change. Development of our Stryker Brigade Combat Team informed the FCS-equipped Unit of Action organizational design that we are working, which in turn really underpin the modular Brigade Combat Team organizational designs that we are moving to.

The Army Modular Force, taken together with the FCS-based Brigade Combat Team, will give the combatant commanders of the future a required versatile set of responsive capabilities for the future battlefield where we want to see first, understand first, act first, and then win decisively. The Army Modular Force will have relevancy in the foreseeable future, but severe anti-access environments and daunting anti-armor systems will pose a future force capability gap unless we take action now. The FCS will address those future force gaps.

The Army is applying lessons learned from today's fight, like Sergeant Hanner and Lieutenant McChrystal, to help us reshape our future force programs, even if that means adjusting some of the directions and timing of those systems. This strategy really underpins our efforts of accelerating the FCS technology to the entire force by spiraling out selected FCS capabilities such as our unmanned guided vehicles, sensors, unattended munitions, and elements of the battle command network.

The Army Modular Force will also set several conditions for the FCS' success involving our doctrinal, organizational, training, and leader development. As we continue to build the modular force and spiral in our FCS capabilities, our FCS and non-FCS units will be able to fight together through an integrated, compatible command and control system, thus our emphasis up front of spiraling into battle command systems.

I thank the members of this committee for their continued outstanding support to all of the men and women in uniform who make up your great Army. As the Army moves forward, the soldier will continue to remain the centerpiece of our combat systems and formation and is really the indispensable part of the joint team. They are adaptive, they are competent, and infused with the Army values and warrior culture that fight wars and win the peace. We appreciate your wisdom, your guidance, and strong support as we work to ensure that we have what they need to successfully accomplish their missions and return home safely today and tomorrow.

Sir, I look forward to your questions.

[The joint prepared statement of General Cody and Mr. Bolton follows:]

JOINT PREPARED STATEMENT BY GEN RICHARD A. CODY, USA, AND HON. CLAUDE M. BOLTON, JR.

Chairman McCain, Senator Lieberman, and distinguished members of the Senate Armed Services Committee, I would like to express our appreciation at the opportunity to appear before you to discuss your Army's Transformation, in particular the Army Modular Force and the Future Combat Systems (FCS). I thank the members of the committee for their continued, outstanding support to the men and women in uniform who make up our great Army. Your concern, resolute action, and deep commitment to America's sons and daughters are widely recognized throughout the ranks of our Service.

Our Army is the dominant land campaign force for our combatant commanders in fighting the global war on terror, transforming to meet present and future threats, resetting to sustain a high operational tempo, and leading the most radical change of its institutional and training base since World War II.

Today, our All-Volunteer Army, with 650,000 soldiers on Active-Duty, is providing forces and capabilities for Operation Iraqi Freedom, Operation Enduring Freedom, and other global requirements beyond global war on terror. The Army continues to deter aggression and keep peace on the Korean Peninsula, the Sinai Peninsula, the Horn of Africa, Kosovo, Bosnia, and elsewhere around the world. Army soldiers are supporting homeland security and providing military support to civil authorities for many different missions within the United States. In addition, the Army supports numerous humanitarian assistance missions and supports organizations such as Joint Task Force Bravo in Central America in its effort to counter illicit narcotics trafficking.

As the Army fights the global war on terror and meets other global commitments, it remains committed to transforming. We are moving forward while focused on two core competencies: (1) training and equipping soldiers and growing leaders; and (2) providing relevant and ready land power to combatant commanders as part of the joint team.

The Army developed the Army Campaign Plan (ACP) to synchronize the training, providing, transforming and resetting of forces to both sustain the current operations tempo and be relevant to future threats. Also, the ACP monitors the overhaul of our training base and institutional Army. The ACP's objective is to continue our transformation toward increasing joint interdependent capability, furthering our expeditionary qualities, and providing the Nation with a campaign quality force.

One of the primary objectives of Army Transformation is restructuring from a division-based to a brigade-based force. These brigades are designed as modules or self-sufficient and standardized brigade combat teams, that can be more readily deployed and combined with other Army and Joint Forces to meet the precise needs of combatant commanders. The results of this transformational initiative will be an operational Army that is larger and more powerful, flexible, and deployable.

This program, which we call modularity, will increase the combat power of the active component by 30 percent, as well as the size of the Army's overall pool of available forces by over 50 percent. The total number of combat brigades will increase with 10 active brigades (three-and-a-third divisions in our old terms) being added by the end of 2006. Our goal for this larger pool of available forces is to enable the Army to generate forces in a rotational manner that will support 2 years at home following each deployed year for Active Forces, 4 years at home following each deployed year for the Army Reserve and 5 years at home following each deployed year for National Guard Forces. During units' operational cycles, soldiers can

expect to complete an operational deployment rotation between 6 to 12 months. We will only reduce the amount of time units stay on home station if we have no other options in supporting the National Security Strategy. Implementing this program will provide more time to train, predictable deployment schedules, and the continuous supply of land power required by the combatant commanders and civil authorities.

To efficiently modularize the force, the ACP will leverage our current efforts to reset units redeploying from combat. Reset requires intensive resource allocation, repair, and overhaul of our ground equipment and aircraft, and prioritization and streamlining of our facilities and personnel to support these efforts. The Army will reset redeploying units into their new modular configurations in a manner in which a unit's component is completely transparent.

The active component's 3rd Infantry Division and the New York National Guard's 42nd Infantry Division Headquarters are providing the Army's first test of our modular concept. Today in Iraq, two modular brigades of the 3rd Infantry Division are serving under the 42nd Division along with two National Guard brigades, one from Tennessee and one from Idaho. Likewise in Iraq, one National Guard brigade from Louisiana currently serves as part of the 3rd Infantry Division. When all units redeploy, the National Guard brigades will be set into a standard modular configuration in the same manner as active component brigades.

As the Army continues to transform more of its units into this new configuration, all components will increasingly realize the efficiencies and benefits of modularity. Beyond the primary purpose of providing more lethal and agile units, our modular design facilitates a more streamlined logistical support structure across the Army. This characteristic of modularity will particularly benefit the Army Reserve, as it processes the bulk of the Army's theater-level support. This is because our Combat Support and Combat Service Support units, instead of collectively having to support nine different types of brigade configurations, will only have to support three different types of brigade configurations once the force is transformed.

The force, above the brigade-level, will be supported by similarly modular supporting brigades such as Multi Functional Aviation Brigades. By design, these brigades will possess the bulk of the Army's aviation combat power and comprise attack, reconnaissance, assault, and general support capabilities. This design efficiently provides tailored aviation formations to effectively meet the combat brigade's requirements. Additional above brigade-level modular supporting brigades will provide fires, logistics, and other support.

Modularity also allows our above brigade headquarters structure to become far more versatile and efficient as we eliminate an entire echelon of command—moving from three to two levels. Concurrently, the Army Reserve, Expeditionary Force packages are being structurally tailored to rapidly deploy in support of modular combat formations. Similar innovations will occur in the logistics and intelligence organizations that support our forces and other Services.

FCS is the core of our Future Force's combat brigade, consisting of 18 systems, plus the continued expansion of the network and capabilities to the soldier—all designed to function as a single, integrated system. FCS is the Army's primary materiel program for achieving future force capabilities. It will integrate existing systems, systems already under development, and systems to be developed. Fielding FCS is essential to providing the kind of lethal, agile forces required for full spectrum operations in the future. FCS will connect units through enhancements to the current and evolving network architecture that leverages inter-Service capabilities and provides greater situational awareness. This, in turn, leads to synchronized operations heretofore unachievable.

In May 2003, FCS moved on schedule into the Systems Development and Demonstration phase. In July 2004, the Army identified and announced FCS Program adjustments that strengthened the FCS Program and improved the Current Force through early delivery, or spiral insertion, of selected FCS capabilities. The adjustments maintain the Army focus on FCS-equipped brigade development.

The FCS program continues Department of Defense program reviews with a Milestone B update in May 2005 and a System Functional Review in August 2005. FCS Milestone C decision (to begin initial production) is in 2012. This will lead to an Initial Operational Capability in 2014 and a Full Operational Capability FCS-equipped Brigade Combat Team in 2016.

The FCS approach to evolutionary acquisition includes iterative insertion of technology into FCS during the life cycle of the program. As a minimum, required threshold capability will be achieved by the initial production of FCS-equipped units in 2014. The FCS embraces evolutionary acquisition through iterative development for FCS components and systems that will be adequately mature to produce as spiral insertions to the Current Force.

The evolutionary development approach to the FCS program acquisition strategy falls into four primary categories: first, the priority of development will be on the network, unattended munitions, unmanned systems, and finally manned ground vehicles (MGV). Consequently, MGV development will be extended. Non-line of sight cannon (NLOS-C) will lead MGV development and deliver prototype NLOS-C systems in 2008 with pre-production systems starting in 2010. Second, all core deferred FCS systems will now be funded and fielded with the first equipped brigade, allowing FCS-equipped brigade combat team fielding to begin in 2014. Third, more robust assessment, experimentation, and evaluation are included in the program to prove revolutionary concepts, mature the architecture and components, and assist in technology development. Finally, a series of Spiral-Out packages of technology insertion, beginning in 2008 will successively insert FCS capabilities into an Evaluation Brigade Combat Team (E-BCT) for test, evaluation, and experimentation. Validated Spiral Out systems will be fielded to Current Force modular combat brigades for integration onto host platforms, i.e., Stryker, Heavy, and Infantry. The FCS program will spiral installments of FCS Battle Command capability to the Current Force beginning in fiscal year 2009 with the fielding of the Joint Tactical Radio System (JTRS) and Warfighter Information Network—Tactical (WIN-T), envisioned as the backbone of the Future Force network. The recent restructuring of the JTRS Cluster 1 program resulted in the need to re-synchronize this effort. The Program Manager for unit of action has implemented plans that include pre-Engineering Development Models (EDMs) as well as surrogate systems in early integration and experiment efforts. By 2014, the network complementary programs will be synchronized to support the replacement of Army Battle Command and Control Systems with an integrated FCS Battle Command system that provides on the move capability down to the platoon level.

Risk associated with the maturation of technologies contributed to the Army's decision to restructure the FCS program and extend it by 4 years. The restructured plan significantly reduces risk through both the spiral plan and the increased development time between Milestone B and Milestone C. The program has accepted the advice of several review panels that suggested that FCS mature and field technologies over time to the forces. FCS remains at the heart of the Army's strategy to mitigate risk using the Current to Future Force construct. At the same time, the Army is accelerating selected technologies to reduce operational risk by improving the Current Force's survivability, intelligence, surveillance and reconnaissance, and joint interdependence. Just as emerging FCS capabilities enhance the Current Force, the Current Force's operational experience informs the FCS program, further mitigating future challenges and risk.

To execute spiral insertions of FCS technology to the Current Force, the Army will lead overall program management and development efforts while using the Lead Systems Integrator (LSI) to assist the Army in managing the system of systems integration. The LSI is the program integrator from industry partnered with the Army. The LSI is responsible for providing direct support to the Army in requirements development and analysis, and operational, systems, and technical architectures development. In order to solicit participation in the bidding process by the best of industry, no company was excluded from competition for the systems and subsystems contracts. To address the LSI's ability to operate in a dual role as both integrator and contractor, it was recognized that a potential conflict of interest might arise from a company acting as both the LSI and a potential bidder. The Army is ensuring stringent oversight and has built appropriate firewalls as reviewed and certified by the Institute for Defense Analysis.

The Army's commitment to the future is certain. We will continue to provide our Nation, the President, the Secretary of Defense, and the combatant commanders with a unique set of core competencies and capabilities. We remain dedicated to training and equipping our soldiers and growing leaders. We will continue to deliver relevant and ready land power to the combatant commanders and the Joint Force.

Our soldiers continue to perform magnificently around the globe. Simultaneously executing the global war on terror, implementing our modularity and transformation initiatives, and setting the force will be a challenge. However, it is also an opportunity to reshape ourselves for the future that we cannot pass up. As we move forward, the soldier remains the centerpiece of our combat systems and formations and is indispensable to the joint team. Adaptive, confident, and competent soldiers, infused with the Army's values and warrior culture, fight wars and win the peace.

American soldiers display unrelenting tenacity, steadfast purpose, quiet confidence, and selfless heroism. We appreciate your wisdom, guidance, and strong support as we work to ensure that they have what they need to successfully accomplish

their missions and return home safely—not only today's force but tomorrow's force as well.

Senator MCCAIN. Thank you very much, General.
Secretary Bolton.

**STATEMENT OF HON. CLAUDE M. BOLTON, JR., ASSISTANT
SECRETARY OF THE ARMY FOR ACQUISITION, LOGISTICS,
AND TECHNOLOGY**

Mr. BOLTON. Mr. Chairman and Senator Lieberman and other distinguished members of the subcommittee who may join us, I too want to thank you for this opportunity to discuss the authorization request for 2006 and the Army transformation. I too want to foot-stomp what General Cody has just mentioned, and that is your wisdom, your guidance, and your steadfast support that we have enjoyed over these many years.

General Cody spoke about our efforts to reorganize the Army from a division-centric organization to one where brigades are the best basic fighting units. As he mentioned, the 3rd Infantry Division (ID) is now back in Iraq as a restructured modular force. Each brigade is now a self-sustaining Brigade Combat Team that can operate outside the full division.

Now, my job was to equip those brigades with everything from increased intelligence, surveillance, reconnaissance, to increased battle command for the Force 21 battle command brigade and below, or as we call it, the FBCB2, the joint network node, the tactical operations center to maneuver and support, in other words, trucks. That has been done, and now we are about to see how well that will work in the 3rd ID.

I had the great opportunity to meet with the 3rd ID within 48 hours of their deployment to talk to the commander, and to look him in the eye and ask if there was anything else that we needed to do in terms of my part of this, and that is to make sure he had all the supplies. He said he had everything that he needed. The troops were trained and they were ready to go. I said we will be watching very closely to see what, if anything, we needed to provide over the next year to increase their capabilities.

Now let me turn to the Army's Future Combat Systems, also known as the FCS, the Army's primary materiel program for our future force combat brigades.

FCS will provide our future force with unprecedented military capability, rapid deployability, lethality, survivability, well into the 21st century. The FCS will be a network systems of systems, 18 systems plus the continued expansion of the network all centered around the soldier. With such a complex undertaking, it is important for us to understand the requirements, resources, which of course you provide, and integrated processes, which is why in order to succeed we need the right people from the Government and the right people from industry working as a team to make this work.

We have a lead systems integrator, or LSI, to assist the Army in managing this system of systems integration. All 18 separate systems and the network, as I said before, are centered on the soldier. In order to meet the time and funding constraints, we require not only an LSI but also a team approach overall.

When the Defense Advanced Research Projects Agency (DARPA) served as the lead to develop and define an FCS design concept, they used the OTA to effectively accomplish this task, build the FCS team, and protect the public interests. Currently in the system design and development, or SDD, phase production OTA allows us to attract the best and brightest of our Nation's industry and their subcontractors in this endeavor.

Now, to measure the value and appropriateness of the LSI and OTA, which is done on a regular basis, we use the earned value management system, which basically tells me that the LSI is tracking the program to costs, schedule, and performance as planned at the beginning of this agreement or contract.

After nearly 22 months on the OTA, the Future Combat System today is on schedule, on cost, and on performance.

Senator MCCAIN. May I interrupt, Mr. Secretary?

Mr. BOLTON. Yes.

Senator MCCAIN. Then that Bloomberg News report is incorrect.

Mr. BOLTON. As far as I am concerned, it is. It talked about the total program, and we can get into that, obviously, in great detail, how we have changed the program over the last several months to allow this technology that we are developing for the FCS to get into the current force quicker rather than waiting for a full-up unit sometime out in the future.

It was the desire of this Chief of Staff, General Peter Schoomaker, that rather than waiting, we needed to put technology in the current force as quickly as possible. We have been doing that over the last 3 years. The blue force tracking that I just mentioned, the FBCB2, the improvements to connectivity on the battlefield are all things that we have taken from the current technology base and put into that force. He wanted to see the same thing from this FCS.

So we have taken four spirals out, the first one to start in 2008. We have costed that out. We have stretched out the basic program and added back things that we took out last year, whether that is unmanned aerial vehicles (UAV), also putting back two auxiliary power units (APS), on each one of the vehicles and so forth.

That has increased the costs, and it has taken more time in terms of the basic program. However, the technology will be going to the current force a lot faster.

So the Bloomberg report is correct in that we stretched the program. It is also correct that we have increased the costs, and that is allowing us to put it into the field quicker and to put back things that allow the FCS, when it is finally deployed, to fight better. I can go into that, sir, at greater detail. If I may just finish up these comments, sir.

But as I said, we are on schedule and that is the schedule in the agreement. There are a lot of schedules floating around, but what is on contract we are holding pretty fast to that.

Senator MCCAIN. In all due respect, Mr. Secretary, we do not want a lot of schedules floating around.

Mr. BOLTON. You are absolutely right.

Senator MCCAIN. We need one that we can plan with.

Mr. BOLTON. Yes, sir. We will hit this later on. I cannot tell you how many times I have spent over the last 30 years trying to track down who has what schedule and where it came from.

The earned value management system that I talked to earlier is what I use to measure this contractor, and in fact, all the contractors because it goes through all the subcontractors. What I put on that agreement tells me how long it is supposed to take, how much money it is supposed to take, and that is what I track people to.

Senator McCAIN. That is what we would like to have too, Mr. Secretary.

Mr. BOLTON. As a matter of fact, I come up here about once a quarter to talk to the four staffs that we do business with, and we bring that earned value data in. That is ground truth. That is what the taxpayers pay, not someone else's schedule. If we get all balled up with all these other things, which are great for planning—and we do that all the time and people get confused, and in the past we have made some rather expensive mistakes.

We have also looked outside the Department of Defense, obviously, outside the Army, on a regular basis, for me about every 6 months, about the concept of the LSI and the OTA, as well as other aspects of the program. Those outside independent reviews have further validated the appropriateness of the LSI and the OTA. By the way, I am getting ready to go out on my next 6-month. We will identify a completely different, independent source and take another look at the LSI, the OTA, and some other things that I would like to take a look on this.

The bottom line is that we need to acquire the best capabilities that we can afford within time constraints given to us by the warfighter. I believe that the LSI and the OTA are both vitally important to the success of this program. I will continue to challenge the management tools, as we continue to look for better ways to get to the warfighter what they need, when they need it, and where they need it, better, faster, and cheaper.

Sir, that concludes my opening comments. Again, I want to thank this committee for its continuing wisdom, guidance, and support, and I too look forward to your questions.

Senator McCAIN. Thank you very much.

Senator Inhofe could not be here today because the Environment and Public Works Committee is marking up the highway bill. He has asked his statement be entered in the record. If there is no objection, so ordered.

[The prepared statement of Senator Inhofe follows:]

PREPARED STATEMENT BY SENATOR JAMES M. INHOFE

I remember, General Shinseki sat where you currently are seated in March 2000 and stated the following about Army Transformation:

"This is the most significant effort to change the Army in 100 years. Our aim is not a single platform swap out, but a systemic change and full integration of multidimensional capabilities—space, air, sea, and land. Not since the beginning of the last century has such a comprehensive transformation been attempted. Then, the new weaponry—aircraft, machine guns, rapid-fire artillery, motorized vehicles—were all being developed and tested in relative isolation. The Army is building support for this Transformation. We have been talking to the defense industry. We know that this Vision entails risk, but it promises great reward for our national security. We need to continue our long tradition of partnership between the Army

and Industry. . . For years, Members of Congress have counseled the Army to change—we're changing. Now, we need your help, but more than that we need your ideas, your criticism, your energy, and your enthusiasm. We need your approval and fiscal support."

We, Congress, gave him our approval and fiscal support. I believe Senators Santorum and Lieberman were strong advocates for the program when they each chaired this subcommittee. With our help the Army moved forward and began to change. I recall having private discussions with General Shinseki referencing the Army's role in Bosnia and the problems with TF Hawk. The talk around town back then was the Army's challenge to remain relevant. The Army needed to "think out of the box." Not just organizationally, but also in terms of the acquisition process. Here we are today more than 4 years later. Now let me ask my distinguished colleagues around this table who have been to Iraq and Afghanistan: is there any doubt how relevant our Army is today? On behalf of a grateful Nation, how fortunate we are that the Army embarked on this transformation. If the call to "think out of the box" would not have been sent out at the beginning of this decade, we would NOT have the Stryker, which is performing so well in Iraq, and FCS would still be bogged down in protests. More importantly we would be denying a capability to our brave soldiers. In the final analysis, that's what we are talking about, putting capability into the hands of our soldiers, sooner rather than later. FCS is not about 18 plus systems; it's about capability.

I don't know what path this committee is going down regarding what "t's" were crossed and which "Ts" were dotted in terms of the contracting method the Army used to jump start its transformation. I for one will be watching very closely to ensure whatever this committee does do, it does not deny capabilities that our soldiers need today and in the future.

Senator MCCAIN. Senator Lieberman, I know that you may have to leave, so why do you not lead off with your questions.

Senator LIEBERMAN. I think I am all right. You go ahead.

Senator MCCAIN. No, go ahead.

Senator LIEBERMAN. Thank you, Mr. Chairman.

Thanks, Secretary and General. I want to talk to you, first, about the first generation force size and organizational structure. I know that the Army analysis and gaming have identified a need for up to 20 Brigade Combat Teams to be deployed at any one time as a steady state requirement, plus an ability to surge to 40 to 43 to effectively support the 2004 national defense strategy and national military strategy.

I note that the recent force level committed to Iraq is 20 brigades. I am just curious whether that is a coincidence that the numbers worked out that way or did something else happen.

General CODY. No, sir, it is not a coincidence. In fact, it was done separately. I think you know that in the Center of Army Analysis, in concert with the Joint Staff, we run several operational availabilities studies to take a look at the national military strategy. I think you know it is a 1-4-2-1: 1 being homeland defense; 4 being four critical areas of engagement; 2 being swiftly defeat the efforts of which one of them becomes a win-decisive. When you lay all that down and take a look at the contemporary operating environment, we looked at what will it take on any given day to have ready for deployment for this Nation—how many Brigade Combat Teams active and National Guard based upon a rotational basis.

The reason why we did that is because when they did the force sizing constructs on the old Quadrennial Defense Review (QDR) back in 2001 or so, no one took into account that if you go to a swiftly defeat like Iraq and it becomes rotational, you do not have the base and the accessibility to be able to sustain it. We are now in the third year of Afghanistan and Iraq. Yet the force sizing con-

struct that drove the Army to 10 divisions, and then sometimes there were discussions of 8 divisions, left us with this structure.

That is why we are growing to 43 active brigades, as well as taking all the National Guard brigades and making them the same as the active brigades, and then moving into this force generation model that deals with the accessibility of the National Guard brigades in concert with the accessibility on any given day of the active component.

That is what that had to do with. The 20 just happened to correspond to the 19-some-odd brigades that are now in Iraq, but it was done separately.

Senator LIEBERMAN. I appreciate the answer.

So is it fair to say that you would say that the Army plan for size and structure of the force is appropriate for the types of operations it has been performing and may be called on to perform in the near term?

General CODY. Yes, sir. If I could show one chart, I think it would be kind of interesting. I will go right to this. You all have the chart.

What we did is we looked back at where the Army had been. I do not want to belabor this, but this is the spectrum of conflict. This is high-end conflict. You see Korea, Vietnam, Just Cause, Grenada. This is down here in the domestic support/disaster relief. In the 1950's and 1989 before the wall came down and during the Cold War, we deployed an Army. It had 40 divisions during Vietnam, 28 divisions before the wall came down. We deployed that Army across this spectrum about 10 times. It was sized for this. It was sized for the plains of Europe. It was sized for the fights in the Sinyang Gap in North Korea, as well as our experience in Vietnam.

If you take a look at what happened to the Army after the wall came down, we went to 10 divisions active, 8 divisions National Guard, 44 percent reduction in force across the three components. But here is where we have been since the wall came down in 1989, 43 deployments and counting, but you take a look, it is full spectrum. Yet, we had a Cold War structure.

So that is what drove the former Chief and now our new Chief and myself to say how do we make this Army more modular that can meet the full spectrum requirements that we know we are going to face in the future and be able to be agile and modular, as well as be able to not have to transform it again in 2010 to 2014 when we bring on the Future Combat System. So that is what we used as we looked at this.

Senator LIEBERMAN. Those are very graphic. You have a clause at the bottom of the second one: "more missions, fewer soldiers." Those graphs make that clear.

Senator MCCAIN. Could I follow up with that?

Senator LIEBERMAN. Please.

Senator MCCAIN. General, you are aware that the sentiment on the Armed Services Committee and in the Senate and the House is that we need more people in the Army?

General CODY. I concur, sir.

Senator MCCAIN. You concur with that.

General CODY. I have been on testimony since—well, 1999 I testified that the Army was stretched after the Kosovo experience, and I believe I testified last year that we needed 30,000 right now so that we could do those things that you and Senator Lieberman laid out that the Army is doing: reorganizing in a rotational, swiftly defeat the efforts right now with Afghanistan and Iraq, resetting this force that we have used in the harshest environment, resetting our training, as well as setting ourselves up for the future environment that we know we are going to fight in. In order to do that, we have to grow this active component force by at least 30,000 right now until we can get our reorganization going at the level of commitment we are in Iraq and Afghanistan, as well as relieve the pressure on the National Guard and Reserves who we have used now since Operation Noble Eagle after September 11. So that is all in the balance.

Senator MCCAIN. Thank you.

Senator LIEBERMAN. Mr. Secretary.

Mr. BOLTON. Let me add to that. My background is in the Air Force. I spent 33 years there. Last weekend I had an opportunity to go to a function, and up front we do the normal things of introducing folks. Someone stood up to acknowledge the Air Force participation in our current global war on terrorism and happened to mention that there are about 30,000 airmen stationed worldwide on duty that particular night. I thought to myself I have over 300,000 soldiers in 120 countries tonight.

When I came to the Army just 3 years ago, the thing that impressed me most and certainly over the last 3 years is how busy this Army is and the need for personnel. Going to the modularity, we did that in the Air Force in the mid-1990s, had to do it for the same reasons. We were double-banging, triple-banging folks way too much, and you had to get some predictability into that. This Army is very, very, very busy.

To get to Senator Lieberman's point earlier on, we took a respite for a decade, maybe a decade and a half, with the Army. Now it is an opportunity for the country to really see what the Army is doing to make up its mind as to what it wants it to do in the future and then to resource that.

Senator LIEBERMAN. Thanks, Mr. Secretary. Mr. Chairman, let me just ask one more question and it builds on General Cody's direct answer about your question about personnel, which I appreciate.

Obviously, it is critical to have a rotation base that allows sustained commitments without overstressing the force or understaffing the critical training base, which is exactly what you talked about.

I have been reading that there are independent analysts now who are questioning whether a 3-to-1 rotation base in the Active Force is adequate, with some saying 4-to-1 or even 5-to-1 is necessary. If the 20 brigade assumption should prove incorrect—for instance, you were asked to carry out a mission, which we hope will not happen but realistically is a possible contingency, in a place like Pakistan or even Iran, or if the Army needs to surge as a result of those kinds of missions to a larger number, then the current

force generation may prove inadequate. It will prove inadequate if that happens.

So I want to ask you whether you believe that the temporary addition of 30,000, which we have now done in end strength, and an additional 10 brigades will allow the Army to maintain that three-to-one rotation base for a contingency requiring 20-plus brigades for 4 or 5 years.

General CODY. Mr. Senator, thank you for that question because it is one we grapple with every day. Let me start by saying what keeps me awake at night is what will this All-Volunteer Force look like in 2007.

Senator LIEBERMAN. Right.

General CODY. We mentioned the 3rd ID going back. You may not know. I have two sons that are captains in the Army. My oldest son is getting ready to deploy on his third combat tour since he graduated from flight school, Afghanistan, Iraq, now Afghanistan in 4 years. My youngest son is getting ready to go back with him for his second tour. Just like young Rob McChrystal and Sergeant Hanner, we have thousands of those types of stories. We are going out and we are trying to understand, because this is the first time we have taken this All-Volunteer Force into this type of fight rotational. Twelve months is a long time.

The Army during the 1990s was doing 6-month tours in Implementation Forces (IFOR), then Stabilization Forces (SFOR), then Kosovo Forces (KFOR), and we had some concerns about that. Our really only short tour was in Korea.

When this fight started, we had 29,000 to 30,000 soldiers on a short tour in Korea and 166,000 in short tours in combat. That is what we had to manage.

So when we looked at this in particular, we said, okay, if we have to do this, 30,000 is what we need right now, and then we want to make a decision in 2006. After we get the 10th new brigade built, that will bring the active Army up to 43 brigades, which also allows us to restructure the combat service support. We have gone from nine types of brigades in the Army to three. That allows us to restructure our combat service support. We think there are probably 6,000 or 7,000 spaces by restructuring there that we can gain to reinforce our tooth versus tail.

In 2006, we will take a look at what end strength should be after we complete the first year of modulatory. But what really will drive the number you talked about is the 20 Brigades if we have to do two swift-defeats simultaneously. Is it one in five? Is it one in six? If it is one in five and one in six, we think that the structure that we are going to come in 2006 will be about right.

Senator SESSIONS. What do you mean one in five or—

General CODY. If you can only go to a National Guard unit under partial mobilization—I think it is title 10, section 12203—you can only use them for 24 months consecutive by law. It was written in 1953. If by policy we cannot go back to a National Guard unit after they have served a cumulative of 24 months for 7 years, that will drive what your Active Force is going to look like.

Senator MCCAIN. Well, General, in all due respect, the Guard was never designed to have those kinds of deployments, and we are not meeting Guard recruiting goals. The Guard are fighting mag-

nificantly and with great patriotism. They are wonderful, but it is a tremendous strain on their families. So it seems to me to require the Guard to serve more often, which I think could probably have an effect on recruitment and retention, why do we not increase the size of the Army? This is a subject probably more for the Personnel Subcommittee, but it seems to me that the right direction to go if we are going to be in Iraq for a long period of time, as has been stated by several of your colleagues in uniform, then we should have an Army sized to meet that. It is called the National Guard for a reason, General.

General CODY. Sir, you and I are in agreement. Let me explain it because I absolutely agree with you.

One in five means a unit like the 81st out of Washington State that served the tour in Iraq. Then for 5 years, we would not go back to that unit. But the 20 Brigade Combat Teams that we think this Nation needs on any given day to be ready to deploy—not used, but ready to deploy—is 20. As you look at that chart, five or four—I cannot remember the number—will be National Guard units not being used, but the first 3 to 4 years they would be doing their title 32 with the Governor and homeland security, and then we would ramp up their training. So they would be ready to deploy so that if this Nation called—it does not mean we would use them, but we would get them in a cycle, so that if we had another Operation Iraqi Freedom-type of conflict, we had readily available C-1 type Guard units that we could bring in. It is not that we want to have them on Active-Duty every 5 years. That is not the case. But the case is to have them in a cycle of training so that we do have access to them if we have to fight this size of a war.

Senator LIEBERMAN. I will just wind up by saying—and my time is up. I thank you, Mr. Chairman—that part of what we are, obviously, looking for here is your estimate of what the permanent Active-Duty Army end strength should be to carry out your vision of a restructured Army. Part of that is the balance between the Guard and Reserve on the one hand and the active Army on the other. I think there is a concern certainly that the two of us share that reliance on the Guard and the Reserve may be more than we can sustain over the long term. So we have to make some tough decisions about active Army end strength.

I presume that what I am hearing you say is that I am not going to hear you give us a number today, but you are going to work on that until 2006 and then you are going to come in with a number, which I presume will be for the next budget cycle.

General CODY. Mr. Senator, we believe that the 30,000 that Congress has authorized us in NDAA 2005 is probably the right number, fully recognizing that we also have the ability to continue to grow that while we are still fighting this war based upon things like other measures we can take.

I think the number, at the end of the day, if this is a plateau and not a spike, is going to be higher than 30,000 that it is going so that we can retain the National Guard in the right rotation readiness, not deployable, but ready to deploy, and the reservists, as well as give this Nation the footprint that we need as a rotational Army. I think it is going to be more than 30,000. We will be able to come up with that number here as we go through this.

I have seen all kinds of numbers and I have been doing this for 3 years. I have seen them higher and lower, but I think it is going to be higher than 30,000 in 2006. I think we are going to come to that realization.

Senator LIEBERMAN. I agree with you and I look forward to working with you on it. Thanks, Mr. Chairman.

Senator MCCAIN. Thank you.

Senator SESSIONS.

Senator SESSIONS. Thank you, Mr. Chairman. I am delighted to have you chair this subcommittee. Nobody could do it better or has more insight, history, and concern for the issues coming before the subcommittee than you. I am delighted to have you there.

General Cody, the whole thing is very significant in terms of numbers. What do we do? The Army Reserve unit I was in was mobilized in 1991 in the Gulf War. It was mobilized again. I visited them over there. I was not in it when we were mobilized. I had gotten out before 1991, but I was in it for 10 years. A lot of those people are personal friends of mine.

That is a pretty stressful thing every 10 years. Probably only about 20 percent of the people in that unit were in it the first time they went.

I understand we are only using 40 percent of the Guard and Reserve.

The only thing I would say is a little bit different than my colleagues. They are prepared to go to war. The Guard and Reserve—we have combat units. If they are not going to be called up, then they need to be told right away. We need to reevaluate that. But they cannot be called up too often. They are prepared to go and serve.

They serve with so few complaints it is just incredible. I visited in Fallujah a young marine. He told me his trucking business was hurt by being there. He thought he may lose it. He said that in an open meeting. He came up to me later and said, but I want you to know, Senator, 2 hours from now I am signing up again. I am going to recommit and do another 6 years.

So they are really remarkable. They want to serve, but we cannot overuse them. We have to use them very smartly, and some people are getting called up too much because of their skills and some are not. I know you are working on that and we are going to have to have more numbers. I have become convinced that you are correct. I do think the rain barrel analogy is a good one.

With regard to the Future Combat System, General Cody or Secretary Bolton, you said that we want to put in the force as quickly as possible. I think I understand what that means. General Cody, I guess I will ask you since the Secretary has already discussed it, exactly what do we mean by that? As I understand it, there are certain things that are part of our vision for a Future Combat System that can be brought on quickly that can help us right now and that you have made a decision not to wait until the entire perfect architecture is here but to, at least, bring those on early and become familiar with them and utilize them. Would you discuss with me—have I gotten that right, and what are the pitfalls and advantages of doing that?

General CODY. Thank you, Mr. Senator. First off, I agree with you about the unbelievable service of our National Guard and reservists. I just came back from Iraq. I know you all have visited there several times. Also, let me say they enjoy seeing our elected officials over there because it reconnects them and reminds them of how important their service to the Nation is.

We do not have a finer National Guard or Reserve than we have today. We are all very proud of them. We could not be closer to be a one Army today than we are because of Afghanistan and Iraq. The comraderie and the esprit de corps is just unbelievable and we have to be careful about the usage of the National Guard. We know that and we are concerned about it.

When General Schoomaker, myself, the Secretary of the Army, and Secretary Bolton looked at all the things that we were being confronted with in this fight in Iraq and the fight in Afghanistan, all what I would call off-the-shelf robotics, sensor systems, battle command systems. We looked at where we were with the 18 plus 1 complex, integrated Future Combat Systems that we had. We looked at where they were in technology and asked the question, as we have this force in motion and as we are structuring it based upon the combatant commander's desires—and he wanted more sensors to look for IEDs. He wanted more robotics. He wanted to be able to have battle command across all his units so it would be seamless in terms of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C⁴ISR). So we looked and we said, okay, there is no longer a strategic pause here to be able to wait until 2012 to put all 18 plus 1 systems onto a formation. We have to do two things.

One is we have to set up the Army for what the combatant commander needs and closely get it aligned to what the formation will be for the Future Combat System-equipped formation.

Second, we need to have, on any given day, a battle command system that, as we move forward, and start fielding the Future Combat System, whether it is a Stryker brigade or a new modular brigade or an FCS-equipped brigade, they can all communicate and still see first, understand first, act first. The fight will be just a little bit different because of the systems. So understanding that, we went and said, okay, we have some unattended ground sensors we can spiral forward now as we build our new modular brigade. We have the non-line-of-sight cannon that we can bring forward because we know we need that to help shape the fight in the future. There is the intelligent munitions systems, and then there is the systems of systems common operating environment which really sets up the operational network for battle command. We knew we could bring that into spiral one a little quicker once we brought in warfighter information network-terrestrial (WIN-T) and these joint network nodes. So we made that decision in restructuring.

We also looked at some of the other capabilities for spiral two. Our plan is rather than spiral all this stuff in on a new experimental unit in 2014 when everything is ready is to take 6 to 9 to maybe even 10 of these systems and put the into the force now in 2008, 2010 and populate them across them so that we are not having to change the whole Army all at once and we are also able to

bring enhanced technology to the fight today. That is really our strategy.

Senator MCCAIN. Thank you very much. General Cody, thank you. We will move to our next panel then. Thank you for being here. Secretary Bolton, stay where you are.

Mr. BOLTON. Yes, sir. [Laughter.]

Senator MCCAIN. Mr. Paul Francis, the Director of Acquisition and Sourcing Management of the Government Accountability Office; Dr. David Graham, Deputy Director of Strategy Forces and Resources Division, the Institute of Defense Analyses; and Mr. Kenneth Boehm, who is the Chairman of the National Legal and Policy Center. Secretary Bolton, do you have an additional opening statement that you would like to make?

Mr. BOLTON. No, sir, I do not.

Senator MCCAIN. Okay. Thank you again, Mr. Bolton.

Mr. Francis, welcome and thank you for appearing before this subcommittee today. Please proceed.

STATEMENT OF PAUL L. FRANCIS, DIRECTOR, ACQUISITION AND SOURCING MANAGEMENT, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. FRANCIS. Thank you, Mr. Chairman. Good morning. Good morning, Mr. Lieberman. I appreciate the opportunity to appear before the subcommittee this morning. I do have a written statement which I would like to submit for the record.

I also had an oral statement that I was going to read through, but I thought in lieu of that, I would just try to hit some points that I think are relevant to the discussion that we just had. I might not be as smooth, but I think I will be a little bit more on point, if that is okay.

Senator MCCAIN. Thank you.

Mr. FRANCIS. I would say that lead system integrators and other transactions are mechanisms the Government uses to try to get better outcomes than it could using traditional instruments. I think these come with inherent risks that generally involve protecting the Government's interests.

I think in the case of the FCS, there are some additional risks, and they would have to do with the lead system integrator being also a prime item contractor on the program. The solution that we are trying to buy is not well defined yet, and the technical task is really monumental. So I think these are additional risks that the program faces.

The Army has taken a number of steps both in the contracting mechanism and in its management oversight to try to mitigate these risks. We are just beginning to look at how they are working now. I do not have a bottom line on how well the Army is doing, and we are working with your staff on that, Mr. Chairman.

I think that the Army could make a good case that using the LSI and the OTA to get to an acquirable solution is not a bad approach given the size of the task.

Senator MCCAIN. Does that mean to you that we should look at the rules of procurement?

Mr. FRANCIS. My thought is that now that we are into acquisition, we need to be looking at this as an acquisition program. So

I think that if we were looking at it as a science and technology or experimental effort to see what we can do, I think there could be an argument made that was a good approach to get to that point.

But now we are past that point. We are about 2 years into the acquisition process, and at this point the program is not mature. As is included in my testimony, the technologies are not mature. We have not firmed requirements. I would say the cost estimate at this point would be tentative. I think no matter what contracting instrument we used up to this point, the program would still be at this relative state of immaturity.

I think the concern I would like to get across is being 2 years into the acquisition program, we are now going down the chute of acquisition, which means we are going to be designing a system. We are going to build prototypes. We are going to test, and we are going to buy. In reality for the next few years, the program is going to be at a point of discovery to see what it can and cannot do. So we may be faced with questions over the next few years, such as, what if the cost does double, would we still do FCS then? It is a hypothetical question. What if we can only get an 80-percent solution, would that be okay? What if we come out with F-22-like outcomes which say we get the solution we want, but it is so expensive we cannot buy many of them, would that be okay? I think we are going to see these types of issues come up over the next few years in the program.

So what I would like to say is as we go through that and we discuss the contracting mechanisms and the arrangement with the contractor, I think it is really important that the Government preserve its options to change course based on the discovery of these facts that we will be going through over the next few years.

[The prepared statement of Mr. Francis follows:]

PREPARED STATEMENT BY PAUL L. FRANCIS

Mr. Chairman and members of the subcommittee: I am pleased to be here today to discuss the Department of the Army's Future Combat Systems (FCS), a networked family of weapons and other systems. FCS is the centerpiece of the Army's plan to transform to a lighter, more agile, and more capable force. It consists of an information network linking a new generation of 18 manned and unmanned ground vehicles, air vehicles, sensors, and munitions. FCS began system development and demonstration in May 2003. In July 2004, the Army announced a major restructuring of the program, including plans for transitioning FCS capabilities to current forces. Total costs of the restructured program have not yet been estimated but will be at least \$108 billion, in fiscal year 2005 dollars. The fiscal year 2005 budget provides \$2.8 billion in research and development funds for FCS; the fiscal year 2006 budget requests an increase to \$3.4 billion.

Today, I would like to discuss (1) the technical and managerial challenges of the FCS program; (2) the prospects for delivering FCS capabilities within cost and scheduled objectives; and (3) considerations on how to proceed.

SUMMARY

The FCS program faces significant challenges in setting requirements, developing systems, financing development, and managing the effort. The Army has set the bar for requirements very high. FCS vehicles are to be a fraction of the weight of current vehicles, yet are to be as lethal and survivable. Their light weight and small size are critical to meeting the other Army goals: more mobile forces that are easier to sustain in combat. For FCS-equipped units to see and hit the enemy first, rather than to rely on heavy armor to survive, the Army must develop (1) a network to collect, process, and deliver vast amounts of intelligence and communications information and (2) individual systems, such as manned ground vehicles, that have been

likened in complexity to fighter aircraft. FCS is a development of unprecedented complexity for the Army. From a financial standpoint, the first increment of FCS—enough to equip about 1/3 of the force—will cost at least \$108 billion. Funding requests will run from over \$3 billion per year to about \$9 billion per year at a time when the Army faces the competing demands of sustaining current operations, recapitalizing the current force, and paying for modularization. Finally, because of the management challenge the program's pace and complexity pose, the Army has turned to a Lead System Integrator to manage the entire effort and is making use of a contracting instrument known as Other Transaction Agreement, which allows the parties to negotiate contract terms based on the program requirements and their needs.

As restructured, the FCS strategy includes 4 additional years to reduce risk, increase the demonstration of FCS capabilities, and harvest successes for the current force. Even with these improvements, the FCS is still at significant risk for not delivering planned capability within budgeted resources. This risk stems from the scope of the program's technical challenges and the low level of knowledge demonstrated at this point. The current schedule allows about 9½ years from development start to the production decision. FCS is developing multiple systems and a network within a period of time that the Department of Defense (DOD) typically needs to develop a single advanced system. The FCS has demonstrated a level of knowledge far below that suggested by best practices or DOD policy. Nearly 2 years after program launch and about \$4.6 billion invested to date, requirements are not firm and only 1 of over 50 technologies are mature—activities that should have been done before the start of system development and demonstration. If everything goes as planned, the program will attain the level of knowledge in 2008 that it should have had before it started in 2003. But things are not going as planned. Progress in critical areas, such as the network, software, and requirements has been slower than planned. Proceeding with such low levels of knowledge makes it likely that FCS will encounter problems late in development, when they are costly to correct. The relatively immature state of program knowledge at this point provides an insufficient basis for making a good cost estimate. Independent estimates should provide more information but are not yet completed. If the cost estimate for FCS is no more accurate than traditional estimates, the impact of cost growth could be substantial, given the program's magnitude.

At this point, the FCS provides a concept that has been laid out in some detail, an architecture or framework for integrating individual capabilities, and an investment strategy for how to acquire those capabilities. It is not yet a good fit as an acquisition program. If FCS-like capabilities are to be made acquirable—for which the Army has made a compelling case—then different approaches for FCS warrant consideration because they offer building higher levels of knowledge and thus lower risk. One approach, in keeping with DOD acquisition policy and best practices, would be to set the first spiral as the program of record for system development and demonstration. To make such a spiral executable, it should meet the standards of providing a worthwhile military capability, having mature technology, and having firm requirements. Other capabilities currently in the FCS program could be taken out of system development and demonstration and instead be bundled into advanced technology demonstrations that could develop and experiment with advanced technologies in the more conducive environment of science and technology until they are ready to be put into a future spiral. Advancing technologies in this way will enable knowledge to guide decisions on requirements, lower the cost of development, and make for more reasonable cost and schedule estimates for future spirals.

BACKGROUND

Army Transformation and the FCS Concept

A decade after the cold war ended, the Army recognized that its combat force was not well suited to perform the operations it faces today and is likely to face in the future. The Army's heavy forces had the necessary firepower but required extensive support and too much time to deploy. Its light forces could deploy rapidly but lacked firepower. To address this mismatch, the Army decided to radically transform itself into a new "Future Force."

The Army expects the Future Force to be organized, manned, equipped, and trained for prompt and sustained land combat. This translates into a force that is responsive, technologically advanced, and versatile. These qualities are intended to ensure the Future Force's long-term dominance over evolving, sophisticated threats. The Future Force is to be offensively oriented and will employ revolutionary operational concepts, enabled by new technology. This force is to fight very differently than the Army has in the past, using easily transportable lightweight vehicles, rath-

er than traditional heavily armored vehicles. The Army envisions a new way of fighting that depends on networking the force, which involves linking people, platforms, weapons, and sensors seamlessly together.

The Army has determined that it needs more agile forces. Agile forces would possess the ability to seamlessly and quickly transition among various types of operations from support operations to warfighting and back again. They would adapt faster than the enemy thereby denying it the initiative. Agile forces would allow commanders of small units the authority and high quality information to act quickly to respond to dynamic situations.

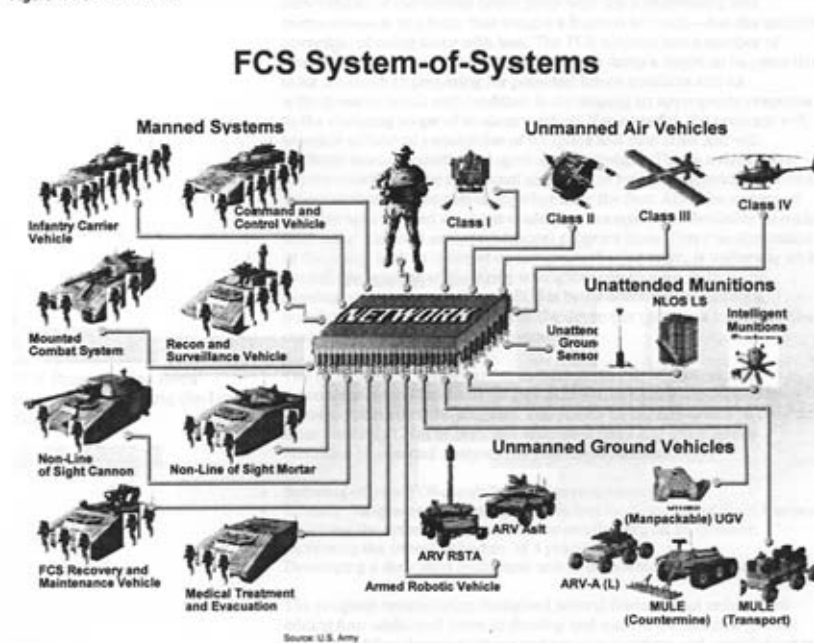
To be successful, therefore, the transformation must include more than new weapons. It must be extensive, encompassing tactics and doctrine as well as the very culture and organization of the Army.

The FCS Solution

FCS will provide the majority of weapons and sensor platforms that comprise the new brigade-like modular units of the Future Force known as units of action. Each unit is to be a rapidly deployable fighting organization about the size of a current Army brigade but with the combat power and lethality of the current larger division. The Army also expects FCS-equipped units of action to provide significant warfighting capabilities to the overall joint force. The Army is reorganizing its current forces into modular, brigade-based units akin to units of action.

FCS is a family of 18 manned and unmanned ground vehicles, air vehicles, sensors, and munitions that will be linked by an information network. These include, among other things, eight new ground vehicles to replace current vehicles such as tanks, infantry carriers and self-propelled howitzers, four different unmanned aerial vehicles, several unmanned ground vehicles, and attack missiles that can be positioned in a box-like structure.

Figure 1: FCS Increment 1



The manned ground vehicles are to be a fraction of the weight of current weapons such as the Abrams tank and Bradley fighting vehicle, yet are to be as lethal and survivable. At a fundamental level, the FCS concept is replacing mass with superior information; that is, to see and hit the enemy first, rather than to rely on heavy armor to withstand a hit.

The essence of the FCS concept itself—to provide the lethality and survivability of the current heavy force with the sustainability and responsiveness of a force that weighs a fraction as much—has the intrinsic attraction of doing more with less. The FCS concept has a number of progressive features, which demonstrate the Army's desire to be proactive in its approach to preparing for potential future conflicts and its willingness to break with tradition in developing an appropriate response to the changing scope of modern warfare. If successful, the program will leverage individual capabilities of weapons and platforms and will facilitate interoperability and open system designs. This is a significant improvement over the traditional approach of building superior individual weapons that must be netted together after the fact. Also, the system-of-systems network and weapons could give managers the flexibility to make best value tradeoffs across traditional program lines. This transformation of the Army, both in terms of operations and equipment, is underway with the full cooperation of the Army warfighter community. In fact, the development and acquisition of FCS is being accomplished using a collaborative relationship between the developer (program manager), the contractor, and the warfighter community.

FCS Program Has Been Restructured During the Last Year

The FCS program was approved to start system development and demonstration in May 2003. On July 21, 2004, the Army announced its plans to restructure the program. The restructuring responded to direction from the Army Chief of Staff and addresses risks and other issues identified by external analyses. Its objectives include:

- Spinning off ripe FCS capabilities to current force units;
- Meeting congressional language for fielding the non-line of sight cannon;
- Retaining the system-of-systems focus and fielding all 18 systems;
- Increasing the overall schedule by 4 years; and
- Developing a dedicated evaluation unit to demonstrate FCS capabilities

The program restructuring contained several features that reduce risk—adding 4 additional years to develop and mature the manned ground vehicles; adding demonstrations and experimentation; and establishing an evaluation unit to demonstrate FCS capabilities. The program restructuring also adds scope to the program by reintroducing four deferred systems, adding four discrete spirals of FCS capabilities to the current force, and accelerating the development of the network. About \$6.1 billion was added to the system development and demonstration contract and the Army has recently announced that the detailed revision of the contract has been completed.

OBJECTIVES, SCOPE, AND METHODOLOGY

To develop the information on whether the FCS program was following a knowledge-based acquisition strategy and the current status of that strategy, we interviewed officials of the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics); the Secretary of Defense's Cost Analysis Improvement Group; the Assistant Secretary of the Army (Acquisition, Logistics, and Technology); the Army's Training and Doctrine Command; Surface Deployment and Distribution Command; the Program Manager for the Unit of Action (previously known as Future Combat Systems); the Future Combat Systems Lead Systems Integrator (LSI); and LSI One Team contractors. We reviewed, among other documents, the Future Combat Systems' Operational Requirements Document, the Acquisition Strategy Report, the Baseline Cost Report, the Critical Technology Assessment and Technology Risk Mitigation Plans, and the Integrated Master Schedule. We attended the FCS Management Quarterly Reviews, In-Process Reviews, and Board of Directors Reviews.

In our assessment of the FCS, we used the knowledge-based acquisition practices drawn from our large body of past work as well as DOD's acquisition policy and the experiences of other programs. We discussed the issues presented in this statement with officials from the Army and the Secretary of Defense, and made several changes as a result. We performed our review from May 2004 to March 2005 in accordance with generally accepted auditing standards.

THE FCS PROGRAM IS AN UNPRECEDENTED CHALLENGE

The FCS program faces significant challenges in setting requirements, developing systems, financing development, and managing the effort. It is the largest and most complex acquisition ever attempted by the Army.

The Requirements Challenge

The Army wants the FCS-equipped unit of action to be as lethal and survivable as the current heavy force, but to be significantly more responsive and sustainable. For the unit of action to be lethal, it must have the capability to address the combat situation, set conditions, maneuver to positions of advantage, and to engage enemy formations at longer ranges and with greater precision than the current force. To provide this level of lethality and reduce the risk of detection, FCS must provide high, single-shot, weapon effectiveness. To be as survivable as the current heavy force, the unit of action must find and kill the enemy before being seen and identified. The individual FCS systems will also rely on a layered system of protection involving several technologies that lowers the chances of a vehicle or other system being seen and hit by the enemy. To be responsive, the unit of action must be able to rapidly deploy anywhere in the world and be rapidly transportable by various means—particularly by the C-130 aircraft—and ready to fight upon arrival. To facilitate rapid transportability on the battlefield, FCS vehicles are to match the weight and size constraints of the C-130 aircraft. The unit of action is to be capable of sustaining itself for periods of 3 to 7 days depending on the level of conflict—necessitating a small logistics footprint. This requires subsystems with high reliability and low maintenance, reduced demand for fuel and water, highly effective weapons, and a fuel-efficient engine.

Meeting all these requirements is unprecedented not only because of the difficulty each represents individually, but because the solution for one requirement may work against another requirement. For example, solutions for lethality could increase vehicle weight and size. Solutions for survivability could increase complexity and lower reliability. It is the performance of the information network that is the linchpin for meeting the other requirements. It is the quality and speed of the information that will enable the lethality and survivability of smaller vehicles. It is smaller vehicles that enable responsiveness and sustainability.

The Development Challenge

In the Army's own words, the FCS is "the greatest technology and integration challenge the Army has ever undertaken." It intends to concurrently develop a complex, system-of-systems—an extensive information network and 18 major weapon systems. The sheer scope of the technological leap required for the FCS involves many elements. For example:

- First-of-a-kind network will have to be developed that will entail development of unprecedented capabilities—on-the-move communications, high-speed data transmission, dramatically increased bandwidth, and simultaneous voice, data and video;
- The design and integration of 18 major weapon systems or platforms has to be done simultaneously and within strict size and weight limitations;
- At least 53 technologies that are considered critical to achieving FCS' critical performance capabilities will need to be matured and integrated into the system-of-systems;
- Synchronizing the development, demonstration, and production of as many as 157 complementary systems with the FCS content and schedule. This will also involve developing about 100 network interfaces so the FCS can be interoperable with other Army and joint forces; and
- At least an estimated 34 million lines of software code will need to be generated (about double that of the Joint Strike Fighter, which had been the largest defense undertaking in terms of software to be developed).

The Financial Challenge

Based on the restructured program, the FCS program office initially estimated that FCS will require \$28.0 billion for research and development and around \$79.9 billion for the procurement of 15 units of action. The total program cost is expected to be at least \$107.9 billion. These are fiscal year 2005 dollars. Since this estimate, the Army has released an updated research and development cost estimate of \$30.3 billion in then-year dollars. An updated procurement estimate is not yet available. The Army is continuing to refine these cost estimates. As estimated, the FCS will command a significant share of the Army's acquisition budget, particularly that of ground combat vehicles, for the foreseeable future. In fiscal year 2006, the FCS budget request of \$3.4 billion accounts for 65 percent of the Army's proposed spending on programs in system development and demonstration and 35 percent of that expected for all research, development, test, and evaluation activities.

As the FCS begins to command large budgets, it will compete with other major financial demands. Current military operations, such as in Afghanistan and Iraq, require continued funding. Since September 2001, DOD has needed over \$240 bil-

lion in supplemental appropriations to support the global war on terrorism. Current operations are also causing faster wear on existing weapons, which will need refurbishment or replacement sooner than planned. The equipment used by the current force, such as Abrams tanks and Bradley Fighting Vehicles, is expected to remain in the active inventory until at least 2030. The cost to upgrade and maintain this equipment over that length of time has not been estimated but could be substantial. Also, the cost of converting current forces to new modular, brigade-based units is expected to be at least \$48 billion. Further, FCS is part of a significant surge in the demand for new weapons. Just 4 years ago, the top 5 weapon systems cost about \$280 billion; today, in the same base year dollars, the top 5 weapon systems cost about \$521 billion. If megasystems like FCS are estimated and managed with traditional margins of error, the financial consequences are huge, especially in light of a constrained discretionary budget.

The Management Challenge

The Army has employed a management approach that centers on a Lead System Integrator (LSI) and a non-standard contracting instrument, known as an other transaction agreement (OTA). The Army advised us that it did not believe it had the resources or flexibility to use its traditional acquisition process to field a program as complex as FCS under the aggressive timeline established by the then-Army Chief of Staff.

Although there is no complete consensus on the definition of LSI, those we are aware of appear to be prime contractors with increased program management responsibilities. These responsibilities have included greater involvement in requirements development, design and source selection of major system and subsystem subcontractors. The government also has used the LSI approach on programs that require system-of-systems integration.

The Army selected Boeing as the LSI for the FCS system development and demonstration in May 2003. The Army and Boeing established a One-Team management approach with several first tier subcontractors to execute the program. According to the Army, Boeing has awarded 20 of 24 first tier subcontracts, to 17 different subcontractors. The One-Team members and their responsibilities are depicted in table 1.

TABLE 1: ONE-TEAM MEMBERS

One-Team Member	Responsibility
Army	Program Oversight and Insight
Boeing/SAIC	Program Management (including source selection), Development of System-of-Systems Common Operating Environment, System Integration
General Dynamics Land Systems	Manned Ground Vehicles
General Dynamics C4 Systems	Planning and Preparation Services, Sensor Data Management
General Dynamics Robotics Systems	Autonomous Navigation System
General Dynamics Advanced Information Systems	Integrated Computers
United Defense, LP	Manned Ground Vehicles, Armed Robotic Vehicle
iRobot Corporation	Small Unmanned Ground Vehicle
Lockheed Martin Missiles and Fire Control	Multifunction Utility/Logistics and Equipment Vehicle
Lockheed Martin, Orincon	Intelligence, Surveillance and Reconnaissance Sensor Fusion
Austin Information Systems	Situational Understanding
BAE Systems CNI	Ground Platform Communication
BAE Systems IESI	Air Platform Communication
Computer Sciences Corporation	Training Support
Dynamics Research Corporation	Training Support
Honeywell Defense and Space Electronic Systems	Platform Soldier Mission Readiness System
Northrop Grumman	Air Sensor Integrator, Class IV Unmanned Aerial Vehicle, Logistics Decision Support Systems, Network Management, Training Support
Raytheon Network Centric Systems	Battle Command and Mission Execution, Ground Sensor Integrator
Textron Systems	Unattended Ground Sensors, Tactical and Urban Sensors

Source: U.S. Army

Boeing was awarded the LSI role under an OTA which is not subject to the Federal Acquisition Regulation (FAR). Consequently, when using an OTA, DOD contracting officials have considerable flexibility to negotiate the agreement terms and conditions. This flexibility requires DOD to use good business sense and to incorporate appropriate safeguards to protect the government's interests. The OTA used for FCS includes several FAR or Defense FAR Supplement clauses, many of which

flow down to subcontracts. The value of the agreement between the Army and Boeing is approximately \$21 billion. It is a cost reimbursement contract.

Congress has incrementally expanded the use and scope of other transaction authority since first authorizing its use more than a decade ago. In 1989, Congress gave DOD, acting through the Defense Advanced Research Projects Agency (DARPA), authority to temporarily use other transactions for basic, applied, and advanced research projects. In 1991, Congress made this authority permanent and extended it to the military departments. In 1993, Congress enacted Section 845 of the National Defense Authorization Act for Fiscal Year 1994, which provided DARPA with authority to use, for a 3-year period, other transactions to carry out prototype projects directly relevant to weapons or weapon systems proposed to be acquired or developed by DOD. Subsequent amendments have extended this authority to the military departments and other defense agencies. Most recently, the National Defense Authorization Act for Fiscal Year 2004 extended the prototype project authority until 2008 and provided for a pilot program to transition some other transaction prototype projects to follow-on production contracting.

According to program officials, under the LSI and OTA arrangement on FCS, the Army primarily participates in the program through Integrated Product Teams that are used to make coordinated management decisions in the program about issues related to requirements, design, horizontal integration and source selection.

FCS REMAINS AT RISK OF NOT DELIVERING PLANNED CAPABILITY WITHIN ESTIMATED RESOURCES

During the past year, the FCS underwent a significant restructuring, which added 4 years to the schedule for reducing risk, increasing the demonstration of FCS capabilities, and harvesting successes for the current force. Yet, even with these improvements, the FCS is still at significant risk for not delivering planned capability within budgeted resources. This risk stems from the scope of the program's technical challenges and the low level of knowledge demonstrated thus far.

High Levels of Demonstrated Knowledge Are Key to Getting Desired Outcomes

Our previous work has shown that program managers can improve their chances of successfully delivering a product if they employ a knowledge-based decision-making process. We have found for a program to deliver a successful product within available resources, managers should build high levels of demonstrated knowledge before significant commitments are made.¹ In essence, knowledge supplants risk over time. This building of knowledge can be described in three levels that should be attained over the course of a program:

- First, at program start, the customer's needs should match the developer's available resources—mature technologies, time, and funding. An indication of this match is the demonstrated maturity of the technologies needed to meet customer needs.²
- Second, about midway through development, the product's design should be stable and demonstrate that it is capable of meeting performance requirements. The critical design review is the vehicle for making this determination and generally signifies the point at which the program is ready to start building production-representative prototypes.
- Third, by the time of the production decision, the product must be shown to be producible within cost, schedule, and quality targets and have demonstrated its reliability. It is also the point at which the design must demonstrate that it performs as needed through realistic system level testing.

The three levels of knowledge are related, in that a delay in attaining one delays those that follow. Thus, if the technologies needed to meet requirements are not mature, design and production maturity will be delayed. On the successful commercial and defense programs we have reviewed, managers were careful to conduct development of technology separately from and ahead of the development of the product. For this reason, the first knowledge level is the most important for improving the

¹GAO, Best Practices: Capturing Design and Manufacturing Knowledge Early Improves Acquisition Outcomes. GAO-02-701. (Washington, DC: July 15, 2002); Best Practices: Better Management of Technology Development Can Improve Weapon System Outcomes. GAO/NSIAD-99-162. (Washington, DC: July 30, 1999); Best Practices: Successful Application to Weapon Acquisition Requires Changes in DOD's Environment. GAO/NSIAD-98-56. (Washington, DC: February 24, 1998).

²Technology readiness levels are a way to measure the maturity of technology. According to best practices, technology is considered sufficiently mature to start a program when it reaches a readiness level of 7. This involves a system or prototype demonstration in an operational environment. The prototype is near or at the planned operational system.

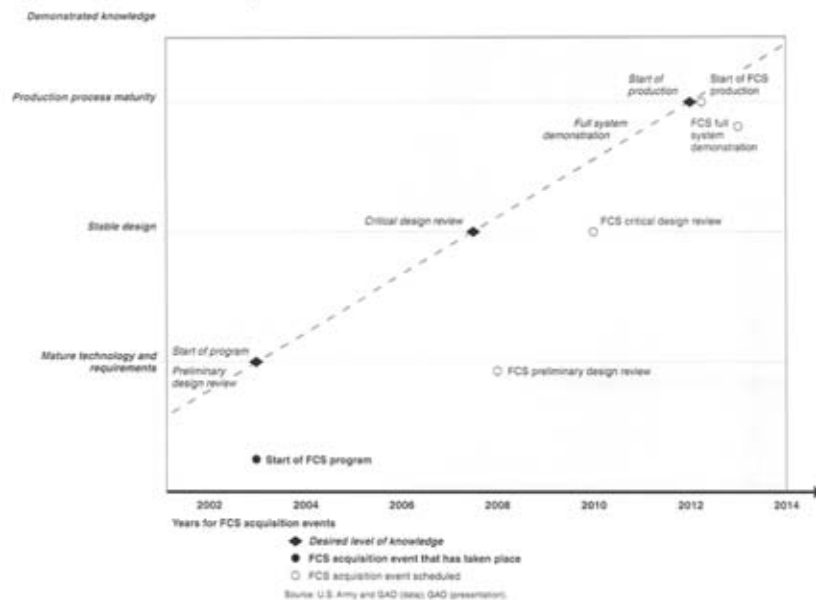
chances of developing a weapon system within cost and schedule estimates. DOD's acquisition policy has adopted the knowledge-based approach to acquisitions. DOD policy requires program managers to provide knowledge about key aspects of a system at key points in the acquisition process. Program managers are also required to reduce integration risk and demonstrate product design prior to the design readiness review and to reduce manufacturing risk and demonstrate producibility prior to full-rate production.

DOD programs that have not attained these levels of knowledge have experienced cost increases and schedule delays. We have recently reported on such experiences with the F/A-22, the Joint Strike Fighter, the Airborne Laser, and the Space Based Infrared System High. For example, the \$245 billion Joint Strike Fighter's acquisition strategy does not embrace evolutionary, knowledge-based techniques intended to reduce risks. Key decisions, such as its planned 2007 production decision, are expected to occur before critical knowledge is captured. If time were taken now to gain knowledge it could avoid placing sizable investments in production capabilities at risk of expensive changes.

FCS Strategy Will Not Demonstrate High Levels of Knowledge Consistent With DOD Policy or Best Practices

The FCS program has proceeded with low levels of knowledge. In fact, most of the activities that have taken place during its first 2 years should have been completed before starting system development and demonstration. It may be several years before the program reaches the level of knowledge it should have had at program start. Consequently, the Army is depending on a strategy that must concurrently define requirements, develop technology, design products, and test products. Progress in executing the program thus far does not inspire confidence: the requirements process is taking longer than planned, technology maturity may actually have regressed, and a program that is critical for the FCS network has recently run into problems and has been delayed. Figure 2 depicts how the FCS strategy compares with the best practices described above.

Figure 2: Comparison of FCS Strategy with Best Practices



The white space in figure 2 suggests the knowledge between best practices and the FCS program. Clearly, the program has a tremendous amount of ground to cover to close its knowledge gaps to the point that it can hold the design reviews as scheduled and make decisions on building prototypes, testing, and beginning production with confidence.

Several other observations can be made from the figure:

- A match between mature technologies and firm requirements was not made at program start.
- The preliminary design review, which ideally is conducted near the program start decision to identify disconnects between the design and the requirements, will be held 5 years into the program.
- The critical design review, normally held midway through development, is scheduled to take place in the seventh year of a 9-year program.
- The first test of all FCS elements will take place after the production decision.

Requirements and Resources Gap

The FCS program entered system development and demonstration without demonstrating a match between resources and requirements, and will not be in a position to do so for a number of years. The Army now expects to have a reasonably well defined set of requirements by the October 2006 interim preliminary design review. The Army has been working diligently to define these requirements, but the task is very difficult given that there are over 10,000 specific system-of-systems requirements that must collectively deliver the needed lethality, survivability, responsiveness, and sustainability. For example, the Army is conducting at least 120 studies to identify the design tradeoffs necessary before firming up requirements. As of December 2004, 69 remain to be completed. Those to be completed will guide key decisions on the FCS, such as the weight and lethality required of the manned ground vehicles.

On the resources side, last year we reported that 75 percent of FCS technologies were immature when the program started in 2003; a September 2004 independent assessment has since shown that only one of the more than 50 FCS critical technologies is fully mature. The Army employed lower standards than recommended by best practices or DOD policy in determining technologies acceptable for the FCS program.³ As a result, it will have to develop numerous technologies on a tight schedule and in an environment that is designed for product development. If all goes as planned, the Army estimates that most of the critical technologies will reach a basic level of maturity by the 2010 Critical Design Review and full maturity by the production decision. This type of technical knowledge is critical to the process of setting realistic requirements, which are needed now. In addition, a program critical to the FCS network and a key element of FCS' first spiral, the Joint Tactical Radio System, recently encountered technical problems and may be delayed 2 years. We provide more detail on this program later.

Late Demonstrations of FCS Performance Could Prove Costly

The FCS strategy will result in much demonstration of actual performance late in development and early in production, as technologies mature, prototypes are tested, and the network and systems are brought together as a system-of-systems. A good deal of the demonstration of the FCS design will take place over a 3-year period, starting with the critical design review in 2010 through the first system level demonstration of all 18 FCS components and the network in 2013. This compression is due to the desired fielding date of 2014, coupled with the late maturation of technologies and requirements previously discussed.

Ideally, a critical design review should be held midway through development—around 2008 for FCS—to confirm the design is stable enough to build production representative prototypes for testing. DOD policy refers to the work up to the critical design review as system integration, during which individual components of a system are brought together. The policy refers to the work after the critical design review as system demonstration, during which the system as a whole demonstrates its reliability as well as its ability to work in the intended environment. The building of production representative prototypes also provides the basis to confirm the maturity of the production processes. For the FCS, the critical design review will be held just 2 years before the production decision. The FCS program is planning to have prototypes available for testing prior to production but they will not be production-representative prototypes. The Army does not expect to have even a preliminary demonstration of all elements of the FCS system-of-systems until sometime in 2013, the year after the production decision.

³To achieve full maturity at TRL 7, the technology should be in the form, fit, and function needed for the intended product and should be demonstrated in a realistic environment. For a basic level of maturity at TRL 6, the technology is not necessarily in the form, fit, and function for the intended product.

This makes the program susceptible to “late cycle churn,” a condition that we reported on in 2000.⁴ Late-cycle churn is a phrase private industry has used to describe the efforts to fix a significant problem that is discovered late in a product’s development. Often, it is a test that reveals the problem. The “churn” refers to the additional—and unanticipated—time, money, and effort that must be invested to overcome the problem. Problems are most serious when they delay product delivery, increase product cost, or “escape” to the customer. The discovery of problems in testing conducted late in development is a fairly common occurrence on DOD programs, as is the attendant late-cycle churn. Often, tests of a full system, such as launching a missile or flying an aircraft, become the vehicles for discovering problems that could have been found out earlier and corrected less expensively. When significant problems are revealed late in a weapon system’s development, the reaction—or churn—can take several forms: extending schedules to increase the investment in more prototypes and testing, terminating the program, or redesigning and modifying weapons that have already made it to the field. While DOD has found it acceptable to accommodate such problems over the years, this will be a difficult proposition for the FCS given the magnitude of its cost in an increasingly competitive environment for investment funds.

The Army has made some concrete progress in building some of the foundation of the program that will be essential to demonstrating capabilities. For example, the System-of-Systems Integration Lab—where the components and systems will be first tested—has been completed. Initial versions of the System-of-Systems Common Operating Environment, the middleware that will provide the operating system for FCS software, have been released. Several demonstrations have taken place, including the precision attack munition, the non-line of sight cannon, and several unmanned aerial vehicles.

The Army has embarked on an impressive plan to mitigate risk using modeling, simulation, emulation, hardware in the loop, and system integration laboratories throughout FCS development. This is a credible approach designed to reduce the dependence on late testing to gain valuable information about design progress. However, on a first-of-a-kind system like the FCS that represents a radical departure from current systems, actual testing of all the components integrated together is the final proof that the system works both as predicted and as needed.

Examples of Execution Challenges for Two Key FCS Elements

The risks the FCS program faces in executing the acquisition strategy can be seen in the information network and the manned ground vehicles. These two elements perhaps represent the long poles in the program and upon which the program’s success depends.

Network

The Joint Tactical Radio System (JTRS) and Warfighter Information Network-Tactical (WIN-T) are central pillars of the FCS network. If they do not work as intended, battlefield information will not be sufficient for the Future Force to operate effectively. They are separate programs from the FCS, and their costs are not included in the costs of the FCS. Both JTRS and WIN-T face significant technical challenges and aggressive schedules, which threaten the schedule for fielding Future Force capabilities and make their ultimate ability to perform uncertain.

JTRS is a family of radios that is to provide the high capacity, high-speed information link to vehicles, weapons, aircraft, and soldiers. Because they are software-based, they can also be reprogrammed to communicate with the variety of radios currently in use. JTRS is to provide the warfighter with the capability to access maps and other visual data, communicate on-the-move via voice and video with other units and levels of command, and obtain information directly from battlefield sensors. JTRS can be thought of as the information link or network to support FCS units of action and the combat units on the scene that are engaged directly in an operation. In particular, its wideband networking waveform provides the “pipe” that will enable the FCS vehicles to see and strike first and avoid being hit. The WIN-T program is to provide the information network for higher military echelons. WIN-T will consist of ground, airborne, and space-based assets within a theater of operations for Army, joint, and allied commanders and provide those commanders with access to intelligence, logistics, and other data critical to making battlefield decisions and supporting battlefield operations. This is information the combat units can access through WIN-T developed equipment and JTRS.

⁴ GAO, *Best Practices: A More Constructive Approach is Key to Better Weapon System Outcomes*, GAO/NSIAD-00-199 (Washington, DC, July 31, 2000).

The JTRS program to develop radios for ground vehicles and helicopters—referred to as Cluster 1—began system development in June 2002 with an aggressive schedule, immature technologies, and lack of clearly defined and stable requirements. These factors have contributed to significant cost, schedule, and performance problems from which the program has not yet recovered. The Army has not been able to mature the technologies needed to provide radios that both generate sufficient power as well as meeting platform size and weight constraints. Changes in the design are expected to continue after the critical design review, and unit costs may make the radios unaffordable in the quantities desired. Given these challenges, the Army has proposed delaying the program 24 months and adding \$458 million to the development effort. However, before approving the restructure, the Office of the Secretary of Defense directed a partial work stoppage, and the program is now focusing its efforts on a scheduled operational assessment of the radio's functionality to determine the future of the program. Consequently, the radio is not likely to be available for the first spiral of the FCS network, slated for fiscal year 2008, and surrogate radios may be needed to fill the gap.

A second JTRS program, to develop small radios including those that soldiers will carry (referred to as Cluster 5), also entered system development with immature technologies, lack of well-defined requirements, and faces even greater technical challenges due to the smaller size, weight, power, and large data processing requirements for the radios. For example, the Cluster 5 program has a requirement for a wideband networking waveform despite its demanding size and power constraints. In addition, the program was delayed in starting system development last year because of a contract bid protest. Consequently, the Cluster 5 radios are not likely to be available for the first FCS spiral either. The Army has acknowledged that surrogate radios and waveforms may be needed for the first spiral of FCS.

The WIN-T program also began with an aggressive acquisition schedule and immature technologies that are not scheduled to mature until after production begins. Backup technologies have been identified, but they offer less capability and most are immature as well. In addition, the schedule leaves little room for error correction and rework that may hinder successful cost, schedule and performance outcomes. More recently, the program strategy was altered to identify a single architecture as soon as possible and to deliver networking and communications capabilities sooner to meet near term warfighting needs. Specifically, the Army dropped its competitive strategy and is now having the two contractors work together to develop the initial network architecture. A plan for how to develop and field capabilities sooner is still to be determined.

Manned Ground Vehicles

FCS includes eight manned ground vehicles, which require critical individual and common technologies to meet required capabilities. For example, the Mounted Combat System will require, among other new technologies, a newly developed light-weight weapon for lethality; a hybrid electric drive system and a high-density engine for mobility; advanced armors, an active protection system, and advanced signature management systems for survivability; a Joint Tactical Radio System with the wideband waveform for communications and network connection; a computer-generated force system for training; and a water generation system for sustainability. At the same time, concepts for the manned ground vehicles have not been decided and are awaiting the results of trade studies that will decide critical design points such as weight and the type of drive system to be used. Under other circumstances, each of the eight manned ground systems would be a major defense acquisition program on par with the Army's past major ground systems such as the Abrams tank, the Bradley Fighting Vehicle, and the Crusader Artillery System. As such, each requires a major effort to develop, design, and demonstrate the individual vehicles.

Developing these technologies and integrating them into vehicles is made vastly more difficult by the Army's requirement that the vehicles be transportable by the C-130 cargo aircraft. However, the C-130 can carry the FCS vehicles' projected weight of 19 tons only 5 percent of the time. In 2004, GAO reported a similar situation with the Stryker vehicles. The 19-ton weight of these vehicles significantly limits the C-130's range and the size of the force that can be deployed.⁵ Currently, FCS vehicle designs are estimated at over 25 tons. To meet even this weight, the advanced technologies required put the sophistication of the vehicles on a par with fighter aircraft, according to some Army officials. This is proving an extremely dif-

⁵ GAO, *Military Transformation: Fielding of Army's Stryker Vehicles Is Well Under Way, but Expectations for Their Transportability by C-130 Aircraft Need to Be Clarified*, GAO-04-925 (Washington, DC, August 12, 2004).

ficult requirement to meet without sacrificing lethality, survivability, and sustainability. Currently, program officials are considering other ways to meet the C-130 weight requirement, such as transporting the vehicles with minimal armor and with only a minimal amount of ammunition. As a result, vehicles would have to be armored and loaded upon arrival to be combat ready.

FCS Cost and Affordability Still to Be Determined

The low levels of knowledge in the FCS program provide an insufficient basis for making cost estimates. The program's immaturity at the time system development and demonstration began resulted in a relatively low-fidelity cost estimate and open questions about the program's long-term affordability. Although the program restructuring provides more time to resolve risk and to demonstrate progress, the knowledge base for making a confident estimate is still low. If the FCS cost estimate is not better than past estimates, the likelihood for cost growth will be high while the prospects for finding more money for the program will be dim.

The estimates for the original FCS program and the restructured program are shown in table 2 below.

TABLE 2: INCREASED COST FROM ORIGINAL TO RESTRUCTURED FCS PROGRAM

2005 BY\$ (millions)	Research and Development	Procurement	Total
Original	18,574	60,647	^a 79,836
Restructured	^b 28,007	79,960	107,967
Dollar increase	9,433	19,313	28,131
Percent increase	50.79	31.84	35.24

Sources: GAO.

^a Both the original and the restructured figures are for about 15 Units of Action (i.e., 1/3 of the current active force).

^b Includes four originally deferred systems, a lengthened schedule, additional tests, and the addition of the four spirals.

At this point, the FCS cost estimate represents the position of the program office. The Army and the Office of the Secretary of Defense's Cost Analysis Improvement Group will provide their independent estimates for the May 2005 Milestone B update review. It is important to keep in mind that the FCS program cost estimate does not reflect all of the costs needed to field FCS capabilities. The costs of the complementary programs are separate and will be substantial. For example, the research and development and procurement costs for the JTRS (Clusters 1 and 5) and the WIN-T programs are expected to be about \$34.6 billion (fiscal year 2005 dollars).

In addition, by April 2005, the Army has been tasked to provide an analysis of FCS affordability considering other Army resource priorities, such as modularity. This will be an important analysis given that estimates of modularity costs have been put at about \$48 billion, and costs of current operations and recapitalizing current equipment have been covered by supplemental funding.

As can be seen in table 3, substantial investments will be made before key knowledge is gained on how well the system can perform. For example, by the time of the critical design review in 2010, over \$20 billion of research and development funds will have been spent.

TABLE 3: ANNUAL AND CUMULATIVE FCS FUNDING AND PLANNED EVENTS AND ACHIEVEMENTS

[In millions of dollars]

Fiscal year	Annual Research and Development Funding	Cumulative Research and Development Funding	Planned Events/Achievements
2003	158.9	158.9	Systems development and demonstration Start
2004	1,637.3	1,796.2	Program restructured
2005	2,800.8	4,597.0	Contract redefined Milestone B Update Updated cost estimate
2006	3,404.8	8,001.8	Requirements firmed up Interim preliminary design review

TABLE 3: ANNUAL AND CUMULATIVE FCS FUNDING AND PLANNED EVENTS AND ACHIEVEMENTS—
Continued
[In millions of dollars]

Fiscal year	Annual Research and Development Funding	Cumulative Research and Development Funding	Planned Events/Achievements
2007	3,742.0	11,743.8	
2008	3,682.3	15,426.1	System preliminary design review Interim critical design review
2009	3,460.0	18,886.1	
2010	3,181.5	22,067.6	Technologies reach basic maturity; system critical design review
2011	2,690.7	24,758.3	Design readiness review
2012	1,949.6	26,707.9	Technologies reach full maturity Production decision
2013	1,412.0	28,119.9	Initial System-of-Systems demonstration
2014	1,169.0	29,288.9	Initial Operational Capability
2015	901.0	30,189.9	
2016	111.0	30,300.9	Full Operational Capability

Source: U.S. Army.

The consequences of even modest cost increases and schedule delays for the FCS would be dramatic. For example, a 1-year delay late in FCS development, not an uncommon occurrence for other DOD programs, could cost over \$3 billion. Given the size of the program, financial consequences of following historical patterns of cost and schedule growth could be dire.

ALTERNATIVES TO CURRENT FCS ACQUISITION STRATEGY STILL WARRANT CONSIDERATION

For any acquisition program, two basic questions can be asked. First, is it worth doing? Second, is it being done the right way? On the first question, the Army makes a compelling case that something must be done to equip its future forces and that such equipment should be more responsive but as effective as current equipment. The answer to the second question is problematic. At this point, the FCS presents a concept that has been laid out in some detail, an architecture or framework for integrating individual capabilities, and an investment strategy for how to acquire those capabilities. There is not enough knowledge to say whether the FCS is doable, much less doable within a predictable frame of time and money. Yet making confident predictions is a reasonable standard for a major acquisition program given the resource commitments and opportunity costs they entail. Against this standard, the FCS is not yet a good fit as an acquisition program.

That having been said, another important question that needs to be answered is: if the Army needs FCS-like capabilities, what is the best way to advance them to the point to which they can be acquired? Efforts that fall in this area—the transition between the laboratory and the acquisition program—do not yet have a place that has right organizations, resources, and responsibilities to advance them properly.

At this point, alternatives to the current FCS strategy warrant consideration. For example, one possible alternative for advancing the maturity of FCS capabilities could entail setting the first spiral or block as the program of record for system development and demonstration. Such a spiral should meet the standards of providing a worthwhile military capability, having mature technology, and having firm requirements. Other capabilities currently in the FCS program could be moved out of system development and demonstration and instead be bundled into advanced technology demonstrations that could develop and experiment with advanced technologies in the more conducive environment of “pre-acquisition” until they are ready to be put into a future spiral. Advancing technologies in this way will enable knowl-

edge to guide decisions on requirements, lower the cost of development, and make for more reasonable cost and schedule estimates for future spirals.

Mr. Chairman, this concludes my prepared statement. I would be happy to answer any questions that you or members of the subcommittee may have.

CONTACTS AND STAFF ACKNOWLEDGEMENTS

For future questions about this statement, please contact me at (202) 512-4841. Individuals making key contributions to this statement include Lily J. Chin, Marcus C. Ferguson, Lawrence D. Gaston, Jr., William R. Graveline, John P. Swain, Robert S. Swierczek, and Carrie R. Wilson.(120352)

Senator MCCAIN. Thank you very much.

Dr. Graham, welcome.

STATEMENT OF DR. DAVID R. GRAHAM, DEPUTY DIRECTOR, STRATEGY FORCES AND RESOURCES DIVISION, INSTITUTE FOR DEFENSE ANALYSES

Dr. GRAHAM. Yes. Thank you. I am with the Institute for Defense Analyses (IDA).

IDA performed an independent review of the FCS management last year at the request of the Office of the Secretary of Defense (OSD) and also Acting Secretary Les Brownley of the Army. The use of other transaction authority was one of the important focus areas of our study. We were asked to identify whether there were any unique issues or challenges associated with the use of OTA for the program. So we did a detailed review of the agreement between the Army and Boeing and also looked in detail at the subcontracts that Boeing had written with the, at that time, 24 subcontractors. I will briefly summarize the findings that are germane to the panel's considerations today. We put together an extract of our report for the record, if that is okay.

Let me speak first to the Army-Boeing agreement. As you said in the introduction, Congress created OTA to establish flexibility and what OTA does is it gives the participants in a contract the ability to put in as much or as little flexibility in the contract as the situation merits.

Now, when we looked at the Army-Boeing agreement, we find that it does provide flexibility for managing the program, but in the broader scheme of things, this agreement looks very much like a traditional Federal Acquisition Regulation (FAR) contract. After reviewing the details of the agreement, we felt—and we told the Army this—that we did not think that the agreement that they had in place and the way they were managing it created any unusual risks for the program.

I do agree with what Mr. Francis just said. There are a lot of technical and programmatic issues, but the use of the agreement was not one of the major issues that we raised with the Army.

This particular agreement is very much like a conventional defense contract based on the defense acquisition regulations. It incorporates numerous standard defense contracting clauses. These include termination rights, disputes resolution clauses, cost accounting, auditing, and these are the things that are commonly viewed as protecting the Government's interests. There are a large number of provisions that are taken directly from the FAR and referenced in this agreement. There are also a lot of other areas that

would normally be covered in a FAR contract that are addressed in this contract using different language.

We think the Army-Boeing agreement reflects the fact that the Integrated Defense Systems Division of Boeing is, in fact, a long-standing defense contractor, and they are used to dealing with FAR-style contracts and felt comfortable in doing that with the Army.

Senator MCCAIN. Even though OTA was designed to help people who were not familiar with contracting with the Department of Defense?

Dr. GRAHAM. Yes, sir.

Senator MCCAIN. That was the original reason for OTA?

Dr. GRAHAM. Yes, sir.

Senator MCCAIN. But now you are saying it is a good deal because they are familiar with defense contracting.

Dr. GRAHAM. Well, what we concluded is there are two sides to this. One is there is a cost of the way this has been executed because, as you said, the primary intent of OT was to engage non-traditional contractors in defense business. At the time that we looked, the program was primarily comprised of traditional defense contractors. Now, that may have changed since we looked because there are additional rounds of sub-tier contracting that was to be done after we took our look at the program. But at the time we did it, it was mainly defense contractors.

The other side of the coin is that the way they have set it up is a benefit from the standpoint of insulating the program from the criticism that the Army has not put in enough to protect the Government's interests. That is our basic bottom line on that.

Let me turn then to the question of using OTA for production. There is no statutory authority today, so if the Army were to desire to use OTA for production, they would have to make a business case for why that makes sense and is in the country's interests.

Senator MCCAIN. Can I make a taxpayers' protection case?

Dr. GRAHAM. Yes, sir. No, no. Right.

Senator MCCAIN. Like gratuities are exempted from here, anti-kickback procedures, subcontractor cost or pricing data, price read for defective cost or pricing data, penalties for unallowable costs. Can I make a case from the taxpayer standpoint that there is a reason why we have these on regular contracting? It is protection of the taxpayer, and these are excluded in this OTA contract. I cannot get access to subcontractor pricing data, unless I subpoena it, because this has been exempted from FAR.

Mr. BOLTON. Well, that is not true.

Senator MCCAIN. The display of the DOD hotline poster.

You say it is not true? Well, I will be glad to—

Mr. BOLTON. On contract—in fact, you will find when you read through the agreement, there is a FAR clause for CAS, which is the standard cost accounting system.

Senator MCCAIN. Are there penalties for unallowable costs?

Mr. BOLTON. Yes, there are.

Senator MCCAIN. You are sure of that.

Mr. BOLTON. Yes, sir.

Senator MCCAIN. That is not the information I have, and we will debate it. Let me let Dr. Graham finish. Okay?

Dr. GRAHAM. You are absolutely right. Again, it comes down to this tradeoff that we spoke about.

Senator MCCAIN. This is an Army document, by the way, that I am reading from, Mr. Secretary.

Mr. BOLTON. I understand that, sir.

Senator MCCAIN. Go ahead.

Dr. GRAHAM. What case could the Army make for using OTA in production? It basically comes down to does it give access to non-traditional suppliers who are important for executing the FCS program or are able to supply technologies that are useful to support this spiral-out strategy that we were talking about.

As I said earlier, what we found is that since the Army has taken such a conservative approach in implementing this agreement and since the program at the time that we looked at it was comprised mainly of traditional defense contractors who are used to operating with the FAR, what we told the Army was that it would be a tough case to make on a practical matter as to why OTA would be needed for production with the FCS program.

I would say the jury really is out on that. There could be cases that would come up where it would seem to make sense.

[The prepared statement of Dr. Graham follows:]

PREPARED STATEMENT BY DR. DAVID R. GRAHAM

The Institute for Defense Analyses (IDA) reviewed the management of the Future Combat System (FCS) program at the request of the acting Secretary of the Army and the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) to identify "weaknesses in procedures, policies, or practices that could impact Future Combat System program development efforts." The review addressed a number of specific questions posed by the Army's senior leadership. In addition, the acting Secretary of the Army tasked IDA¹ to identify any other issues that might pose risks to the successful execution of the program.

The fact finding for this review was performed between February and June 2004. IDA observed ongoing FCS management activities, including the FCS Quarterly Management Review in March and the Design Concept Review in June. The study team conferred frequently with government and Lead System Integrator (LSI) officials. Boeing granted IDA access to the FCS Advanced Collaborative Environment, which provided essentially unlimited access to the program management information available within that computer database. Our findings are based on the management information developed by the program; IDA did not perform original assessments in such areas as system performance, technology feasibility, cost, or schedule.

As IDA performed this review of FCS management issues, the Army undertook a separate, close-hold programmatic review of FCS, resulting in a decision in late July to restructure the program. Although the IDA team was provided an overview after the restructuring was formally announced, we were not tasked to assess this action; our review of the restructuring plan was confined to determining whether our original findings and recommendations required any adjustment.

IDA's findings and recommendations were presented to the Army and the Office of the Secretary of Defense (OSD) in our August 2004 report. Presented here are IDA's findings concerning the terms and conditions of the agreement between the Army and Boeing, and IDA's response to the Army's request that we assess the suitability of using Other Transactions Authority, should Congress allow it, for the production phase of FCS.

¹This statement is based on the IDA study report for this task. David R. Graham, Amy A. Alrich, Richard P. Diehl, Forrest R. Frank, Anthony C. Hermes, Robert C. Holcomb, Dennis O. Madl, Michael S. Nash, J. Richard Nelson, Gene Porter, David A. Sparrow, and Michael D. Spies, IDA Review of FCS Management, (Alexandria, Virginia, Institute for Defense Analyses, IDA P-3929), August 2004.

USE OF OTHER TRANSACTIONS AUTHORITY AS THE BASIS FOR THE ARMY-BOEING
AGREEMENT

Congress created other transactions authority (OTA) to increase the government's flexibility to contract with firms that are not accustomed to doing business with the Federal Government. The original goals underlying the 1989 legislation were to:

- Contribute to a broadening of the technology and industrial base available for meeting Department of Defense needs;
- Foster within the technology and industrial base new relationships and practices that support the national security of the United States; and,
- Encourage commercial firms to join with the government in the advancement of dual-use technologies.²

Congress originally authorized only the Defense Advanced Research Project Agency (DARPA) to enter into OTA agreements on a test basis for research and development related to weapons systems. That authority was to be used only when a contract, grant, or cooperative agreement was not feasible or appropriate. It also required that the non-governmental party contribute at least 50 percent of the funding.

In the 1994 Defense Authorization Act (Section 845), Congress extended this authority to include DARPA prototyping projects that were directly relevant to proposed weapons and weapons systems.³ Congress also eliminated the cost share requirement and the limitation on its use to cases where a "contract, grant, or cooperative agreement was not feasible or appropriate." The Defense Authorization Act of 1997 (Section 804) extended this authority to the military departments.⁴

Because a considerable body of Federal procurement law applies only to contracts, grants, and cooperative agreements, Other Transactions Authority provides a legal basis for government agencies to use agreement (contract) forms and clauses (terms and conditions) that are not governed by those laws and regulations. In particular, Federal Acquisition Regulation (FAR) clauses that are not essential to a particular situation may be excluded, replaced by locally crafted clauses, or modified to meet the particular needs of the parties.

OTA provides the capability to create an agreement that is carefully and closely crafted for the specific transaction, without the inclusion of nonessential verbiage. However, it also creates the possibility that important issues normally addressed by standard clauses may be omitted. Critics of the OTA see risks in the flexibility afforded by OTA and prefer the prescribed format of a FAR-regulated contract as a strength, because this structure has been established in law and regulation based on decades of experience.

The flexibility provided by OTA is illustrated by contrasting the agreements that governed the concept and technology development (CTD) and system development and demonstration (SDD) phases of FCS. Both agreements—the first awarded by DARPA and the second by the Army—were structured and awarded under the authority of Section 845, Public Law 104–201, as amended. Both follow the overall format established by DARPA in its 2002 DARPA-Boeing CTD agreement. A few statistics suggest the degree of difference:

- The DARPA OTA agreement is 30 pages, with an additional 8 pages of attachments, with a value of \$130 million;⁵
- The Army-Boeing agreement is 81 pages, plus a Statement of Work (Attachment 1) of 28 pages, and Attachments 2 through 14, which total an additional 195 pages, with a value of \$14.8 billion.⁶

The Army-Boeing Agreement

The Army-Boeing agreement provides for flexibility in managing FCS, but overall it implements a very conservative approach for employing OT authority, and as a consequence is very much like a conventional defense contract based on the Federal Acquisition Regulations. The top half of Table 1 summarizes selected provisions dealing with such key issues as cancellation, dispute resolution, cost management

²See 10 U.S.C. § 2371(h)(2) and 139 Congressional Record S11158, S11288 (daily edition, September 9, 1993).

³Section 845 of the Defense Authorization Act for Fiscal Year 1994: Public Law Number 103–160, 107 Stat. 1547 (1993). Section 845 authority initially extended only until the end of fiscal year 1998. The National Defense Authorization Act for Fiscal Year 1999 extended that authority through September 30, 2001.

⁴P.L. 104–201, 110 Stat. 2422, 2605 (1996).

⁵Agreement number MDA972–02–9–0005, Order numbers M995/00 and N196/00.

⁶Agreement number DAAE07–03–9–F001, Modification number PZ0007.

and reporting, change control, and data rights.⁷ This agreement makes extensive use of standard government contractual terms and conditions. Some provisions are taken verbatim from the FAR; others have been modified after negotiation between the government and Boeing. (By contrast, the earlier CTD-phase agreement includes no FAR clauses and incorporated none by reference.)

Table 1. Selected Provisions of the FCS Agreement

Protection of Parties' Interests	OTA Articles/Clauses	Flow-down?
Termination	FAR 52.246-6 Termination (Cost Reimbursement) (9/94) incorporated by reference	Yes
Dispute Resolution	TACOM Principal Assistant for Contracting (PAIC) the final authority—Boeing can seek redress in court of competent jurisdiction after final decision.	Different Procedures
Allowable Costs	FAR 52.216-7 (Allowable Cost and Payment) and 52.216-8 (Fixed Fee) Incorporated by Reference	Yes
Cost Accounting and Audits	Option to use FAR cost accounting standards or generally accepted accounting principles (GAAP)—locally crafted Government access (TACOM/Comp Gen) for audits	52.230-2 Cost Accounting Standards IBR
Changes	FAR 52.242-15 (Stop Work Order Alt 1) & 52.242-7 (Notification of changes) IBR—Normally bilateral.	52.242-15 IBR 52.242-7 IBR SAIC Only
Data Rights	FAR 52.227-12 IBR—Various Rights to the Government	52.227-12 IBR
Management Flexibility		
Flexible "Requirements"	ORD and O&O are Reference Documents Specific specifications shaped through trade study process Trade studies define contractual deliverables	Subcontracts specify commodity deliverables
Government-Industry Collaboration	IPT and decision-making structure outlined in the OTA—"One Team" approach with Government/Boeing Leads/Co-Leads	"One Team" does not flow-down—standard Sale
Subcontracting terms and conditions	OTA requires flow-down of certain clauses dependent upon value of subcontract — FAR clauses IBR do so also.	Boeing T&Cs standardized—IBR many FAR clauses
Production Planning	OTA IBR FAR & DFARS Production Clauses—Boeing identified as follow-on production LSI	Yes—Production FAR & DFARS Clauses IBR

* IBR = This provision is incorporated by reference in the Army-Boeing agreement.
T&C = Terms and Conditions

The form of the Army-Boeing agreement at least in part reflects the fact that Boeing Integrated Defense Systems is an experienced defense contractor. Unlike the nontraditional or commercial firms that OT authority was created to address, Boeing's defense business operations are adapted to a FAR-based style of contracting; Boeing management, at least in its defense business, apparently considers the FAR framework to be a "best practice."

Table 1 also summarizes the flow-down provisions for the Tier 1 subcontractors. While the OTA gave Boeing the flexibility to adopt innovative contractual forms, Boeing officials told the study team that they followed government contracting practices because these were well-understood by the participants † predominantly large, traditional defense contractors. The "nontraditional" suppliers are iRobot from Burlington, MA (\$25.2 million) and Austin Information Systems from Austin, TX (\$56.6 million). Although there eventually may be others at the lower tiers, for now, the \$14.78 billion is being shared almost entirely by defense industry giants.

A review of the subcontracts awarded by Boeing and SAIC to Tier 1 subcontractors shows that those subcontracts largely follow the conventions of traditional defense contracts, including format. Boeing terms and conditions come from a stand-

⁷ The FCS agreement was shaped through Army-Boeing negotiations. Initial Army drafts included over 120 FAR/DFARS clauses. Incorporated by reference within the Army-Boeing agreement are 24 FAR clauses and 16 DFARS clauses. Additionally, a review of the agreement clauses themselves shows that local clauses relate to the subject matter of 63 additional terms and conditions that would be required to be included as clauses within a cost reimbursement research and development FAR contract. See FCS Other Transaction Agreement, Information Briefing, Use of FAR/DFARS Clauses in FCS Other Transaction Agreement for System Development and Demonstration, dated 25 April 2003.

ard list, are accessible through their web site, and are generally of the same scope, complexity, and breadth of coverage as the FAR system.⁸

The lower half of Table 1 identifies some of the provisions that provide flexibility for managing the FCS program. The Army-Boeing agreement provides additional flexibility through the creation of the Integrated Product Team (IPT) structure, the specification definition process, and the subcontracting system employed.

Observations

The Army's conservative approach in creating the FCS agreement does much to defuse potential criticism—often heard in the past with respect to programs operating under an OTA agreement—that the use of an agreement based on OTA creates special risks for the program. Moreover, Boeing liberally used standard FAR and DFARS clauses in its subcontracts—all of which are in standard FAR format.

POTENTIAL USE OF OTHER TRANSACTIONS AUTHORITY FOR FCS PRODUCTION

The potential benefits of employing Other Transactions Authority in the production phase of any program are expected to be:

- Attracting non-traditional suppliers, thereby broadening the technology and industrial base available for meeting Department of Defense needs;
- Fostering new relationships and practices that improve efficiency and effectiveness;
- Reducing costs by eliminating unnecessary FAR-required cost drivers.

Language has been added to bills being drafted by various congressional committees to extend OT authority to production phases, but that language has not survived committee mark-ups. While Congress has supported the employment of OTA in appropriate contexts, it does not view OT authority as a substitute for, or as a way to circumvent, standard contracting processes and procedures. In particular, the committees responsible for extending the authority in the National Defense Authorization Act for Fiscal Year 1999 were concerned that OT authority be used in a limited manner:

“[S]ection 845 authority should only be used in exceptional cases where it can be clearly demonstrated that a normal contract or grant will not allow sufficient access to affordable technologies. The Conferees are especially concerned that such authority not be used to circumvent the appropriate management controls in the standard acquisition and budgeting process.”⁹

The relevance and desirability of an OTA agreement for the FCS production phase will depend on the potential availability and the production readiness of nontraditional suppliers at various tiers. There may be instances where “nontraditional” suppliers might find it attractive to support the FCS production program if they could do so under an OTA agreement structured to provide relief from clauses typically considered onerous by non-traditional contractors. The Army-Boeing agreement illustrates that there is considerable flexibility to create an agreement that protects government interests, whether by using traditional FAR language or by developing new language specifically crafted to suit the transaction. Prudent use of the OTA conceivably could make the defense marketplace more attractive to potentially valuable suppliers. An OTA agreement also might be a viable contracting framework to support “spiral out” development strategies for FCS concepts and capabilities for use by current forces. IDA has not discovered anything to indicate that this is the case within the current FCS program, however. Indeed, the Army's conservative use of OTA in establishing the current FCS OTA agreement will make it difficult for the Army to present a fully developed business case for expanding the current OT authority beyond the prototype development threshold.

Future Competition for Production in the FCS Program

Whether competition for FCS production will prove to be the most cost-effective acquisition approach will depend on a number of program factors that remain to be

⁸The subcontracts follow the format of FAR 15.204–1. Moreover, Boeing uses standard contract terms and conditions, which incorporate by reference numerous FAR and Defense Federal Acquisition Regulation Supplement (DFARS) clauses. The subcontracts incorporate by reference the FAR and DFARS provisions and clauses incorporated by reference within the OTA, and also take account of others not included (e.g., FAR 52.246–15 Certificate of Conformance, 52.247–34 F.O.B Destination, 52.245–17 Special Tooling).

⁹The Final Report of the Integrated Product Team on the Services' Use of 10 U.S.C. §2371 “Other Transactions” and 845 Prototype Authorities, dated June 10, 1996. Quote extracted from Department of Defense Other Transactions: An Analysis of Applicable Laws, A Project of the Ad Hoc Working Group on Other Transactions Section of Public Contract Law, American Bar Association, 2000, quoting H.R. Conference Report Number 105–736, at 590 (1998).

determined. In general, the desirability and feasibility of sustaining an option for future competition for FCS production depends on three factors:

- First, there has to be a viable industrial base that is sustaining alternative suppliers. Most of the major defense contractors are already participating in their respective areas of expertise, which may restrict the Army to a competition for relative program shares among the current team members, at least in Tier 1 commodities. At the 2nd tier and below, it is still too early to assess the potential for follow-on competition because the source selections have not yet been made.
- Second, preserving the option for competition requires an investment to provide adequate technical data, accompanied by appropriate government rights.
- Third, the competitive process itself requires significant investments of time and resources.

These three factors, in combination, argue that the cost-effective competitive strategy will depend on a number of variables that remain to be defined. So, it is premature to commit to a particular course of action at this early stage of the program. At the same time, preserving the option for future competition would require the Army to act now to ensure that it will receive, through Boeing, sufficient access to the technical data needed to support a competition for production.

At the LSI level, the OTA agreement lays the groundwork for Boeing to continue as the LSI through initial production and into full-rate production:

- There are references to a subsequent production contract with Boeing throughout.¹⁰
- Boeing's incentive fee structure is predominantly weighted (3.5 of 5 percent) toward the two initial production decision reviews.¹¹
- Research and development (R&D) incentives are geared to production costs.¹²
- Defense Federal Acquisition Regulation Supplement (DFARS) clauses are incorporated into the OTA agreement in contemplation of Boeing's and its subcontractors' continuance into production, including long-lead-item procurements initiated during the SDD phase.¹³
- Section 3 of the Statement of Work¹⁴ contains subparagraphs related to production operations planning and product assurance and other post-SDD requirements.

At the subcontractor level, the Army has taken the position that it has secured adequate rights to access all of the necessary technical information. But, we found some ambiguity on the status of government rights to technical data associated with future system support as well as future competition for FCS production. We therefore recommended that the Army review the current provisions of the Boeing agreement to confirm that it will have access to the needed technical data.

Senator MCCAIN. Thank you, Dr. Graham. Could I express my appreciation not only for you but IDA, which I think has done tremendous work for all Americans, but particularly Congress, and your interaction with DOD I think has been very important. I thank you for all the great work that IDA has done.

Mr. Boehm.

STATEMENT OF KENNETH F. BOEHM, CHAIRMAN, NATIONAL LEGAL AND POLICY CENTER

Mr. BOEHM. Mr. Chairman, I want to thank you for this opportunity to testify. I am Ken Boehm with the National Legal and Policy Center. We promote accountability in public life and in the Government, and we have been critical of Boeing in recent months because of their role in the numerous procurement scandals. One of our earliest entries into this was when we had uncovered the finan-

¹⁰ See Article III, paragraph B of the Agreement.

¹¹ See Article VII of the Agreement.

¹² See Paragraph 11 b(2), Article VII of the Agreement.

¹³ See Article XXXII of the Agreement.

¹⁴ See Attachment 1 to the Agreement.

cial conflicts of interest with Darleen Druyun and filed a complaint with the Inspector General (IG). It was on the front page of the Wall Street Journal, and as a result, a month later she was fired by Boeing.

Senator MCCAIN. I was taking credit for that, Mr. Boehm. [Laughter.]

Mr. BOEHM. Well, there is plenty of credit for you on all this stuff. But, we had actually found Ms. Druyun's daughter's employment, and I think she had sold her house to John Judy who was a Boeing executive employed in the tanker deals, if I am not mistaken. But that was a coincidence.

In any case, we looked at the Future Combat Systems program. Our first red flag was we had trouble even getting a copy of the other transaction agreement. I filed a Freedom of Information Act (FOIA) and was told by the FOIA officer something I had never heard after filing more than 1,000 FOIAs in my 20-year career of doing this sort thing, and that was that Boeing objected to us having a copy. But they could not cite any particular exemption within FOIA to get it. So we did get it, and when we looked at it, it confirmed, I would say, our worst suspicions.

There are four factors, very briefly, to look at, underscoring the problems with the use of this particular type of agreement.

First, everyone acknowledges that the FCS is a high-risk project. The GAO said so in an excellent analysis written by Mr. Francis last April that there were significant risks. If you read the OTA itself, which I had the joy of going through week after week, you will see that they state in there that there are significant risks associated with the project and, of course, followed it up with a line that this should, in fact, be the reason to allow maximum opportunity for the LSI to earn fees, the LSI being Boeing in this case.

Perhaps the best single sentence describing how important this element of risk is in FCS was made by Congressman Curt Weldon over in the House Armed Services Committee, chairing the Counterparts Subcommittee, when he said last year: "If FCS experiences the technical difficulties that every major development program seems to experience, the cost overruns will consume the Army budget." That is the risk in a sentence.

The second factor, Boeing is an exceptionally poor choice for lead system integrator. It makes a risky or a high-risk project even riskier for all the obvious reasons. Trust is an important element of any LSI arrangement. A lead system integrator has to have the trust of the Government because they are taking over the Government's management role.

But it also has to have the trust of the other firms that are competing, the other defense firms that are supplying, because as lead system integrator, they have access to the proprietary information of these companies, which in other contexts are their competitors. If you think back, you do not have to look too far to see that Boeing has not arguably the worst record in terms of being sticky-fingered with its competitors' proprietary information, but the worst record.

In a quick review, one of them in particular I would like to stress is when Boeing was the lead system integrator in missile defense. They improperly used some Raytheon proprietary information. They were forced out of the competition. But if you read the GAO

report on that particular incident, you see that the Army recommended debarment of the Boeing unit. That did not happen. So here you have a company that abused its LSI position in a very major way, a substantial way, in the Raytheon case, and yet was selected by the same Army knowing this as lead system integrator in their highest-risk project. That shows a lapse in judgment.

Second, you look at the Lockheed case where they got a hold of 40,000 of their competitors' documents. The Air Force said this was "a significant and substantial violation of Federal law." They got the longest suspension of any major defense contractor, 20 months, and they also paid fines or penalties in terms of lost contract of something like \$1 billion. So they are breaking all kinds of records.

Of course, we know in the Airbus case Darleen Druyun, on the day of her sentencing, it was released by Mr. McNulty that she had admitted giving proprietary pricing information to Boeing that belonged to Airbus.

The third factor is these OTAs were meant for nontraditional defense contracts. You see this everywhere. You see it in congressional statements. You see it in IG reports. You see it in GAO. It was meant to attract nontraditional defense contractors to work for the Defense Department because the Defense Department needed their technology.

Here is the statement from a recent GAO report on defense acquisitions stating this rationale. "In an era of shrinking defense industrial base and new threats, DOD views other transaction prototype authority as a key to attracting nontraditional defense contractors."

Well, Boeing hardly fits the description, and they are the second-largest defense contractor in the country. You look down the list of all of the other firms, and you will find very little. In the IDA report that was discussed, they have this statement. "One intended benefit of OT authority, attracting nontraditional suppliers, has not been realized to date; the initial round of subcontracts has gone almost exclusively to traditional defense suppliers."

When you look at the funding, if you look at the pie charts for the funding, very, very little goes to anything that remotely could be considered a nontraditional defense contractor.

Fourth and final, in terms of most important factors, OTAs provide less accountability and oversight. They minimize oversight and accountability in almost every way you can imagine. This was their purpose. It was meant as a tradeoff to get these nontraditional firms in. It was not meant for very large, high-risk programs. There has been criticism through the years.

In 1999, when Congress extended OTA's authority, they said the following, "It should only be used in exceptional cases where it can be clearly demonstrated that a normal grant or contract will not allow sufficient access to affordable technologies. The conferees are especially concerned that such authority not be used to circumvent the appropriate management controls in the standard acquisition and budgeting process." In other words, be careful.

There are approximately 20 statutes that apply to defense contracts that are exempt, and unless they are added back in, piecemeal or in whole, they do not exist there. I have included a list of the statutes in exhibit B. It tracks the list found in the Defense De-

partment's own OTA guide that has come out perennially, and it is also based on some research of an excellent study, the only excellent private study, by the American Bar Association on other transactions, where they warn virtually, as the theme of the book, you have to be extraordinarily carefully if you are stripping these out for the benefit of the taxpayer, for the benefit of oversight and accountability. In effect, you are taking something meant for a small, high-tech project and giving it to major defense contractors. When you consider the statutes that are stripped out and you look at their legislative history, they were put in there because major defense contractors abused their position of trust. So to strip them out willy-nilly or in the quantity they were stripped out here really raises the risk.

We went through the 81-page OTA. That is all it is, the one that was signed in December 2003. It had exhibits, but it was 81 pages. I recall, as a lowly yeoman 30 years ago, it would take that much paperwork to order boxed lunches for people to fly and so forth. But it is 81 pages.

You look through it. There are some severe problems. Some acts are not in there at all. The Procurement Integrity Act does not apply at all to the FCS. This law sets rules for procurement officials who are contacted by a defense contractor for future employment, and it provides for a 1-year ban on accepting compensation. It seems like this issue has been in the news lately involving the LSI in this case.

Another example of a law that does not apply at all is the Truth in Negotiations Act (TINA). It requires accurate disclosure to the Government of a defense contractor's pricing and costs. It has been a long problem in the defense community and with Boeing, you can go back to the mid-1980s when they were caught charging the Air Force \$748 for a pair of pliers you can get in any hardware store for a little over \$7. It goes as recently as the Airborne Warning and Control System (AWACS) case where they found millions of dollars in what they called excess profits.

On and on it goes in terms of what is stripped out, but the bottom line is this, it is essentially a type of contracting form that minimizes oversight and accountability. Considering who you are dealing with here, considering it is a high-risk project, considering how important it is to the Army's development budget, to minimize accountability and oversight seems to be 180 degrees away from where the public needs to be vis-a-vis this type of arrangement.

The best recommendation I can say at this point where Boeing is already in as LSI, we are already underway in this. I do not see any alternative to Congress intensifying its oversight because the oversight is lacking in the arrangement that is in hand. It is a recipe for disaster. We are already starting to see that.

But one of the things that needs to be done is a truly independent legal review of the FCS OTA to identify in every significant way how it fails to meet the standards accountability in a standard defense procurement contract. This should be a statute-by-statute review and it needs to propose modifications to increase oversight and accountability.

Similarly, there ought to be a look at the financial and fee structure of the FCS program because Boeing is being compensated for

a type of an arrangement where the fact of the matter is a lot of the business risk of this has been stripped away. This is not a regular defense contract. It should not call for regular fees, and their fee arrangement is quite generous.

Then to the degree the Government can modify in any way the existing program, they should try to do so. Whatever objections Boeing may have to such a modification I think pale next to the risks the Government is taking by not asserting its right to protect its interests. There are legitimate ways to increase oversight. I think they need to be taken.

But in conclusion, I would just say this. The most ethically challenged defense contractor in the country is now in charge of the most expensive high-risk defense program using an agreement that minimizes oversight and accountability. If that does not call for increased oversight, what does?

Thank you, Mr. Chairman.

[The prepared statement of Mr. Boehm follows:]

PREPARED STATEMENT BY KENNETH F. BOEHM

Mr. Chairman and members of the subcommittee, thank you for this opportunity to testify.

My name is Ken Boehm and I serve as Chairman of the National Legal and Policy Center (NLPC). My legal center promotes accountability in public life and has been critical of the actions of the Boeing Company during the recent series of defense procurement scandals. In October 2003, NLPC filed a complaint with the Defense Department's Office of Inspector General detailing former Air Force official Darleen Druyun's ties to Boeing through her daughter's job with that company and the sale of her house to a Boeing official while she was overseeing significant acquisition matters for the Air Force involving Boeing.¹

The complaint went on to question whether Druyun was negotiating for future employment with Boeing while she was representing the Air Force in multi-billion dollar business issues affecting Boeing contracts.

The next day, the Wall Street Journal ran a front-page story on the NLPC complaint, "Air Force Ex-Official Had Ties to Boeing During Contract Talks," and Boeing disingenuously told the media that Druyun was not working on the tanker deal as part of her employment for Boeing.² The Air Force weighed in with an equally disingenuous statement to the effect that Druyun had recused herself from decisions affecting Boeing but declined to specify when Druyun had recused herself.

The following month Boeing terminated employment for both Darleen Druyun and its Chief Financial Officer Michael Sears, citing violation of the company's standards in the hiring of Druyun.³

Today, Darleen Druyun is in Federal prison and Michael Sears will be entering Federal prison shortly, both in connection with their conspiracy to violate conflict of interest laws.

NLPC turned its attention to the Army's Future Combat Systems program because it was the largest military procurement project involving Boeing and—much like the tanker case—featured many anomalies which appeared to favor Boeing at the expense of the Army.

The conclusion reached was that while there appeared to be a consensus that the Future Combat System (FCS) program was high risk because of its ambitious plan to coordinate so many as yet undeveloped technologies into a coordinated weapons program of the future, these risks were compounded by the decision to use Boeing as the Lead System Integrator and to structure the legal agreement for FCS through a wholly inappropriate Other Transaction Agreement (OTA) in a way that minimized oversight and accountability.

¹ See Letter to Defense Department Inspector General and Defense Criminal Investigative Service, October 6, 2003, at www.nlpc.org.

² See "Air Force Ex-Official Had Ties to Boeing During Contract Talks," The Wall Street Journal, October 7, 2003, p. 1.

³ See, e.g., "Boeing Dismisses Two Executives for Unethical Conduct," Boeing news release. November 24, 2003, available at <http://www.boeing.com/news/releases/archive2003.html>.

The OTA exempted Boeing from most of the standard statutes which apply to major military procurement contracts to deter waste, fraud and abuse. Moreover, the use of an OTA in the FCS program was unprecedented insofar as OTAs were intended by Congress to attract nontraditional suppliers to deal with the Defense Department without the cost of the bureaucratic procedures associated with major defense contracts. Even a cursory examination of the FCS program shows that the highest amount of funding by far goes to Boeing with very little to any nontraditional suppliers and the \$20 billion cost of the FCS development phase dwarfs any previous use of an OTA for prototype development purposes.

FCS: A HIGH RISK PROJECT

"FCS is at significant risk for not delivering required capability within budgeted resources. Three-fourths of FCS' needed technologies were still immature when the project started."

Paul Francis, Director, Acquisition and Sourcing Management, GAO⁴

There is a consensus that the FCS is an ambitious project which faces significant risks. This view has been expressed in both legislative hearings and within the defense community.

Even the FCS Other Transaction Agreement signed on December 10, 2003, acknowledged:

"The complexities and risk associated with the FCS system development and demonstration (SDD) Increment I Program are significant."⁵

Among the risk factors cited by the GAO's acquisition expert, Mr. Paul Francis, in testimony to the House of Representatives' Subcommittee on Tactical Air and Land Forces of the Committee on Armed Services on April 1, 2004, were the following:

- The first FCS prototypes will not be delivered until just before the production decision.
- Full demonstration of FCS' ability to work as an overarching system will not occur until after production has begun. This demonstration assumes complete success—including delivery and integration of numerous complementary systems that are not inherently a part of FCS but are essential for FCS to work as a whole. When taking into account the lessons learned from commercial best practices and the experiences of past programs, the FCS strategy is likely to result in cost and schedule consequences if problems are discovered late in development.
- Because the cost already dominates its investment budget, the Army may find it difficult to find other programs to cut in order to further fund FCS.⁶

These conclusions were explicitly understood by the Chairman of the House Armed Services Subcommittee on Tactical Air and Land Forces when the GAO presented its findings at a hearing on April 1, 2004. Chairman Curt Weldon (R-PA) summed up the problem succinctly when he stated, "If FCS experiences the technical difficulties that every major development program seems to experience, the cost overruns will consume the Army budget."⁷

Representative John Spratt (D-SC) accepted this assessment as well when he told Army Lt. Gen. Joseph Yakovac, who testified about the program as deputy to the Army acquisition secretary, "I can't think in the 23 years I've sat here of a system more fraught with risk. It's going to be a Herculean task to bring it together on the ambitious schedule you've set."⁸

The technological challenges were summed up by Chairman Weldon at the hearing when he stated:

"Unfortunately, however, the Future Combat Systems program also carries high risk. The Army has never managed any program the size and complexity of FCS. Eighteen systems, 32 critical technology areas, 34 million

⁴ See Defense Acquisitions: The Army's Future Combat System's Features, Risks, and Alternatives, by Paul Francis, Director, Acquisition and Sourcing Management, April 1, 2004, GAO-04-635T.

⁵ See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems System Development and Demonstration Phase, Agreement No. DAAE07-03-9-F001, at page 14.

⁶ See Defense Acquisitions: The Army's Future Combat System's Features, Risks, and Alternatives, by Paul Francis, Director, Acquisition and Sourcing Management, April 1, 2004, GAO-04-635T.

⁷ See "GAO hoists red flag over costly Boeing Army project," by Darrell Hassler and Tony Capaccio, Bloomberg News, The Seattle Times, April 2, 2004, p. E1.

⁸ See Id.

lines of code, 129 trade studies, 157 programs being developed independent of FCS, and all in 5½ years.”⁹

While the testimony of GAO Acquisition and Sourcing Management Director Paul Francis has already been cited, his analysis of the underlying management judgment associated with the FCS program was especially harsh:

“In our more than 30 years of analyzing weapons systems, we have not found concurrent strategies to work, particularly when advanced technologies are involved. Delaying the demonstration of knowledge results in problems being discovered late in development. FCS is susceptible to such problems as a demonstration of multiple technologies, individual systems, the network and the system of systems will all culminate late in development and early production.”¹⁰

Mr. Francis further concluded that even modest delays and cost increases could end up costing the government billions of dollars and that such funds would be very difficult to find since the FCS was already consuming such a considerable portion of Army funding.¹¹

BOEING: A HIGH RISK LEAD SYSTEM INTEGRATOR FOR FCS

The FCS program—which the Army has called its “greatest technological and integration challenge ever undertaken”—is a system of manned and unmanned ground vehicles, air vehicles, and munitions all connected with a cutting-edge communications and information system. Boeing became the Lead System Integrator on the SDD phase of FCS when it received, along with partner Science Applications International Corp. (SAIC), \$14.8 billion to oversee the 8-year effort in December 2003.¹² In August 2004, a modification to FCS added \$6.4 billion to the cost of the program.¹³

Boeing’s initial selection as Lead System Integrator (LSI) for FCS “shocked defense observers”¹⁴ and raised serious questions. As LSI, Boeing functions very much like a general contractor in overseeing other key suppliers and contractors to ensure that program objectives are met. That aspect of the LSI role has caused controversy for reasons touched upon in a Financial Times article:

“Boeing’s ability to defend its reputation will be critical. It has positioned itself as a ‘systems integrator’ for many of the big defence contracts it has secured—such as missile defence and the Future Combat Systems project—acting as the middleman, piecing together often complex technology from rivals, and treading a fine line about managing access to proprietary information from rivals.”¹⁵ (emphasis added)

Boeing’s reputation for illegally obtaining proprietary information from its rivals is arguably the worst of any in the defense community. Since January 2003, Boeing has been implicated in three major cases involving improper access to competitors’ proprietary information.

Raytheon Case

A report by the Government Accountability Office (GAO) concluded that Boeing had obtained and misused Raytheon proprietary information in the course of a competition to provide a “kill vehicle” for the missile defense system. Boeing’s actions violated Pentagon regulations for a project that was described as “the core of the missile defense system.”¹⁶ When the misuse of Raytheon proprietary documents by Boeing came to light, Boeing was forced to withdraw from the competition. Boeing’s actions hurt the government because the default award of the contract resulted in

⁹See Hearing of the Tactical Air Land Forces Subcommittee of the House Armed Services Committee on Future Combat Systems and Force Protection Initiatives, April 1, 2004, Federal News Service transcript, p. 3.

¹⁰See Hearing of the Tactical Air Land Forces Subcommittee of the House Armed Services Committee on Future Combat Systems and Force Protection Initiatives, April 1, 2004, Federal News Service transcript, p. 8.

¹¹See *Id.*

¹²See, e.g., “U.S. Army Signs Milestone FCS Contract,” December 10, 2003, www.boeing.com/defensepace/ic/fcs/bia/031212-nr-armyannounce.html.

¹³See “Army Boosts Boeing’s Future Combat Program Value By Up to \$6.4 Billion,” August 17, 2004, <http://www.spacedaily.com/news/milspac-04x.html>.

¹⁴See, e.g., “Boeing Plays Defense: Beset by Airbus and rocked by scandal, the aircraft maker turns to a new CEO—and the Pentagon—for help,” *Fortune*, April 19, 2004.

¹⁵See “Condit focuses on domestic problems,” by Caroline Daniel, *Financial Times*, June 19, 2003, p. 29.

¹⁶See “Antimissile Contract Won on Technicality, GAO Report Finds; Award Made After Boeing Spy Case,” by Bradley Graham, *The Washington Post*, January 30, 2003, p. A21.

a design said by experts to be flawed in that the kill vehicle could not adequately distinguish between warheads and decoys. Also at issue was whether the government took appropriate steps to punish Boeing and recoup some of the \$800 million invested by the Pentagon in the design competition.

Especially important in considering Boeing's role in the Raytheon case is the fact that when Boeing illegally used Raytheon's proprietary documents in an attempt to win a major contract, Boeing was the LSI of the National Missile Defense Program.¹⁷ The GAO report also stated that the Army had recommended debarment against the Boeing employees involved in the wrongdoing and against Boeing's Electronic Systems and Missile Defense Group.

Ultimately, the Ballistic Missile Defense Organization "abandoned recovery efforts because of litigation risks associated with proving damages, as well as anticipated litigation costs, and the belief that litigation was inconsistent with its partnership with Boeing as the LSI contractor."¹⁸

It is difficult to imagine a more clear-cut example of a defense contractor abusing its Lead System Integrator role in a major project. Yet, in the end, Boeing received a mere slap on the wrist. There was no debarment of the company, no lawsuit to recoup the \$800 million lost on the tainted competition and no criminal prosecution.

Boeing's selection by the Army as LSI for its largest procurement project ever, the high risk FCS program, is especially difficult to understand in that the Army was not only aware of Boeing's intentional misconduct in the case involving Raytheon's proprietary information but had recommended far more appropriate sanctions against Boeing than was finally meted out. The following excerpt from the GAO letter regarding the matter underscores this point:

"Concurrently, the Army recommended debarment proceedings against the Boeing employees involved in the wrongdoing, and against Boeing's Electronics Systems and Missile Defense Group. The Army also considered the alternative recommendation on a monetary settlement commensurate with the damages suffered by the government.

The Army's assessment of damages focused on: the loss of the Integrity of a planned competition that had been carefully maintained for 8 years at great administrative expense; the loss of the benefit of a head-to-head "best value" comparison of two technical approaches developed at the cost of approximately \$400 million each; and the loss of the potential savings that might have been achieved by the abandoned competition, which the Army suggested should be valued at approximately 25 percent of the cost of Raytheon's EKV."¹⁹

Lockheed-Martin Case

Boeing's ethical problems with proprietary documents belonging to its competitors also figured prominently when Boeing was discovered to have some 25,000 proprietary documents belonging to Lockheed Martin Corp. while the two companies competed for a major Pentagon rocket launch contract.

The Air Force stripped Boeing of approximately \$1 billion in potential revenue as a penalty in the case and also suspended three Boeing subsidiaries for an unspecified period. The Air Force stated that the suspension was appropriate for the "serious and substantial violations of Federal law" involving the illegal acquisition of the Lockheed documents. The fallout continued with a civil racketeering case filed against Boeing by Lockheed, a Justice Department investigation and the indictment of two former Boeing employees. Speaking of the case, Air Force Undersecretary Peter B. Teets stated, "I have never heard of a case of this scale."²⁰

The suspension was not lifted until March 4, 2005, making it the longest suspension of a major defense contractor ever.²¹

Coming just months after the discovery of Boeing's misdeeds in the Raytheon case, the Lockheed Martin case represented one of the largest penalties ever assessed against a defense contractor. But the year was not yet over.

¹⁷ See "Missile Defense: Events Related to Contractor Selection for the Exoatmospheric Kill Vehicle," General Accounting Office-03-324R Missile Defense, January 27, 2003.

¹⁸ See "Missile Defense: Events Related to Contractor Selection for the Exoatmospheric Kill Vehicle," General Accounting Office-03-324R Missile Defense, January 27, 2003, p. 11.

¹⁹ See "Missile Defense: Events Related to Contractor Selection for the Exoatmospheric Kill Vehicle," General Accounting Office-03-324R Missile Defense, January 27, 2003, p. 11.

²⁰ See "U.S. Strips Boeing of Launches; \$1 Billion Sanction Over Data Stolen From Rival," by Renae Merle, The Washington Post, July 25, 2003, p. 1.

²¹ See "Air Force Lifts Boeing Suspension," Reuters, Los Angeles Times, March 5, 2005, Part C, p. 3.

Airbus Case

Proprietary information involving a Boeing competitor was also an issue in the Boeing tanker lease scandal. E-mail messages written by Boeing executives and found by members of Congress suggested that “Darleen Druyun, who handled acquisitions for the Air Force at the time, might have shared confidential details of the Airbus offer with Boeing officials—thus giving them competitive advantage in crafting their own proposal.”²²

The Department of Defense Inspector General’s office initiated an investigation of the allegations.²³ An attorney for the Airbus parent firm, European Aeronautic Defense & Space Co. (EADS), raised additional questions with the allegation that if Druyun did pass along proprietary information to Boeing, that could have unfairly influenced a competition underway in Britain for the same kind of tankers.²⁴

All doubt as to Druyun’s actions with respect to Airbus proprietary information was removed on October 1, 2004, when Druyun was sentenced to 9 months in Federal prison. In a document released by the U.S. Attorney’s office, it was stated that Druyun “acknowledges providing to Boeing during the [tanker] negotiations what she considered to be proprietary pricing data” from the European plane maker Airbus, which was competing to build the planes.²⁵

The cases involving Raytheon, Lockheed and Airbus all involve allegations of misconduct by Boeing in connection with proprietary information belonging to Boeing’s competitors. All cases arose during major defense procurement competitions and all stories broke in 2003. But the ethical problems associated with Boeing’s conduct as a defense contractor were not limited to proprietary information issues. A recent study by the Project on Government Oversight, a well-respected watchdog group, determined that Boeing “committed 50 acts of misconduct and paid \$378.9 million in fines and penalties between 1990 and 2003.”²⁶

An excerpt from the Project on Government Oversight Federal Contractor Misconduct Database detailing Boeing misconduct in defense cases from 1990 through 2003 is appended at Exhibit A. It is all the more striking in that it leaves out many of the billions of dollars in tainted procurement contracts involving Boeing which have been disclosed in the past 18 months. When former Air Force official and former Boeing executive Druyun was sentenced on October 1, 2004, U.S. Attorney Paul McNulty revealed that Druyun, after failing a polygraph, had confessed to:

- providing Boeing with proprietary information about a competitor as a parting gift to Boeing
- negotiating an excessive \$100 million payment to Boeing from the North Atlantic Treaty Organization (NATO)
- awarding Boeing a \$4 billion contract in 2001 to modernize more than 500 C-130 aircraft built by Lockheed-Martin, disclosing that “an objective selection authority may not have selected Boeing.”
- negotiating a \$412 million payment to Boeing in 2000 tied to its production of C-17 transports because a senior Boeing executive at the time was helping secure a job for her future son-in-law, Michael McKee²⁷

As recently as February 14, 2005, the Department of Defense revealed that it was turning over to the Inspector General for investigation eight additional questionable contracts overseen by Darleen Druyun worth billions of dollars. Four of the eight contracts involved Boeing, including a \$1.5 billion KC-135 Programmed Depot maintenance contract from 2000–2001.²⁸

The Future Combat Systems project with Boeing as LSI has already generated controversy after it was learned that Boeing executives had gotten access to secret information of companies competing with Boeing for FCS contracts:²⁹

²² See “Pentagon to probe how Airbus lost refueling tanker deal to Boeing,” AFX.COM, September 18, 2003.

²³ See “Pentagon to probe how Airbus lost refueling tanker deal to Boeing,” AFX.COM, September 18, 2003.

²⁴ See “Boeing Deal on Tankers Again on Hold; Rumsfeld Orders Review After Executives are Fired,” by Renae Merle, The Washington Post, November 26, 2003, p. E1.

²⁵ See “Ex-Pentagon Official admits to more illegal help to Boeing,” by David Bowermaster, Seattle Times, October 2, 2004, p. A1.

²⁶ See “U.S. Strips Boeing of Launches; \$1 Billion Sanction Over Data Stolen From Rival,” by Renae Merle, The Washington Post, July 25, 2003, p. A01.

²⁷ See “Ex-Pentagon official admits to more illegal help to Boeing,” by David Bowermaster, The Seattle Times, October 2, 2004, p. A1.

²⁸ See “Department of Defense Announces Contract Reviews,” DOD News Release No. 157–04, February 14, 2005.

²⁹ See “Boeing’s Role in Defense Project Worries Pentagon, Competitors,” by Anne Marie Squeo, The Wall Street Journal, June 16, 2003.

- Boeing executives James Albaugh and Roger Krone were brought inside the so-called fire-wall, causing competitors and senior Army officials to worry that “Boeing could get an unfair advantage on the work it bids for.”
- “Concerns about Boeing’s role in the project come against the backdrop of recent allegations that the Chicago-based aerospace titan on at least two occasions inappropriately obtained a rival’s information while competing for military contracts.”

The article went on to state that Army officials were “unhappy with the fire-wall situation” and that “any further controversy could undercut the Pentagon’s emerging practice of using a ‘lead system integrator’ from the private sector on big military programs.” While Boeing was quick to deny any problem with the revelations, that may be small comfort insofar as Boeing also misrepresented the extent of the wrongdoing in both the Raytheon and Lockheed cases.³⁰

By all accounts, an LSI for a major Pentagon project must have a reputation beyond reproach because the LSI has access to sensitive proprietary information from companies with which it is in competition on a regular basis. As this is a defining feature of the LSI role, a strong argument can be made that not only is Boeing a questionable selection for LSI in the FCS project, but given its documented reputation for illegally misusing proprietary information of competitors, Boeing is the worst possible choice for the role.

BOEING’S FCS OTA: WHERE ARE THE NONTRADITIONAL DEFENSE CONTRACTORS?

The agreement between the Army and Boeing structuring the legal relationship for the FCS program’s System Development and Demonstration (SDD) Phase is known as an “other transaction agreement” or OTA. The legal authority for the FCS OTA is derived from 10 U.S.C. §2371 and Section 845 of the Public Law 103–160, as modified by Section 804 of Public Law 104–201, and as modified by Section 803 of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001.³¹ These agreements are also sometimes referred to as Section 845 agreements. One of the distinguishing features of an OTA is that they are not generally subject to the Federal laws and regulations which are applicable to procurement contracts.

One of the principal purposes of removing the legal requirements associated with standard procurement contracts for major defense contractors is in order to attract nontraditional defense contractors to consider working with the Defense Department.

The rationale for this purpose was expressed in a recent GAO Report on defense acquisitions:

“In an era of shrinking defense industrial base and new threats, DOD views ‘other transaction’ prototype authority as a key to attracting nontraditional defense contractors.”³²

The GAO Report went on to cite as an example of a benefit to these agreements “attracting business entities that normally do not do business with the government.”

Despite the intent of Congress that OTAs be used to reach out to the newer high tech companies which might not otherwise consider dealing with the Pentagon, all too often prototype funds associated with OTAs do not flow to the nontraditional suppliers but to major defense contractors.

Such is the case with the FCS OTA. Boeing is the second largest defense contractor in the country and most of the other firms participating in the FCS program do not fit the description of a nontraditional defense contractor.

This fact was readily conceded in a report prepared last year for Acting Army Secretary Brownlee on FCS management issues:

“One intended benefit of OT authority—attracting nontraditional suppliers—has not been realized to date; the initial round of subcontracts has gone almost exclusively to traditional defense suppliers.”³³

A closer look at the funding of the FCS SDD program shows that just four large defense contractors account for most of the funding. The cost share of the planned

³⁰ See “Boeing’s Misconduct is Detailed in Memo,” by Peter Pae, *The Los Angeles Times*, April 23, 2004.

³¹ See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems System Development and Demonstration Phase, Agreement No. DAAE07–03–9-F001, at page 1.

³² See Defense Acquisitions: DOD Has Implemented Section 845 Recommendations but Reporting Can Be Enhanced, Report to the Chairman and Ranking Minority Member, Committee on Armed Services, U.S. Senate, October 2002, GAO–03–150, p. 3.

³³ See Review of FCS Management Issues, Final Report to Acting Secretary of the Army Hon. R. L. Brownlee, Institute for Defense Analyses, August 17, 2004, p. ES–3.

work shows Boeing receiving \$4.9 billion, SAIC receiving \$1.3 billion, and General Dynamics and United Defense together receiving \$4.6 billion. The 21 Tier 1 competitive subcontracts combined total \$1.7 billion.³⁴

BOEING'S FCS OTA: LESS ACCOUNTABILITY AND OVERSIGHT FOR AMERICA'S MOST DISHONEST DEFENSE CONTRACTOR

In recognition of potential problems with using an OTA in lieu of a standard procurement contract, Congress was very careful in the extension of legal authority to the Department of Defense to utilize OTAs. The conference report accompanying the National Defense Authorization Act for Fiscal Year 1999,³⁵ which extended the OTA authority, cautioned that any further extension would be contingent on the congressional defense committees concluding that OTAs had been used in a responsible and limited manner:

"[S]ection 845 authority should only be used in the exceptional cases where it can be clearly demonstrated that a normal grant or contract will not allow sufficient access to affordable technologies. The conferees are especially concerned that such authority not be used to circumvent the appropriate management controls in the standard acquisition and budgeting process."³⁶ (emphasis added)

Because the use of OTA authority can result in an agreement that is virtually exempt from most of the statutes and regulations governing Defense Department R&D or prototyping efforts, repeated efforts have been made to identify and clarify exactly which legal authorities might apply to an OTA. Paul G. Kaminski, as Undersecretary for Acquisition and Technology in December 1996, identified 21 statutes relating to procurement that "are not necessarily applicable to 'other transactions.'"³⁷

While the objectives of cutting government red tape to empower the Defense Department to have increased flexibility in dealing with high-tech companies for advanced technology projects is clearly desirable, the fact that many of the statutes inapplicable to OTAs were specifically enacted to deter waste, fraud and abuse—a very real and persistent problem for government contracting—calls for very careful analysis. Simply stripping out decades of protective statutes without protecting the government's interests in dealing with contractors is a formula for financial disaster. Put simply, such a process would leave the government vulnerable to almost any kind of waste, fraud and abuse and—adding insult to injury—an unethical company could say its actions were "legal" because laws restricting its unscrupulous activities simply did not apply.

A group of contract experts assembled as an ad hoc working group sought to analyze exactly which statutes were exempted from OTAs and the ramifications of those exemptions, publishing an excellent treatise on the subject in January 2000.³⁸ The group concluded that inapplicability of certain statutes and regulations "may raise significant questions of accountability for the public fisc and other matters of public policy."³⁹ Increased risks and uncertainties in areas such as funding limitations and dispute resolution were identified.⁴⁰ There was a warning that, "Confusion over OT's statutory exemption can be costly either in litigation or in the misuse of OTs."⁴¹

The signal contribution made by the ad hoc working group to the understanding of potential risks and benefits of OTAs comes from its analysis of the question as to whether OTAs are exempt from the 21 statutes identified in the Kaminski memo⁴² as well as an additional 11 statutes identified by the working group.

Among the statutes determined to not apply to OTAs are the following:

- Competition in Contracting Act

³⁴ Op cit.

³⁵ See Pub. L. 105—261, 112 Stat. 1920, 1954 (1998).

³⁶ See H.R. Conf. Rep. No. 105—736, at 590 (1998).

³⁷ See "Memorandum from Undersecretary of Defense for Acquisition and Technology Paul G. Kaminski to Secretaries of the Military Departments and Directors of Defense Agencies," December 14, 1996, reprinted in full in Department of Defense Other Transactions: An Analysis of Applicable Laws, a project of the Ad Hoc Working Group on Other Transactions Section of Public Contract Law, American Bar Association, 2000, Attachment 1.

³⁸ See Department of Defense Other Transactions: An Analysis of Applicable Laws, a project of the Ad Hoc Working Group on Other Transactions Section of Public Contract Law, American Bar Association, 2000.

³⁹ See Id. at 2.

⁴⁰ See Id. at 2.

⁴¹ See Id. at 2.

⁴² See Id. at Attachment I

- Contract Disputes Act
- Extraordinary Contractual Authority and Relief Act
- 10 U.S.C. § 2313, Examination of records of contractor
- 10 U.S.C. § 2403, Major Weapons Systems: Contractor Guarantees
- 10 U.S.C. § 2408, Prohibition on persons convicted of defense contract related felonies and related criminal penalty as defense contractors
- 10 U.S.C. § 2409, Contractor employees: protection from reprisal for disclosure of certain information
- 31 U.S.C. § 1352, Limitation on the use of appropriated funds to influence certain Federal contracting and financial transactions
- 41 U.S.C. § 423, Procurement Integrity Act
- 41 U.S.C. § 701–707, Drug-Free Workplace Act of 1988
- 41 U.S.C. § 10a–10d, Buy American Act
- 41 U.S.C. § 2306a, Truth in Negotiations Act
- 41 U.S.C. § 422, Cost Accounting Standards
- 10 U.S.C. § 2334, Cost Principles

The statutes just listed, along with their enabling regulations, represent a partial list of the statutory exemptions for OTAs. While an OTA may incorporate some of the missing statutory protections and terms by writing them into the agreement, any omissions can easily become loopholes through which an unscrupulous contractor can extract financial benefits not typically available to other contractors who are subject to the standard procurement contract.

A more detailed listing is appended to this testimony as Exhibit B: Applicability of Specific Statutes to Other Transaction Agreements.

Also of concern is the fact that the lack of major procurements handled through OTAs has meant that there is a distinct lack of case law interpreting possible ambiguities. This means additional uncertainties and costs in the event of disputes that may occur between the contractor and the government with the burden of proof being on the government in most instances.

While there has never been an OTA as large as the FCS OTA, problems of accountability have arisen in recent OTAs such as the Evolved Expendable Launch Vehicle (EELV) project. A great deal of financial information about the project is off-limits to the public and, among other issues, the public and the media have no practical way to assess whether claims of government savings are credible.

A recent article on the EELV raised issues directly relevant to the FCS project:

“In its audits, the Government Accountability Office warned the Other Transaction Agreement approach was risky for a billion-dollar-project. It’s a tool previously Reserved for far smaller contracts. The GAO said it posed considerable challenges because it exempted the project from normal rules for spending tax dollars, limited Defense Department oversight and did not give the military the authority to conduct audits, GAO said.

“The use of Other Transaction instruments for Evolved Expendable Launch Vehicle development will challenge (the Defense Department) in determining how to protect the government’s interests,” GAO said.

The Defense Department inspector general also challenged whether there was enough ‘visibility’ into the program’s spending in its 1999 review of the EELV program, according to the agency’s congressional testimony.

“The EELV other transactions agreements included technical safeguards but provided limited insight into the financial aspects of the program,” assistant auditor Don Mancuso told Congress in the spring of 2000.”⁴³

The lack of transparency and accountability is a serious issue in its own right but, as indicated in the EELV case above, disclosure acts as an important deterrent to unscrupulous behavior by contractors:

“However, government auditors and taxpayer watchdog groups cautioned one side effect of the new way of doing business is far less public disclosure of what the companies and the military are doing with public money.

‘Anything that removes financial transparency is not a good deal for the taxpayers,’ said Eric Miller, a defense industry investigator for the Project on Government Oversight, which has spent two decades investigating deals between the Defense Department and its contractors. ‘Time and again defense contractors have shown they will sometimes take advantage of these

⁴³ See “\$1 billion question—Taxpayers may never know how companies spent Air Force rocket money,” by John Kelly, Chris Kridler, and Kelly Young, *Florida Today*, August 25, 2002, p. 1

types of situations. When you eliminate that kind of oversight, you have a potential disaster.”⁴⁴

Mr. Miller went on to state that the Other Transaction Agreement strategy was never intended for big companies to avoid scrutiny on 9- and 10-figure contracts. “We don’t think such large contracts should come without financial oversight. It’s a dangerous practice.”⁴⁵

BOEING’S FCS OTA: HOW SWEET A FINANCIAL DEAL?

By all accounts the FCS deal has been an exceptionally good one for Boeing. The \$14.8 billion initially being spent on the development phase has already been augmented with an additional FCS modification in August 2004 which added approximately \$6 billion to the program and will probably grow to more than \$100 billion when production gets underway.⁴⁶ It comes at a time when Boeing has been losing market share to Airbus, making its defense business all the more important. The year 2003 marked the first time in decades that more than half of Boeing’s revenues came from defense.⁴⁷

Financially, the importance of FCS to Boeing has been cited by such defense experts as Jacques Gansler, Undersecretary of Defense for Acquisition, Technology and Logistics in the Clinton administration, who recently stated, “This [FCS] is a big plum, from Boeing’s perspective.”⁴⁸ One of the reasons such a Lead System Integrator deal can be lucrative is that it does not require a significant amount of new capital spending so the return on investment can be quite high. George Muellner, president of Phantom Works, Boeing’s research and development arm, has described the LSI role as being a “high-margin, low-overhead area.”⁴⁹

Far and away, the most important factor to be analyzed in determining whether the FCS program was negotiated in Boeing’s interest at the expense of the government is the OTA signed on December 10, 2003.⁵⁰

While obtaining a copy of a government procurement document is generally relatively easy insofar as most are public information, Boeing has shown itself to be unusually sensitive in opposing public scrutiny of its FCS arrangement with the Army. When the National Legal and Policy Center filed a request under the Freedom of Information Act for a copy of both the draft and final versions of the FCS OTA, NLPC’s counsel was informed that Boeing opposed disclosure, even to the point of claiming the documents were “classified.” To their credit, the Army’s professional FOIA staff disclosed the requested materials once it became apparent that Boeing had no legal grounds to prevent such disclosure.

An analysis of the FCS OTA confirmed what others had already suspected—that the FCS OTA negotiated by Boeing lacked many of the standard legal protections that accompany major Defense Department acquisitions. Because OTAs are not contracts and were originally designed to streamline regulatory procedures, many legal terms and conditions needed to deter or detect waste, fraud and abuse must be individually incorporated into an OTA or they simply will not apply.

The first round of public controversy addressing the legal shortcomings of the FCS OTA began when Reuters ran an article disclosing that 2 months before the Army signed the FCS OTA with Boeing, a private consulting firm, CommerceBasix, Inc., hired to improve the Army acquisition process, recommended that the Army rework the draft agreement. Among the consulting firm’s findings was that a delay of 6 months in the project under the terms of the May 31, 2003, draft OTA could result in a \$1 billion financial risk to the government.⁵¹

While Army officials were dismissive toward the October 14, 2003, consultant’s report and signed the OTA on December 10, 2003, the subsequent analysis by the Government Accountability Office released on April 1, 2004, before the House Armed Services Subcommittee on Tactical Air Land Forces not only largely corrobo-

⁴⁴ See *Id.*

⁴⁵ See *Id.*

⁴⁶ See “Boeing-SAIC Team gets \$14.8 billion Army pact,” *San Diego Union-Tribune*, December 11, 2003.

⁴⁷ See “Boeing Plays Defense; Beset by Airbus and rocked by scandal, the aircraft maker turns to a new CEO—and the Pentagon—for help,” by Judy Cresswell, *Fortune*, April 19, 2004, p. 90.

⁴⁸ See *Id.*

⁴⁹ See *Id.*

⁵⁰ See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems System Development and Demonstration Phase, Agreement No. DAAE07-03-9-F001.

⁵¹ See “Boeing deal with Army criticized; Consultant cited \$1 billion risk to government,” *Chicago Tribune*, February 17, 2004, p. 3.

rated the consultant's claim but even cited the possibility of a multi-billion-dollar cost associated with a fairly modest delay.⁵²

The Reuters article disclosed that concerns about FCS were not limited to the consulting firm:

"The size of the agreement sparked concerns not just at CommerceBasix but among top Future Combat Systems Program officials and defense industry experts as well.

"This was unheard of," said one defense industry official, who asked not to named. "It raised a lot of alarm bells."⁵³

The Reuters article went on to report that the decision to opt for the less formal Other Transaction Agreement instead of a standard Defense Department procurement contract "also raised eyebrows, given a spate of ethics scandals at Boeing in recent months."⁵⁴

Anyone able to obtain and review the FCS OTA would have even greater reason for raised eyebrows.

The consultants only had the May 30, 2003, draft OTA on which to rely for their October 2003 report. However, a review of that draft with the final definitized version signed in December 2003 indicates relatively minor changes in terms and conditions. Indeed, the OTA itself indicates that the definitization process between the May and December versions would deal more with cost issues than business terms and conditions.⁵⁵

Perhaps out of sensitivity to the consulting firm's allegation about the government's exposure to financial risk, the final version did substantially augment "Article XXXIII—Termination Liability" from the relatively Spartan treatment of those issues in the May version and some related terms and conditions.

Ironically, the report on FCS management by the Institute for Defense Analyses was critical of the CommerceBasix analysis of the legal weakness of the FCS OTA by citing the fact that they did not see the final December 2003 agreement:

"The CommerceBasix review of a draft Army-Boeing agreement, which was critical of the lack of clauses to protect the Army's interests, did not address all of the clauses that are in the final FCS agreement."⁵⁶

This is somewhat disingenuous since it seems to suggest there was a major strengthening of the agreement to protect the Army's interests before the December draft was signed. There was not, as any reading of the two documents shows. The Army would have been better served had there been a listing of all changes made to the May draft to better protect the Army's legal interests. Even more helpful would have been a complete analysis of the legal effect of the omission of every statute which covers standard DOD procurement contracts but which are missing from the FCS OTA.

All too many issues associated with protecting the government's interests against waste, fraud, and abuse as well as promoting accountability remain.

Traditionally, resolution of disputes is a critically important part of any major agreement. In the case of a high-risk, multi-billion-dollar project where the GAO already has assessed "significant risk," the resolution of disputes is an area that requires clarity as well as strong protection of the government's interests. The Contract Disputes Act does not apply to OTAs unless it has been specifically incorporated into the agreement. The FCS OTA has no such incorporation of the Contract Disputes Act.

The issue of dispute resolution is addressed in the FCS OTA at Article XV—Disputes. While Boeing and the Army anticipate resolving disputes through a set of sparsely worded dispute resolution procedures, Boeing is also accorded the oppor-

⁵² See Hearing of the Tactical Air Land Forces Subcommittee of the House Armed Services Committee on Future Combat Systems and Force Protection Initiatives, April 1, 2004, Federal News Service transcript, p. 8.

⁵³ See "Boeing deal with Army criticized; Consultant cited \$1 billion risk to government," Chicago Tribune, February 17, 2004, p. 3.

⁵⁴ See Id.

⁵⁵ See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems System Development and Demonstration Phase, Agreement No. DAAE07-03-9-F001, May 30, 2003, draft at pp. 13-14.

⁵⁶ See Review of FCS Management Issues, Final Report to Acting Secretary of the Army Hon. R. L. Brownlee, Institute for Defense Analyses, August 17, 2004, p. ES-3.

tunity to “bring a claim in a court of competent jurisdiction as authorized by 28 USC 1491”⁵⁷ if Boeing disagrees with the outcome of the dispute resolution.

An apparent shortcoming is the failure to address exactly how the government can bring a claim in the event it disagrees with the outcome of a dispute resolution. Generally, there is Federal jurisdiction over civil actions initiated by the U.S. Government as stated in 28 U.S.C. § 1345, “Except as otherwise provided by an Act of Congress, the district courts shall have original jurisdiction of all civil actions, suits, or proceedings commenced by the United States, or by any agency or officer thereof expressly allowed to sue by Act of Congress.” The Contract Disputes Act represents a way in which Congress has “otherwise provided” for jurisdiction in that it applies to any “express or implied contract . . . entered into by an executive agency. . . .” The Court of Federal Claims has jurisdiction over claims brought pursuant to the Contract Disputes Act. However, since the FCS OTA is not considered a “contract,” a very real issue exists as to whether and how the Army could bring a breach of contract suit against Boeing. Moreover, the Court of Federal Claims has never ruled on its jurisdiction over OTAs.

Throughout the FCS OTA, problems similar to the issue of dispute resolution appear, resulting in both uncertainty as well as legal vulnerability for the government’s position. The Army had a professional, legal and ethical obligation to address every such issue so as to protect the government’s interest. The guidance provided to the Army through the “Other Transactions” (OT) Guide for Prototype Projects, as revised in August 2002, addresses this obligation clearly:

“ . . . the Agreements Officer is not precluded from and should consider applying the principles or provisions of any applicable statute that provides important protections to the government, the participants or participants’ employees.”⁵⁸

The guide went on to advise that the Agreements Officer may also want to consider whether whistleblower protections should be included in the agreement, “especially if the prime awardee is a company that typically does business with the DOD.”⁵⁹

The guide is consistent in advising the government to take all appropriate steps to protect the government’s interests in an OTA and especially in taking steps to minimize project risk. The linkage of risk to the terms and conditions of the OT agreement is also beyond dispute:

“The risks inherent in the prototype project and the capability of the sources expected to compete should be a factor in the terms and conditions of the OT agreement.”⁶⁰

While the FCS OTA does incorporate a number of statutory provisions as well as Federal Acquisition Regulations, the majority of standard procurement laws and a good number of laws promoting accountability are conspicuous by their absence. Without providing an exhaustive listing, it appears that most of the statutes previously specified in Department of Defense Other Transactions: An Analysis of Applicable Laws are not applicable to the FCS OTA.

A review of the FCS OTA found no apparent inclusion of the Procurement Integrity Act. This is especially noteworthy given the allegations involved in the criminal investigation of Darleen Druyun and Boeing. The Procurement Integrity Act⁶¹ imposes two types of obligations on government employees seeking non-government employment who have been involved in procurement. First, for government employees who have been personally and substantially involved in a procurement worth more than \$100,000, it sets forth requirements that must be followed if the employee inquires about or is contacted by the company involved with the procurement. Second, there is a 1-year ban on accepting compensation from contractors involved in the procurement. There are civil penalties for violations by both the government employee and the contractor.⁶²

Additionally, the FCS OTA does not include the Truth in Negotiations Act (10 U.S.C. § 2306a). Possible violation of the Truth in Negotiations Act may be an issue

⁵⁷ See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems System Development and Demonstration Phase, Agreement No. DAAE07-03-9-F001, December 10, 2003, at Article XV (B)(3), p. 53.

⁵⁸ See “Other Transactions” (OT) Guide for Prototype Projects, Under Secretary of Defense for Acquisition, Technology and Logistics, August 2002, C2.7—Consideration of Protections Provided in Law, p. 24.

⁵⁹ See *Id.*

⁶⁰ See “Other Transactions” (OT) Guide for Prototype Projects, Under Secretary of Defense for Acquisition, Technology and Logistics, August 2002, C2.1.3.1.5—Risk Assessment, at p. 15.

⁶¹ See 41 U.S.C. § 423.

⁶² See 41 U.S.C. § 423 (c),(d),(e).

in the ongoing audit of the airborne warning and control (AWAC) contract upgrade involving Darleen Druyun.⁶³ At issue specifically is whether Boeing overcharged the Air Force by “a significant amount” on a \$1.3 billion contract to upgrade NATO surveillance aircraft. The article stated:

“Contractors are required under the Truth in Negotiations Act to provide accurate data, which serves as the basis for final negotiated prices.”⁶⁴

Boeing is no stranger to allegations that it has mischarged or overcharged the government on Defense Department contracts. In one instance, a Boeing subsidiary paid \$3.8 million to settle claims arising from three Navy contracts in which the subsidiary was said to have “mischarged numerous labor hours or provided inaccurate cost information to the government during negotiations for all of the contracts.”⁶⁵ The Justice Department media release on the case stated:

“Under the Truth in Negotiations Act, companies are required to disclose to the government pricing and cost information in their possession when they negotiate contracts with the government.”⁶⁶

The failure of the FCS OTA to be covered by the Truth in Negotiations Act represents yet another legal vulnerability for the government in the event that Boeing or any of its partners provide inaccurate or padded cost estimates in any negotiation associated with the program. There is little doubt that Boeing as a defense contractor does not like the idea of being legally required to provide the government with accurate cost information under the Truth in Negotiations Act. At a roundtable discussion of government contract issues during 2001 Boeing Vice President John Judy argued that the threshold for coverage of the Truth in Negotiations Act should be raised significantly.⁶⁷ Coincidentally, Mr. Judy’s name surfaced during the Darleen Druyun scandal when the National Legal and Policy Center disclosed that he had contracted to purchase Druyun’s Virginia home while Druyun was still at the Air Force overseeing multi-billion dollar business deals with Boeing.

The fact is that Boeing has a long and well-documented record of blatantly overcharging the Pentagon on defense contracts. In the 1980’s Boeing was caught charging the Air Force \$748 for a pair of pliers to be used to repair KC-135 tanker airplanes. An engineer testified before Senator Grassley’s Judiciary subcommittee on administrative practice and procedure on the subject and stated that he found similar pliers at a hardware store for \$7.61.⁶⁸

There are no shortages of good examples of the impact that deficient agreement language or agreement negotiations can have. A very recent example involves—once again—Boeing and the Department of Defense. In an April 16, 2004, Washington Post article titled, “Audit Criticizes Another Boeing Deal; Inspector General Says Air Force Didn’t Negotiate NATO Contract Properly,” a \$1.34 billion contract being negotiated by Air Force official Darleen Druyun with her future employer Boeing failed to have the proper verification of costs. As a result, the parties must sit down and follow the correct procedures to ensure that the costs are appropriate. The audit conducted by the Department of Defense Office of Inspector General concluded, “Air Force contracting officials awarded the contract modifications without knowing whether the \$1.3 billion cost was fair and reasonable.”⁶⁹ Four days after this article appeared, Darleen Druyun pled guilty in the U.S. District Court for the Eastern District of Virginia in conjunction with a Federal felony count of conspiracy which arose from her employment dealings with Boeing at the same time the contract in question was being finalized.⁷⁰

U.S. Attorney Paul McNulty summed up his view of the crime by stating:

“The only interest should be the public’s interest. Darleen Druyun placed her personal interest over the interests of the Air Force and American taxpayers. Secretly negotiating employment with a government contractor, at

⁶³ See “Pentagon auditors check Boeing charges; Review part of probe of ex-company exec,” by Tony Capaccio, *The Seattle Times*, May 12, 2004, p. E6.

⁶⁴ See *Id.*

⁶⁵ See “Boeing Subsidiary Pays U.S. \$3.8 Million to Settle Dispute Over Three Navy Contracts,” U.S. Department of Justice U.S. Newswire Release, Dec. 29, 1992.

⁶⁶ See *Id.*

⁶⁷ See “Plotting Our Defense: The Pentagon Wants Reform, but How Will It Work?” *Legal Times*, March 5, 2001, p. 30.

⁶⁸ See “Air Force Victory is Illusory in the Case of \$748 Pliers; Boeing’s New Charge Offsets Price Cut,” *The Washington Post*, March 22, 1985, p. A1.

⁶⁹ See “Defense tags Boeing AWACS Deal for criticism; Report: Contract was Mishandled,” by David Bowermaster, *The Seattle Times*, April 16, 2004, p. C1.

⁷⁰ See “Ex-Pentagon Official Admits Job Deal; Civilian Got Boeing Offer While Overseeing Air-Tanker Contract,” by Renae Merle and Jerry Markon, *The Washington Post*, April 21, 2004, p. 1.

the same time you are overseeing the negotiations of a multi-billion dollar lease from that same contractor, strikes at the heart of the integrity of the acquisition process.”⁷¹

The case just cited raises yet another series of questions regarding the lack of integrity in the manner in which Boeing has pursued Department of Defense business. The pattern of wrongdoing is unmistakable, and there’s more. A recent article in *The Wall Street Journal* by Andy Pasztor reported on another pending procurement scandal involving allegations against Boeing:

“In St. Louis, [Boeing] faces a civil investigation for allegedly using foreign titanium in F-15 fighter jets, certain military transport planes and various other Pentagon programs, contrary to U.S. law. Investigators previously demanded the company pay \$20 million to resolve the claims, but Boeing balked at a settlement. The investigation has been underway for 3 years, though it hasn’t been reported until now.”⁷²

Perhaps if Boeing had the foresight to use an OTA in the case just cited, it would not be facing a \$20 million fine. The Buy American Act (41 U.S.C. §§ 10a–10d) does not apply to OTAs unless it has been specifically added.

In yet another very recent (April 23, 2004) news account, the serial nature of Boeing’s misconduct with DOD procurement was underscored:

“An internal Air Force memo suggests a broad pattern of improprieties by Boeing Co. when it bid on Pentagon contracts, contradicting the aerospace giant’s assertions that such problems were isolated and that it corrected them quickly.”⁷³

The FCS OTA—on its face—raises very serious questions as to whether the government’s legal and financial interests have been well served. There is little doubt that Boeing’s interests have been well served by receiving the \$20 billion plus “plum deal.” Even a casual reading of the FCS OTA shows considerable financial incentives for Boeing, including the earlier cited “maximum possible opportunity to earn fee.”⁷⁴ Also deserving scrutiny is the questionable \$9.8 million incentive award received by Boeing from the Army for completing the agreement by the end of the year.⁷⁵ At a time when Boeing was spending millions of dollars on lobbyists in its push for Pentagon business, a \$9.8 million incentive award for rushing through a lucrative deal hardly seems necessary—or wise.

But there is a human element that also invites scrutiny. The fact that the senior Boeing executive involved in the FCS procurement was Michael Sears, the Boeing Chief Financial Officer (CFO) terminated for cause in connection with his hiring of Darleen Druyun and also—according to Boeing—in the alleged cover-up of his actions, ought to be considered a red flag. Indeed, Sears, prior to becoming Boeing CFO, was the head of Boeing’s Phantom Works, the Boeing research and development (R&D) operation that played a key role in winning the FCS deal.⁷⁶

After Boeing took an unexpected \$1.1 billion charge in 2003 because of losses in its commercial space business, media accounts listed Michael Sears as leader of a team of experts looking to examine the business cases associated with Boeing’s biggest projects. *Financial Times* interviewed Mr. Sears and reported:

“Mr. Sears hinted that the business cases made in some of Boeing’s tenders were not satisfactory, and added that the risk management practice of the different business units might not be adequate.”⁷⁷

Mr. Sears went on to specifically name the Future Combat Systems project as one of the Boeing efforts being reviewed.⁷⁸

Despite the Reuters account documenting concern over the FCS deal among both FCS program officers and defense industry experts, not to mention the consultant’s

⁷¹See Statement of U.S. Attorney Paul McNulty, April 20, 2004, *United States of America v. Darleen Druyun*, Criminal No. 04–150–A.

⁷²See “Pentagon Probes Suppliers’ Hiring,” by Andy Pasztor, *The Wall Street Journal*, January 12, 2004.

⁷³See “Boeing’s Misconduct Is Detailed in Memo,” by Peter Pae, *The Los Angeles Times*, April 23, 2004.

⁷⁴See Agreement Between the Boeing Company and U.S. Army Tank-Automotive and Armaments Command Concerning Future Combat Systems Development and Demonstration Phase, Agreement No. DAAE07–03–9–F001, at p. 14.

⁷⁵See “Boeing deal with Army criticized; Consultant cited \$1 billion risk to government,” *Chicago Tribune*, February 17, 2004, p. 3.

⁷⁶See “Contract Gives Boeing a Lift,” by Paul Merrion, *Crain’s Chicago Business*, May 13, 2002, p. 13.

⁷⁷See “Boeing Team to Reassess Top Projects,” *Financial Times*, by Caroline Daniel, September 2, 2003, p. 33.

⁷⁸See *Id.*

report detailing the serious legal and financial risks with the proposed OTA,⁷⁹ Defense Daily reported:

“Originally planned to be signed Nov. 26, the Army reached agreement on the SDD contract with the LSI [Boeing] in a process that went ‘exceedingly smoothly from my vantage point,’ Claude Bolton, Assistant Secretary of the Army for Acquisition, Logistics, and Technology, said last month.”⁸⁰

Indeed, Boeing was receiving a nice incentive award to push through a multi-billion-dollar agreement for itself. For good measure, the agreement had most major statutory and regulatory provisions meant to protect against ethical misconduct and other contractor abuses stripped out. What was not to like?

RECOMMENDATIONS

The Army’s largest procurement project has as a Lead System Integrator, Boeing, a defense contractor with the demonstrably worst record of procurement misconduct of any defense contractor. Boeing was penalized for substantial violations of the law in the Lockheed proprietary documents case with a \$1 billion contract sanction and the longest suspension of any major defense contractor. In the tanker case, Boeing tried to mislead Congress on the need for tankers with false information in an attempt to get funding for a program that was over-priced by billions of dollars. Boeing executives have pleaded guilty to felonies and Boeing is currently facing numerous criminal investigations and civil litigation for its misconduct.

Instead of increased oversight, Boeing is managing the Army’s most important procurement project with a legal agreement which meant to attract nontraditional suppliers and which minimizes oversight and accountability.

This is a recipe for disaster.

The broadest recommendations are that Congress should conduct a thorough review of the vulnerabilities to the government’s position because of the use of an OTA and that Congress should intensify its oversight of the FCS program.

The FCS program is high risk because of its ambitious embrace of so many new and untested technologies but the failure of the Army to have adequate oversight and accountability through the use of an OTA represents an even higher risk.

The best way to assess the major legal vulnerabilities of the present FCS OTA would be an independent legal analysis of the ways in which the agreement fails to match the legal protections found in standard defense procurement contracts. Starting with an assessment of the statutes listed in Exhibit B: Applicability of Specific Statutes to Other Transaction Agreements, there should be statute by statute analysis of the legal benefits of each statute to the government and a thorough examination of the language in the OTA to determine what benefits are missing and what effect that may have on the government’s ability to oversee the program and to protect its legal interests.

Similarly, there should be an independent examination of the financial and fee structure of the FCS program. While Lead System Integrator positions can be very lucrative for defense contractors and this aspect should be closely scrutinized, even closer scrutiny should be given to whether Boeing’s compensation in the OTA is appropriate given the shifting of so much of the financial and legal risk for the program to the government as compared with a standard defense procurement contract.

To the degree that the government can modify the existing agreement to protect its interests and promote greater accountability, it must do so. Whatever objections Boeing may have to such a modification pale next to the risk the government is taking in not asserting its right to protect its interests.

Given the poor choice of Boeing as the Lead System Integrator for FCS, especially given Boeing’s incredibly poor record with respect to respecting competitors’ proprietary information rights, there is no alternative to increased congressional oversight of the FCS program. As the GAO has pointed out, the cost associated with the FCS program so dominates the Army’s investment budget for years to come that any failures in this high risk program will make it extremely difficult to find any other funds to remedy the problem.

The most ethically-challenged defense contractor in the country is in charge of the most expensive high risk defense program using an agreement that minimizes oversight and accountability. If that doesn’t call for increased congressional oversight, what does?

⁷⁹ See “Boeing deal with Army Criticized; Consultant cited \$1 billion risk to government,” Chicago Tribune, February 17, 2004, p. 3.

⁸⁰ See “Army and Boeing-SAIC LSI Sign \$14.8 Billion SDD Contract for Future Combat Systems,” Defense Daily, December 12, 2003.

Exhibit A

Project on Government Oversight
Federal Contractor Misconduct Database
www.pogo.org/db/found.cfm

Boeing Defense Misconduct: 1991-2003

Contractor	Case	Amount	Disposition, Date & Source
Boeing --McDonnell Douglas	Defense "Procurement Fraud"	\$1,100,000 (Civil)	Settlement, 3/13/1991 Defense Contracts: Contractor Claims for Legal Costs Associated with Stockholder Lawsuits GAO/NSIAD-95-166 (July 1995)
Boeing --McDonnell Douglas	Defense "... agreed to pay \$1 million to resolve claims that it failed to disclose all information and also misrepresented other costs in negotiating three contracts with the Navy."	\$1,000,000 (Civil)	Settlement, 8/4/1992 Defense Contract Litigation Reporter 08/28/92
Boeing --Argosystem	Defense "Procurement Fraud"	\$868,000 (Civil)	Settlement, 12/23/1992 Defense Contracts: Contractor Claims for Legal Costs Associated with Stockholder Lawsuits GAO/NSIAD-95-166 (July 1995)
Boeing --McDonnell Douglas	Defense Allegedly "failed to disclose required cost or pricing data in negotiating delivery orders for an Army weapon ..."	\$2,100,000 (Civil)	Settlement, 3/3/1993 Defense Contract Litigation Reporter 03/11/93
Boeing	Defense Accused of "mischarging labor costs on a number of Department of Defense airplane contracts ..."	United States v McDonnell Douglas, Docket #93-CV-2188, US DC ED MO (Civil)	Pending, 10/12/1993 Department of Justice (DOJ) Press Release 09/08/95; Taxpayers Against Fraud (TAF) Quarterly Review Volume 13 April 1998, Volume 9 April 1997; Court Docket
Boeing	Defense "Procurement Fraud"	\$250,000 (Civil)	Settlement, 4/15/1994 Defense Contracts: Contractor Claims for Legal Costs Associated

			with Stockholder Lawsuits GAO/NSIAD-95-166 (July 1995)
Boeing	Defense "Accused of charging the Government millions of dollars in research and development costs that it should have absorbed."	\$75,000,000 (Civil)	Settlement, 4/29/1994 Defense Contracts: Contractor Claims for Legal Costs Associated with Stockholder Lawsuits GAO/NSIAD-95-166 (July 1995); The New York Times 04/30/94
Boeing --Argosystem	Defense "Voluntary Disclosure Fraud"	\$3,000,000 (Civil)	Settlement, 12/1/1994 Defense Contracts: Contractor Claims for Legal Costs Associated with Stockholder Lawsuits GAO/NSIAD-95-166 (July 1995)
Boeing --Rockwell	Defense "... during contract price negotiations Rockwell gave the Air Force proposals that failed to account for discounts Rockwell received from its vendor ..."	\$260,000 (Civil)	Settlement, 6/14/1995 Department of Justice (DOJ) Press Release 06/14/95; Settlement Agreement
Boeing --Rockwell	Defense "... to settle allegations the company knowingly failed to provide the U.S. with accurate, complete and current information in negotiating multi-billion dollar contracts in 1981 ..."	\$27,000,000 (Civil)	Settlement, 7/31/1995 Department of Justice (DOJ) Press Release 07/31/95; Taxpayers Against Fraud (TAF) Quarterly Review October 1995; Settlement Agreement
Boeing --Space and Defense Group	Defense Allegedly, "unallowable costs were ... included in computations used to determine overhead rates used on Government contracts."	\$6,000,000 (Administrative)	Settlement, 9/1/1997 Department of Defense (DOD) Inspector General Semiannual Report to the Congress 04/01/97 - 09/30/97
Boeing --McDonnell Douglas Aircraft	Defense Allegedly "overcharged the government to repair equipment used to manufacture aircraft under a military contract ..."	\$2,000,000 United States v McDonnell Douglas, Docket #91-CV-3139, US DC CD CA (Civil)	Settlement, 11/19/1997 Senator Harkin and Representative DeFazio Press Release 06/07/00; Department of Justice (DOJ) Press Release 11/19/97; Taxpayers Against Fraud (TAF) Quarterly Review Volume 5 April 1996, Volume 12 January 1998
Boeing --McDonnell Douglas	Defense "Procurement Fraud"	\$2,000,000 (Civil)	Settlement, 12/1/1997 Senator Harkin and Representative

DeFazio Press Release 06/07/00			
Boeing --McDonnell Douglas	Defense "Defective Pricing"	\$1,850,000 (Civil)	Settlement, 8/13/1998 Senator Harkin and Representative DeFazio Press Release 06/07/00
Boeing	Defense "Boeing repeatedly exported defense articles and defense services to Russia, Ukraine, and Norway without required approval from the Department of State."	\$10,000,000 (Civil)	Settlement, 9/26/1998 State Department Charging Letter 09/02/98; State Department Consent Agreement 09/26/98
Boeing	Defense Allegedly "produced defective aircraft and falsely certified parts and workmanship."	United States v Boeing, Docket #98- CV-1716, US DC WD WA (Civil)	Pending, 12/3/1998 Taxpayers Against Fraud Quarterly Review Volume 12 January 1998; Court Docket; National Transportation Safety Board Public Meeting 08/22-23/00; Confirmed by US Attorneys Office WD WA (Seattle) on 04/27/01
Boeing	Defense "Alleged that Boeing placed defective flight-critical transmission gears into CH-47D Chinook helicopters."	\$61,500,000 United States v Boeing, Docket #97-CV-410, US DC SD OH (Civil)	Settlement, 8/1/2000 Department of Defense (DOD) Inspector General Press Release 08/01/00- 08/15/00; Department of Justice (DOJ) Press Release 08/03/00; DOJ Press Release 05/01/97; Taxpayers Against Fraud (TAF) Quarterly Review Volume 14 April 2000, Volume 18 July 2000, Volume
Boeing	Defense "... allegations that Boeing had agreed to pay bribes to officials of the Bahamas government ... as a means of securing a contract ..."	Aviaco v Boeing Canada, Docket #98-CV-159655 CM; Aviaco v McDonnell Douglas, Docket #92-CV- 2401, US DC SD FL & Docket #92-CV-3739, US DC CD CA (Civil)	Pending, 10/1/2000 The Lawyers Weekly 10/06/00; Court Docket; Confirmed by the Superior Court of Justice Clerk's Office, Ontario, Canada on 04/19/01
Boeing	Defense	\$2,025,000	Settlement, 11/13/2000

	Allegedly "concealed fraud by a subcontractor."	United States v Boeing, Docket #00-CV-32, US DC CD CA (Civil)	Department of Justice (DOJ) Press Release 01/12/00; DOJ Press Release 11/9/2000; Taxpayers Against Fraud (TAF) Quarterly Review Volume 18 March 2000; Court Docket
Boeing	Defense "The Department of State charges that The Boeing Company violated the Arms Export Control Act and the International Traffic in Arms Regulations ... One hundred ten (110) violations are alleged."	\$4,200,000 (Administrative)	Fine, 4/7/2001 State Department Charging Letter 03/30/01; Consent Agreement 03/30/01; Confirmed by State Department Press Office on 04/18/01
Boeing --Boeing Satellite Systems	Defense "Settlement of the 123 charges against them [Boeing and Hughes Electronics] for violations of the Arms Export Control Act and the International Traffic in Arms Regulations."	\$18,000,000 (Administrative)	Settlement, 3/4/2003 Department of State Press Release 03/05/03; Department of State Charging Letter 12/26/02; Boeing Press Release 03/05/03
Boeing	Defense "The settlement resulted from false claims submitted by Boeing to the government for payment."	\$492,163 United States v Boeing, 98-CV-1842, US DC ED PA (Civil)	Settlement, 4/4/2003 United States Attorney's Office Eastern District of Pennsylvania Press Release 4/4/2003; Settlement Agreement
Boeing --McDonnell Douglas Helicopter Systems	Defense "... Boeing allegedly failed to provide [a safety system for the Apache helicopter] with the 28 volts required for proper operation."	\$2,500,000 Swenson v McDonnell Douglas Helicopter, Docket #98-CV-1476, US DC AZ (Civil)	Settlement, 5/16/2003 Department of Defense (DOD) Inspector General Press Release 06/21/00; Taxpayers Against Fraud (TAF) Quarterly Review Volume 19 July 2000; Court Docket
Boeing	Defense "Alleges that Boeing and its employees committed violations of Federal and Florida law resulting from their solicitation, acquisition, and use of Lockheed Martin proprietary information during the competition for launch contract awards under the U.S. Air Force's Evolved Expendable Launch Vehicle program."	Lockheed Martin v Boeing, Docket #03-CV-796, US DC MD FL (Civil)	Pending, 6/10/2003 Lockheed Martin Press Release 06/10/2003; Court Docket

Exhibit B

APPLICABILITY OF SPECIFIC STATUTES TO OTHER
TRANSACTION AGREEMENTS

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Department of Defense Other Transactions: An Analysis of Applicable Laws

A Project of the Ad Hoc Working Group on Other Transactions Section of
Public Contract Law, 2000, American Bar Association, from Table 1, p. 27

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Item No.	Statute	Applicability of Statute to OTs
1.	Competition in Contracting Act, Pub L. No. 98-369 (1984), as amended	CICA does not apply to OTs
2.	41 U.S.C. §§ 601 <i>et seq.</i> , the Contract Disputes Act, Pub. L. No. 95-563 (1987), as amended	CDA does not apply to OTs
3.	31 U.S.C. §§ 3551 <i>et seq.</i> , Procurement Protest System, Subtitle D of the Competition in Contracting Act, Pub. L. No. 98-369 (1984)	The protest system at GAO does not apply to protests over the award of OTs. However, the GAO will likely review the agency's use of OTs to determine whether the statutory requirements of 10 U.S.C. § 2371 and § 845 are met.
4.	10 U.S.C. § 2306, Kinds of Contracts	Section 2306 does not apply to OTs
5.	10 U.S.C. § 2313, Examination of records of contractor	Section 2313 does not apply to OTs
6.	10 U.S.C. § 2353, Contracts: acquisition, construction, or furnishing of test facilities and equipment [to R & D contractors]	Section 2353 does not apply to OTs
7.	10 U.S.C. § 2354, Contracts: indemnification provisions	Section 2354 does not apply to OTs
8.	10 U.S.C. § 2393, Prohibition against	Section 2393 does not apply to OTs

	doing business with certain offerors	
9.	10 U.S.C. § 2403, Major Weapons Systems: Contractor Guarantees	Section 2403 does not apply to OTS
Item No.	Statute	Applicability of Statute to OTs
10.	10 U.S.C. § 2408, Prohibition on persons convicted of defense contract related felonies and related criminal penalty as defense contractors	Section 2408 does not apply to OTs
11.	10 U.S.C. § 2409, Contractor employees: protection from reprisal for disclosure of certain information	Section 2409 does not apply to OTs
12.	31 U.S.C. § 1352, Limitation on the use appropriated funds to influence certain Federal contracting and financial Transactions	Section 1352 does not apply to OTs
13.	41 U.S.C. § 423, Procurement Integrity Act, § 27 of the Office of Procurement Policy Act	The Procurement Integrity Act does not apply to OTs
14.	41 U.S.C. §§ 701-707, Drug-Free Workplace Act of 1988	The Drug-Free Workplace Act does apply to OTs
15.	41 U.S.C. §§ 10a – 10d, Buy American Act	The Buy American Act does not apply to OTs
16.	35 U.S.C. §§ 200-212 (1980)(Bayh-Dole Act)	The Bayh-Dole Act does not apply to OTs
17.	10 U.S.C. § 2320 and § 2321, Technical data provisions applicable to DoD	These provisions do not apply to OTs
18.	10 U.S.C. § 2306a, Truth in Negotiations Act	TINA does not apply to OTs
19.	41 U.S.C. § 422, Cost Accounting Standards	Cost Accounting Standards do not apply to OTs
20.	10 U.S.C. § 2334, Cost Principles	Cost Principles do not apply to OTs

Senator MCCAIN. Secretary Bolton, I think you deserve the opportunity to respond.

Mr. BOLTON. Yes, sir. Thank you very much. This will center on why we use an OTA, why we have an LSI, and why we have this particular contractor, Boeing.

Let me first respond to the basic notion of an OTA. All the reasons that have already been stated by the other gentlemen here are absolutely correct. We have OTAs to attract other folks who typi-

cally would not go and do business with us, maybe to get some new technology that perhaps we would not have gotten from other places.

Senator MCCAIN. But if I could just mention, I have the same quote here that Mr. Boehm had. The law written into the Defense Authorization Act of 1999 says: "The conferees are especially concerned that such authority not be used to circumvent the appropriate management controls in the standard acquisition and budgeting process." The authority should be used in exceptional cases. Is this an exceptional case?

Mr. BOLTON. I believe so.

Senator MCCAIN. Okay. Please proceed.

Mr. BOLTON. Let me set the stage and then I would like to go point by point with Ken there.

When I arrived here and was briefed on this program, it was clear to me this was one of the most complex, ambitious programs I had ever seen. In fact, my initial reaction was let us not do this because I know for a fact you are not going to be able to do it on the time line, which, Mr. Chairman, you may recall was 2010. It had already been drug back 2 years to 2010. I arrive here in 2002. We have 7½ years to do a job that normally takes 10 to 15 years. I knew that it would be a challenge not only from the contracting aspects, but just because of all the other things that we do in this normal acquisition process, from requirements of resourcing to the actual contracting, to the testing, to the fielding, and so forth. This was going to be a very difficult task.

I have done this before, not on this scale, but one thing I have noticed time and time again, you cannot do this without a very strong team and a very strong team leader. We saw that on the Manhattan Project, the Trinity Project. We saw that on the space program during the 1960s. Every successful program that has been challenged like this has had to have a strong team, Government and contractor. You will fail if you try to do it any other way.

Now, I looked at what was going on. DARPA and the Army were teamed at the time. DARPA was in the lead. They were setting the concept phase. They had started to build a team with four different contractor groups. When I came aboard, as I said, the time line had been moved to the left. DARPA was in the throes of going through a competition to reduce this down to one, all spelled out in their OTA as to how that was going to run. They selected the current LSI and the LSI approach, by the way.

We had an option in the Army whether to continue that when I picked it up in the current phase. So I went to our folks, and I said, here is the challenge we have. We have to continue the strong team, in fact, build it. Is it possible to use the OTA because the OTA, aside from as Congress has intended, the one thing I noted over and over again—and I was the lead for the Department of Defense in 1996 to look at OTAs for the use of the military departments.

Senator MCCAIN. Why was the Procurement Integrity Act not included?

Mr. BOLTON. The one thing that folks have glanced over, what you have there are the clauses that are in.

Senator MCCAIN. The what, sir?

Mr. BOLTON. The FAR clauses that are not in. TINA, for example, is not in—The Truth in Negotiations Act. True, it is not there. However, let me tell you—

Senator MCCAIN. Why not?

Mr. BOLTON. Because if I put all of TINA in there, I will pay for things that I do not need. Let me tell you what I do have in there, sir.

Senator MCCAIN. Because of Truth in Negotiations Act provisions, you would be paying for things you do not need?

Mr. BOLTON. Let me tell you. What I have done, I have access to all the books for all the contractors.

Senator MCCAIN. Does Congress?

Mr. BOLTON. Yes, sir, you do.

Senator MCCAIN. Does the public?

Mr. BOLTON. Yes, they do, through the normal process as you would with any FAR contract.

Here is what we did. We said, look, you do not have to do this, but you, Mr. LSI, and the subcontractors are required to submit accurate costs and pricing data to the Government for negotiations for this OTA. By the way, I will send in the Defense Contract Audit Agency, which they did, and I will verify all that before I sign this piece of paper. Oh, by the way, I will also have the Defense Management Agency to go there to verify this as well as your earned value.

Senator MCCAIN. Is that certified, sir?

Mr. BOLTON. Those folks certify to the grants officer that all the data was accurate and reasonable. The grants officer took that information and said, therefore, I can sign on behalf of the Government that what we negotiated was fair and reasonable.

Senator MCCAIN. That is certified.

Mr. BOLTON. Yes, sir.

Senator MCCAIN. Thank you.

Mr. BOLTON. All we have to do is go back and look at the data. I had the folks that we in the Department of Defense use, not the Army, the Defense Audit Agency, to go in there to do that.

We also have a provision in this agreement spelled out in, I think it is, article 13, which is another clause, for the U.S. Comptroller General to go in and take a look. He has not done that, but he could if he wanted to.

Senator MCCAIN. Was that information certified by the contractor?

Mr. BOLTON. Certified by our folks.

Senator MCCAIN. Why would the contractor not be required to certify it?

Mr. BOLTON. Here is what you get when you do this, and I have done this on many contracts. I put TINA in there. You floor it down. The contractor goes out there, does his thing, and I might go in there and take a look. But I have the contractor on a short hook here. If I find out that there is defective pricing here, I can get money back. I can legally sue him.

I have the same thing here. If you will read agreement, you will see in there I do not have to worry about litigation. I unilaterally go in there and I adjust the price and get the taxpayers' money back if I find that you have given me the wrong price.

Senator MCCAIN. Well, then would it not apply to every acquisition that you do not need TINA?

Mr. BOLTON. That is up to other acquisitions. I am only focused on the Future Combat System.

Senator MCCAIN. The Army Deputy General Counsel for Acquisition told the Senate Armed Services committee last week he could not think of a single reason why the Procurement Integrity Act should not be included in the FCS other transaction agreement. We asked him why it did not include the Procurement Integrity Authority (PIA) language. He suggested it was a decision made by "higher Army authorities."

Why would you not want Procurement Integrity Act provisions put in any contract that the Government enters into? There is a reason why we passed that law.

Mr. BOLTON. Yes, sir, and we did not put it in per se.

Senator MCCAIN. Why not put it in per se?

Mr. BOLTON. What we asked them to do—because I wanted more.

Senator MCCAIN. Pardon me?

Mr. BOLTON. I wanted more.

Senator MCCAIN. Okay.

Mr. BOLTON. Here is what I wanted. I wanted to make sure, because ethics is a concern here, a big concern, everybody who is on this team can sign a piece of paper and say, hey, look, I am not going to share any information with anybody. We did that from the first source selection on. We put fire walls up. We asked IDA to come in and take a look at that. We had our lawyers take a look at it. We looked at the pieces of paper people were signing to make sure that you are not going to share this information with anybody else.

We also said we want you to do this for the whole team once we are on board. So the contractor, the LSI, has put together a consultant. That consultant has put together classes. Folks are now finishing up, not just for the LSI but for all of the subs to go to this class, learn about integrity, the same thing I go through every year and that I certify. That is what I want folks to do, and then I track it.

I think that is what we are trying to do.

Senator MCCAIN. I think that is what we are trying to do, Secretary Bolton. I appreciate your outstanding service to this country, but we do have laws in place that were put in that were simply there in order to protect the taxpayers.

Mr. BOLTON. Yes, sir.

Senator MCCAIN. Now, what you are saying is we do not need those laws. You can do the job yourself better than enforcing laws that were passed by the Congress of the United States to preserve the integrity of the taxpayer. You can do a better job.

My point is if you want to come back and say, change the procurement laws, Congress, so that I can do a better job than these laws are having any beneficial effect, then I would be certainly open to it. I know this committee would be and so would all of Congress.

Mr. BOLTON. Yes, sir.

Senator MCCAIN. But to just make a decision on your own that laws that were enacted because of previous scandals to try to prevent future scandals are being exempted from a huge \$100 billion-and-some contract, you are going to have to give me a better reason than the fact that you have great judgment.

Mr. BOLTON. No, sir. It is not my judgment. I am responsible. I am the one to blame for everything that goes wrong.

Senator MCCAIN. We have had many in the past who were responsible, but the taxpayers still lost billions of dollars.

Mr. BOLTON. Yes, sir.

Senator MCCAIN. That is why we passed the Procurement Integrity Act. That is why we passed the Truth in Negotiations Act.

Mr. BOLTON. Yes, sir, and what we have challenged folks to do is to take a look at every one. There are roughly in a typical FAR type of contract for this type of activity, actually for a single program, probably 147 FAR clauses in there. I can go through any contract. I have been there. I have done this. Yes, we have protected the public, but not from costs of that program. I have worked programs where I knew I was getting data——

Senator MCCAIN. Then your argument is we should repeal these laws.

Mr. BOLTON. No, sir, not at all. What I am saying is that what the OTA allows you to do is to tailor in what you want. The articles I am talking about——

Senator MCCAIN. Even though Congress said it should be an exception and used for nontraditional contractors with the Defense Department.

Mr. BOLTON. What was not pointed out, although I have not gotten what I would like to have in nontraditionals, we do have four, not the one that is required by our rules and the Department of Defense, but four. Two of them came from the original concept phase. One of those is the person who is putting together our entire advanced collaborative system. That is where we put all of the data so we can work this thing across the country. The other is iRobot who is helping us with the robotics, the ground——

Senator MCCAIN. Do you know who it was at Boeing that suggested the OTA be used? Mr. Sears.

Mr. BOLTON. I do not know that to be true. I am the guy who sat there in the office, contemplating this. He and I never talked about OTAs. Never, sir.

Senator MCCAIN. You never did.

Mr. BOLTON. No, sir.

Senator MCCAIN. Thank you, Mr. Secretary.

Mr. Francis, do you have any views on this dialogue here?

Mr. FRANCIS. Well, Mr. Chairman, I think we have heard some discussion about what is and is not in the contract.

Senator MCCAIN. We are probably going to ask you to define that for us. Go ahead.

Mr. FRANCIS. Right now? [Laughter.]

We are in the process now of taking a closer look at the contract for you, as a matter of fact.

We do know that there are some standard FAR provisions in the OTA, quite a number of them. Where there are not FAR provisions, there are negotiated provisions in there. So, for example, we know

the certified cost and pricing data is not a clause that is in the contract. There is a negotiated clause in there. We have to take a look at that to see what protections that offers. So we are going to do a side-by-side analysis.

Mr. Bolton says that is certified. I guess that was the one question I had. You look at a provision like that. I understand there is going to be cost and pricing data. Is it going to be certified the way the law would require? Those are some of the distinctions I think we have to take a look at.

Senator MCCAIN. Secretary Bolton, what we would like to do is get some questions to you along the lines of what Mr. Francis is talking about.

Look, I appreciate the enormity of the challenge here and the importance of modernizing our Army to meet the new challenges. We are not interested in holding it up in any way. But we do have this obligation to the taxpayer. So what we would like to do, for the record, is get questions from Mr. Francis and get them to you so we can be exactly sure what provisions are in force, and if not the PIA and TINA, then others.

Mr. BOLTON. Yes, sir. Let me tell you I really do appreciate that. I know the GAO has three folks who are full-time on this program. I have always asked everyone—in fact, will ask again when we go over it the next look-see outside of the Army—if there is anything we need to do to make this better, please tell me. I have asked that for the last 2½ years of everyone.

Senator MCCAIN. Thank you.

Mr. BOLTON. It is not for us to use an OTA, FAR, whatever. What we are really trying to do is put a capability out there.

Senator MCCAIN. Dr. Graham, assuming that Secretary Bolton is correct—and I do not question him—that it was far better in negotiating this contract to use OTA, which obviously was not the intent of Congress when the law was passed—but let us set that aside—so that certain impediments to getting this major modernization of the United States Army into being, does that argue that we should change our procurement laws? Could IDA look at that for us? [Laughter.]

Dr. GRAHAM. I think that the simple answer is we were really asked to look specifically at this agreement, and as Secretary Bolton said—

Senator MCCAIN. Dr. Graham, do not duck now. You are an experienced and talented guy. [Laughter.]

Do not tell me what you were asked to do. I am asking for your opinion on this, and I would appreciate it really.

Dr. GRAHAM. Well, I think it is worth looking at these things, yes.

Senator MCCAIN. Pardon me?

Dr. GRAHAM. I think it is worth looking at these things, yes.

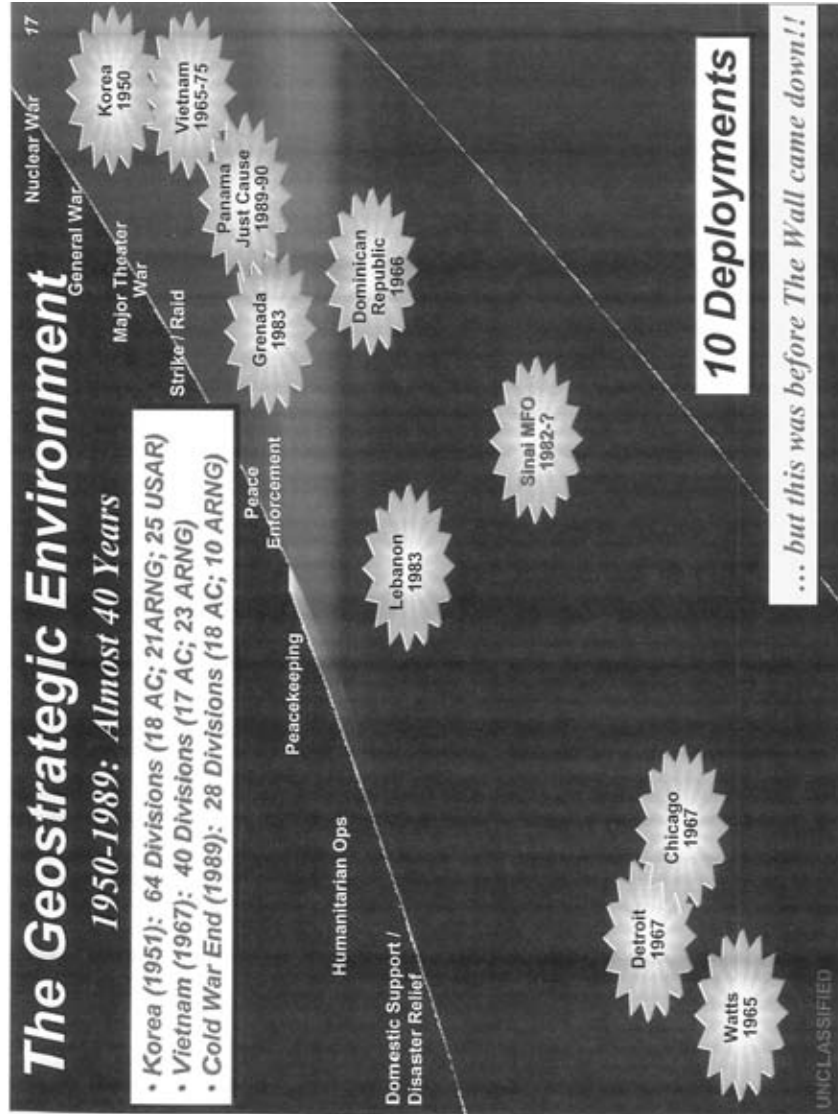
Senator MCCAIN. Thank you. It might call for, seriously, a look at the procurement law as it exists. Perhaps it is too burdensome. Perhaps it does drive up costs, as Secretary Bolton states that it might, and that is the last thing we want to do. But when there are laws on the books, Mr. Secretary, it seems to me that they should be enforced until we change them.

Well, anyway, you wanted to say something else. Go ahead.

Mr. BOLTON. Yes, sir. It really gets to the whole notion of procurement laws and so forth. It is something that has bugged me for years.

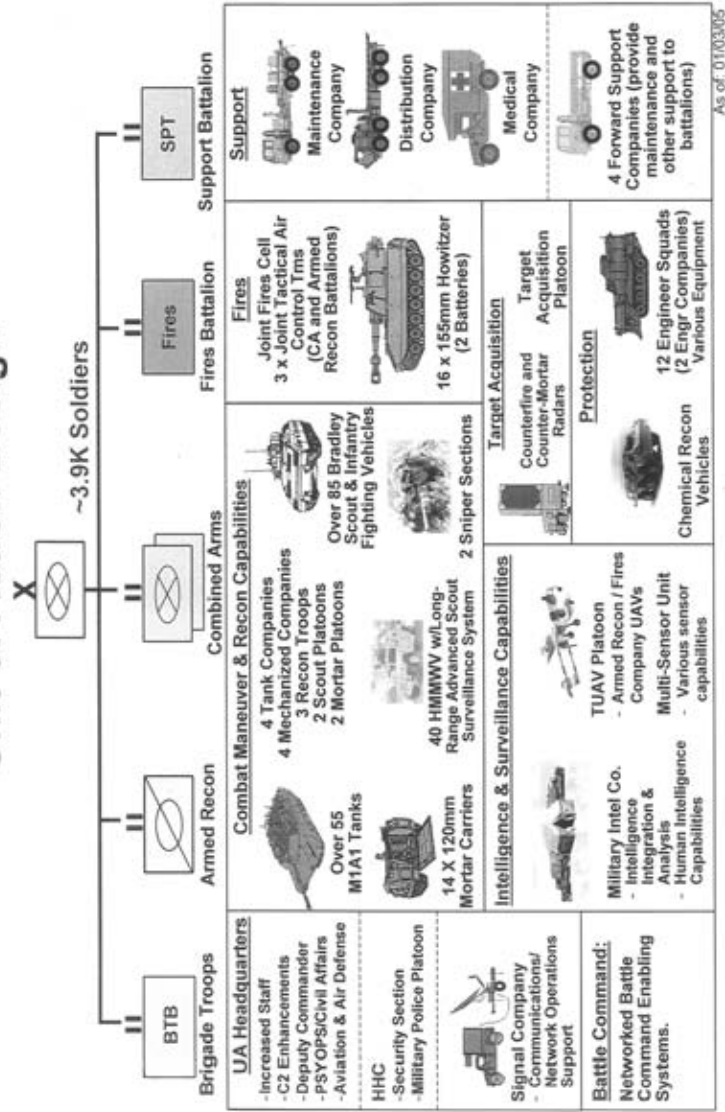
I am an acquisition type. So you get stones thrown at you all the time. Year in and year out, we are talking about streamlining acquisition, whether that is through procurement laws or some other. If you do not mind, I would like to put up one poster because I think it makes the point that if we do not address this—and it is what we are doing on the Future Combat System—then we will always—why do I not just put it up here on the desk so you can see it.

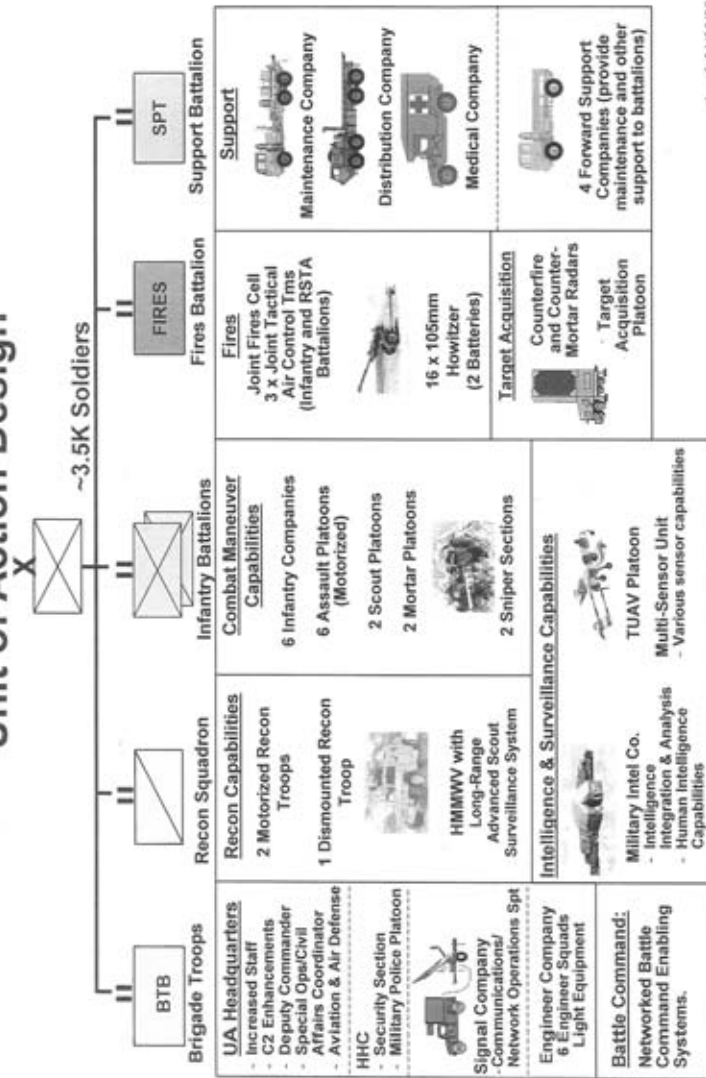
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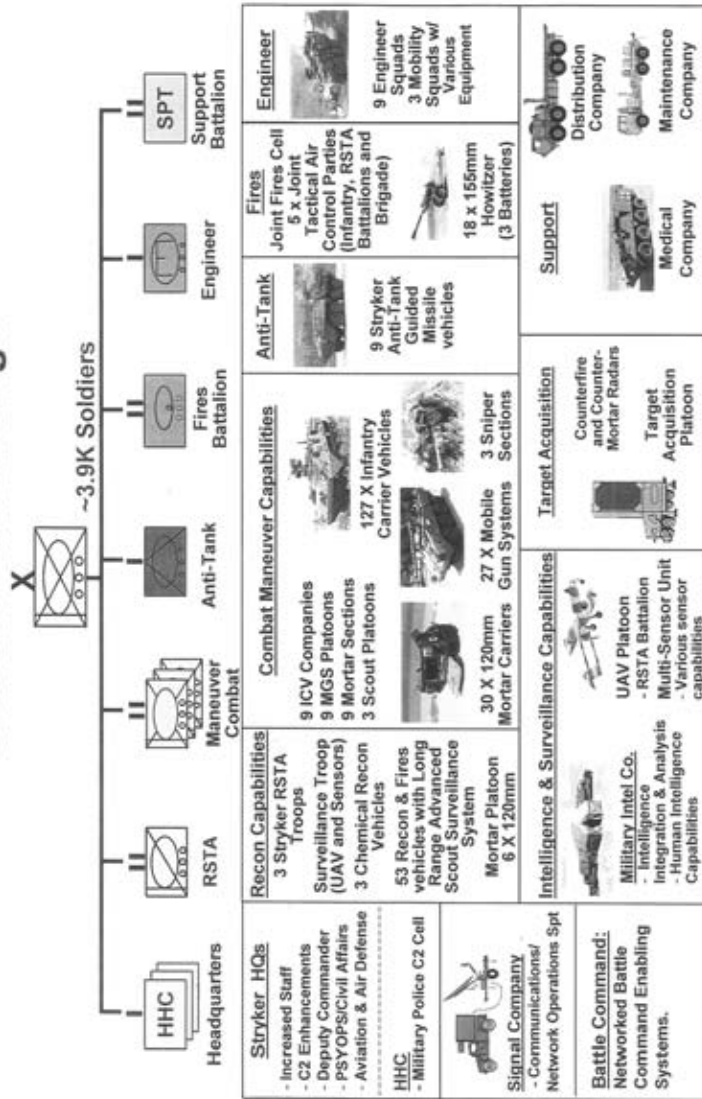


Heavy Brigade Combat Team Unit of Action Design



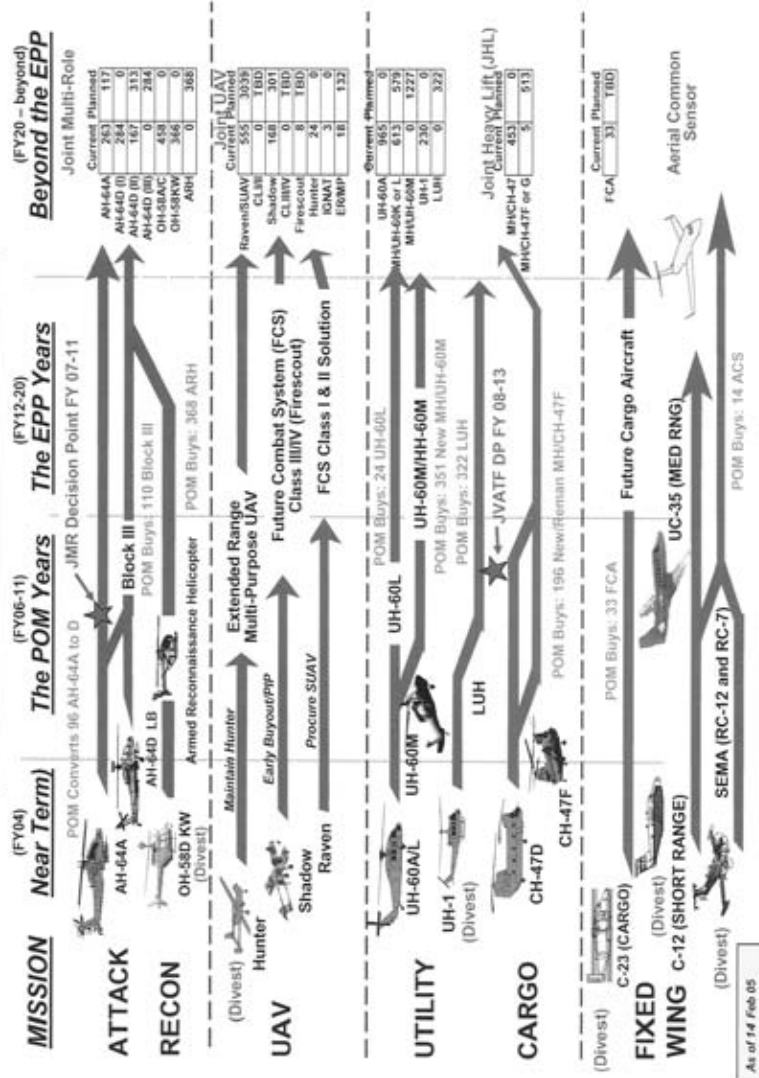


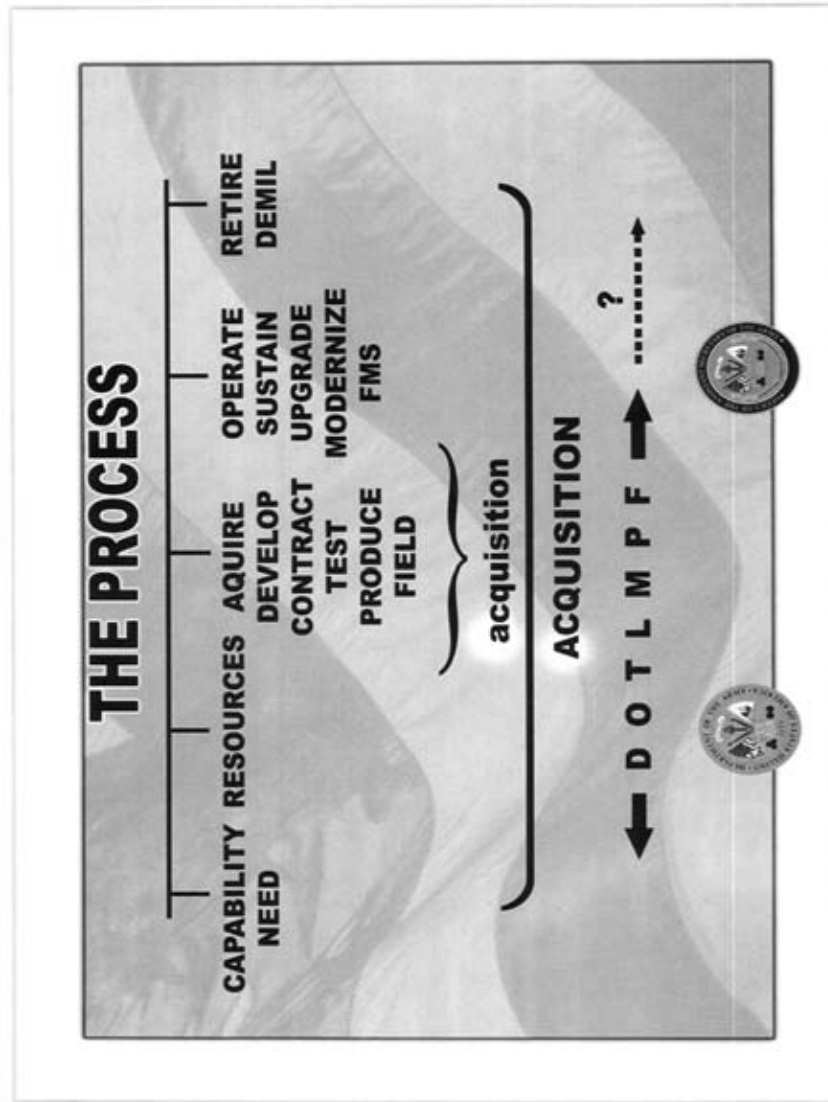
Stryker Brigade Combat Team Unit of Action Design

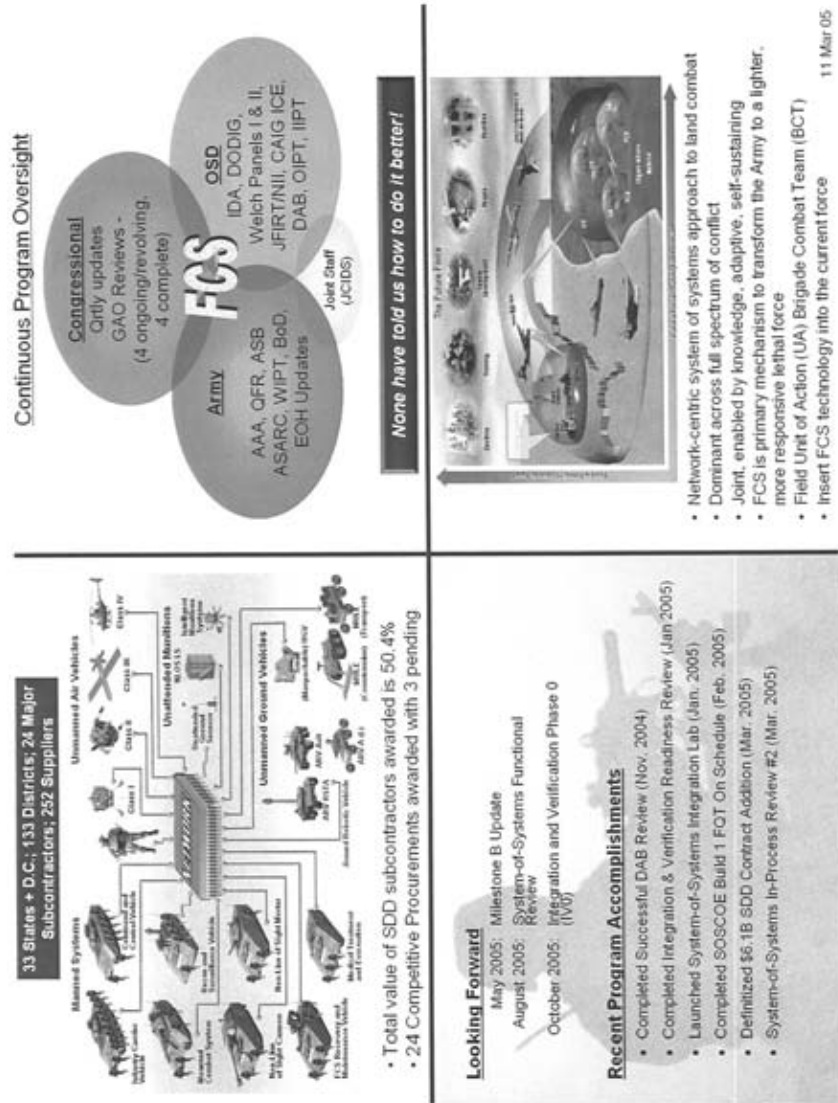


AS OF 07/03/05

Modernization Strategy







Mr. BOLTON. When our current Chief of Staff arrived just over a year ago, we got talking about the FCS, what we are going to do. I told him this is one of the best team approaches I have ever seen. I have started major weapons systems programs that are now coming to fruition today, and it took them 22½ years to get there. I predicted on the second day of that program in 1982 it would take that long. Why? Because all you have to do is look at all the other programs. Well, why is it that you acquisition guys cannot make this faster?

So I went to the Chief and I said, if we are going to make this work, it is not just me. We have formed a team here in the Army that is exceptional in its vision and what it is doing.

The former Chief of Staff, General Shinseki, would have a meeting every month with his flag officers, senior flags in the United States, and he had a three-star who was running the task force. That three-star's job was to bring everybody together, the requirements folks sitting over here, the resources——

Senator MCCAIN. I got you.

Mr. BOLTON.—folks like me, the operators, and so forth, bring them all together to work as a team.

Why is that important? Because traditionally what we do is we write a requirement, throw that over the transom. Someone like me is supposed to pick it up and convert that to a contract. Then someone is supposed to go test it, not exactly my organization, and then field it and then sustain it.

Senator MCCAIN. I understand.

Mr. BOLTON. What we are trying to do and what we are doing in the Army is we are bringing all this together. If you had gone down to Fort Monroe Training and Doctrine Command when we wrote the requirement for the——

Senator MCCAIN. To be honest with you, I do not see how the Procurement Integrity Act and the TINA have anything to do with that chart.

Mr. BOLTON. Sir, your point was how do we help this country's citizens be protected, the services get what they want, and can we do that through the procurement. All I am saying is that if you really want this to happen, you need to take a look at everything that happens in this whole process.

Senator MCCAIN. But again, I do not see how the Procurement Integrity Act or the Truth in Negotiations Act in any way would impede that process. Maybe you can tell me how.

Mr. BOLTON. No, sir. A point well taken. That applies across the entire board.

Senator MCCAIN. I thank you. Again, I thank you for the very difficult tasks that you perform admirably.

Mr. Boehm, we have not heard from you.

Mr. BOEHM. Well, let me just say that one of the points about this was actually made in the Washington Post yesterday. There was a story on FCS. I think it was about the hearing and so forth. They quoted a professor at George Washington University who is a professor of government procurement law. He had this to say about OTAs. He said the problem with using OTAs is you do not have control mechanisms to work with when things go poorly. The reason you do not have them is the mechanisms to work with when things go poorly are these statutes that Congress passed in response to previous problems when programs went poorly. So that is the real risk of throwing out the baby with the bath water in this case.

Also, let me just say this. On some of the clauses that were put in, the disputes resolution clause, article 15, there are all sorts of things that have the appearance of doing the same thing as the statute. But they do not do the same thing as the statute. In al-

most every case, if you take a closer look, they leave things out. The Truth in Negotiations Act is certainly a big one.

One of the explanations I have heard by people who defend this OTA is you do not need the Procurement Integrity Act because, in fact, you have 18 U.S.C. 208 conflict of interest. They are two different things. If the conflict of interest statutes covered everything in Procurement Integrity, Congress would not have needed to pass Procurement Integrity.

So I think that a close, independent examination item-by-item is going to show that many of these things are missing, and if something is not done, then a couple years down the road when things go wrong, to use the expression of the professor of procurement law, we will not have the tools to make it right. Even worse, we will not have the tools to prevent it because they have been excluded from the agreement.

Senator McCAIN. Thank you.

Mr. Francis, we will send you a specific request to look at this side-by-side comparison that we discussed, and I would appreciate your help.

Secretary Bolton, you wanted to say something else.

Mr. BOLTON. It is about tools. I agree. We have not had the right tools in the past. You, of course, remember what this is. You and I grew up with this.

Senator McCAIN. Yes, sir.

Mr. BOLTON. We now have electronic devices that we use. When I started in this game about 30 years ago, this is basically what we had.

When it comes to measuring this contract—and I do it for all my contracts, FAR, OTAs. It does not matter—I rely upon one thing above all else, and it is the earned value management system. We lay out with the contractor all the work. This is all the subs, all the work, down to the last person, that we expect them to do during the year. We also lay in a budget schedule and money.

Once we agree to that, then we track it on a daily basis, a weekly basis, and a monthly basis. It gets reported out to the company teams on a daily basis, to my PM on a weekly basis, to me on a monthly basis, and then it is formally brought into the building every quarter. We bring that up to the staffs here on a quarterly basis.

I used to terminate programs, and it gets back to the point that was made earlier that we are going to go somewhere down the street. I have terminated over 70 programs since I have come here. The first thing I look at is the earned value. I do not care how big the program is, if you are not performing to that earned value for two quarters you come in, the third quarter you show cause, and on the fourth one, you are probably being terminated. I take that seriously.

Senator McCAIN. Thank you.

Mr. Francis, you have studied the FCS program as closely as anybody. In your opinion, was the Army's decision premature in moving from concept and technology development into the critical SDD phase of the FCS program?

Mr. FRANCIS. Mr. Chairman, I would say yes, the decision was premature. When a program is going to go into the SDD phase, you

want to have a pretty good understanding of the requirements. You want to have mature technologies. You want to have a preliminary understanding of the design to put you in a position to get a good cost and schedule estimate. As we reported, when the FCS went through that milestone in 2003, it did not have that level of knowledge. As I look at the program today under the restructuring, it still does not have that level of knowledge. We are still working requirements; technologies are not yet mature; and the preliminary design review is a couple years away. So I would say we are still some time away yet from being at that point where we would be comfortable with the decision.

Senator MCCAIN. Dr. Graham, the Institute for Defense Analyses should look at the entire procurement issue, if you all would. I would be glad to send you a letter. We need to look at the whole procurement process, and I think your institute could probably be of assistance to us, given the experience, background, and talent that you have. I know it is not exactly in your line of work, but you certainly are familiar with this and I would appreciate it. We need to look at this whole issue of procurement, not just this specific program. I have questions about the C-130J and other programs. So we would like to get your help on that.

Mr. Boehm, thank you for your continued animated participation and we appreciate it very much.

I would like to say a word. I do believe that Boeing went through a very wrenching process. They did have people over, including former Senator Rudman, to look at the way they did business. They have set up a code of ethics, and I think they have made some significant efforts to clean up their act here. I appreciate their efforts. Perhaps the latest event concerning Boeing was the implementation of the code of ethics that they had enacted.

Secretary Bolton, you have a tough job. We are here to help, and we want to do everything we can. I have significant questions about this program, but I hope you know that we are attempting to move this incredible transformation forward as quickly as possible with a minimum of difficulty and exercise our appropriate oversight responsibilities.

I thank the panel for being here. This hearing is adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

ARMY RESTRUCTURE

1. Senator MCCAIN. General Cody, we understand that under the modularity initiative, the Army is currently increasing the number of Active-Duty brigades from 33 to 43, while reducing the number of National Guard brigades to 34. In your professional judgment, how will the 2005 Quadrennial Defense Review (QDR) affect the force-sizing construct and modularity?

General CODY. While it is too early to predict the outcome of a process that will continue for several more months, I believe the QDR will result in a force-sizing or force-planning construct that better addresses the challenges we are facing today and those we envision over the next 20 years. Regarding our creation of the current Army Modular Force and its transformation to the future Army Modular Force over the next few years, early signs in the QDR process are very positive. Creation of the current Army Modular Force is critically important to achieving our national objectives in the global war on terror, and better aligns today's force organizationally with future organizations.

AVIATION RESTRUCTURE AND MODERNIZATION PLAN

2. Senator MCCAIN. Secretary Bolton and General Cody, the new Army aviation structure will consist of eight heavy (six active and two National Guard), three medium (all active), and two light (all active) multi-functional aviation brigades (MFABs). There will also be six Aviation Expeditionary Brigades (AEB) in the National Guard. Is the cost of the aviation restructure covered by the \$14.6 billion made available by the termination of Comanche? If not, what is the estimated cost for the aviation restructure and what is the Army's plan for funding the restructure?

Mr. BOLTON and General CODY. Yes, funding made available by the termination of the Comanche program, combined with funding already associated with Army aviation programs and the Army Modular Force have enabled us to restructure Army aviation. Costs for installation and infrastructure requirements created by Aviation restructuring are not covered by Comanche funding. These requirements are addressed by the Assistant Chief of Staff, Installation Management reprogramming and/or supplemental funding requests.

3. Senator MCCAIN. Secretary Bolton and General Cody, why does the Army modernization plan fail to completely modernize the Apache fleet to the Longbow configuration, instead of maintaining 117 of the older AH-64 A-model Apaches in the National Guard?

Mr. BOLTON and General CODY. The current approved Army strategy will convert 284 AH-64 Apache aircraft to AH64D Block III configurations beginning in 2010. The intent of the Army is to bring all 597 Longbow aircraft up to Block III (which goes beyond the Program Objective Memorandum (POM) for fiscal years 2007-2011 and into the extended planning period). The Army will continue to review future options and funding to address the potential upgrade of the remaining 117 AH-64As.

4. Senator MCCAIN. Secretary Bolton and General Cody, what factors are led to the decision to slip the Apache block III program 2 years? Why can't you use a number of the AH-64 A-model Apaches in the National Guard that are not being recapitalized into the D-model Apache?

Mr. BOLTON and General CODY. The Apache fleet strategy outlined in the Army Modernization Plan 2005 addresses the critical issue of the aging AH-64A model fleet. The delay on Block III was the result of the pressing need to address aircraft modifications for combat that is, Blue Force Tracking, 701C model engines, Reset, and the program delay by 2 years of the Joint Tactical Radio System for the Block III Apache. Additionally, the Block III program, if kept on the original schedule, would have taken two AH-64D battalions (48 aircraft) out of the war fight for induction on the AH-64D Block III production line. In the 2-year delay time period, an additional 96 AH-64As, found in the Army National Guard and Army Reserves, will be converted to the AH-64D Block II configuration.

5. Senator MCCAIN. Secretary Bolton and General Cody, the AEBs will be augmented with light utility helicopters for active Army installation support and for State and homeland defense missions. Why is it not worth the additional cost to acquire more Black Hawks and avoid a separate low-density fleet of helicopters that the Army cannot employ in non-permissive environments?

Mr. BOLTON and General CODY. The Army is planning on procuring the Light Utility Helicopter (LUH) to replace the aging OH-58A/C and UH-1 fleets. The OH-58NC and UH-1 aircraft are currently performing non-combat missions for the National Guard and table of distribution and allowances (TDA) units within the active component. The LUH will be a versatile, low cost aircraft capable of performing the missions that are currently conducted by the OH-58 and UH-1 aircraft. The procurement of the LUH will allow the Army to not only divest itself of aging aircraft, but it will also allow for the 00-60 aircraft currently conducting missions in TDA units to cascade to the combat units. The delta between the procurement and operating and sustainment cost of the LUH and the UH-60, as noted in the analysis of alternatives for the LUH, supports the acquisition of the LUH.

RESET

6. Senator MCCAIN. General Cody, the Army is spending billions of dollars to repair and replace equipment damaged and destroyed in Iraq as units rotate back to the U.S. and prepare for their next deployment in a process called "Reset." The Army's own "stress on equipment" study suggests that the Army is building up a backlog which in fiscal year 2005 alone is \$7 billion-\$13 billion. How big is the fis-

cal year 2005 backlog growing and what steps are you taking to mitigate the growth in backlog?

General CODY. A backlog of requirements for repair is growing primarily because equipment is in use and cannot be removed for higher level repair. Equipment usage has prevented the Army from removing some equipment from theater, such as the vehicles with added armor. Much of this equipment will be in need of replacement, overhaul, or recapitalization when hostilities end. This includes our prepositioned stocks and the equipment units have left behind in theater for use by follow on units. In addition, the Army sees the need to recapitalize a number of systems, but the equipment is with units that are training to return to theater. The exact size of the backlog is difficult to determine and its growth will be dependent on the length of future operational requirements. The Army estimates it will take 2 years following the end of hostilities to fully repair and replace all necessary equipment. Two Army initiatives, Lean Manufacturing and Public Private Partnerships, help to mitigate the growth in backlog. Lean Manufacturing is a process redesign effort that increases the efficiency of our maintenance lines. Partnerships between our Army depots and the commercial sector enable us to capitalize on the strengths of each, which results in reduced costs and improved throughput.

7. Senator MCCAIN. General Cody, has the industrial base been able to absorb the increase in demand to repair and replace equipment?

General CODY. For the vast majority of Army systems, the industrial base has been able to absorb the increase in demand to repair and replace equipment. In some cases, we have purchased from foreign suppliers. In other cases, we have made specific investments in Army arsenals and depots and hired additional civilian workers to meet large demands for cutting armor plate steel for modification kits to improve armor protection for unarmored vehicles. We have also been working hard to increase private sector production capabilities. In limited cases, we will invest in private facilities, purchasing production equipment to meet higher demands of sustainment and Army modernization.

MODULARITY

8. Senator MCCAIN. General Cody, the Army is in the process of restructuring its force to better meet current operational requirements. The Department recognizes that this will require significant resources and has added \$25 billion in the fiscal year 2007–2011 time period to the \$13 billion the Army already identified for modularity. The Department requested \$4.6 billion in the fiscal year 2005 supplemental budget request and intends on requesting an additional \$5 billion in the fiscal year 2006 supplemental request. Does the \$48 billion represent the full costs for modularity anticipated to be funded through regular and supplemental appropriations? If not, what is the Army's current cost estimate through 2011?

General CODY. The Army estimates the costs to transform to the Army Modular Force at \$48 billion. This includes procurement of equipment, requisite infrastructure, sustainment, and training. Not included in the Army Modular Force cost is an estimated \$16 billion in fiscal year 2006–2011 for the fully burdened personnel costs of the temporary 30,000 endstrength increase to support both the operational requirements for the global war on terror and the Army Modular Force transformation. The Army anticipates supplemental or over guidance support to fund the end strength increases.

Of the \$48 billion to transform to the Army Modular Force, the Army base program will fund \$38 billion: a combination of \$13 billion reprogrammed for fiscal year 2006–2011 and an additional \$25 billion provided in the President's 2006 budget for fiscal year 2007–2011. The Army anticipates that supplementals will fund \$10 billion for Modularity in fiscal year 2005 and fiscal year 2006.

9. Senator MCCAIN. General Cody, last year at this time, the Army estimated modularity costs to be \$28 billion. Why has the estimate increased from the original estimate?

General CODY. The original estimate for the Army Modular Force in January 2004 included building 10 new Infantry Brigade Combat Teams (BCTs) in the active component and the reorganization of 33 active and 34 Army National Guard BCTs. Today's estimate accounts for reorganizing not only the BCTs but the entire Army to include support brigades, theater support structure and Joint Capable Headquarters in the Active, Reserve, and Army National Guard. In addition, the Army is actively responding to operational requirements and lessons learned in the global war on terror.

Lessons learned from Operation Iraqi Freedom (OIF) and Operation Enduring Freedom (OEF) have highlighted shortcomings in communication, force protection, intelligence, surveillance, and reconnaissance (ISR), and move capabilities. The Army Modular Force redesign that the Army is currently executing is designed to address these shortcomings through both organizational changes and investment in new equipment procurement. We have added and modified equipment in our modular designs in real time to support our soldiers in the contemporary operating environment. Since January 2004, equipment additions and force design changes have been implemented. Some of these changes increase costs but many will save lives and increase operational effectiveness. Throughout our formations in combat, combat support, and combat service support units across the Active, Guard, and Reserve we have responded to the needs of the operational environment by hardening vehicles, increasing crew served weapons densities, and adding communication capabilities.

10. Senator MCCAIN. General Cody, will the planned level of funding be sufficient to man and equip the National Guard brigade combat teams to the same standard as the active component?

General CODY. Yes. The current planned funding will man and equip National Guard brigade combat teams to the same standards as their active component counterparts.

11. Senator MCCAIN. General Cody, have you identified your fiscal year 2006 modularity requirements and are they included in your fiscal year 2006 budget request? If so, what are they? If not, why not? Please submit a detailed list of the total fiscal year 2006 and fiscal year 2007 modularity requirements.

General CODY. The modularity requirements for fiscal year 2006 are \$6.5 billion of which \$1.5 billion is included in the fiscal year 2006 budget request. The fiscal year 2006 budget request includes \$668 million in operations and maintenance, \$808 million in procurement and \$24 million in research, development, test and evaluation. The remaining \$5 billion requirement for investment will be submitted in the anticipated fiscal year 2006 supplemental request. In fiscal year 2007, the modularity requirement is \$6.6 billion with approximately \$5.4 billion for procurement, \$700 million for operations and maintenance and \$500 million for military construction which also includes both family housing and barracks construction.

12. Senator MCCAIN. General Cody, given the high operational tempo for Operation Iraqi Freedom and Operation Enduring Freedom, will the Army be able to adequately man and equip the new modular brigades, including 10 to 15 additional brigade-size units, by 2007 as originally intended?

General CODY. Yes, while there will be some challenges in select low density skills, the Army will be able to man and equip the 10 new modular units of action as originally intended. The skills which remain a challenge are primarily due to the large increase of senior noncommissioned positions, which require time to grow. The decision for the additional five has not been made.

13. Senator MCCAIN. General Cody, is the Army planning to do additional analysis, modeling, and simulations to determine the adequacy and capabilities of the modular units currently being fielded?

General CODY. Yes. The Army will continue to review the current design of the modular brigades and refine the design as necessary based on simulations, modeling, and analysis. In addition, the new modular designs will be reviewed and adjustments made based on the lessons learned in their fielding, training, and employment in combat operations in Operation Iraqi Freedom and Operation Enduring Freedom.

14. Senator MCCAIN. General Cody, what tradeoffs is the Army prepared to make to fund modularity should future defense budgets be constrained?

General CODY. The Modular Force is critical to our continued success and execution of the global war on terrorism. It is our second highest priority overall, after the global war on terror. Our aggressive plan to rapidly field increased numbers of combat effective units to support subsequent rotations in Operations Enduring Freedom and Iraqi Freedom is based on funding commitments from both the executive branch and the Office of the Secretary of Defense. Should future funding not support our transformation to a modular force, we will neither trade-off combat capability of the new formation nor essential quality of life programs for our soldiers and their families. The first would result in an overall decrease in our fighting ability, and the second would jeopardize the health of our All-Volunteer Force. Instead, we

would make the difficult decision of reducing the number of formations in the force to preserve its quality.

15. Senator MCCAIN. Secretary Bolton and General Cody, the Office of the Secretary of Defense (OSD) recently directed the Army to submit to the Deputy Secretary a plan that integrates its Future Combat System (FCS) and modularity programs. Where is the Army in the development of a plan to integrate FCS and modularity programs? If so, what is the Army's strategy for integrating the new modular units and their equipment now being fielded, and the FCS?

Mr. BOLTON and General CODY. OSD asked the Army to explain the two programs and how they work together to help OSD achieve the force objectives in the National Military Strategy. That report is due to OSD by April 1, 2005. The report will provide a clear and consistent step-by-step vision of the Army's transformation to the future with the development of organization and doctrine, first in the Modular BCTs then added capability with FCS spirals, with the next step being the conversion of Modular BCTs to the FCS units of action (UAs). The step-by-step conversion of Army Maneuver Brigades to the Future Force shows that Modularity, FCS spirals, and FCS UAs are compatible, sequential, and necessary.

16. Senator MCCAIN. Secretary Bolton and General Cody, has the Army developed an integrated funding plan to consider requirements and costs of FCS, modularity, and equipment reconstitution from ongoing operations?

Mr. BOLTON and General CODY. The Army plan addresses the challenge of balancing the complexities of funding a war while simultaneously sustaining the current force and transforming to the Future Force. The Army program provides 10 new modular combat brigades, converts others to modular designs, continues the development of FCS, spirals relevant technologies into the current force, and sustains aging vehicle fleets. Given assumed levels of funding, the Army has built an executable plan. At the completion of fiscal year 2011, the Army will have converted 77 BCTs to the modular design. Given current guidance on available funding, there is sufficient funding to develop FCS and reset and recapitalize the operating forces. Programmed actions to reset and recap will sustain an adequate average fleet age of key combat systems. During the Extended Planning Period (EPP), the FCS program is projected to begin fielding FCS-equipped BCTs. Given current assumptions and plans, the projected FCS requirements "bow wave" is \$6.5 billion over the EPP (fiscal year 2012–2020), which translates to 2 percent of requirements not resourced in projected funding. The Army assesses the requirements bow wave as manageable financial risk and has sufficient trade space in Army research, development, and acquisition programs to eliminate the bow wave in future programming cycles. Retaining flexibility in planning and a sound and realistic resourcing strategy is an imperative for current readiness as well as for successful transformation. With the indispensable support of Congress and DOD, the Army will continue to adapt its programming to adjust to the urgent priorities of supporting a force at war as well as transform for the future. The future Army modular force will consist of a balanced array of these transforming units and will be poised to meet the demands of our National Security and Defense Strategies in the 21st century.

FUTURE COMBAT SYSTEM

17. Senator MCCAIN. Secretary Bolton and General Cody, according to budget documentation, the Army has invested roughly \$6.0 billion in the FCS to date, including \$2.7 billion authorized in the National Defense Authorization Act for Fiscal Year 2005, and is still debating requirements. In the fiscal year 2006 budget, the Army requested \$3.4 billion for the continued development of the FCS and restructured program to accelerate capabilities to the current force. Can you tell us what capabilities will be fielded in fiscal year 2008 and the scope of fielding?

Mr. BOLTON and General CODY. The Army plans to procure limited quantities of FCS accelerated capabilities, referred to as Spiral Program Manager (PM) UA terminology is now Spin) 1, in the fiscal year 2008 timeframe. These FCS accelerated capabilities consist of the unattended ground sensors, intelligent munitions systems, non-line of sight—launch system, the first installment of the FCS Network that includes an integrated computer system, system of systems common operating environment and partial FCS Battle Command. The Spin (PM UA terminology is now Spin) 1 accelerated capabilities will be issued and installed on selected current force systems of the Evaluation Brigade Combat Team for the test, evaluation, and maturation of these technologies. Once the technologies have proven to meet required op-

erating capability, the Army intends to field these technologies to Brigade Combat Teams starting in fiscal year 2010.

18. Senator MCCAIN. Secretary Bolton, the Joint Tactical Radio System (JTRS) Cluster 1 program has been delayed 20–32 months because of technical and security issues. What is the nature of the issues, and what is the impact of this delay on the fielding the first spiral 1 increment?

Mr. BOLTON. The JTRS Cluster 1 delays are primarily related to three issues: cost/schedule growth due to technology availability, National Security Agency (NSA) security certification/architecture requirements, and Size, Weight, and Power (SWaP). These requirements have necessitated a redesign of the current hardware baseline (as implemented in Cluster 1 Pre-Engineering Development Models (Pre-EDMs).) The Cluster 1 program has instituted an aggressive technology maturation program to deliver items such as antennas and power amplifiers capable of satisfying the broad range of frequencies and throughputs which must be supported. In addition, the program is working very closely with NSA to identify a cost efficient approach for resolving the security issues. The FCS program is working very closely with the JTRS Cluster 1 program to minimize any impacts. The FCS program has purchased multiple Cluster 1 Pre-EDMs for Core program and Spiral (PM UA terminology is now Spin) 1 integration requirements. Cluster 1 currently plans on delivering fully NSA certified EDMs and low-rate initial production (LRIPs) in time to support fielding of FCS Spiral (PM UA terminology is now Spin) 1. Assuming the Cluster 1 early operational assessment and Defense Acquisition Board is successful and Cluster 1 is given the authorization to proceed in summer 2005, the impact to the FCS core program is negligible. As part of FCS's risk mitigation strategy; however, other radio options/alternatives are being considered.

19. Senator MCCAIN. Secretary Bolton and General Cody, the Army is working with OSD to develop an independent cost estimate for the FCS program. On March 14, 2005, a Bloomberg News report indicated that the cost now exceeds \$133 billion and that may be for only 15 units of action. Have you identified all of the program requirements?

Mr. BOLTON and General CODY. All the current Army requirements for FCS that exist in the Joint Requirements Oversight Council Operation Requirements Document (ORD) and the Operation and Organization document have been identified and flowed down to and are the basis for the FCS System of Systems Specifications (SoSS). As a result of this flow down, the SoSS contains all of the FCS requirements for the individual systems/platforms. Since the SoSS requirements are derived directly from the ORD the requirements are directly traceable to specific ORD paragraphs. This traceability and the resulting connectivity assures that all Army requirements in the ORD and organization and operation (O&O) have been covered by the SoSS and that any change in requirements can be quickly and easily flowed into the SoSS.

20. Senator MCCAIN. Secretary Bolton and General Cody, what are the cost drivers for the program?

Mr. BOLTON and General CODY. The acquisition cost of the FCS program includes both research, development, test and evaluation (RDT&E) and procurement. For the FCS program, RDT&E accounts for approximately 25 percent of the acquisition cost and procurement: 75 percent. The cost drivers in RDT&E are Design Engineering (to include software development), Systems Engineering and System Test & Evaluation. As is typically the case with Army acquisition programs, recurring production is the primary cost driver within procurement, accounting for approximately 75 percent of total procurement. Within recurring production, Manned Ground Vehicles account for approximately 60 percent, command, control, communications, computers, intelligence, surveillance, and reconnaissance (C⁴ISR) 25 percent, and the remaining systems (unmanned ground and air vehicles, non-line-of-sight (NLOS-LS), and intelligent munitions system (IMS) 15 percent.

21. Senator MCCAIN. Secretary Bolton and General Cody, do you really believe the program is affordable given your end strength, modularity, and reset requirements?

Mr. BOLTON and General CODY. The Army has developed an integrated, executable plan that provides the means for the Army to transform over time, while continuing to provide modernized land forces for success in the near-, mid-, and long-term future. The plan addresses and balances the complexities of funding a war while simultaneously transforming to the Future Force and sustaining the Current Force. The plan provides 10 new modular maneuver brigades, converts 67 others to modular designs, continues development of FCS, spirals relevant technologies into

the current force, and sustains aging vehicle fleets. Given assumed levels of funding, the Army has built an executable plan.

22. Senator MCCAIN. Secretary Bolton and General Cody, during the 17 months since the milestone B (MS B) to transition FCS into system development and demonstration (SDD), the FCS lead systems integrator (LSI), in conjunction with the Training and Doctrine Command (TRADOC), has conducted numerous engineering trade studies to mature the FCS design concept. Has the Army acted on these trade studies?

Mr. BOLTON and General CODY. Yes, these trade studies have informed the Army. This has supported actions with their results incorporated into the ORD, System of Systems Specification, O&O and Design Concept. There are additional trade studies in progress and as the program proceeds, more trade studies will continue to ensure that quality program decisions are made and that potential impacts on the program and systems are addressed both from technical and operational points of view.

23. Senator MCCAIN. Secretary Bolton and General Cody, what are the outstanding major decisions regarding the survivability and deployability of the FCS platform?

Mr. BOLTON and General CODY. PM UA and the LSI briefed a concept for each of the eight manned ground vehicles (MGV) to TRADOC leadership in November 2004. These concepts are deployable by C-130, but they do not satisfy all of the user's requirements. However, emerging results from initial force effectiveness analysis reflect that the concepts are operationally effective. The outstanding major decisions regarding survivability and deployability of manned ground vehicles are tied directly to Army leadership approval to proceed with these concepts. Concept approval is expected to be received prior to MGV System Functional Review in March 2006.

24. Senator MCCAIN. Secretary Bolton and General Cody, does the Army still have a C-130 transportability requirement for FCS? What is the impact of a C-130 transportability requirement on FCS survivability, lethality, reliability, and maintainability?

Mr. BOLTON and General CODY. Yes, the Army still has a C-130 transport requirement for the FCS-equipped unit of action (UA). The requirement of using a C-130 pushes technology to be smaller and lighter in order to meet requirements such as survivability and lethality. MGVS are projected to meet reliability and maintainability requirements through the FCS program's investment in a robust reliability and component maturation program and by integrating logistics influences up front and throughout the systems engineering process. MGV system-level trades to date have produced a relevant and balanced set of capabilities in a C-130 deployable concept configuration. As the program progresses through the systems engineering process and enters into the design phase, we will continue to assess and better understand the impacts. Emerging results from recent Force Effectiveness (FE) analysis has indicated that the current MGV concepts are operationally effective. Continued FE analysis will enable the Army to further assess and improve upon the MGV design concepts.

25. Senator MCCAIN. Secretary Bolton, originally, the FCS program identified 31 critical technologies, 25 percent of which are at or above technical readiness level (TRL) 6. Now, the restructured program identifies 32 critical technologies, of which 24 percent are at or above TRL 6. What does that say about program risk?

Mr. BOLTON. When the program began, there were 31 Critical Technologies (CTs). Seven (23 percent) of which were at TRL 6. When the program subdivided CTs for better clarity there were some pieces that, although mature, were not yet tested in an "FCS" relevant environment and therefore their resulting TRL was lower, however, if one considers all of the CTs including the subdivided pieces, there are 54 CTs of which 20 (37 percent) are at TRL 6 or higher. From a program risk standpoint, only 5 of the CTs have a high (red) risk rating, 19 of the CTs have a moderate (amber) risk rating and the remaining have low (green) risk rating.

26. Senator MCCAIN. Secretary Bolton, the "Network" is considered the highest priority for FCS program development. Two key complementary programs for FCS are the Warfighter Information Network-Terrestrial (WIN-T) and JTRS, which will provide the "pipes" for the network. Why exactly is the FCS network so critical to the program?

Mr. BOLTON. The FCS Network satisfies voice, data, and video transmission and processing requirements necessary to realize network centric operations. This net-

work includes not only the WIN-T and JTRS “pipes,” but also integrated sensors, vehicular routers, and networked Battle Command software providing a “Network” of sensors, computers, radios, applications, and services to extend the Warfighters ability beyond his/her field of view. Using Beyond Line of Sight systems (unmanned vehicles, sensors, and munitions) extends the warfighters fighting ability beyond today’s engagement distances. The centerpiece of FCS is the Network.

27. Senator MCCAIN. Secretary Bolton, is the network platform dependent?

Mr. BOLTON and General CODY. The network is not platform dependent, it is part of the Army’s overall LandWarNet network. FCS is the DOD’s first step to develop an integrated fighting system rather than traditional efforts to develop a program like a radio or a tank.

28. Senator MCCAIN. Secretary Bolton, are there plans to migrate the FCS network to platforms such as the Abrams tank, Apache Helicopter, and Bradley fighting vehicle?

Mr. BOLTON. The answer is YES! The Army’s Spiral (PM UA terminology is now Spin) Out strategy is designed to migrate the FCS network to platforms such as Bradley, Abrams, and high mobility multi-purpose wheeled vehicles (HMMWVs). The extent of this migration is based on priorities and available funding.

COMMERCIAL ITEM PROCUREMENT STRATEGY

29. Senator MCCAIN. Secretary Bolton, the FCS program uses significant new management practices under the authority of an Other Transaction Agreement (OTA)—with commercial-like qualities. Why are elements of the FCS program being acquired as commercial items?

Mr. BOLTON. Elements of the FCS program are, in fact, commercial in nature, we recognize this in the method used to acquire these elements, at least prospectively. Since the FCS program is still in the SDD phase, we are not yet in the mode of acquiring production hardware or software. It certainly is true that the individual platforms comprised in the FCS family of systems are expected to be military, not commercial, in nature. However, numerous elements of the FCS system of systems either will be commercial in nature or are being developed using commercial-like processes and techniques. Examples would include individual software modules and protocols; it is also expected that some individual hardware platform components and subassemblies will be commercial or modified-commercial in nature.

Under the OTA, authorization is given to acquire SDD requirements, which includes demonstration of prototype hardware and software. The LSI is allowed to use, in some cases, commercial best practices. However, the SDD instrument is not a Federal Acquisition Regulation (FAR) Part 12 commercial item acquisition, nor will the procurement contract now being planned for the balance of SDD take the form of a commercial-item acquisition. The procurement contract will be written in compliance with FAR Part 15.

30. Senator MCCAIN. Secretary Bolton, the FCS program calls for the development and fielding of a sophisticated, mobile, ad hoc network; software requiring 33 million lines of code; a family of light, highly mobile manned vehicles; several varieties of unmanned aerial and ground vehicles; advanced munitions; and highly capable sensors within a brigade-sized organization of 3,000 to 5,000 soldiers. Where may one acquire such items in the FCS program commercially?

Mr. BOLTON. One cannot. Again, the contractual vehicle currently in place is an Other Transaction Agreement for SDD and not a FAR-based commercial contract. The major-item platforms that will constitute the FCS family of systems are military, not commercial, in nature and will be acquired under a FAR Part 15 contractual instrument.

OTHER TRANSACTION AGREEMENTS

31. Senator MCCAIN. Secretary Bolton, according to a report titled Institute for Defense Analyses (IDA) Review of FCS Management, “[t]he Army-Boeing agreement does not anticipate future rounds of competition for FCS systems. . . [n]or does it appear that the current agreement provides the Army access to technical information sufficient to enable future rounds of competition. . .” a situation that the Government would not find itself in if the Army had entered into a FAR Part 15 contract for FCS. Most acquisition experts believe the value of holding such a competition generally produces savings of as much as 25 percent on weapons procurement

programs. Your decision to enter into an OTA limited the Government's ability to conduct a competition and essentially guaranteed a sole source contract to Boeing. Exactly why did you make the decision to use an OTA, rather than a FAR-type contract, as the contract vehicle for FCS when it transitioned to the SDD phase, now valued at more than \$20 billion? Take me through your decisionmaking process here.

Mr. BOLTON. The Army leveraged an existing option from the Defense Advanced Research Project Agency (DARPA) Concept and Technology Development (CTD) OTA. Under that OTA a best value competitive Source Selection was conducted by DARPA with Army participation and the LSI was selected. However, bearing in mind that FCS will include 18 separate platforms plus the network, it remains true that significant competition exists at the first and second tier contract level including 23 highly competitive source selection best value awards made by the LSI for which the Army had review and final approval. These awards were made by the LSI without a single protest. The Army made the decision to use an OTA instead of a FAR based contract because we believed it would provide the flexibility to rapidly deal with technology development and continuous schedule requirement changes which were expected on this program given the original test, development and fielding schedules set by the Army. The OTA, however, included a significant number of FAR/DFARS clauses as well as tailored FAR clauses which we believe provided the safeguards to protect the Army and taxpayers.

We are acquiring sufficient data to support a competitive procurement in the future. Technical data is being loaded into the Distributed Product Description (DPD) which is a subset database being used as part of the Advanced Collaborative Environment (ACE). The primary purpose of the DPD is to provide single source access to authoritative technical product data throughout the FCS program's lifecycle. DPD ties requirements specifications, modeling and simulation, design, and test data together to support the unit of action product elements. Data and Software developed under the OTA with Boeing, necessary to achieve practical application of deliverable items, components and processes shall be delivered to the government.

32. Senator MCCAIN. Secretary Bolton, Dr. Graham, and Mr. Boehm, Other Transaction Agreements have been used for much smaller research or prototype projects, especially those in which the DOD is seeking to engage nontraditional defense contractors that may be adverse to the costs of regulation and red tape associated with government procurement. Historically, OTAs required that the non-governmental party contribute at least 50 percent of the funding. What are the cost-share percentages for the non-governmental parties involved in the FCS Agreement?

Mr. BOLTON and General CODY. This Other Transaction Agreement is a Section 845 Other Transaction, this OTA is for Prototype development and is not based on a cost share relationship (cost sharing is not mandatory). Funding is provided by the Army to execute the OTA.

Dr. GRAHAM. Costs were shared in the initial phases of the FCS program, but are not shared in the current SDD phase. The situation is as follows:

CTD Phase I:

In May 2000, DARPA, in partnership with the Army, awarded cost-sharing OTA agreements to four industry teams for the FCS CTD I:

- "Team Gladiator": Lockheed Martin and TRW [Agreement amount, cost-shared with consortium: \$15,461,499; government share: \$10,000,000]
- TEAM FoCuS Vision Consortium: General Dynamics, Raytheon, United Defense, Northrop Grumman and ITT Industries [Agreement amount, cost-shared with consortium: \$14,000,000; government share: \$10,000,000]
- SAIC [Agreement amount, cost-shared with consortium: \$12,830,470; government share: \$10,000,000]
- Boeing Co., Phantom Works [Agreement amount, cost-shared with consortium: \$23,299,998; government share: \$10,000,000]

CTD Phase II:

In March 2002, DARPA and the Army selected, from the four CTD I competitors, a merged Boeing-SAIC team to act as the LSI for CTD Phase II. This CTD II contract was for \$154 million. (The DARPA-Boeing agreement was a cost-share arrangement with the DARPA cost being \$154 million and the Boeing share being \$86 million.)

During this competition, the Army announced its intent to include an option within the resultant CTD II OTA agreement to permit a sole-source award to the winner for follow-on work in the SDD phase.

System Design and Demonstration:

In May 2003, after a Milestone B review and OSD authority to enter development was granted, the Army awarded a letter contract for System Design and Demonstration to Boeing.

Boeing agreed to act as a Lead Systems Integrator to develop and field a family of systems, networked together into a system of systems, which is to be the core of a new brigade-sized Army organization called an UA. The Agreement arose out of the option contained within the OTA agreement awarded by DARPA in 2002 for performance by Boeing within the CTD phase of the FCS program.

The Army awarded a letter contract to Boeing for the SDD on or about 30 May 2003; a definitive agreement was finalized in December 2003. The Army-Boeing Agreement was also awarded as an Other Transaction as defined in 10 U.S.C. §2371 and Section 845 of the 1994 National Defense Authorization Act (Public Law 103–160), as amended (OTA). The total negotiated amount of the agreement between fiscal year 2003 and fiscal year 2012 is \$14.78 billion.¹

The Army-Boeing Agreement for SDD is a Cost Plus Fixed/Incentive fee-type. The fixed fee is set at 10 percent; the incentive fee is as much as an additional 5 percent.

The Incentive Fee structure is targeted on LSI performance at five program milestones: Preliminary Design Review (0.50 percent), Critical Design Review (0.50 percent), Initial Production Decision #1 (1.75 percent), Initial Production Decision #2 (1.75 percent), and System of System Integration and Verification (0.50 percent).²

Mr. BOEHM. The National Legal and Policy Center obtained its copy of the Future Combat Systems OTA via Freedom of Information Act Request solely to determine whether the agreement contained adequate legal protections to deter waste, fraud, and abuse. Our analyses were largely limited to legal issues associated with the failure of the OTA to include the statutory protections found in standard Department of Defense acquisition contracts and did not cover cost issues.

33. Senator MCCAIN. Secretary Bolton, are the non-governmental parties sharing any of the risk or is the risk significantly on the government?

Mr. BOLTON. The nongovernmental parties are sharing the development risk of the FCS. The LSI concept, which is analogous to having a “general contractor” for a construction project, allows us to delegate overall system-of-systems integration and system development selection, and therefore some of the risk, to the LSI. We have incentivized this through the use of a fee structure that will reward for the efficient integration and delivery of the entire system of systems to the Government.

34. Senator MCCAIN. Mr. Francis, Dr. Graham, and Mr. Boehm, what are your thoughts about the risk associated with the FCS program?

Mr. FRANCIS. FCS is a development of unprecedented complexity for the Army. The Army faces significant challenges in setting requirements, developing systems, financing development, and managing the effort. Even with last year’s restructuring of the program, the FCS is still at significant risk for not delivering planned capability within budgeted resources. This risk stems from the scope of the program’s technical challenges and the low level of knowledge demonstrated at this point. The current schedule allows 9½ years from development start to the production decision. FCS is developing multiple interdependent systems and a network within a period of time that the DOD typically needs to develop a single advanced system. The FCS has demonstrated a level of knowledge far below that suggested by best practices or DOD policy. Nearly 2 years after program launch and about \$4.6 billion invested to date, requirements are not firm and only 1 of over 50 technologies are mature-activities that should have been done before the start of system development and demonstration. If everything goes as planned, the program will attain the level of knowledge in 2008 that it should have had when it started in 2003. But things are not going as planned. Progress in critical areas, such as the network, software, and requirements, has been slower than planned. Proceeding with such low levels of knowledge makes it likely that FCS will encounter more problems late in development, when they are costly to correct.

The relatively immature state of program knowledge at this point does not provide a solid basis for making a good cost estimate. Independent estimates should provide more information but are not yet completed. If the cost estimate for FCS is no more accurate than traditional estimates, the impact of cost growth could be dire, given the program’s magnitude. At this point, the FCS provides a concept that has been laid out in some detail, an architecture or framework for integrating indi-

¹ Article VI, Obligation and Incremental Funding section of the Agreement.

² Article VII Fee section of the Agreement.

vidual capabilities, and an investment strategy for how to acquire those capabilities. It is not yet a good fit as an acquisition program. If FCS-like capabilities are to be made acquirable for which the Army has made a compelling case, then different approaches for FCS warrant consideration because they offer building higher levels of knowledge in advance of investment decisions and thus lower risk.

Dr. GRAHAM. It was understood from the beginning of the FCS program that its execution would pose unprecedented challenges. The FCS program has taken on a number of very ambitious technical challenges in an environment of an incompletely defined Operational Concept and Operational Requirements document:

- It is technically ambitious (GAO reported 75 percent of FCS technologies are currently below TRL 6).³
- It is founded on the development of Joint Operational Concepts for interdependent Joint ISR and Joint fires, but the Joint network enablers are lacking.
- It entails a high degree of technical integration across many components, including complementary systems still under development.
- It involves the full spectrum of Army Doctrine, Organizations, Training, Leading Development, Material, Personnel, and Facilities (DOTLMPF).
- It touches on the future of every branch of the Army.
- And, it remains, even after the current restructuring, on an aggressive, schedule driven development path.

Risk management at the corporate Army level is needed to address FCS risk factors that are beyond the control of the FCS program, or are of a scale that could force significant course corrections in the execution strategy for the program or that could force a rethinking of the overall design of the FCS-equipped Unit of Action.

The Army's restructuring of the FCS program in 2004 represents a good example of the kind of corporate review that is needed. It is our view that—given the complexity, scale, and uncertainties associated with FCS development—such reviews, along with appropriate adjustments, should be considered a normal, periodic activity for the FCS program. That restructuring provided the program with more time and money, but it did not eliminate the fundamental challenges the program will need to overcome.

The IDA study advocated development of a systematic Army corporate risk management framework that would institutionalize the kind of risk management assessment that was undertaken in the 2004 restructuring of FCS, and ensure reassessments are performed periodically as a routine element of FCS management. Such a framework would enable the Army's senior leadership to take stock of emerging FCS program realities and outline contingency "success" options for realigning program plans and resources. With such a strategic management mechanism in place, the corporate Army should be able to view FCS from a strategic perspective. Left to its own devices without such a structure, and as outside decisions that affect it are made, the FCS program may produce systems within its budget that may or may not provide the best capability for the Army as a whole.

With adequate preparation, adverse developments or external events that invalidate current program plans or assumptions need not preclude successful FCS outcomes, albeit outcomes that may differ significantly from the Army's initial plans. For example, contingency options might include deferral of the some platforms (the realignment features some of this); other options might entail a relatively greater focus on the fielding of incrementally improved networks and essential ISR systems, independent of platform developments. Yet other options might entail a focus on spiraling out limited FCS network capabilities to current units and focused experimentation therein to refine network functional requirements, while continuing R&D on elements of the program that deserve a longer development timeline. In each case, if managed effectively, program outcomes are possible that could substantially improve the Army's fielded capability, and hence be viewed as a success.

Examples of Strategic Risks: Adverse developments in any of a number of areas could cause a significant setback to the FCS program. The IDA study identified several major risks that the Army should carefully monitor and address through the proposed strategic risk management framework:

- Emerging software cost and schedule growth.
- Uncertainties in the assumed FCS mobile ad hoc network's capabilities, including information throughput, latency, scalability, and Joint connectivity.

³William Graveline, "GAO Briefing to the FCS Quarterly Management Review in West Point, NY," 20 April, 2004.

- Uncertainties in the ability of FCS vehicles to simultaneously meet weight, lethality, survivability, transportability, and maintainability targets.
- External factors, including program cancellations (Comanche) and the lack of a framework for developing adequate joint operational concepts and architectures.
- New requirements for spiraling out advanced capabilities to current forces, including FCS capabilities and concepts.
- Army budgets and affordability constraints.
- The demands of the global war on terrorism.

Two specific examples were provided in the IDA Report to illustrate the potential application and value of the proposed corporate Army strategic risk management framework:

Risk Management Scenario 1: Software Cost and Schedule. Increasing complexity of software integration, coupled with lower than expected LOC/hr productivity, could cause the software development cost estimate to rise from \$5 billion to over \$9 billion. Forecast software maintenance costs could grow accordingly.

Software will account for well over half of the FCS development costs. There was a considerable range of uncertainty in the initial estimates of FCS software costs, and software historically has been a source of cost and schedule growth.

Our preliminary review of the FCS software development effort finds leading indicators of significant cost and schedule growth to come. The initial program estimate was for a \$5 billion cost for software in System Design and Development. The comparable OSD Cost Analysis and Improvement Group estimate was \$8 billion. An IDA update based on the program's April 2004 estimate of 15.8 million Effective Software Lines of Code (ESLOCs) yields a revised cost estimate approaching \$9 billion in fiscal year 2004 constant dollars. The historic productivity norms for software development indicate programs average about 65 percent the level of productivity assumed in the FCS program.

Historical precedents also indicate that software development challenges will only grow as the FCS program progresses. IDA's studies of other program development efforts have shown that programs nearly always experience software requirements growth; software integration always proves to be more difficult than planned; productivity is less than projected; the experience and availability of people are below assumed levels; and the conversion and reuse of COTS software requires more effort than anticipated. Given the massive scope and complexity of the FCS development effort, it would be very surprising if these historical norms do not hold true here, as well.

Indeed, at this early stage of the program, FCS is beginning to experience software build schedule slips. For example, almost half of the work content planned for Build 1 (0.7 million out of 1.6 million ESLOCs) of FCS software was recently pushed to Build 2. (Boeing notes that SoSCOE build 1 software development is on schedule, and that no SoSCOE software was moved between build 1 and build 2.) Even prior to the recent restructuring of FCS, the start of Build 3 had been delayed from February 2004 until October 2004. These data suggest that the FCS program has before it a substantial risk of software cost growth on the order of \$3 billion to \$4 billion over the development phase of the program. Such cost growth, accompanied by commensurate schedule delays, could require a significant realignment of the FCS development plan, even given the recent program realignment.

Risk Management Scenario 2: Network Performance. Developmental and operational tests of the mobile ad hoc network performance, including the performance of JTRS radios and the WIN-T network development, could reveal that available designs will not provide the desired information throughput, scaling, or low latency, as well as seamlessly integrate with other networks, GIG interfaces, and ISR and joint weapons systems operated within the Joint battlespace.

Many of the FCS technical challenges entail uncertainties in the ability to develop relatively mature technologies on a schedule commensurate with the FCS development schedule, but the development of the FCS network represents a technological challenge for which the underlying principles are not well understood. A mobile ad hoc network-of-networks has never been demonstrated on the scale envisioned for FCS. Predicting the performance of such a network remains an unsolved problem in basic research, and there is a significant probability that it will not be possible to develop a network of the assumed throughput and dependability on the FCS development schedule.

The central importance of the network to the FCS concept of operations and the incomplete understanding of the principles clearly make the risks associated with that development strategic in nature—risks that the corporate Army must be able to assess and manage. It is essential that the progress, trends, and issues are clearly understood at each step in the development cycle, and that appropriate contingency plans are in place. For example, accepting, at least in the near-term, a somewhat more evolutionary approach for integrating Joint ISR, command and control, and weaponry, might accommodate an unfavorable network development scenario.

Mr. BOEHM. I share the views of Paul L. Francis of the Government Accountability Office with respect to the technological and programmatic risk of the FCS program. Mr. Francis had previously reported to Congress that, “FCS is at significant risk for not delivering required capability within budgeted resources.” The National Legal and Policy Center spent months assessing the legal pitfalls for the Department of Defense in using an OTA for the FCS program. Our conclusion was that an OTA greatly increased the risk that the program would fail to stay within its budget and meet its deadlines. OTAs were approved by Congress for much smaller research projects and are wholly inappropriate for a multi-billion dollar project as ambitious as the FCS program. By exempting defense contractors from normal acquisition rules, limiting Defense Department oversight, and greatly limiting legal options for the Defense Department when difficulties arise, an OTA is arguably the worst way to structure such a major undertaking.

35. Senator MCCAIN. Secretary Bolton, a former Deputy of the FCS program at the Defense Advanced Research Projects Agency (DARPA) and Army Deputy Director, Future Force Directorate briefed Senate Armed Services Committee (SASC) staff last week that the compelling reason to use an OTA for FCS was based on a poll taken of the prime vendors of the FCS program at the time (i.e., Boeing, Lockheed Martin, TRW, General Dynamics, Raytheon, United Defense, Honeywell, Textron, Northrop-Grumman, BAE, ITT Industries, and SAIC). Eighty-five percent of the respondents of the poll wanted an OTA with commercial-like clauses. Is it the Army's position in the development and acquisition of major acquisition programs that they poll industry to determine what contract vehicle to use to provide the most benefits to industry at a disadvantage to the taxpayer?

Mr. BOLTON. For SDD, the Army took no poll. We determined the contract vehicle, the OTA, plus certain FAR clauses protect our interest.

A detailed analysis was conducted by the Army FCS Program Office to determine the best acquisition strategy and contracting approach in order to meet the overall program mission and requirements. This analysis is reflected in the approved Program Acquisition Strategy Report and Business Decision Document respectively.

CONTRACT CLAUSES AND PROTECTIONS

36. Senator MCCAIN. Secretary Bolton, the Army Deputy General Counsel for Acquisition told the SASC last week that he could not think of a single reason why the Procurement Integrity Act (PIA) should not be included in the FCS Other Transaction Agreement. As the Acquisition Contracting Executive—the Army's top acquisition executive—why did you not include the PIA in the FCS pact?

Mr. BOLTON. On April 26, 2005, the Army added FAR clauses implementing the Procurement Integrity Act, Cost Accounting Standards, and Truth in Negotiations Act to the current OTA. These clauses apply to all future actions under the current agreement until the transition to a FAR-based contract is complete.

37. Senator MCCAIN. Secretary Bolton, regarding the FCS OTA, the Army's Business Decision Document of March 2003 states: “Clauses, that are typically barriers to the participation of nontraditional defense contractors (e.g. Cost Accounting Standards (CAS), Truth In Negotiations Act (TINA), intellectual property, audit and accounting requirements, etc.) have either been eliminated or significantly tailored. . . .” The FCS contract has many traditional defense contractors whose participation in FCS could only be obtained by traditional clauses governing cost accounting standards, and audit and accountability requirements between the LSI and these major contractors. Why did the LSI include traditional FAR contracts with its major subcontractors yet the Army did not include these protections in a contract with the LSI? Can you think of a reason why CAS, TINA, intellectual property, audit and accounting requirements, etc. should not apply to the FCS program?

Mr. BOLTON. Defense contractors, to the best of our knowledge, do not use OTAs. They use contract mechanisms modeled after FAR for their subcontractors.

The CAS standards are fully covered in the OTA. However, to answer the direct question, the primary advantage of not including the FAR-based CAS clauses in the OTA was that this action removed a potential flow-down requirement that many nontraditional defense contractors find onerous. It is for this reason that the OTA requires CAS-compliant accounting where a CAS-compliant system already is in place, but permits a system based on generally accepted accounting principles (GAAP) where a GAAP system is the one in place. This means that a potential commercial subcontractor would be able to make use of its existing GAAP system, and would not be faced with the duty to convert to a CAS-compliant system in order to participate as a subcontractor during FCS development and demonstration. There is no "exclusion of cost accountability" in the OTA per se: the OTA provides for government audit of records, and defines cost allowability per the FAR and DFARS contract cost principles.

CAS, Intellectual Property, and Audit and Accounting requirements do apply to the current FCS OTA. The Defense Contract Audit Agency (DCAA) and Defense Contract Management Agency (DCMA) and the Army Grants Officer have full access to the LSI's cost data, as does the Army. In regard to the TINA requirement, it was not included because of the time and additional cost anticipated to do the TINA sweeps and certifications at the prime contractor and at each subcontractor level. The Army, however, did conduct a detailed negotiation with full access to all contractor/subcontractor cost data necessary to determine the contractor's proposal fair and reasonable. Additionally TINA certifications are not required for the competitive subcontracts placed by the LSI; this would be no different even if the Army had awarded a FAR procurement contract rather than an OTA, for the SDD phase.

38. Senator MCCAIN. Secretary Bolton, two DOD Inspector General Audit Reports, one in 1999 and the other in 2002, produced several key findings regarding the Department's use of OTAs. It appears that DOD has not realized the type of benefits that were the intent of Congress when they authorized this legislation for small developmental programs. Can you describe why the Army, DOD, and Congress would continue to spend critical taxpayers dollars under an OTA that would leave the government vulnerable to waste, fraud, and abuse and abuse the confidence of the taxpayers that we are spending their money wisely? What steps have you taken to try to protect the government and the taxpayer in this agreement, in the absence of the traditional contract provisions that are not included in the agreement?

Mr. BOLTON. The Army's OTA with the LSI includes a significant number of FAR and DFARS clauses which do protect the taxpayer. Additionally, a significant number of FAR and DFARS clauses were tailored to fit the particular requirements relative to this effort and included as Articles under the OTA. Again, DCAA and DCMA and the Army grants officer have full access to all cost data contained in the LSI's cost proposals. Additionally the independently conducted IDA report confirmed that the OTA had included the necessary protections making it similar to a FAR contract in regard to the protections afforded to the government.

"NON-TRADITIONAL" CONTRACTORS

39. Senator MCCAIN. Secretary Bolton and Mr. Francis, the Army's Business Decision Document of March 2003 states that the FCS OTA "continues the use of non-traditional contractors in significant roles and provides for innovative business managements or structures that would not be feasible or appropriate under a FAR-based contract or other Federal procurement." Furthermore, it states that the decision to use the OTA was based "on significant participation of non-traditional defense contractors . . . and that two nontraditional defense contractors, Strategic Perspectives, Inc.(SPI) and Parametric Technology Corporation's participation is significant and they will continue to play a significant role in the SDD phase." But each of these contractors is exceedingly small. How does a contractor that has one employee, like SPI, play a significant role in FCS contract that is valued at nearly \$133 billion?

Mr. BOLTON. The Business Decision Document anticipated significant participation of non-traditional defense contractors during SDD. To date, only a few non-traditional defense subcontractors are in place with the LSI but this may increase as additional second and third tier subcontracts are awarded. The non-traditional defense subcontractors are all performing Engineering and Technical services at various levels: 3D Research (\$5.7 million), Huntsville, Alabama; Embedded Plus Engineering (\$0.4 million), Tempe, Arizona; Northrop Mission Systems (\$121 million), San Diego, California; and TechFinity, Incorporated (\$0.2 million), Tarzana, California.

Mr. FRANCIS. The requirements for the use of nontraditional defense contractors in prototype projects are found in the National Defense Act for Fiscal Year 1994, P.L. 103-160, section 845, as amended (subsequently codified at 10 U.S. C. 2371 note). There, the act states:

The Secretary of Defense shall ensure that no official of an agency enters into a transaction (other than a contract, grant or cooperative agreement) for a prototype project under the authority of this section unless

(A) there is at least one nontraditional defense contractor participating to a significant extent in the prototype project; or

(B) no nontraditional defense contractor is participating to a significant extent in the prototype project, but at least one of the following circumstances exists:

I. At least one third of the total cost of the prototype project is to be paid out of funds provided by parties to the transaction other than the Federal Government.

II. The senior procurement executive for the agency . . . determines in writing that exceptional circumstances justify the use of a transaction that provides for innovative business arrangements or structures that would not be feasible or appropriate under a contract.

Since the act does not define what is meant by participation to a "significant extent" by a nontraditional defense contractor, DOD guidance defines it in terms of the significance of the contribution by that contractor, for example as a key participant in the program. The guidance states:

Examples of what might be considered a significant contribution include supplying new key technology or products, accomplishing a significant amount of the effort, or in some other way causing a material reduction in the cost or schedule or increase in the performance.¹

The rationale the Army uses for the FCS OTA is based, in part, on participation by nontraditional defense contractors. As a result of the OTA, two of these nontraditional contractors—Strategic Perspectives, Inc. and Parametric Technology Corporation—were carried over from the concept and technology development phase of the program to assist the LSI with its responsibilities in system development and demonstration. The Army considers the expertise that these companies bring to the program and the importance of the projects they are working on as the significant contribution that justifies use of the OTA.

According to the Army there are several nontraditional contractors working in the program at various levels. However, the bulk of the first tier subcontracts have gone to traditional defense contractors.

40. Senator MCCAIN. Secretary Bolton, what metric are you using to define the significant participation of a nontraditional defense contractor in the FCS program?

Mr. BOLTON. The Army and the LSI are using the "Non-Traditional Defense Contractor" definition as contained in the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001, Section 803. The Army's Business Decision Document anticipated attracting nontraditional defense contractors. Early in the SDD program, the LSI has identified and placed subcontracts with four nontraditional defense contractors. The expectation was that this would increase as additional second and third tier subcontracts were awarded. The nontraditional defense subcontracts are all performing Engineering and Technical services at various levels: 3D Research (\$5.7 million), Huntsville, Alabama; Embedded Plus Engineering (\$0.4 million), Tempe, Arizona; Northrop Mission Systems (\$121 million), San Diego, California; and TechFinity, Incorporated (\$0.2 million), Tarzana, California.

41. Senator MCCAIN. Mr. Francis and Mr. Boehm, what metric should the Army be using?

Mr. FRANCIS. According to the Army significant participation by the non-traditional contractors is determined by the value of the contribution they are making to the program, but not necessarily in financial terms. This is in accordance with DOD guidance on the use of non-traditional contractors in other transactions cited above.

¹ Other Transactions (01) Guide for Prototype Projects, Under Secretary of Defense for Acquisition, Technology, and Logistics (January 2001), 11.

While GAO has not evaluated this, our previous work² recommended to the Secretary of Defense that DOD develop metrics to measure the quality and significance of the involvement by non-traditional companies, which justifies use of other transactions. DOD has not yet done this.

Mr. BOEHM. While determining exactly what metric should be used by the Army with respect to defining significant participation of nontraditional defense contractors in the FCS program is beyond my area of expertise, I believe it is abundantly clear that the FCS failed to meet anything remotely close to a reasonable standard. Moreover, Acting Secretary of the Army Brownlee appears to agree with his statement in the Institute for Defense Analysis Aug. 2004 study when he stated, "One intended benefit of OT authority—attracting nontraditional suppliers—has not been realized to date; the initial round of subcontracts has gone almost exclusively to traditional defense suppliers." (see: Review of FCS Management Issues, Final Report to Acting Secretary of the Army Hon. R.L. Brownlee, August 17, 2004, p. ES-3)

ETHICS PROGRAMS

42. Senator MCCAIN. Secretary Bolton, a report, IDA Review of FCS Management, is critical of the Army's FCS management approach in that it intermixes government and industry personnel within Integrated Product Teams and relies heavily on its "one-team" partners—Boeing. The IDA report states "[t]he Army needs to look after its own interests on the FCS program and not expect industry participants—no matter how well intentioned—to act independently of their explicit contractual obligations and financial interests. . . the inherent tension in the roles of Army participants—teammate vs. customer representative, and in the roles of industry representatives—teammate vs. representative of corporate management and stockholders." Has this critical IDA recommendation been implemented? If not, why not?

Mr. BOLTON. The reference of the IDA report left out a portion of the quote describing the approach which identifies, "The Army's management approach intermixes government and industry experts within Integrated Product Teams (IPTs) and relies heavily on its "one-team" partners and Boeing's management information system for information and analyses." It goes on to further acknowledge that this approach does have advantages. The IDA report suggests additional Army reviews and coordination of management assessments leading to possibly establishing additional Army offices. We believe the Army's overall concept for FCS of using the LSI and one-team approach with the use of IPTs has significant advantages as well as disadvantages. Although the Army is looking at organizational restructuring in this area, we believe the review/management responsibilities given to the Assistant Secretary of the Army (Acquisitions, Logistics, and Technology)(ASA (ALT)) and the current Army organizational structure is sufficient to help manage the program's interface with the LSI and other industry partners.

IMPACT OF TERMINATING/RESTRUCTURING THE EXISTING AGREEMENT

43. Senator MCCAIN. Secretary Bolton, if Congress were to require you to terminate the existing agreement and proceed with the program under a traditional contract, what impact would that have on your cost and schedule?

Mr. BOLTON. If the existing agreement were terminated, the LSI would be entitled to those allowable costs associated with any administrative closeout activity (but such costs could not be greater than current funding obligated to date); and those costs covered by the "termination" article of the OTA. We would expect to be able to overcome most if not all of the costs envisioned by the OTA's termination article; however, since under this scenario the ending of the OTA would merely represent the passage of the program to a successor instrument, rather than a total cessation of work. That is, we would try to mitigate all cost and schedule impacts by doing some type of conversion of the OTA to a FAR-based contract, understanding that this would take an appropriate amount of time to plan, execute, and complete.

44. Senator MCCAIN. Secretary Bolton, what would be the costs in dollars and schedule if the Army was directed to include those Federal Acquisition Regulation clauses we believe would protect the government?

Mr. BOLTON. We are currently assessing the cost and schedule impacts to include the FAR clauses that have been identified with the LSI. In the event the Army converts the OTA to a FAR-based contract, clauses such as the TINA, PIA, and CAS

² GAO, Acquisition Reform: DOD's Guidance on Using Section 845 Agreements Could Be Improved, GAO/NSIAD-00-33 (Washington, DC: April 2000).

FAR will initially be included in the OTA by modification in less than 30 days, with no additional cost to add them.

COST ACCOUNTING STANDARDS

45. Senator MCCAIN. Secretary Bolton, I understand that the Army waived the requirement for the application of cost accounting standards even though the Army, through the LSI, is contracting with a number of traditional government contractors. What are the advantages and disadvantages to excluding the clause for cost accountability?

Mr. BOLTON. The CAS are fully covered in the OTA. The primary advantage of not including the FAR-based CAS clauses in the OTA was that this action removed a potential flow-down requirement that many nontraditional defense contractors find onerous. It is for this reason that the OTA requires CAS-compliant accounting where a CAS-compliant system already is in place, but permits a system based on GAAP where a GAAP system is the one in place. This means that a potential commercial subcontractor would be able to make use of its existing GAAP system, and would not be faced with the duty to convert to a CAS-compliant system in order to participate as a subcontractor during FCS development and demonstration. There is no "exclusion of cost accountability" in the OTA per se: the OTA provides for government audit of records, and defines cost allow ability per the FAR and DFARS contract cost principles.

DATA RIGHTS

46. Senator MCCAIN. Secretary Bolton, in March 2003, the Army approved Boeing's recommendation to assign to it the \$1.3 billion development effort for the FCS Distributed Management System. There is some question regarding the data rights of the software being developed in the FCS program. From Army documentation, it appears that Boeing owns the FCS software and that the Army owns the rights for unlimited use of the software. Boeing is developing the System-of-System Common Operating Environment (SOSCOE). It appears that the SOSCOE is new software developed only with government funds, yet I understand that Boeing owns the software and the Army has unlimited use of this software. Is this true? If so, why would the Army give up the ownership of software for which the government is funding the development?

Mr. BOLTON. The government data rights and software rights under this OTA are essentially the same as we would receive under a FAR-based contract, except that the government has more ability to control introduction of limited rights data and restricted rights software than would be possible in a FAR-based contract.

47. Senator MCCAIN. Secretary Bolton, if the Army wants to migrate the SOSCOE to other platforms, such as Abrams tanks and Bradley fighting vehicles, would the SOSCOE be provided to the contractors who make these platforms as part of government furnished equipment or would a fee have to be paid to Boeing for the use of SOSCOE?

Mr. BOLTON. PM UA will exercise Government Purpose Rights (GPR) through a SOSCOE distribution agreement between PM UA and receiving government organizations and their contractors. Boeing is not a party to this agreement and no fee will be paid to Boeing for license costs associated with software to which the government has purchased government purpose rights. This distribution can, at PM UA's discretion, include source code and the agreement mandates that any receiving contractor provide any changes made back to PM UA under GPR to ensure interoperability and configuration management. These changes are owned by the company making the change, not Boeing, again with the Army receiving full GPR.

Because of the large number of commercial, off-the-shelf (COTS) and open source components in SOSCOE, receiving organizations or contractors will be given the option of signing a license agreement through Boeing that consolidates the individual license requirements of the various COTS and open source components. If they choose not to exercise this option, they will be required to separately negotiate required licenses to ensure that the receiving organization complies with the license requirements of all included components.

COMPETITION

48. Senator MCCAIN. Dr. Graham, IDA's August 2004 report states, "At the LSI-level, the OTA agreement laid the groundwork for Boeing to continue as the LSI

through initial production and into full rate production.” It goes on to say, “At the subcontractor level, current FCS program plans do not position the Army to conduct future competitions at the major end-item level. . . .” In your opinion, is it prudent for the Army to position itself to depend on an LSI through the life cycle of the program?

Dr. GRAHAM. The Army established a Lead System Integrator (LSI) for the FCS program in order to capitalize on industry expertise in structuring, integrating, and managing complex development programs. A conventional prime contractor develops and builds what it can and subcontracts out work that it cannot do in-house. An LSI, on the other hand, is a prime contractor that is established primarily for system engineering, system integration, system planning, and control of the family of systems production.⁴ In general, the LSI concept has worked satisfactorily in other contexts, and we have discovered nothing to indicate such an approach cannot work for the FCS program.

The Boeing-SAIC team was selected to act as the LSI because of its experience in technical management and program integration. Boeing has considerable experience in integrating other large complex programs, including the NASA International Space Station since 1997, and the Missile Defense Agency (MDA) Ground-Based Mid-Course Defense (GMD) program since 1998. Both agencies told the IDA review team that Boeing is technically very good and is doing an acceptable job in executing their programs.

The decision to partner with an industry LSI creates some special new management challenges. The LSI is intended to act as a neutral party in assessing program tradeoffs and in offering advice. Thus, in theory, the LSI should not have a financial stake in developing and building the individual elements of the system; rather, it should recruit and oversee the best of industry. In the case of FCS, Boeing has a large financial stake in the future of the program, thus creating an inherent tension in Boeing’s roles and responsibilities.

Careful management of the government-industry relationships will be particularly important in the coming months as key design decisions are made on the program. The SDD new program plan calls for major design decisions to be made within the next 16 months, decisions that will define the contract deliverables and work shares for the remainder of SDD. Looking to the future production phase, moreover, there are tens of billions of dollars at stake in upcoming decisions regarding the composition of FCS units to be fielded beginning in 2014, as well as the capabilities that will be assigned to each element of FCS. Industry members of the “One-team” will face substantial pressures to vie for outcomes favorable to their stockholders.

The flexibility built into the FCS program complicates the challenge of reconciling internal competitive pressures with corporate Army needs. The DOD customarily has relied on requirements documents to serve as the external benchmarks to discipline program development activities, but in this case these documents are being revised in parallel with ongoing FCS development activities. Thus, although FCS has an approved ORD and tentative Key Performance Parameters (KPPs), both the ORD, KPP, and even the FCS O&O remain in development in parallel with FCS program development.

The need for the government to balance its priorities against corporate pressures is normal in any acquisition program, but these challenges are magnified in FCS. The Army needs to develop its own corporate perspective on FCS matters so that it can understand and manage the internal competitive pressures, while keeping the program focused on delivering a coherent set of capabilities for the Unit of Action.

49. Senator MCCAIN. Secretary Bolton, IDA’s August 2004 report states, “At the LSI-level, the OTA agreement laid the groundwork for Boeing to continue as the LSI through initial production and into full rate production.” It goes on to say, “At the subcontractor level, current FCS program plans do not position the Army to conduct future competitions at the major end-item level. . . .” Does the Army intend to compete FCS systems or components as the program transitions to production?

Mr. BOLTON. Yes. The current FCS Acquisition Strategy anticipates using the LSI approach for Initial Production and Fielding of the Army’s first two unit of action brigades. This is consistent with the LSI concept of placing full SoS integration and testing responsibility and all logistical support under one defense contractor. Under SDD, the LSI will provide prototypes for SoS testing to establish that the individual systems work in a SoS environment to meet the required performance capabilities. In order to maintain the SoS performance capabilities demonstrated and minimize

⁴ Acting Under Secretary of Defense (Acquisition, Technology, and Logistics) letter report on DOD’s use of Lead Systems Integrators, 31 March 2004. DOD indicates that an LSI is legally equivalent to a prime contractor.

overall program schedule risk, initial LRIP requirements will be awarded to the LSI and its one-team partners. Follow on production for additional quantities of individual FCS platforms is planned to be solicited using full and open competition, and the breakout of FCS subsystems or components is contemplated as well, as the program transitions to stable production designs and full rate production quantities. The Army owns the data rights it needs in order to execute full-rate production contracts on a competitive basis.

FUTURE COMBAT SYSTEM RESTRUCTURE

50. Senator MCCAIN. Secretary Bolton, both the Government Accountability Office and the IDA have issued reports on the FCS program. Have the study recommendations influenced the FCS restructure?

Mr. BOLTON. Yes. The GAO has made a number of recommendations many of which have had a direct impact on the program transition (restructure). The GAO is invited and is an active participant in the FCS program reviews. The same can be said for the IDA evaluation, although the Army and the program office were already implementing several suggestions made by the IDA review prior to completion of the GAO report.

QUESTIONS SUBMITTED BY SENATOR JAMES M. INHOFE

FUTURE COMBAT SYSTEMS

51. Senator INHOFE. Secretary Bolton, given what you know today, would you change the approach the Service has embarked on in the acquisition of FCS, and is it true that we are already looking at ways to spiral some of these advance technologies into the current force?

Mr. BOLTON. At the time we felt the current plan was the best available option and we probably would still make that determination. The Army included a requirement to Spiral (PM UA terminology is now Spin) out available FCS technologies to the Current Force. The Spiral (PM UA terminology is now Spin) Outs incrementally add FCS capability every 2 years. In the fiscal year 2008 timeframe, the Army plans to procure limited quantities of FCS accelerated capabilities, referred to as Spiral (PM UA terminology is now Spin) Out 1. These FCS accelerated capabilities consist of the unattended ground sensors, intelligent munitions systems, non-line of sight-launch system, the first installment of the future network capabilities that include an integrated computer system, system of systems common operating environment and partial FCS Battle Command. The Spiral (PM UA terminology is now Spin) Out 1 accelerated capabilities will be issued and installed on selected Current Force systems of the Evaluation Brigade Combat Team for the test, evaluation, and maturation of these technologies.

52. Senator INHOFE. General Cody, what are some of these spirals, and how will they affect our soldiers today and in the near future?

General CODY. The Army remains committed to developing the future capabilities required to wage warfare in the next decade and beyond. As operations in Iraq and Afghanistan illustrate, technological and training superiority is a critical ingredient to battlefield success and must be maintained into the future. The Army will focus development efforts on identifying promising FCS technologies and "spinning" these enhanced capabilities into the Current Force, so that soldiers continue to have technological overmatch. The definition of a "Spin" is a product or capability set developed through one or more integration phases that can be fielded to the Current Force. As capabilities are spun into the Current Force, the Current Force will inform the Future Force. FCS as a system of systems continues maturing technologies to address the challenges of the future operational environment for combatant commanders and warfighters.

The modular BCTs will enjoy the benefit of FCS core systems and capabilities along with complementary systems through four planned spin outs of technology into the Current Force. Beginning in 2008 and continuing through 2014. Spin 1 includes development of the unmanned ground system (UGS), IMS, and the NLOS-LS prototypes that will be used in the Evaluation Brigade Combat Team (E-BCT) for testing and experimentation. Following successful Spin Out capability testing, the lead Program Executive Office will be responsible for initiation of LRIP. This process will be repeated for Spins 2, 3, and 4. The Army plans to Spin FCS technologies at a rate of 6 Brigades per year.

The operational capabilities brought forward to the Current Force by the “spinning out” FCS technologies include enhanced intelligence surveillance and reconnaissance capabilities utilizing multiple UGS variants, and increased lethality and survivability by adding the NLOS-LS and IMS. The FCS UGS program consists of tactical and urban sensors: Tactical-UGS (TUGS), which includes ISR-UGS and chemical, biological, radiological and nuclear (CBRN)-UGS; Urban-UGS (U-UGS), also known as Urban Military Operations in Urban Terrain (MOUT) Advanced Sensor System these provide soldiers with enhanced situational awareness in both urban and open environments. The NLOS-LS consists of a family of missiles and a highly deployable, platform-independent container launch unit (C/LU) with self-contained tactical fire control electronics and software for remote and unmanned operations, linking into the network, this provides unprecedented access to networked fires. The IMS is an unattended munitions system providing both offensive battlespace shaping and defensive force protection capabilities. This system provides on-off capabilities which meet the requirements of the National Landmine Policy.

53. Senator INHOFE. General Cody, the FCS program is well into its second year of execution. It recently underwent a complete restructure to reduce risk and to field a fully-capable unit of action in 2014 instead of 2010. The fiscal year 2006 budget was reduced significantly from what was projected last year. Does this restructure signal problems with the program, since the program is only about 5 percent along in its maturity?

General CODY. No, the FCS program was generally performing within its cost and schedule performance metrics prior to the restructure. The intent of the restructure was twofold. First, it reduced developmental risk by allowing more time for technology maturation and the inclusion of additional experimentation. More importantly, the restructure allowed for the Spiraling (PM UA terminology is now Spin) out of selected FCS technologies to the current force. In essence, this will bring some of the FCS capabilities to the Army sooner than originally planned. The fact that the Army has elected to accelerate some aspects of the FCS program is more due to the success of the program than problems with it.

54. Senator INHOFE. General Cody, is the FCS being sacrificed to pay for other Army bills?

General CODY. No. FCS will use evolutionary acquisition to develop, field, and upgrade FCS throughout its lifecycle. On July 2, 2004, the Army announced plans to accelerate the delivery of selected Future Combat Systems to the Current Force. The plan expands the scope of the program’s SDD phase by adding four discrete “spin outs” of capabilities at 2-year increments for the Current Forces. Spin Out 1 will begin fielding in fiscal year 2008 and consist of prototypes fielded to the E-BCT for their evaluation and feedback. Following successful evaluation, production and fielding of Spin Out 11 will commence to Current Force units in 2010. This process will be repeated for each successive spiral. By 2014, the Army force structure will include one UA equipped with all 18 + 1 FCS core systems and additional Modular Units of Action with embedded FCS capability. This is the centerpiece of this adjustment: providing the Current Force with FCS capability sooner rather than later.

55. Senator INHOFE. General Cody, what are the benefits to the restructure?

General CODY. The benefits of the restructure are twofold. First, it reduces developmental risk by allowing more time for technology maturation and the inclusion of additional experimentation. More importantly, the restructure allows for the Spiraling (PM UA terminology is now Spin) out of selected FCS technologies to the current force. In essence, this brings some of the FCS capabilities to the Army sooner than originally planned. The fact that the Army has elected to accelerate some aspects of the FCS program is more due to the success of the program than problems with it.

56. Senator INHOFE. General Cody, the Army has several fund-consuming operations and programs that must compete for your priorities under this fiscally-restrained budget request for 2006, those being: the Iraq War, the RESET program, restructuring the force for modularity, “ReCap”-ing the current force systems, and the biggest weapon system in the Army’s budget—the FCS. How do you plan to work out these priorities together since we usually get only one chance to get things right the first time? How can this committee assist you in reaching your goals for fiscal year 2006?

General CODY. The strategic goal of the Army is to remain relevant and ready by providing the Joint Force and all combatant commanders with essential capabilities to dominate across the full range of current and future military operations.

Since the global war on terrorism began, the Army has been supported in its efforts through supplemental funding. These funds have, and continue to, cover operations in Iraq, Afghanistan, and around the world in support of global war on terrorism. This support includes resetting our forces through recapping and reconstitution. Our agreement with the Office of the Secretary of Defense is to fund our Modular Force restructuring initiative external to the Army's base budget through fiscal year 2006. Our expectation is that support for these high priority operations and programs will be external to the Army's base budget in fiscal year 2006 and will not compete for funds with our Future Combat System program. Our Future Combat System program remains a priority within the Army as evidenced by our budget submission and our efforts to accelerate future force capabilities to our current force.

This committee can help us reach our goals by continuing to support our requests for funding as you have in the past, both budget and supplemental. With your continued support and efforts, we will be able to man, train, equip, and transform our Army to win the global war on terrorism while preparing for future challenges.

57. Senator INHOFE. General Cody, one possible result of these hearings about FCS in both the Senate and the House would be to require that the Army restructure the program once again. Congress could require the Army to change the existing contracts with Boeing to provide more protection for the government and make the contract conform to existing FAR contracting requirements. In your opinion what affect would such a change have on the program's time-line and more importantly, what affect would it have on spirals the Army has identified for the current force?

General CODY. We would try to mitigate all costs impacts and schedule impacts by doing some type of conversion of the OTA to a FAR-based contract, understanding that this would take an appropriate amount of time to complete. The first priority would be to preserve program schedule to include Spiral (PM UA terminology is now Spin) out schedules while minimizing cost impacts. This approach is viable given the facts known today.

NON-LINE-OF-SIGHT-CANNON

58. Senator INHOFE. Secretary Bolton and General Cody, the Army has repeatedly stated that NLOS-C is needed in the same time frame Crusader would have been fielded. Congress passed several laws to make sure we met the 2008 fielding date. The restructured program does not comply with the laws passed. Can you explain why, and what is the new plan?

Mr. BOLTON and General CODY. The Army intends to comply with law and provide a "Crusader-type" capability to soldiers in 2008. NLOS-C, as the lead variant of the FCS MGV program, will be fielded ahead of the remainder of FCS systems. The Army will provide a set of prototypes—automated, self-propelled, cannons (NLOS-Cs)—to an Evaluation Force by 2008. By 2014, this Evaluation Force will be complete with fielding the entire unit of action set of FCS equipment to include all seven variants of the MGV. This includes replacing the prototype NLOS-C with 18 production NLOS-C systems (6 each in 2010, 2011, and 2012).

The NLOS-C project is on track to provide this capability. The NLOS-C Concept Technology Demonstrator funded by Congress in 2003 has fired over 1,000 rounds in testing and demonstrated the viability of hybrid-electric propulsion.

The remainder of the MGV program is also on track. The design team has selected the best technical approach for all seven systems and is proceeding with SDD. This SDD process is critical to ensure the commonality of all MGV systems that will dramatically reduce the current logistics and personnel footprint associated with armored vehicle formations.

59. Senator INHOFE. General Cody, there has been some talk about restructuring the program in such a way to push the manned combat vehicles and other systems even farther to the right by several years. If such an action were taken and the systems were separated by several years, it would seem to break this "system-of-systems" concept. It would also jeopardize systems the Army has repeatedly stated that we need like NLOS-C. In your personal professional opinion, what would this do to FCS?

General CODY. The program has taken great strides to ensure an integrated developmental effort for all eight variants within the manned ground vehicle fleet. The results of this effort will yield the Army dividends in terms of system of systems capabilities, commonality, supportability, reliability and life cycle cost. To separate the NLOS-C from the current MGV family of systems program would result in sig-

nificant sub-optimization of the NLOS-C system and also system-of-system capability relative to the rest of the MGCV fleet. In short, the significant benefits gained in system-of-systems capabilities, commonality, supportability, reliability and life cycle cost would effectively be lost as it would apply to a “break away” NLOS-C system. In conclusion, the NLOS-C should/must remain integral to the MGCV family of systems program. The NLOS-C lead the fleet (increment 0) prototypes will provide one of the most cost effective means to reduce risk on the MGCV fleet, and the follow-on NLOS-C pre-production systems will serve to begin to prove out the production line for all MGCV systems. Therefore, the NLOS-C is a critical part of the PCS program and as such needs to maintain a well integrated development, production and fielding strategy with the other MGCV variant systems.

60. Senator INHOFE. General Cody, would the Army need to come back to Congress and request that NLOS-C or other systems be separately funded and brought forward?

General CODY. At this time, the Army does not need to request NLOS-C be funded separately and brought forward. The requirements for NLOS-C are outlined in the FCS ORD. This ORD clearly identifies NLOS-C as supporting an FCS MGCV-equipped unit of action.

Separate funding also raises programmatic issues. Additional money would be required to support a separate research, development, test and evaluation effort that currently gains efficiencies through the FCS MGCV program. Separate overhead costs would be required to manage NLOS-C. Decoupling FCS also eliminates any commonality benefits with the FCS MGCV program. For instance, lifecycle costs would increase because NLOS-C would be a separate unique vehicle. While it is true that NLOS-C could eventually be made common with the rest of FCS, the Army would end up funding two development programs and the overhead for two production programs. Conversely, attempting to force FCS to align with an accelerated NLOS-C schedule would sub-optimize other MGCV systems within FCS. For example the full design maturity of the command, control, communications, computers, Intelligence, surveillance, and reconnaissance network would not support an accelerated NLOS-C program.

LEAD SYSTEMS INTEGRATOR

61. Senator INHOFE. Secretary Bolton, it was reported in a February 11 article by Inside Defense that the Pentagon Acquisition Chief, Michael Wynne, stated that “having a lead systems integrator for the Future Combat Systems program has worked out well for the Army.” The FCS program seems to be the most complex acquisition program the Army has ever undertaken and probably the most complicated to ever come out of the Pentagon. Can you explain to us why you chose to use a lead systems integrator for the FCS program?

Mr. BOLTON. The methodology of employing an LSI was selected for the FCS program precisely because FCS poses such a highly complex system-of-systems engineering development challenge, to include the development and integration of 18 major ACAT 1 weapon systems networked together to the soldier. Additionally, it requires networked interfaces with a large number of defense complementary programs, at a minimum of 164 defense systems with potentially over 200 systems, many of which are still in development. The program also has an extremely challenging schedule and a fixed RDT&E program budget. The LSI approach is the best choice to accomplish the Army’s transformation goals given what we know today.

62. Senator INHOFE. Secretary Bolton, how has the LSI performed to date?

Mr. BOLTON. The latest Cost Performance Report (CPR) received on March 25, 2005, for the accounting period ending February 24, 2005, the SDD OTA is performing to a cost efficiency of 103 percent cost performance index (CPI), and a schedule efficiency of 99.2 percent schedule performance index (SPI). In layman’s terms, this means that the contracting team has delivered \$1.03 of performance for each dollar spent, which means they are under budget, and is very slightly behind schedule performing 99.2 percent of the efforts planned to be completed to date. From a critical path perspective, the SDD contracting team is 6 days behind schedule to the next Program Event of System of System Functional Review scheduled for August 11, 2006; commonly referred to as 6 days of negative schedule float. This information is reflective of a recent performance measurement re-baselining of contract activity in September 2005.

63. Senator INHOFE. Secretary Bolton, the Army has the reputation for being challenged in managing large complex programs. Several of your bigger programs have been cancelled recently due to resource management, creeping requirements, and weak execution. The FCS program was initiated under a somewhat radical management structure for the Defense Department with a lead systems integrator—a contractor team. Are you happy with this organizational authority structure?

Mr. BOLTON. Yes.

64. Senator INHOFE. Secretary Bolton, could you change it if the needs changed?

Mr. BOLTON. Yes.

65. Senator INHOFE. Secretary Bolton, how do you keep fundamental government oversight responsibilities with an LSI?

Mr. BOLTON. Fundamentally, the same way that we would discharge our oversight responsibilities with a traditional prime contractor, except that using an OTA in some ways allows us closer and more routine coordination at the working level. The DCMA and DCAA are fully integrated in the day-to-day oversight management of the LSI. Additionally, the Government Accountability Office (GAO) and independent reviewers like the IDA are invited to participate, and have been active participants in program management and technical reviews. The program conducts formal program milestone reviews with OSD on an annual basis, and the government program manager, who is collocated with the LSI in St. Louis, Missouri, conducts program reviews on a quarterly basis. The LSI program manager conducts a weekly update meeting, with government participation. There are also quarterly congressional updates, primarily focused on budget, which utilize data provided by the LSI's Earned Valued Management (EVM) system. EVM system is implemented in the OTA in accordance with the OSD and industry-accepted EVM criteria reflected in the DOD adopted ANSI Standard for EVM systems. Additionally, the program has instituted a highly collaborative process for maintaining the integrity of the Performance Measurement Baseline (PMB), with surveillance of the contractors' EVM systems, tying the EVM information directly to the budgetary requirements, and reporting the program's performance to the Department of the Army (DA), OSD, and Congress.

66. Senator INHOFE. Secretary Bolton, while it is early in the program, are you satisfied with its progress?

Mr. BOLTON. Basically yes. The contractor is 3 percent under budget, and essentially on schedule (see response to #62). However, this assessment must be tempered with the fact that the contract was restructuring in September 2005. As a result of this restructuring, the Performance Measurement Baseline required restructuring as well to reflect the restructured technical approach, and a congressional reduction of \$286 million to the 2005 President's budget. Resulting, the work scheduled and work performed was set equal to the actual costs as of Boeing's accounting period ending August 2005. The net effect of this accepted EVM practice (resulting from a major rebaselining activity) is that the historical cost and schedule variances as of month ending August 2005 was set to zero. So, cumulative performance to date reflects data only back to that transition date of 1 September 2005.

67. Senator INHOFE. Secretary Bolton and Mr. Francis, the Army put Boeing under an OTA contract for FCS, and also made Boeing and Science Application International Corporation (SAIC) the lead systems integrators for FCS. In general, these OTAs are not governed by Federal acquisition laws and regulations that apply to contracts, grants, or cooperative agreements. Your institute conducted a study on the FCS management last year to include practices which could impact on the FCS program development efforts. Would you please explain why an OTA was used for this billion-dollar program?

Mr. BOLTON. The Army leveraged an existing option from the DARPA CTD OTA. Under that OTA, a best value competitive source selection was conducted by DARPA with Army participation and the current LSI, Boeing, was selected. Significant competition exists at the first and second tier contract level including 23 highly competitive source selection best value awards made by the LSI for which the Army had review and final approval. These awards were made by the LSI without a single protest. Again, we chose the LSI approach because the FCS UA poses a highly complex system-of-systems engineering development challenge, representing 18 major Acquisition Category (ACAT) 1 major weapon systems networked together to the soldier. Additionally, it requires networked interfaces with a large number of defense complementary programs at a minimum of 164 defense systems with potentially over 200 systems, many of which are still in development. The program also

has an extremely challenging schedule and a fixed RDT&E program budget. An OTA gave us the flexibility to use FAR rules and requirements where they made sense, while varying from the traditional FAR framework where we felt it would have represented a barrier or impediment to successful FCS development. This OTA offers flexibilities we thought we needed for a program this complex and added certain FAR clauses for protection.

Mr. FRANCIS. According to DOD's latest Annual Report on Cooperative Agreements and Other Transactions, the FCS OTA allows two nontraditional defense contractors to transition from the concept and technology development phase to the current system design and development phase. These contractors provide systems engineering; advanced simulation technology; as well as design, development, implementation and support of the Advanced Collaborative Environment. In addition, DOD reported that the FCS program requires an unprecedented level of interaction, cooperation, and collaboration between the government, the LSI, and the subcontractors that could not otherwise be achieved with a FAR contract. An Army official also noted that the OTA was primarily used to maintain focus on the system-of-systems integration of the program. The Army has since reconsidered its position and has decided that it can carry out the FCS program under a FAR contract.

68. Senator INHOFE. Mr. Francis, do you think we will see more of the OTAs and also lead systems integrator management contracts for government programs in the future?

Mr. FRANCIS. Other transactions began as instruments for basic, applied and advanced research projects sponsored by the Defense Advanced Research Projects Agency. Since then, Congress has steadily expanded the legal authority for OTAs so that they may now be used by military departments, other agencies, and on a limited basis for production. They have served as a contracting instrument for efforts with varied sizes and scopes, including a \$400,000 research project with a university team working to reduce aerospace vehicle system life-cycle costs and the \$21 billion agreement with Boeing to develop the Army's FCS. In short, other transactions are permissible for a larger number of government organizations and purposes than when the law was first passed. Moreover, for prototype projects, the law does not limit the dollar value of the transaction or the complexity of the transaction, provided it is a prototype project that is directly relevant to weapons or weapon systems proposed to be acquired or developed by DOD, or to improvement of weapons or weapon systems in use by the Armed Forces. We have not estimated DOD's likelihood of using OTAs in the future. However, given the trend of increased use and application, it is not improbable that DOD will continue using OTAs for future programs.

With regard to the increased use of LSIs, as defense acquisition programs have increased in scope and complexity over the last 30 years, prime contractors have increasingly been given more responsibility in managing those programs. Sometimes these prime contractors are called LSIs and other times they are still called prime contractors. Regardless of what they are termed, if acquisitions continue to be as complex as recent systems and the acquisition workforce lacks the expertise and size to manage these systems, there is a likelihood that prime contractors will continue to play an increased program management role.

69. Senator INHOFE. Mr. Francis, what are some other OTA or LSI programs that your agency has reviewed? I would appreciate your thoughts.

Mr. FRANCIS. To date, GAO has done work on the Missile Defense Agency's Ballistic Missile Defense System (BMDS) program, which is under an OTA with Boeing as the lead for the national team developing that architecture. In addition, GAO has reviewed the ground-based mid-course Defense element of BMDS. Boeing was the LSI for that contract, but recently the company was re-designated a prime contractor.

Three additional programs GAO has reviewed are the Coast Guard's Deepwater program, the Navy's DD(X) Destroyer program, and NASA's International Space Station program. None of these programs uses an OTA. Integrated Coast Guard Systems is the LSI for Deepwater. Although Northrop Grumman is not termed a LSI for the DD(X) program, our work suggests that Northrop's responsibilities in that program are very similar to what are commonly considered LSI responsibilities. Similarly, Boeing is actually called a prime contractor for the International Space Station, but it has significant program management and integration responsibilities.

70. Senator INHOFE. Mr. Francis, when you testified before the House Armed Services Committee last April, you thought the FCS program as it was last year was risky and because of that you recommended that the Army should add time to

the FCS acquisition schedule and to take the time to develop and demonstrate the most critical capabilities first, such as the FCS network. The Army seems to have listened to you and in July of last year, the Army Chief of Staff directed that the FCS program be restructured. They added nearly 3 years to the schedule and have placed a priority on maturing certain technologies like the Network. Another observation you made in that hearing was that "in order to manage the multitude of tasks associated with the FCS acquisition, the Army chose the lead system integrator approach to capitalize on industry's flexibility." Can you give us your assessment of whether or not the new, restructured program is more likely to be successful now and also give us your assessment of how this LSI program management is working out?

Mr. FRANCIS. In last year's restructuring of the FCS program, the Army added more time to the program—a delay of as much as 4 years to develop and mature the manned ground vehicles. This was a positive step, but probably necessary in that it was highly unlikely that the program could support the earlier date from a technical or cost standpoint. The restructure also accelerated the development and demonstration of the network. Focusing first on the development of the network is, again, a good step. However, the restructure did not address our primary concern—the lack of a match between the program's resources and requirements. For example, the revised schedule still depends on immature technologies. Also, the program also added a sizable amount of scope to the program—the new spirals to the current force and the addition of the previously-deferred systems. This additional scope added both technical and cost risk to the program. In addition, key areas like defining requirements and developing network technologies have progressed more slowly than planned. These factors impair making accurate cost and schedule estimates and thus the program still retains significant risk for being able to deliver promised performance within estimated resources.

It is too early to know how the FCS LSI program management structure is working. Our informal observations are that the FCS LSI structure allows for a number of potential efficiencies, but that it also carries a number of potential risks. Among the potential efficiencies is the LSI's overarching responsibility to know, understand, and integrate functions across the various FCS platforms—instead of focusing on one "stovepiped" platform at a time, as has often been the case in the past. This is particularly important in that the LSI has the ability to facilitate movement of requirements and make trade-offs across platforms. However, the extent of contractor responsibility in every aspect of the FCS program management process, including responsibility for making numerous cost and technical trade-offs and for conducting at least some of the subcontractor source selections, is also a potential risk. As an example, many of the LSI subcontractor source selections are for major weapons systems that, in other circumstance would have been conducted by an Army evaluation team, an Army contracting officer and a senior-level Army source selection authority. These decisions, including procurement decisions for major weapons systems, are now being made by the LSI with Army involvement. This level of responsibility, as with other LSI responsibilities in the program management process, requires careful government oversight to ensure that the Army's interests are adequately protected now and in the future. While we understand that the Army has a number of oversight processes in place, we have not yet evaluated them to know how well they are working.

71. Senator INHOFE. Dr. Graham, you spent a considerable amount of time looking not only at the use of an OTA contract but also at a myriad of FCS management issues. Can you explain to us some of the safeguards that are built into this program to prevent conflict of interests or any unethical program management issues?

Dr. GRAHAM. Formal ethics programs, whether in the government or industry, cannot guarantee that every participant in the FCS program will behave appropriately; sound policies, attention to execution, and continued vigilance, however, can help to reduce the likelihood of future violations while demonstrating an organization's due diligence in acting to preclude problems. Army officials, Boeing Headquarters, and the FCS LSI organization within Boeing were highly sensitive to the need to minimize managerial distraction and potential disruption to the FCS program that could result from adverse publicity or legal action resulting from ethics and related problems. The IDA review examined Boeing's ethics initiatives in some depth, looked briefly into the ethics programs in the other companies involved in FCS, and considered government workforce ethics issues as well.

Boeing's ethics program has been in the public eye due to ethics violations unrelated to the FCS program. Such violations led to Boeing's debarment from the Air Force's EELV program, and to a series of rather exhaustive external reviews performed over the last 2 years. One, "The Boeing Company: An Assessment of the

Ethics Program,” was performed by the Ethical Leadership Group at the request of the Air Force.⁵ Former Senator Warren Rudman performed two additional ethics reviews at the request of Boeing.⁶ R. William Ide, a former president of the American Bar Association, conducted a third review that focused on Boeing’s legal department.

These reviews highlighted some common strengths and weaknesses within Boeing’s approach to corporate ethics. Boeing long had policies in place and a strong reputation for ethical behavior, but, following significant expansion through several major corporate takeovers in the 1990s, lapses occurred. The external reviewers found Boeing’s ethics activities to be under-strength, integrated too closely with the business and operating units, too narrowly focused, and not sufficiently aggressive in addressing issues. The Ethical Leadership Group noted that more than 90 percent of Boeing employees participating in their study were aware of the Boeing Ethics Hotline; however, a significant percentage of those same employees also felt that complaints would not be acted upon thoughtfully, in a timely manner, and worse, would subject the complainant to retaliation.

In response to the recommendations of these reviews, Boeing management has taken steps to strengthen needed enforcement mechanisms, provide stronger awareness of the company’s commitment to ethical behavior, and strengthen the mechanisms for reporting and investigating potential violations (see Table).

The FCS program independently embarked on its own ethics training, in large measure driven by FCS subcontract management processes. For example, Boeing established a Tier 1 subcontracting process in which government and Boeing subject matter experts (SMEs) entered a physically and electronically “fire-walled” arena to evaluate multiple subcontract proposals. LSI employees assigned to the subcontractor selection process were informed that their employment choices within the program could be limited for up to one year from the last date on which they handled potential subcontractor proprietary information to ensure against any potential conflict of interest at the time of subcontractor selection, or into the future.

Boeing and the Army negotiated a set of additional firewall arrangements to permit the flow of contractor proprietary data to and from the FCS program to ensure technical coordination and effective interoperability with complementary systems.

⁵ Ethical Leadership Group, Wilmette, IL, October 2003.

⁶ Paul, Weiss, Ritkind, Wharton, and Garrison, LLP, “A Report to the Chairman and Board of Directors of the Boeing Company Concerning the Company’s Ethics Program and its Rules and Procedures for the Treatment of Competitor’s Proprietary Information,” (Washington, DC: November 3, 2003) and “A Report to the Chairman and Board of Directors of the Boeing Company Concerning the Company’s Policies and Practices for the Hiring of Government and Former Government Employees,” (Washington, DC: February 26, 2004).

Selected Boeing Ethics Initiatives

- Has commissioned external reviews (Senator Rudman, Ethical Leadership Group, Review of Boeing Law Department by R. William Ide)
- Is reviewing and revising corporate policies and procedures to enhance the emphasis on, clarify, and make relevant ethical business conduct to all employees
- Is realigning its corporate structure to increase the independence of corporate governance functions; Boeing has established:
 - A Senior VP for Internal Governance (reports to CEO and separately to the Board's audit committee)
 - An Integrated Defense Systems Compliance Review Board – chaired by the President of Boeing
 - Direct reporting lines for all Ethics Advisors to HQ VP for Ethics
- Is expanding the number of ethics advisers and recruiting new ethics advisers from outside Boeing to provide greater support to business and operating units.
 - Converting all to full time
- Has strengthened certification and training requirements for Boeing personnel
 - Boeing code of conduct (allegiance certification for all employees)
 - Procurement integrity (training and certification for all proposal and source selection team members)
 - Appropriate handling of propriety information (training and certification for all new employees)
 - Documented government legal opinions on exposure to conflicts (required for all new hires with government backgrounds)
- Has directed development of a system for flagging, tracking, and assignment screening for recent hires with potential conflict of interest exposure
 - Modifying and improving the HR management systems to better track employees for potential conflicts of interest
 - Coverage includes both those out of government and from prior competitors.
- Has enhanced training
 - Modifying and expanding the ethics components of leadership training at the St. Louis, MO, training facility
 - Introduced orientations, recommitment days.
- Has increased “hotline” accessibility and strengthened safeguards for those who come forward

Source: Boeing submission to Steven A. Shaw, Deputy General Counsel (Contractor Responsibility), Department of the Air Force, March 25, 2004 (April 12 Revision).

One particularly sensitive issue is the Boeing system for hiring former government employees into the FCS program. The Rudman review found that, contrary to Boeing policy, the company did not have government advisory letters on file for every former government employee. Boeing told IDA that they are beginning to screen the files of former government officials within its Integrated Defense Systems arm to identify potential conflict of interest issues. This includes identifying cases where conflict of interest advisory opinions are missing. We understand that Boeing is asking former government employees to ensure their personnel file includes a conflict of interest opinion. In addition, the IDA team asked whether Boeing had copies of disqualification letters that may have been issued to former government employees. The FCS program had not requested copies of these letters from Boeing, but seemed receptive to the idea.

We also asked Boeing how it intended to address the Rudman recommendation regarding tracking employees that may bring with them potential conflict of interest issues. As noted in Table 4, Boeing indicated that the program is in the process of creating a personnel mechanism for the FCS program that will allow employees

with potential conflict of interest exposure to be flagged and tracked. This system is critically important because the ability to manage the movement of people into, out of, and within FCS is critical for maintaining the firewall protection of sensitive and proprietary information.

FCS Tier 1 subcontractors who work with the government on other programs have formal systems of business ethics, procurement integrity, and information protection (export control, proprietary information, etc.). IDA reviewed the formal documentation for their programs, but time and resources did not permit a more in-depth assessment. While the public eye has been on Boeing in recent months, it would be valuable for the Army to also verify that the other subcontractors' programs have incorporated pertinent lessons learned from the external reviews of Boeing's ethics programs.

On the government side, the Army has taken specific actions to address challenges associated with implementing the "One-team" management approach. The Tank and Automotive Command (TACOM) appears to have guidance in place on all the key issues of ethical conduct and preservation of procurement integrity that are likely to arise in the course of the FCS program.

The TACOM program has four main thrusts:

- Ethics training covers all TACOM personnel, leaving the subject of specific annual training to the discretion of the local commands. This year, TACOM is insisting that all personnel receive personal instruction with a live instructor in a classroom or lecture hall environment. Because of the prevalence of two-income families and the possibility that a TACOM employee family member might work for a TACOM prime or subcontractor, training focuses on conflict of interest issues.
- TACOM lawyers counsel every employee on potential conflict of interest issues when they leave government service. In addition, the ethics adviser will, upon request, prepare an ethics advisory letter identifying areas of potential ethics or conflict of interest concern for employees seeking work in the private sector. This letter may be obtained any time subsequent to leaving the government, so employees who change jobs can always go back to TACOM for a letter; however, such letters are not mandated by the government. Letters of disqualification are also provided when TACOM officials find it necessary to recuse themselves from dealing with an acquisition matter while concurrently interacting with a potential or current contractor regarding employment or other matters.
- The ethics adviser and acquisition staff have addressed matters of concern regarding ethical conduct and procurement integrity arising out of the "One-team" approach used in the FCS acquisition. Training is provided to address such issues as gifts, ride-sharing, and protection of government property, and proprietary and competition-sensitive information. It also addresses larger issues of procurement integrity and the need for government participants in IPT processes to adhere to their specific charters.
- The Grants Officer has provided specific instructions to each Grants Officer Representative and Grants Officer Technical Representative (approximately comparable to a Contracting Officer's Representative and Contracting Officer's Technical Representative). These instructions identify actions on the part of a government IPT member that could result in a constructive change to the LSI OTA agreement. The Grants Officer requires each government IPT member he or she appoints to complete formal training within a year of appointment.

The IDA review concluded that Boeing is taking demonstrable steps to "recapture the trust of its customers" following disclosures of its prior ethics violations on matters unrelated to the FCS program. IDA did not audit execution at Boeing, and while we have reviewed the formal documentation for several of the major FCS subcontractors, their programs have not been scrutinized during our review in the same depth as have Boeing's. The IDA report therefore recommended some additional steps.

QUESTIONS SUBMITTED BY SENATOR LINDSEY O. GRAHAM

ASSAULT RIFLES

72. Senator GRAHAM. Secretary Bolton and General Cody, over the past few months, United States Special Operations Command (USSOCOM) has selected a new assault rifle system. The process followed by USSOCOM in making that selection seems like a model of responsible, efficient, and fair acquisition procedures—

clearly based on full and open competition—beginning with the pre-solicitation notice issued in October 2003 and continuing through the contract award announced in November 2004. The Army, on the other hand, seems committed to a very different process, one that has relied on sole-source contracting with a German company, rather than full and open competition, in selecting its new assault rifle system. Why has the Army decided in favor of sole-sourcing a program of this magnitude and against full and open competition?

Mr. BOLTON and General CODY. Senator Graham, the Army is in fact pursuing a full and open competition for the Objective Individual Combat Weapon Increment 1 (OICW 1) family of weapons. Based on the requirements that have emerged from Operation Iraqi Freedom and Operation Enduring Freedom, the Army approved an updated OICW 1 Capabilities Development Document (CDD) on October 19, 2004. The CDD calls for a family of weapons that will have high degree of commonality, enhanced capabilities, and much higher reliability than our current weapons. The family will be comprised of Special Compact, Carbine, Designated Marksman, and Light Machine Gun.

Subsequent to the approval of the CDD, the Program Office issued a Sources Sought Notice on November 5, 2004, for the OICW 1 family of weapons. The Notice invited contractors to submit a written report on their capabilities to meet the Key Performance Parameters for the family of weapons as well as provide a video of those capabilities. Based on an independent team's review of the numerous submissions, the Army has determined that a full and open competition is the best way to obtain a Non-Developmental Item (NDI) solution to the CDD's requirements. A pre-solicitation notice was issued on March 5, 2005, and the Program Office issued a Draft Request for Proposals on April 1, 2005. After the final Request for Proposals is issued on or about May 6, 2005, an independent Source Selection Authority and Source Selection Evaluation Board will conduct the evaluation process. The winner of this competition will be awarded the contract to build this new family of weapons.

73. Senator INHOFE. Secretary Bolton and General Cody, after spending more than 10 years and in excess of \$30 million on the XM8, last year the Army's budget submission included a line-item request for \$25.9 million for approximately 7,000 XM8 assault rifles. Congress declined to appropriate any funds for that program. Now it appears that this year the Army is attempting to obtain funding to continue the program but has not submitted a line-item budget request; how much does the Army plan to spend on the XM8/OICW program in the next year and from what account would these funds be appropriated?

Mr. BOLTON and General CODY. Senator Graham, the Army requested \$25.9 million in the fiscal year 2005 supplemental to accelerate the fielding of the OICW 1 kinetic energy sub-component as part of its modularity request. The committee marks were House Armed Services Committee (HASC) - \$25.9 million, Senate Armed Services Committee (SASC) - \$13 million, House Appropriations Committee—Defense (HAC-D) - \$25.90 million and the Senate Appropriations Committee—Defense (SAC-D) - \$13 million. The final budget did not include Army modularity funding (including OICW 1) due to higher priority funding requirements. The Army maintained the Milestone C decision in fiscal year 2005 and planned to start fielding the OICW 1 kinetic energy sub-component in fiscal year 2006. The fiscal year 2005 budget supported by the President and Congress included \$21.8 million for research, development, test and evaluation funds to support both the OICW 1 kinetic energy and OICW II airburst weapon subcomponents, and \$500,000 weapons and tracked combat vehicles (WTCV) funds to support initial production of the OICW 1 kinetic energy subcomponent. The fiscal year 2006 President's budget submission includes \$32.5 million in WTCV funding for the fielding of the OICW 1 family.

74. Senator INHOFE. Secretary Bolton and General Cody, given the history of this program, why has the Army now decided that U.S. companies wanting to compete will be given only 60 days to submit their prototypes?

Mr. BOLTON. Senator Graham, based on market research, the weapon system maturity cited in the written responses, and the videos of the weapons firing from the Sources Sought Notice, multiple contractors have completed design work. A complete design and build cycle in small arms can be completed in 90–120 days. Therefore, a 60-day response time for a NDI solution is appropriate.

QUESTIONS SUBMITTED BY SENATOR JOSEPH I. LIEBERMAN

SCIENCE AND TECHNOLOGY TO SUPPORT FUTURE COMBAT SYSTEMS

75. Senator LIEBERMAN. Secretary Bolton, I understand that the Army's science and technology request in fiscal year 2006 for combat vehicle research programs supporting FCS has been reduced by \$60 million relative to fiscal year 2005 levels and is programmed to continue to reduce in future years. Additionally, DARPA's investment in research to support FCS will decline from over \$100 million in fiscal year 2006 to \$21 million in fiscal year 2007. Given the fact that these science and technology (S&T) programs have successfully transitioned a number of technologies into the FCS program and are showing great promise to develop new capabilities for future spirals of FCS, why are we reducing these S&T investments?

Mr. BOLTON. The reduction in Army S&T funding for combat vehicle technology between fiscal year 2005 and fiscal year 2006 reflects the scheduled completion of several major technology demonstrations during fiscal year 2004 and fiscal year 2005 that were accelerated (with additional funding) to meet critical FCS decision timelines. The fiscal year 2006 President's budget funding request for advanced combat vehicle technologies has returned to its previous level and is considered sufficient to support the fielding of FCS in 2014 as currently scheduled. The Army maintains a substantial S&T investment profile across the Future Years Defense Program to develop and mature key enabling technologies for combat vehicles in areas such as advanced lightweight armor, advanced propulsion systems, advanced power electronics, and advanced active protection systems. The Army S&T program continues collaborations with DARPA to solve tough challenges to mature technologies for advanced sensors, communications, UAVs, and mobile networks. These technologies will provide additional capabilities for FCS beyond threshold capabilities and for other systems.

76. Senator LIEBERMAN. Secretary Bolton, what technological risks, in which specific systems, are we taking on by reducing our investments in risk-reducing science and technology programs?

Mr. BOLTON. S&T programs have always provided risk reduction initiatives for program managers by providing technology options that increase their probability of success in fielding a more capable product to the warfighter. Reducing S&T investments does result in loss of opportunities to define and transition technologies which must be balanced within the current resource constrained environment the Army finds itself. S&T investment in the fiscal year 2006 President's budget, while it is constrained, is robust enough to provide sufficient options for Future Force capabilities with acceptable technological risk.

DEFENSE ADVANCED RESEARCH PROJECT AGENCY URBAN AREA OPERATIONS RESEARCH AND FUTURE COMBAT SYSTEMS

77. Senator LIEBERMAN. Secretary Bolton, I understand that DARPA is maintaining a significant investment in technologies to support urban area operations. Since it is very likely that FCS technologies will be operating in urban environments, how is the Army coordinating investments in urban area operations with DARPA to ensure that the DARPA systems being developed can be integrated with FCS systems?

Mr. BOLTON. The Army is engaged in continuous dialogue with DARPA to leverage their investments for applications that may satisfy Army problems. This includes our awareness of DARPA's focused investments on urban operations technologies. Likewise, DARPA often uses the technical expertise of the Army's Research, Development, and Engineering Centers and Laboratories to implement and support their technology efforts. The Army Deputy Assistant Secretary for Research and Technology and the Program Manager for the FCS unit of action regularly meet with the Director of DARPA to help shape the content and monitor progress of DARPA's technology investments.

FUTURE COMBAT SYSTEM NETWORKING AND COMMUNICATIONS TECHNOLOGIES

78. Senator LIEBERMAN. Secretary Bolton, the key to the FCS systems is the network and communications technologies that will provide the backbone for future network centric operations. A number of programs that are not specifically part of FCS are vital to its future operational utility—including JTRS, WIN-T, and the distributed common ground system-Army (DCGS-A). What is the status of the development of these systems?

Mr. BOLTON. JTRS Cluster 1 is currently in the SDD phase. The program has experienced significant cost and schedule growth (due to the technology, packaging, and security issues as discussed in item 18). In order to stabilize the program, the Under Secret of Defense for Acquisition, Logistics and Technology, (USD AT&L) has issued a partial Stop Work order, which directs the Program Manager to baseline the program status via conduct of an Early Operational Assessment (EOA). This EOA will be initiated this month (April 2005) at Fort Huachuca, using JTRS Cluster 1 Pre-Engineering Development Models (Pre-EDMs). USD AT&L has also directed the newly appointed JTRS Joint Program Executive Office (JPEA) to conduct an independent assessment of the Cluster 1 program.

JTRS Cluster 5 has recently entered the System Design and Development phase. It provides radios to support users, including Landwarrior, UGS, IMS, UGVs, and UAVs. A System Requirements Review was conducted on April 6-7, 2005. Schedule synchronization is ongoing to accelerate early deliverables.

WIN-T is currently in the System Design and Development phase. WIN-T completed a System Design Review in January 2005. WIN-T via the Point of Presence will provide reach (inter-UA) and reachback (UA to UEx/y) capabilities for FCS. WIN-T components may require SWaP reductions in order to be used within certain FCS platforms (e.g., Class III/IV UAV).

DCGS-A acquisition approach was approved last fall by the Army Capabilities Review board. DCGS-A Spin Outs 1-3 are complete, providing improvements to systems and troops engaged in the global war on terrorism. The DCGS-A mobile configuration, enabled through Spin Outs 4 and 5, will begin fielding in fiscal year 2008 and reach Initial Operational Capability in fiscal year 2010.

79. Senator LIEBERMAN. Secretary Bolton, how are their development schedules integrated with the development and deployment plans of FCS?

Mr. BOLTON. JTRS and WIN-T (Point of Presence) are integrated radio systems into the PCS program and are therefore fully integrated into the PCS system schedule. DCGS-A development and deployment schedules have been aligned to provide synergy with Spiral (PM UA terminology is now Spin) fieldings. The JTRS Cluster 1 fielding schedule originally supported TOC-to-TOC requirements for the Stryker Brigade Combat Teams, as well as Aviation Recapitalization requirements. It is being revised to more closely align with the PCS Spiral (PM UA terminology is now Spin). Out requirements, and will be documented in the Army JTRS Migration Strategy, due in May 2005. JTRS Cluster 5, as an integrated component within FCS platforms is aligning with PCS program requirements. WIN-T fieldings are currently planned to be independent of, but initiated prior, to PCS Spiral (PM UA terminology is now Spin) 1 fielding.

80. Senator LIEBERMAN. Secretary Bolton, what are you doing to ensure that JTRS, WIN-T, and DCGS-A are going to be compatible with joint operations (i.e. interoperable with the other Services)?

Mr. BOLTON. The FCS Program Office has established an organizational structure that addresses coordination and interoperability. Each program Project Office is collocated with the FCS sensor and communications teams. Coordination with JTRS, WIN-T, & DCGS-A is performed at the engineering staff as well as monthly/quarterly director meetings.

Both JTRS Cluster 1 and ITRS Cluster 5 will only utilize waveforms certified by the ITRS program's Joint Test and Evaluation Laboratory (ITeL). These waveforms will run on all JTRS Clusters (to include Cluster 2 (SOCOM/USMC) and Cluster AMP (U.S. Navy/USAF). The WIN-T program, although not a joint Services program, will also run JTeL certified waveforms.

All Services' DCGS development efforts are under a 2003 Defense Acquisition Board mandate to adopt the DCGS Integration Backbone to enable joint, network-centric support to the warfighter. The Services' material developers are cooperating under the guidance of the Under Secretary of Defense (Intelligence)-chartered DCGS council and have formed a Multi-Service Execution Team. Further, operational experts from each of the Services are supporting Joint Forces Command in developing the Joint DCGS Concept of Operations.

FORCE GENERATION, FORCE SIZE, AND ORGANIZATIONAL STRUCTURE

81. Senator LIEBERMAN. General Cody, I understand that Army analyses and gaming have identified a need for up to 20 brigade combat teams to be deployed at any one time as a steady state requirement, plus an ability to surge to 40-43 to effectively support the 2004 National Defense Strategy and the National Military

Strategy. What effect do you expect the 2005 Quadrennial Defense Review to have on Army organizational and force generation concepts?

General CODY. The congressionally-mandated Quadrennial Defense Review (QDR) belongs to the Secretary of Defense (SECDEF) and the Army is fully committed to working with the SECDEF in conducting the QDR consistent with the priorities established by the President. It is too early in the QDR process to talk about specific insights or results. The four focus areas for the review, analysis, and discussion among the Department's senior leadership could impact Army organizational and force generation processes. That being said, we feel the Army modular design as the basic building block for the Army is the right way to go. Finally, the Army has already taken lessons learned from Operations Iraqi Freedom and Enduring Freedom and realigned force structure (less artillery and more engineers for example) as well as Active and Reserve component rebalancing.

82. Senator LIEBERMAN. General Cody, is the Army plan for size and structure of the force appropriate for the types of operations it has been performing if it must do so again in the mid-term? If yes, do you think the Army can simply "scale up" to meet the mission requirement if the contingency is a Pakistan or Iran scale of contingency in size and complexity that lasts for several years?

General CODY. The Army is in the process of transforming and reorganizing to meet the types of operations and requirements it anticipates supporting in the future. The Army has shown through its support of wars in Afghanistan, Iraq, and numerous lesser contingencies that it is flexible in its ability to adapt to changing circumstances and requirements. In other words, the Army is inherently a "scalable" force able to adapt to the changing global environment. Furthermore the Army is incorporating lessons learned from fighting the global war on terror as it restructures its force to meet anticipated future requirements. The upcoming Quadrennial Defense Review will provide additional guidance and insights that will ensure that the Army's emerging force structure aligns with the Nation's strategic objectives.

83. Senator LIEBERMAN. General Cody, it is critical to have a rotation base that allows sustained commitments without over-stressing the force or severely understaffing the critical training base. Many analysts are now questioning whether a "three-to-one" rotation base is adequate, with some saying "four-to-one" or even "five-to-one" is necessary. Your 43 brigade construct together with the Reserve component will barely meet a "three-to-one" rotation base and expects lengthy mobilizations of the Reserve component to do that. I question whether the Army's position about a temporary 30,000 end strength increase even fills 43 brigades let alone what would be needed for more brigades. Does the Army believe this end strength and number of brigades maintains a "three-to-one" rotation base for a contingency requiring 20 plus brigades for 4 or 5 years? If not, what size and types of organizations are you studying as possible alternatives? How much more end strength would be required?

General CODY. The temporary 30,000 increase allows the Army to continue to transform while it sustains its current level of operational commitments. Once our restructuring efforts are completed, we will be able to sustain a similar level of global commitment for a period of 4 to 5 years. Achieving this capability will require continued, predictable access to our Reserve component forces.

84. Senator LIEBERMAN. General Cody, does the Army program adequately support the force size and composition needed now and 10 years from now? If not, how much more table of allowance is required?

General CODY. The current program and temporary 30,000 end strength increase in our force allows the Army to transform while sustaining current operational commitments. Once complete, our restructuring efforts will allow us to sustain our operational commitments for several years provided we have assured predictable access to Reserve component forces. It is uncertain what our force requirements will be 10 years from now.

MODULARITY

85. Senator LIEBERMAN. General Cody, the Army's original estimate for its addition of 10 brigades to the Active Force and the reorganization into modular brigade combat teams was about \$28 billion. Analysts outside the Army estimate that it will cost \$70 billion to \$90 billion. It would appear that currently the Department of Defense has only identified \$48 billion for that restructure, in the near term paying for it through the supplementals, and starting in fiscal year 2007 and through fiscal

year 2011 at \$5 billion a year in the base budget. How much do believe the Army restructure will cost?

General CODY. The short term cost to build the Army Modular Force, to include 77 BCTs is fairly well defined and has widespread support to be resourced through the Army base program and supplemental dollars. The Army estimates the costs to transform to a Modular Force at \$48 billion. This includes procurement of equipment, requisite infrastructure, sustainment and training. Not included in the Army Modular Force cost is an estimated \$16 billion in fiscal year 2006–2011 for the fully burdened personnel costs of the temporary 39,000 end strength increase to support both the operational requirements for the global war on terror and the Army Modular Force transformation. The Army anticipates supplemental or over guidance support to fund the end strength increases.

Of the \$48 billion to transform to the Army Modular Force, the Army base program will fund \$38 billion: a combination of \$13 billion reprogrammed for fiscal year 2006–2011 and an additional \$25 billion provided in the President's 2006 budget for fiscal year 2007–2011. Army anticipates that supplementals will fund \$10 billion for Modularity in fiscal year 2005 and fiscal year 2006.

The Army is committed to provide the Army Modular Force within these available resources at the specified temporary endstrength level within the timeframe specified by the Army Campaign Plan. However, the long-term costs to sustain and operate the Army Modular Force are not fully known. Long-term costs will be a function of many known and likely unknown, factor current operations in Afghanistan and Iraq and future operations worldwide in support of the global war on terror, will continue to inform the Army on the long-term costs of the Army Modular Force. In addition, pending basing decisions, final unit designs and the Quadrennial Defense Review outcomes will all factor into the cost of the Army Modular Force.

86. Senator LIEBERMAN. General Cody, is that cost covered in the fiscal year 2005 supplemental and in the base budget? How much will you need in a fiscal year 2006 supplemental to meet that requirement? How much will you need in supplementals beyond fiscal year 2006? There have been reports that you believe you will need supplementals for 2 full years after redeployment from Iraq.

General CODY. Yes, \$5 billion of that cost is covered in the fiscal year 2005 supplemental for investment items. We have realigned a portion of the fiscal year 2006 President's budget to support Army Modular forces, and expect to need an additional \$5 billion in a fiscal year 2006 supplemental for investment items and \$3 billion for fully-burdened personnel costs. From fiscal year 2007 through fiscal year 2011, the Army base program will fund the remaining requirements for the Army Modular Force. Upon return from operations in Iraq, the Army anticipates it will need \$4 billion per year from the end of the conflict plus 2 years to fully reset its equipment to mission capable standards. Our experience in Operation Desert Storm shows us that we will need 2 years to reset our units to be ready for the next contingency.

87. Senator LIEBERMAN. General Cody, is \$5 billion a year sufficient to keep to your desired time schedule?

General CODY. The Army is committed to provide the Army Modular Force within available resources at the specified temporary end strength level within the timeframe specified by the Army Campaign Plan. The short term cost to build the Army Modular Force is fairly well defined and has widespread support to be resourced through the Army base program and supplemental dollars. The Army barogram will fund \$38 billion: a combination of \$13 billion reprogrammed for fiscal year 2006–2011 and an additional \$5 billion per year for procurement and infrastructure provided in the President's 2006 budget for fiscal year 2007–2011. The Army anticipates that supplementals will fund \$10 billion for Modularity in fiscal year 2005 and fiscal year 2006.

88. Senator LIEBERMAN. General Cody, what are the major equipment shortages resulting from the reorganization and are those equipment shortages covered in the funding requested?

General CODY. Combat vehicles, tactical wheeled vehicles, battle command and communication systems, and ISR systems are the major equipment requirements the Army needs to transform to a Modular Force. These requirements are included in the Army's estimated \$48 billion cost to transform to a Modular Force. Of the \$48 billion to transform to a Modular Force, the Army base program plans fund \$38 billion: a combination of \$13 billion reprogrammed for fiscal year 2006–2011 and an additional \$25 billion during fiscal year 2007–2011. The Army anticipates that

supplementals will fund the other \$10 billion for Modularity in fiscal year 2005–2006.

89. Senator LIEBERMAN. General Cody, what are the decision criteria for determining whether the Active Force will be increased by yet another five brigade combat teams to 48 total?

General CODY. The Army's primary mission is to provide necessary forces and capabilities to the combatant commanders in support of the National Security and Defense Strategies. On January 30, 2004, the Office of the Secretary of Defense approved the Army plan to increase force structure by 10 modular brigades by fiscal year 2006 and to defer a decision to build 5 additional brigades. In order to make this decision, the Army will continue to evaluate the mix of capabilities and the number of brigades required to meet future demands. Consequently, the Army will build additional brigade combat teams if those forces are necessary to meet the combatant commanders' and defense strategy needs.

90. Senator LIEBERMAN. General Cody, how much additional end strength will be required and what will be the cost to increase the Active Force to 48 brigade combat teams?

General CODY. Increasing the number of brigade combat teams from 43 to 48 would add approximately 20,000 soldiers within the Army's combat formations and approximately 15 percent to our institutional Army to recruit, train, and help sustain the additional soldiers. Proposing the exact costs of such a growth to the Army's combat formations would be highly speculative at this time. In general, for every 10,000 soldiers, it requires approximately \$1 billion for all related pay and allowances. However, given the highly variable factors involved in determining such costs, further analysis is required to accurately scope the nature and the magnitude of such an increase.

91. Senator LIEBERMAN. General Cody, what additional equipment will be required?

General CODY. The Army is committed to meet the equipment requirements to transform to a Modular Force. However, as the Army progresses toward the FCS and Future Force, maturing technologies that significantly increase combat capabilities will be spiraled into the current force. Additionally, the Army will continue to assess its posture through lessons learned from the global war on terrorism, Total Army Analysis, and Quadrennial Defense Reviews and respond to meet and defeat these emerging threats. The Army will continue to respond to the operational needs of the combatant commanders. Thus, additional equipment, yet to be identified and developed, will be required to maintain our battlefield superiority.

92. Senator LIEBERMAN. General Cody, I've been told the Congressional Budget Office (CBO) is finishing a study of Army modularity that concludes the end product will provide only a modest increase in combat power—on the order of 5 percent. Apparently, this is because even though there will be more brigades in a division, the number of companies in the brigades will actually be fewer than at present. CBO is reported to be skeptical that the reconnaissance, surveillance, target acquisition (RSTA) companies do not provide combat boots on the ground for security and counterinsurgency in the irregular warfare category of scenarios. What is your position on this question?

General CODY. The Army's new modular formations provide a 30-percent increase in active combat power and approximately a 50-percent increase in the brigade rotational force pool. Additionally, they provide more than just sufficient boots on the ground. They are designed to allow the maneuver commander the ability to see first, think first, and act first. This is a radical shift from the way we as an Army have traditionally measured combat power in the past. Our ability to rapidly collect, analyze, and disseminate critical, time-sensitive information on the battlefield provides our forces with a common operating picture, helping to better focus both our combat power and effects where they will have the greatest impact.

93. Senator LIEBERMAN. General Cody, I'm concerned that the Army is adequately considering changes in doctrine and priority for the combat support (CS) and combat support service (CSS) units. In *On Point: The United States Army in Operation Iraqi Freedom*, the analysts speculate that the tragedy of the 507th maintenance company might be explained by "the 507th is indicative of an Army-wide problem. This view holds that some CS and most CSS units are generally not equipped, manned, or trained to defend themselves while stationary, let alone when on the march, CSS units are generally the last units to field night vision, armor plating

for flak vests, and other combat gear. They also have fewer radios, crew served weapons and far less armor protection than their colleagues in combat and CS units." I note that many things that would fill these shortages in these units are not in the Army's budget, but are on the Unfunded Priority List—notably \$443 million for small arms, including .50 caliber machine guns, that the 507th had only one of; \$227 million for night vision equipment; and \$117 million for radios. Now, I would assume that these things would be an absolute priority for missions like Iraq. Why are they on the unfinanced requirements list instead of in the budget, and what is your plan to bring these units to the same level as combat units, in both Active and Reserve components?

General CODY. The Army, with tremendous congressional support, has purchased or contracted hundreds of millions of dollars in small arms, night vision equipment, and radios to meet the operational demands of units in Operations Enduring Freedom and Iraqi Freedom. We have done so without regard to type or component of units. The Army has gone to great lengths to ensure our units in contact have the appropriate type and quantity of equipment necessary to conduct their mission effectively and with minimum risk to the soldiers (e.g. rapid fielding initiative, interceptor body armor, up-armored HMMWVs, add-on-armor for wheeled vehicles, and convoy protection vehicles.) Yet while we are fighting the global war on terrorism, we are also transforming the Army into a Modular Force that is more joint and expeditionary. This transformation is necessary to continue the high operational tempo necessary to prevail in this war. The equipment you have identified on the Army's Unfunded Priority List would allow us to accelerate our transformation to the Modular Force. Our Army Campaign Plan encompasses the entire operational Army and will result in units that are more capable, lethal, and survivable. Based on our work with the executive branch and the Office of the Secretary of Defense, our plan is funded through a combination of base funding and a commitment of supplemental funding.

WOMEN IN MODULAR BRIGADE COMBAT TEAMS

94. Senator LIEBERMAN. General Cody, questions are being asked about whether the Army's new reorganization into modular brigade combat teams complies with the rules regarding women in combat. The controversy is whether women assigned to the forward support companies in those brigades will be collocated with combat units. The reality of the situation is that whether these women are habitually collocated or not, their support duties will often take them into close contact with those units and the non-linear nature of the battlefield puts them at risk. The Secretary of the Army recently concluded that the Army's proposed reorganization will not require a change in policy. Some groups contend that this is merely a matter of semantics and that the reorganization will, in effect, cause women to be collocated with units assigned a direct combat mission. What are your views on this controversy? Are the current rules too limiting and make it difficult for the Army to reorganize into its modular structure?

General CODY. Forward support companies are not collocated with combat units. The function of all soldiers on the current battlefield, and this includes soldiers in the medical, maintenance support, fuel handling, and chaplaincy fields, engage in duties that may take them into close contact with combat units. Additionally, the non-linear nature of our current battlefield puts all soldiers, regardless of gender, at risk. Our policy is that women will be assigned to all units as long as the principal mission does not include engaging in direct ground combat. That does not mean women will not be assigned to positions that could place them in danger. As is the case today, women are assigned to units and positions that may necessitate combat action such as defending them or their units from attack. For this reason, all soldiers, regardless of gender, are equipped, trained, and prepared to defend.

AVIATION RESTRUCTURE

95. Senator LIEBERMAN. General Cody, is the cost of aviation restructure included in the amount requested for modularity?

General CODY. No. Aviation restructure costs are not included in the amount requested for modularity. However, the Army Modular Force requires UAV capabilities outside of the aviation structure. The Army has accepted risk with this capability and is funding it less than the full Army Modular Force requirement. The cost of the Army Modular Force UAV capability is included in the amount requested for modularity.

96. Senator LIEBERMAN. General Cody, is the cost included in the \$14.6 billion made available by the termination of Comanche?

General CODY. Yes, funding made available by the termination of the Comanche program, combined with funding already associated with Army aviation programs and modularity have enabled us to restructure Army aviation. Costs for installation and infrastructure requirements created by Aviation restructuring are not covered by Comanche funding. These requirements are addressed by the Assistant Chief of Staff, Installation Management reprogramming and/or supplemental funding requests.

97. Senator LIEBERMAN. General Cody, how much will aviation restructure cost and how much is funded in fiscal year 2006 and in the out-years?

General CODY. The Army requested \$3.8 billion for Aviation modernization in the fiscal year 2006 budget. The remaining \$30.2 billion will be funded in the out-years. These costs includes rearch, development, and acquisition of aircraft and aircraft systems such as: aircraft survivability equipment, avionics, aviation missiles and rockets, and air traffic systems. It also includes operations and maintenance for initial and advance flight training.

98. Senator LIEBERMAN. General Cody, why does the aviation modernization plan fail to completely modernize the Apache fleet to the Longbow configuration, instead maintaining 117 of the old A model Apaches in the National Guard?

General CODY. The current approved Army strategy will convert 284 AH-64 Apache aircraft to AH-64D Block III configurations beginning in 2010. The intent of the Army is to bring all 597 Longbow aircraft up to Block III (which goes beyond the Program Objective Memorandum fiscal years 2007-2011 and into the extended planning period). The Army will continue to review future options and funding to address the potential upgrade of the remaining 117 AH-64As.

99. Senator LIEBERMAN. General Cody, I understand the Army's argument that the light utility helicopter is cheaper to acquire and cheaper to operate than a Blackhawk, but why is it not worth the additional cost to acquire more Blackhawks and avoid a separate low-density fleet of helicopters that the Army is not able to employ in a hostile air defense environment?

General CODY. The Army is planning on procuring the LUH to replace the aging OH-58A/C and UH-1 fleets. The OH-58A/C and UH-1 aircraft are currently performing non-combat mission for the National Guard and TDA units within the Active component. The LUH will be a versatile, low cost aircraft capable of performing the missions that are currently conducted by the OH-58 and UH-1 aircraft. The procurement of the LUH will allow the Army to not only divest itself of aging aircraft, but it will also allow for the UH-60 aircraft currently conducting missions in IDA units to cascade to the combat units. The delta between the procurement and operating and sustainment cost of the LUH and the UH-60, as noted in the analysis of alternatives for the LUH, supports the acquisition of the LUH.

RESET

100. Senator LIEBERMAN. General Cody, the Army is spending billions of dollars to repair and replace equipment damaged or destroyed in Iraq as units rotate back to the U.S. and prepare for their next deployment in a process it calls "Reset." The Army's own "Stress on Equipment" study suggests that the Army is building up a backlog which in fiscal year 2005 alone is \$7 billion to \$13 billion. With equipment usage estimated in some cases as 10 times a normal year's usage, the result may very well be a force with huge equipment problems for the future. Do you believe that the Army is adequately funded to repair and replace equipment at a rate that will maintain the Army's combat readiness?

General CODY. The Army has adequate funding in the President's budget and the fiscal year 2005 supplemental request to meet critical reset requirements.

101. Senator LIEBERMAN. General Cody, is the Army requesting adequate funding to replace all combat losses or losses of equipment deemed to be economically non-repairable?

General CODY. The Army requested the executable amount of funding in the fiscal year 2005 supplemental to replace known losses as of the time of submission. Because of supplemental timing considerations, losses have occurred since that time, which were not requested. In addition, the process of inspecting equipment after an incident to determine whether it is repairable is time consuming, so it is likely that

some losses which occurred prior to the submission were not included. The Army has received losses of specific items, such as the OH-58D helicopter, which are no longer in production. The replacement for the OH-58D, the Armed Reconnaissance Helicopter, will not begin fielding until fiscal year 2006, and therefore funding for these items was not requested either.

102. Senator LIEBERMAN. General Cody, is the Army requesting adequate funding to reconstitute Army pre-positioned equipment stocks?

General CODY. The Army requested and received funding in fiscal year 2005 to execute limited Army prepositioned stocks (APS) reset. Fiscal year 2006 executable requirements are being developed and will be submitted as part of the fiscal year 2006 supplemental request. These requirements are being shaped by ongoing actions in support of Operation Iraqi Freedom and the APS strategy which is pending Army approval. The Army will continue to refine APS requirements for the next years, ensuring that funding requests are adequate and cover all items for return to APS and the developing APS strategy.

103. Senator LIEBERMAN. General Cody, how big is the fiscal year 2005 backlog and is it growing?

General CODY. A backlog of requirements for repair is growing primarily because equipment is in use and cannot be removed for higher level repair. Equipment usage has prevented the Army from removing some equipment from theater, such as vehicles with add-on armor. Much of this equipment will be in need of replacement, overhaul, or recapitalization when hostilities end. This includes our prepositioned stocks the equipment units have left behind in theater for use by follow on units. In addition, the Army sees the need to recapitalize a number of systems, but the equipment is with units that are training to return to theater. The exact size of the backlog is difficult to determine and its growth will be dependent on the length of future operational requirements. The Army estimates it will take 2 years following the end of hostilities to fully repair and replace all necessary equipment.

END STRENGTH

104. Senator LIEBERMAN. General Cody, the Army is planning for an Active-Duty end strength for fiscal year 2006 of 512,400 soldiers, with 482,400 funded in the defense budget and the rest funded through supplemental appropriations. Are you at all concerned that the Army will not be able to draw down that number through military to civilian conversions and other "efficiencies" and that the increase may have to be permanent?

General CODY. Senator Lieberman, the answer to your question is no. The National Defense Authorization Act for Fiscal Year 2005 allows for an active Army permanent strength of 502,400 and allows for 512,400 through fiscal year 2009. This flexibility will allow the active Army to restructure while supporting the global war on terrorism. The Army believes that future operational requirements and the ongoing Quadrennial Defense Review will help DOD determine if Service strength levels are adequate. Additionally, Army leadership will review Active component strength requirements in late 2006 and make any necessary recommendations to Office of the Secretary of Defense and Congress.

105. Senator LIEBERMAN. General Cody, what do you think the permanent Active-Duty Army end strength should be to support your vision of a restructured Army, and to allow for less reliance on Reserve Forces?

General CODY. The Army needs a temporary increase of at least 30,000 (512,400) soldiers to transform while supporting the global war on terrorism. This figure assumes continued and predictable access to Reserve component forces at no more than 1 year deployed every 6 years. A permanent Active-Duty end strength will be based upon the defense strategy, combatant commanders force requirements, and other factors. Provided that the overall force requirements do not increase significantly, the Army will rely less on Reserve component forces after our current restructuring efforts are completed.

MOBILIZATION POLICY—ARMY

106. Senator LIEBERMAN. General Cody, troops are being mobilized for duty in Iraq and Afghanistan under "Partial Mobilization Authority" (10 U.S.C. 12302a), which authorizes members of the Reserve component to be ordered to Active-Duty

for not more than 24 consecutive months. Although a literal interpretation of this statute would allow multiple mobilizations of up to 24 consecutive months each, the Department of Defense has, by policy, limited the cumulative time on Active-Duty under this authority to 24 months. This limits most members of the Guard and Reserves who have served in Iraq to one mobilization, as the 12 months “boots on the ground” policy plus mobilization, train-up, and demobilization consume 16 to 18 months of the 24 cumulative months allowed under the current DOD policy. Senior Army leaders have been quoted as saying DOD needs to change this policy because the Army is running out of Reserve members who have enough time left on the 24-month mobilization clock to serve another tour. They contend that the Army will not have sufficient forces to man the next planned troop rotation in Iraq and Afghanistan beginning this fall. Deputy Under Secretary of Defense Abell told this committee that the Secretary of Defense does not intend to change this policy. What are your views on DOD’s policy of limiting involuntary mobilization of members of the Reserve components to 24 cumulative months?

General CODY. The Army leadership is in consonance with the DOD policy on 24 months cumulative service. At the present time, we believe the 24 cumulative months serves the best interest of the Reserve component soldiers, their families and employers, and that their involuntary contribution to the global war on terrorism should remain as limited. With that said, we are planning to employ a force generation model to meet ongoing and future global commitments which is predicated on early and continued access to our Reserve component units. Without assured and predictable access to trained Reserve component units, not just individuals, we may have to revisit the current mobilization authority and associated policies or consider increasing the number of active Army units their deployment lengths and or shorter dwell periods between deployments.

107. Senator LIEBERMAN. General Cody, what would be the impact on the next planned troop rotation into Iraq and Afghanistan if the policy remains in place?

General CODY. The Joint Staff, in conjunction with U.S. Central Command and the Services, has identified the capabilities required to deploy to the next rotations in Iraq and Afghanistan (OIF/OEF 05–07). The Army will be able to source its required units/capabilities for these rotations in accordance with the existing DOD Reserve component mobilization policies.

108. Senator LIEBERMAN. General Cody, what would be the impact on the Army’s force generation construct for the Reserve Forces?

General CODY. As the Army refines the Army Force Generation (ARFORGEN) concept, the Reserve component presents the greatest challenge. The Army accepted risk when it placed the bulk of the combat CS and CSS units within its Reserve component force structure. The evolving nature of stabilization and re-construction operations has created a higher utilization rate for CS/CSS units than anticipated; a rate even greater than combat arms units. Because this utilization rate varies among unit types and capabilities, it has become a critical issue for the RC since it makes resource allocation and management more complex and sensitive. Rebalancing of CS/CSS assets within the Reserve component is necessary; however, an even greater challenge is creating a balanced CS/CSS mix among all three components.

The Reserve component requires a force generation model that will manage their force capabilities in time cycles. To optimize the entire force, the major tenets of ARFORGEN must: (1) provide of a set of capabilities (Active component/Reserve component mix) based upon cyclic readiness across a synchronized time span; (2) assume Presidential Reserve call up of 9-month mobilization authority and 6 to 7 months operational employment as steady-state; (3) provide for a surge capability when required; (4) provide predictability for soldiers, families, employers, and combatant commanders; (5) build rotational depth; and (6) achieve flexibility in force management for operational and institutional capabilities.

An ARFORGEN construct based upon these tenets will enable the Army to rebalance its Reserve component forces to change types, numbers, and size as it modularizes within end strength limitations.

FUTURE COMBAT SYSTEM

109. Senator LIEBERMAN. General Cody, the Army’s FCS program was recently adjusted to delay the fielding of the manned ground systems by 4 years to 2014 while adding over \$6 billion to the program to accelerate the network and certain other technologies for spiraling to the current force. Do you believe that you will

be able to maintain the FCS development schedule given the pressures on the Army budget for modularity and reset?

General CODY. Essentially yes. See responses to #62 and #66.

110. Senator LIEBERMAN. General Cody, are the costs of the three planned technology spirals to the current force and are the costs of the experimentation and testing that will be undertaken by the experimental brigade combat team included in the FCS program or will they be in some other program element in future budget requests?

General CODY. At this point in time, these costs reside within the FCS program. The Army is still determining how these costs will be funded in future budget requests.

111. Senator LIEBERMAN. General Cody, what are the estimated costs for the technology spirals and for experimentation and testing between now and the initial operational capability of the FCS?

General CODY. The total estimated RDT&E costs for Spin Outs between now and IOC is \$1,272 million total year dollars, which includes both A-kit and B-kit development for both PCS and associated programs. Of the \$1,272 million, \$595 total year dollars is allocated for experimentation and testing.

112. Senator LIEBERMAN. General Cody, should budget pressures force you to make a choice, what are your priorities among modularity, reset, and FCS?

General CODY. The strategic goal of the Army is to remain relevant and ready by providing the joint force and combatant commanders with essential capabilities to dominate across the full range of current and future military operations. Resetting our forces from ongoing military operations, the transition to the Army Modular Force, and the Future Combat System are all critical components of this goal. If forced by budget pressures, we would make a difficult decision as to how best to balance select components among these three critical programs by assessing the capabilities needed to support the combatant commanders' requirements.

PROTECTIONS NOT INCLUDED IN THE AGREEMENT

113. Senator LIEBERMAN. Mr. Boehm and Dr. Graham, I would like to understand what significant contractual provisions would apply to a traditional contract, but do not apply to the FCS program, because of the Army's decision to use OTA. Could you give us a description of what these provisions are and what protection they would provide to the government and the taxpayer?

Mr. BOEHM. It is important to appreciate that the use of an OTA as an agreement for a Defense Department acquisition instead of a traditional contract has the effect of stripping out virtually all major statutory protections for the government which apply to traditional contracts. Those protections may then be added to the OTA by incorporating the missing statutes or including some version of the protections, though typically with weaker language.

My testimony included a very detailed listing of statutes not applicable to OTAs in general and those missing from the FCS OTA specifically. Two important statutes missing from the FCS OTA are the Program Integrity Act and the Truth in Negotiations Act. The Program Integrity Act imposes standards to deter and punish conflicts of interest. Given the major ethical problems in this area by Boeing, the FCS program's lead system integrator, it is incredible that this standard statutory provision was not made applicable to the FCS OTA. The Truth in Negotiations Act (TINA) was also not made a part of the FCS OTA. This law applies to virtually every standard Defense Department acquisition contract. TINA requires defense contractors to disclose to the Defense Department accurate price and cost information in order to deter overbilling, a problem which has plagued Defense Department acquisitions in the past. There is absolutely nothing in the public record of the FCS program that even remotely would justify giving the FCS defense contractors an exemption from their legal duty to provide accurate pricing and cost information.

Dr. GRAHAM. Congress established OTA for research, development, and prototyping activities in order to permit government agencies to more readily do business with innovative suppliers outside of the traditional defense industrial base. OTA provides flexibility for the government and supplier to negotiate tailored agreement (contract) forms and clauses (terms and conditions) that are not governed by those Federal acquisition laws and regulations that apply to contracts, grants, or cooperative agreements.

The IDA review found that the Army employed OTA authority very conservatively, incorporating numerous standard FAR provisions. The top half of the accompanying Table summarizes selected provisions dealing with such key issues as cancellation, dispute resolution, cost management and reporting, change control, and data rights.⁷ This agreement makes extensive use of standard government contractual terms and conditions. Some provisions are taken verbatim from the FAR; others have been modified after negotiation between the government and Boeing. (By contrast, the earlier CTD-phase agreement includes no FAR clauses and incorporated none by reference.)

The form of the Army-Boeing agreement at least in part reflects the fact that Boeing Integrated Defense Systems is an experienced defense contractor. Unlike the nontraditional or commercial firms that OT authority was created to address, Boeing's defense business operations are adapted to a FAR-based style of contracting; Boeing management, at least in its defense business, apparently considers the FAR framework to be a "best practice."

Table 3 also summarizes the flow-down provisions for the Tier 1 subcontractors. While the OTA gave Boeing the flexibility to adopt innovative contractual forms, Boeing officials told the study team that they followed government contracting practices because these were well-understood by the participants—predominantly large, traditional defense contractors. The "nontraditional" suppliers are iRobot from Burlington, MA (\$25.2 million) and Austin Information Systems from Austin, TX (\$56.6 million). Although there eventually may be others at the lower tiers, for now, the \$14.78 billion is being shared almost entirely by defense industry giants.

A review of the subcontracts awarded by Boeing and SAIC to Tier 1 subcontractors shows that those subcontracts largely follow the conventions of traditional defense contracts, including format. Boeing terms and conditions come from a standard list, are accessible through their web site, and are generally of the same scope, complexity, and breadth of coverage as the FAR system.⁸

The lower half of the Table identifies some of the provisions that provide flexibility for managing the FCS program. The Army-Boeing agreement provides additional flexibility through the creation of the Integrated Product Team (IPT) structure, the specification definition process, and the subcontracting system employed. These features will be discussed when we address the execution of the program.

⁷The FCS agreement was shaped through Army-Boeing negotiations. Initial Army drafts included over 120 FAR/DFARS clauses. Incorporated by reference within the Army-Boeing agreement are 24 FAR clauses and 16 DFARS clauses. Additionally, a review of the agreement clauses themselves shows that local clauses relate to the subject matter of 63 additional terms and conditions that would be required to be included as clauses within a cost reimbursement research and development FAR contract. See FCS Other Transaction Agreement, Information Briefing, Use of FAR/DFARS Clauses in FCS Other Transaction Agreement for System Development and Demonstration, dated 25 April 2003.

⁸The subcontracts follow the format of FAR 15.204–1. Moreover, Boeing uses standard contract terms and conditions, which incorporate by reference numerous FAR and DFARS clauses. The subcontracts incorporate by reference the FAR and DFARS provisions and clauses incorporated by reference within the OTA, and also take account of others not included (e.g., FAR 52.246–15 Certificate of Conformance, 52.247–34 F.O.B. Destination, 52.245–17 Special Tooling).

Table: Selected Provisions of the FCS Agreement

Protection of Parties' Interests	OTA Articles/Clauses	Flow-down?
Termination	FAR 52.246-6 Termination (Cost Reimbursement) (996) incorporated by reference	Yes
Dispute Resolution	TACOM Principal Assistant for Contracting (PARC) the final authority—Boeing can seek redress in court of competent jurisdiction after final decision.	Different Procedures
Allowable Costs	FAR 52.216-7 (Allowable Cost and Payment) and 52.216-8 (Fixed Fee) Incorporated by Reference	Yes
Cost Accounting and Audits	Option to use FAR cost accounting standards or generally accepted accounting principles (GAAP)—locally crafted Government access (TACOM/Comp Gen) for audits	52.230-2 Cost Accounting Standards IBR
Changes	FAR 52.242-15 (Stop Work Order Alt 1) & 52.243-7 (Notification of changes) IBR—Normally bilateral.	52.242-15 IBR 52.243-7 IBR SAIC Only
Data Rights	FAR 52.227-12 IBR—Various Rights to the Government	52.227-12 IBR
Management Flexibility		
Flexible "Requirements"	ORD and O&O are Reference Documents Specific specifications shaped through trade study process Trade studies define contractual deliverables	Subcontracts specify commodity deliverables
Government-Industry Collaboration	IPT and decision-making structure outlined in the OTA—"One Team" approach with Government/Boeing Leads/Co-Leads	"One Team" does not flow-down—standard Subs
Subcontracting terms and conditions	OTA requires flow-down of certain clauses dependent upon value of subcontract — FAR clauses IBR do so also.	Boeing T&Cs standardized—IBR many FAR clauses
Production Planning	OTA IBR FAR & DFARS Production Clauses — Boeing identified as follow-on production LSI	Yes—Production FAR & DFARS Clauses IBR

* IBR = This provision is incorporated by reference in the Army-Boeing agreement.

T&C = Terms and Conditions

114. Senator LIEBERMAN. Secretary Bolton, what steps have you taken to try to protect the government and the taxpayer in this agreement, in the absence of the traditional contract provisions that are not included in the agreement?

Mr. BOLTON. The OTA does include a number of FAR and DFARS clauses; the OTA also includes a number of narrative articles which have the function of terms and conditions; many of these articles represent tailored FAR or DFARS clauses, essentially covering the required provisions found in a FAR based contract as applicable in this situation. We have, however, approached the LSI about incorporation of the PIA, TINA, and CAS FAR clauses into the OTA and believe we can do this with minimum impact to schedule, and moderate impact with respect to the cost of performance.

115. Senator LIEBERMAN. Mr. Francis, Dr. Graham, and Mr. Boehm, what are your comments on the effectiveness of these steps?

Mr. FRANCIS. GAO has not yet conducted a thorough analysis of the rationale and alternative mechanisms that the Army inserted into the OTA in lieu of the traditional FAR protections. While the Army did inform GAO that certain provisions, such as the Truth in Negotiations Act, were excluded because of time and resource constraints, they did not provide an explanation of how they maintained protections that those provisions were intended to provide. It is important to note that the Army recently decided to convert the agreement to a traditional FAR contract.

Dr. GRAHAM. The Army-Boeing agreement, although based on Other Transactions Authority, incorporates numerous standard defense contracting clauses, including termination rights, disputes resolution, cost accounting, and auditing, that are commonly viewed as protecting the government's interests. The IDA review concluded that the Army's and Boeing's conservative approach in creating this agreement effectively addressed concerns that the use of an agreement based on OT authority has created special risks for the FCS program. Our recommendations addressed many other challenges to the program that we felt posed substantially greater risks to the program than were created by the contractual instrument.

Mr. BOEHM. The FCS OTA included very little in the way of legal protections for the government in lieu of the statutory protections typically found in standard acquisition contracts. The net effect is that the ability of the government to have adequate oversight over this extremely risky program was neutered. By eliminating re-

quirements for accurate pricing, strong standards against conflicts of interest, standard legal tools for the government in contract disputes, and a host of standard auditing and accounting requirements, a very ambitious program was set up for future failure. Several months of analysis by NLPC confirmed that OTA language contained in place of the standard legal protections found in Defense Department contracts almost all provided much weaker protections for the government's interests.

ROLE OF NONTRADITIONAL CONTRACTORS

116. Mr. Francis, one of the reasons that has been given for using OTA on this program is the presence of two non-traditional contractors. We have built numerous waivers and exceptions into the traditional contracting system over the last decade to address exactly this issue. In your view, does the traditional contracting system give the Army the flexibility needed to do business with a nontraditional subcontractor on a program like this?

Mr. FRANCIS. While the Army has some flexibility to waive a number of FAR requirements on a case-by-case basis, including for nontraditional defense contractors under certain circumstances, it is difficult to tell if such waivers would be sufficient to lure nontraditional defense contractors to do business with the Army. The Army's recent decision to execute FCS under a FAR contract suggests it believes it can provide the needed flexibility to do business with nontraditional firms.

IMPACT OF TERMINATING THE EXISTING AGREEMENT

117. Senator LIEBERMAN. Secretary Bolton, if Congress were to require you to terminate the existing agreement and proceed with the program under a traditional contract, what impact would that have on your cost and schedule?

Mr. BOLTON. If the existing agreement were terminated, the LSI would be entitled to those allowable costs associated with any administrative closeout activity (but such costs could not be greater than current funding obligated to date); and those costs covered by the "termination" article of the OTA. We would expect to be able to overcome most if not all of the costs envisioned by the OTA's termination article; however, since under this scenario the ending of the OTA would merely represent the passage of the program to a successor instrument, rather than a total cessation of work. That is, we would try to mitigate all cost and schedule impacts by doing some type of conversion of the OTA to a FAR based contract, understanding that this would take an appropriate amount of time to plan, execute, and complete.

118. Senator LIEBERMAN. Mr. Francis, Dr. Graham, and Mr. Boehm, if Congress were to require Secretary Bolton to terminate the existing agreement and proceed with the program under a traditional contract potentially impacting the cost and schedule, what are your comments on this issue?

Mr. FRANCIS. The Army recently decided to convert the existing agreement to a traditional FAR contract. At this point, it is not yet clear how long and costly the conversion process will be.

Dr. GRAHAM. This issue was not addressed by the IDA study.

Mr. BOEHM. Any costs associated with making the FCS program subject to the level of oversight found in standard Defense Department acquisition contracts pale next to the costs of continuing such a major program with an OTA designed for small research projects which minimizes oversight and accountability.

QUESTIONS SUBMITTED BY SENATOR DANIEL K. AKAKA

HIGH-RISK OF BOEING

119. Senator AKAKA. Secretary Bolton, in recent months, Boeing Corporation has been at the center of major business and personal scandals. Ms. Darleen Druyun is serving time in a Federal prison and former Chief Executive Officer (CEO) Michael Sears will be very soon. Additionally, at the request of Mr. Michael Wynne, a special team studied additional contracts that Ms. Druyun had been involved with, identifying additional programs that would require further study. Furthermore, a recent study by the Project on Government Oversight, a well-respected watchdog group, determined that Boeing "committed 50 acts of misconduct and paid \$378.9 million in fines and penalties between 1990 and 2003." Do you believe that the Army is accepting an inordinately high level of risk by using Boeing Corporation as the LSI for the FCS, a program that is very complex, has already been modified to add \$6.4 billion to the cost of the program, and the time line for this "system

of systems” has been extended? If you do not feel that this is a “high risk” process, what measures do you have in place to ensure that it stays on track?

Mr. BOLTON. We have successfully utilized specific conflict of interest provisions, “Firewall” provisions, to ensure that the LSI and the other subcontractors (one-team partners) maintain appropriate control of all sensitive data to avoid potential conflicts of interest. This risk mitigation action was successfully demonstrated during the LSI’s source selection process wherein a number of highly competitive major subcontracts were evaluated and awarded in a short period of time without any industry protest. One letter of concern was received but that was withdrawn within 48 hours.

FUTURE COMBAT SYSTEMS

120. Senator AKAKA. Secretary Bolton, the FCS was awarded an OTA rather than FAR Part 12 contract and Boeing Corporation is the LSI. Would it be more efficient and less likely to lend itself to fraud and abuse if the Department of Defense used its internal resources, such as its own systems integrators, to manage this program?

Mr. BOLTON. By “internal resources,” assuming you mean using the existing Army Program Management Offices and PEOs. We considered this traditional approach but determined that given the aggressive program schedule and the complexity of the development and integration of essentially 18 ACAT 1 programs tied to a large number of complementary programs including Air Force, Navy, USMC and other government agency programs, the LSI approach represented the most efficient use of resources to accomplish the task.

121. Senator AKAKA. Secretary Bolton, both the GAO and the National Legal and Policy Center have indicated that if there are any significant production slippages or cost increases for FCS, the Army will be hard pressed to allocate funds within the Department of the Army because the FCS program “so dominates the Army’s investment budget for years to come.” What processes does the Department of the Army have in place to cover any cost overruns that might occur without receiving additional funds from Congress?

Mr. BOLTON. The FCS program has implemented an aggressive Cost as an Independent Variable (CAIV) process which has several components, to include the setting of specific cost targets for each acquisition phase of the program. The objective of the CAIV process and an incentive arrangement is to prevent cost overruns from occurring. Understanding that there are often influences outside the direct control of the program that may drive costs over the established targets, the Army is prepared to make the difficult decisions required to ensure program affordability. These decisions will be made at the appropriate times and will be based on analytical assessments. Both this flexibility and the willingness to make difficult decisions were demonstrated during the recent program restructuring when a number of significant changes were made to the program without receiving additional funds from Congress.

WOMEN IN COMBAT SUPPORT UNITS

122. Senator AKAKA. General Cody, it was recently reported in the press that the Department of the Army is drafting new language pertaining to women in combat support units. Currently the Army’s policy bars women from combat support units. Under the Army’s modularity structure, it is my understanding that in order for there to be enough soldiers to fill the new structure, this new language may allow women to be in Forward Support Companies (FSCs) that are collocated with units conducting an assigned direct ground combat mission. Please explain how this is in compliance with the current Army policy that says mixed-sex units are prohibited from embedding or collocating with land combat units.

General CODY. The Army is not drafting new language pertaining to women in combat service support units. The Army’s policy does not bar women from being assigned to combat support units. Women in the Army are assigned in accordance with Army Regulation (AR) 600–13, Army Policy for the Assignment of Female Soldiers. This policy implements the 1994 Department of Defense Direct Ground Combat Definition and Assignment Rule policy memorandum. In January 2005, the Secretary of the Army reviewed all personnel policies, with emphasis on the policy of how the Army assigns women Soldiers. The new Brigade Combat Team, unit of action, which is currently being established as a part of Army Transformation, remains consistent with personnel assignment policies. As a result of these studies, women may be assigned to units called Forward Support Companies (FSCs), which

provide supply, maintenance, and field feeding support to units performing direct ground combat.

The FSC is the cornerstone of the distribution-based logistics system and has a mission that emphasizes support and maintain as far forward as possible. However, the FSC does not have a mission of direct ground combat, nor does it have a mission to routinely collocate with its supported combined arms battalion. It is organized to meet the needs of the combined arms battalion under the assignment of the Brigade Support Battalion (BSB). Both the FSC and the task force commander must ensure that the FSC is tightly integrated into the task force's operations in garrison, in training, and when deployed. The current structure of the logistical support for the BCT continues the focus of our Force XXI concepts.

Women comprise 14.5 percent of our Active Force, 23.4 percent of our Reserve Force and 12.7 percent of our National Guard; they are also representing 10 percent of the force in OEF/OIF. The Army has 9,400 women in the area of operations. They are performing in an outstanding manner given the complexity and ambiguity of a non-linear, insurgent driven battlefield. Their performance throughout both OIF and OEF has been exemplified by heroics such as one of our airborne officers being awarded the Bronze Star with valor device for her command leadership during an attack on her military police convoy, to a Civil Affairs specialist being awarded a Purple Heart for the injury she suffered while defending herself and her comrades in Najaf, Iraq, to a specialist who assisted in the capture of General Husam Mohammed Amin one night as she stood guard.

RESTRUCTURING FUTURE COMBAT SYSTEMS

123. Senator AKAKA. General Cody, the FCS is well into its second year of execution. It recently underwent a restructure to reduce risk and to field a fully-capable unit of action in 2014 instead of in 2010. The fiscal year 2006 budget was reduced significantly from what was projected last year. Does this restructure signal problems with the program and what are the benefits of this restructuring?

General CODY. No, the restructure does not signal problems with the program. In fact, the FCS program was generally performing within its cost and schedule performance metrics prior to the restructure. The benefits of the restructure are twofold. First, it reduces developmental risk by allowing more time for technology maturation and the inclusion of additional experimentation. More importantly, the restructure allows for the Spiraling (PM VA terminology is now Spin) out of selected FCS technologies to the current force. In essence, this brings some of the FCS capabilities to the Army sooner than originally planned. The fact that the Army has elected to accelerate some aspects of the FCS program is more due to the success of the program than problems with it.

124. Senator AKAKA. General Cody, in your prepared statement for this subcommittee, you indicated that "risk associated with the maturation of technologies (of FCS) contributed to the Army's decision last summer to restructure the FCS program and extend it by 4 years." Should another restructuring of the FCS program be required, can you tell how you plan to ensure proper oversight of the program with Boeing Corporation as the LSI?

General CODY. Government oversight of EVM performance is effectively three dimensional. The first dimension consists of Integrated Baseline Review (IBR) Process. The second dimension is the collaborative analysis process. The third dimension is the use of the EVM information by the program, DA, OSD, and congressional staff management.

a. The IBR Process ensures the integrity of the SDD Performance Measurement Baseline. The IBR Process began in October 2003 with an in-depth review of the IPT schedules, and continued through May 2004 conducting discussions with 99 LSI Control Account Managers. Subsequently, the IBR continued with seven partner IBRs until the announcement to restructure the FCS program in July 2004.

Since the announcement of the program restructure, the program has laid in the new Performance Measurement Baseline (PMB) in a phased implementation representing the new technical approach. The phased PMB implementation will culminate in May 2005 with the laying in of planning packages for the entire program through program completion, with subsequent detail planning in June 2005 through the Initial Program Design Review in June 2006. Detail planning will continue in agreement with the rolling wave concept throughout the SDD effort.

The IBR process will then continue in July 2005, with in-depth schedule reviews of the One Team program frameworks and IPTs. The program level schedule review will take place in August 2005 to ensure full horizontal and vertical integration. The

LSI CAM discussions will take place in September 2005 to review full cost, schedule, and technical integration given due consideration to program risk. The IBR process will then focus on the partners in the October through December 2005 timeframe. The program's IBR process will continue throughout the SDD effort as required reviewing future areas of concern to ensure the integrity of the PMB is maintained.

b. Each month, the Program's Earned Value Management Working Group (tri-managed and staffed by the Army's PM Office, the LSI, and DCMA) collaborative review the earned value cost and schedule data, it's resulting variances, and the root causes/corrective actions to the variances. This EVM data is aligned to the congressionally directed funding "buckets" for the program. The EVM data is then consolidated into an analysis package that is used to provide EVM information to the Program Office's management, DA, OSD, and congressional staff.

c. The "oversight process" cyclically provides the EVM information that is a collaboratively analyzed product to (1) the PM each month via a face-to-face meeting with the PM's EVM practitioners, (2) DA staff via the monthly Senior Army Leadership Acquisition Program Review, (3) the Integrating Integrated Product/Process Team (IIPT) each month (the IIPT is populated by key DA and OSD principals), (4) OSD staff via inclusion of key EVM facts in the Defense Acquisition Executive Summary (DABS), and (5) the professional staff of each of the four defense oversight committees each quarter.

[Whereupon, at 11:09 a.m., the subcommittee adjourned.]

**DEPARTMENT OF DEFENSE AUTHORIZATION
FOR APPROPRIATIONS FOR FISCAL YEAR
2006**

WEDNESDAY, APRIL 6, 2005

U.S. SENATE,
SUBCOMMITTEE ON AIRLAND,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

TACTICAL AVIATION PROGRAMS

The subcommittee met, pursuant to notice, at 2:45 p.m. in room SR-232A, Russell Senate Office Building, Senator John McCain (chairman of the subcommittee) presiding.

Committee members present: Senators McCain, Chambliss, and Lieberman.

Majority staff members present: Ambrose R. Hock, professional staff member; Gregory T. Kiley, professional staff member; Thomas L. MacKenzie, professional staff member; and Stanley R. O'Connor, Jr., professional staff member.

Minority staff member present: Creighton Greene, professional staff member.

Staff assistants present: Alison E. Brill, Benjamin L. Rubin, and Nicholas W. West.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; Clyde A. Taylor IV, assistant to Senator Chambliss; and Frederick M. Downey, assistant to Senator Lieberman.

OPENING STATEMENT OF SENATOR JOHN MCCAIN, CHAIRMAN

Senator MCCAIN. Good afternoon. The Senate is presently having a vote, and I'm sure that other members of the committee will be arriving, but I thought I'd better get the hearing started since we have a number of witnesses today.

Today, the Airland Subcommittee meets to receive testimony from two distinguished panels of witnesses on those aviation programs which the subcommittee has oversight responsibility. I'd like to thank the witnesses for appearing before the subcommittee today as we fulfill our oversight function. We will draw upon your expertise and insight to gain a better understanding of the various challenges and opportunities that are before us.

We'll have two panels in today's hearing. The first panel will be comprised of Mr. Bolkcom, Mr. Sullivan, and Mr. Schmitz, who will share their views on the current and projected operational environ-

ment program management and acquisition strategy. The second panel will be comprised of the Honorable Michael Wynne, the Honorable John Young, Vice Admiral Joseph Sestak, Major General Stanley Gorenc, and Brigadier General Martin Post, all outstanding leaders within the Defense Department, who will address the work they are performing to equip the warfighter.

Tactical aircraft from the Air Force, Navy, and Marine Corps have delivered a spectacular performance in Operations Enduring Freedom (OEF) and Iraqi Freedom (OIF). The accuracy and reliability of our precision-guided weapons instills confidence in our ground forces and strikes fear in the hearts of our enemies. Where once we considered how many aircraft would be required to destroy a target, it's now how many targets can be destroyed by a single aircraft. The flexibility afforded by advancements in precision-weapons development and tactical platforms, platforms that are increasingly more capable, reliable, and maintainable, will have profound effects on the force structure we field in the future.

I want to extend our sincere appreciation to the brave men and women who have flown these missions, and to all those who support them, not only in the field, but also in our systems commands, our program offices, our aviation depots, and industry.

We must ensure that we remain vigilant in our efforts to maintain our advantage in tactical aviation. To do so requires an accurate assessment of our current and projected operating environment. There are a number of studies and work in the Quadrennial Defense Review (QDR) underway to assist us in this effort. It's important that we align our limited resources to procure the capabilities that we truly need.

The F/A-22 has recently completed its initial operational test and evaluation. Its operational effectiveness is unmatched by any fighter in the world. More work needs to be done to make it operationally suitable. The Committee will also be interested to hear what the service is doing to correct those deficiencies. The Joint Strike Fighter has made progress. The subcommittee is also interested in how the Air Force and Marine Corps will meet their tactical airlift and aerial refueler requirements should termination of the C-130 occur. Additionally, the subcommittee views with concern the Air Force's plan to retire 49 KC-135E aerial refueler aircraft, presupposing the outcome of the mobility capability study and analysis alternatives for tanker aircraft.

Once again, thank you for your service to our country. I want to thank Senator Lieberman for his work as the ranking member. I want to thank all of our witnesses, and we'll begin with Mr. Sullivan.

[The following information has been inserted for the record by Senator McCain:]



TAXPAYERS CARRY THE LOAD:

THE C-130J CARGO PLANE DOES NOT

666 Eleventh Street, NW
Suite 500
Washington, DC 20001-4542
202/ 347-1122
202/ 347-1116 Fax
pogo@pogo.org
www.pogo.org

March 15, 2005

R E P O R T 

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Fax: (202) 347-1116 • E-mail: pogo@pogo.org • www.pogo.org
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INTRODUCTION

The Pentagon called for the cancellation of the U.S. Air Force's C-130J transport aircraft procurement contract in a December 23, 2004, internal memo signed by Deputy Secretary of Defense Paul Wolfowitz. (Appendix A) This move by the Pentagon to cut its losses on the overpriced, unneeded, and problem-plagued C-130J, would allow nearly \$5 billion in funding to be directed to other program areas, such as properly equipping the nation's fighting men and women.

Unfortunately, the C-130J supporters almost immediately began a disinformation campaign in response to the Wolfowitz memo. A group of U.S. Senators, motivated by parochial interests and those of a powerful defense contractor, (Appendix B) rushed off a letter to President Bush asking that he overrule the Secretary of Defense and put the money for the C-130J back in the 2006 fiscal year budget. (Appendix C) Desperate supporters of the C-130J have been claiming it will cost the taxpayers up to \$2 billion¹ to terminate the contract "at the convenience" of the government, when in fact, the cancellation cost ceiling specified in the contract is less than one quarter of that amount. (Appendix D) Lockheed Martin wants all the benefits of both commercial and traditional procurement with none of the risk. They want the benefits of commercial acquisition by keeping government auditors at arm's length, and the benefits of traditional contracting by coming hat-in-hand when the customer, in this case the government, walks away. Due to the deficiencies in the design and procurement of the aircraft, the government would be justified in cancelling the program for cause, avoiding paying any cancellation fee.

In their letter to the president, the Senators lumped the "J" model with the older tried-and-true versions of the C-130. The older models of the C-130 Hercules enjoy an excellent reputation as dependable workhorses, but the new "J" has instead become a legend in the acquisition community as an example of bad weapons development and procurement contracting.

These two aircraft, sharing the same name, could hardly be more different. The "J" model may look like its predecessor, but is actually a different aircraft – with 70 percent of its features being unique. In fact, the old C-130s and the newer C-130Js are so different "pilots cannot be qualified on both aircraft, which causes additional financial and personnel burden on units that must operate both aircraft."²

The Air Force has fueled the debate by temporarily grounding 30 of its older C-130 "E" models and restricting the flights of 60 other C-130s, claiming they had developed cracks near their wings.³ The fact that this development came at the same time the "J" model was being threatened with cancellation is highly suspect, reminiscent of an eleventh-hour claim last year that the Air Force's existing tanker fleet had serious corrosion problems as a ploy to lease 100 new tankers. That claim was

¹ *Inside the Air Force*, "Senior USAF Officer: C-130J Termination Costs Could Exceed \$2 Billion," March 14, 2005.

² *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p. 10.

³ "Air Force Finds Cracks, Grounds C-130E," United Press International, February 11, 2005.

later refuted as an exaggeration in a Defense Science Board task force study that concluded the corrosion of the current tanker fleet was manageable and that the Air Force has a “robust” control program in place.⁴

The C-130J contract cancellation has even resulted in the aircraft’s manufacturer, Lockheed Martin, creating new restrictions on its employees’ communication with the Pentagon’s C-130J program office, following what it called “a recent flurry” of requests from the program office. (Appendix E) In a February 7, 2005, internal e-mail, Lockheed’s chief C-130J systems engineer, Michael A. Reed, suggested that future communications between Lockheed and the program office be limited to only those required by contract, and that “all recently requested non-contractual data” be removed from Lockheed’s computer system which communicates with the program office. “Until further notice, there will be but one channel for information requests on the C-130J program, and that will be by Contracts letter,” Reed wrote.

Now a high-stakes dogfight is shaping up between Defense Secretary Donald Rumsfeld and the Air Force and some Members of Congress. The facts are on Rumsfeld’s side: Since its inception in the mid-1990s, the C-130J transport aircraft program has proven itself a disaster for both the U.S. taxpayers and the military. The aircraft, a so-called modernized version of the legendary 1950s-era C-130 Hercules cargo and troop airlifter, was developed and purchased using a misguided and highly suspect “commercial” acquisition strategy that essentially doubled the cost of the aircraft and left government auditors powerless to do anything about it.

From a technical standpoint, too, the aircraft has a checkered history. None of the first group of 50 “J” models delivered between 1999 and 2003 have yet been declared fully ready for combat.⁵ A 2004 Rand study for the Air Force called the C-130J a “contractor-initiated” idea that was at first supposed to be a simple and routine upgrade, but in the end was far from simple or routine.⁶

In fact, the Department of Defense’s Office of Inspector General found that, rather than being available for combat, the C-130J should only be used in a “permissive,” non-hostile environment. “The evaluation did not include aircraft survivability equipment; therefore, the aircraft should only be employed in a permissive threat environment until aircraft survivability equipment testing is completed,” the report said. The Inspector General report said the DoD defines a permissive threat environment “as an operational environment in which the host country’s military and law enforcement agencies have control as well as the intent and capability to assist operations that a unit intends to conduct.”⁷

⁴ Summary of Aerial Refueling, Defense Science Board Task Force, May 2004. <http://www.pogo.org/m/cp/cp-dsbtaskforcereport-2004.pdf>

⁵ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p. i.

⁶ *Test and Evaluation Trends and Costs for Aircraft and Guided Weapons*, RAND Corporation, 2004, p. 38. http://www.rand.org/pubs/monographs/2004/RAND_MG109.pdf

⁷ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p11.

POGO's report supports the decision to cut the program. Attempts to reinstate funding for the C-130J program are nothing more than another scheme to keep on the table a plate of federal pork cooked up by a defense contractor and force-fed to the Pentagon by Congress.

CONGRESS AND LOCKHEED CREATE A NEED FOR THE C-130J

The C-130J was first introduced in the mid-1990s as an improvement to earlier C-130 models – not by the Pentagon, but by defense contractor Lockheed Martin Aeronautics Company.⁸ Until it faced the recent threat of program cancellation, the Air Force had never really expressed an overwhelming need for more, or upgraded, versions of the C-130 transport aircraft. A 1998 Government Accountability Office (GAO) report suggested that Congress was calling the shots when it came to buying new C-130s. “For the past 21 years, with the exception of five aircraft, Congress has directed the procurement of C-130s for the Air National Guard and Air Force Reserve units.”⁹

As of December 31, 2004, 180 “J” models had been ordered and 120 delivered worldwide to the U.S. and other countries’ air forces, including the U.K. Royal Air Force, Royal Australian Air Force, Italian Air Force, and the Royal Danish Air Force.¹⁰ Lockheed ordained the “J” model as its transport aircraft of the future by closing the production line for its predecessor, the C-130H model.¹¹

Now the Pentagon has a chance to stand up to Congressional pressure and save the taxpayers \$5 billion by cutting Air Force procurement of the “J” model. History would support such an action. In 1998, the GAO concluded that Congress was giving the Air Force more C-130s than it needed:

The Air Force has retired C-130s with service life remaining on the aircraft. Program officials told us that such retirements have generally been driven by congressional direction to buy more C-130s than the Air Force requested in its annual budget requests. Program officials told us that, accordingly, it was difficult to control the retirement of C-130 aircraft. They stated that, since retirement from the fleet had been based on congressionally directed acquisitions replacing existing C-130 aircraft, they were not retiring aircraft because the service life had expired.¹²

⁸ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, pp. 1-2.

⁹ *Intratheater Airlift: Information on the Air Force's C-130 Aircraft*, Government Accountability Office, GAO/NSIAD-98-108, April 21, 1998, p. 6.

¹⁰ Discussion in Business Segments, Form 10-K, Lockheed Martin Corporation, February 28, 2005, p. 5.

¹¹ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p. i.

¹² *Intratheater Airlift: Information on the Air Force's C-130 Aircraft*, Government Accountability Office, GAO/NSIAD-98-108, April 21, 1998, p.8.

So even if the Air Force could justify a need for additional C-130 aircraft, any future needs could be filled by taking those older retired C-130 aircraft out of mothballs and putting them back into service, rather than buying the expensive and problem-plagued C-130Js. The Air Force could also do a Service Life Extension Program (SLEP) on the C-130E, C-130H, and possibly C-130F models, which involves adding new skin panels and other structures to extend the life of the aircraft. This will put people to work, continue C-130 E&H (possibly F) versions' serviceable life for several years and will save millions, possibly billions, of dollars. This will eliminate any argument that the C-130J is needed to replace older versions of the C-130 with wing cracking problems.

The 1998 GAO audit also suggested that the standard contracting process was turned upside down. "Additionally, during our review, some Air Force officials expressed concern that the normal requirements process was not followed in the recent J buys," the audit said. "They stated that requirement documents for the EC-130Js and WC-130Js were written after the Air Force had made a commitment to buy the aircraft."¹³ This is a highly unusual way of procuring weapons systems. Typically, each military service determines its weapons-systems needs first, writes a requirements document outlining precisely what it wants, and then seeks out defense contractors qualified to fill those requirements in an open-bid competition.

As recently as February 9, 2005, the Department of Defense's acting acquisition chief, Michael Wynne, made a speech that appeared to contradict the Air Force's current position that there is a compelling need for more C-130Js. Wynne told an investment conference in New York City that changing transportation requirements and capabilities prompted the department's decision to terminate the C-130J program, according to *Inside Defense*. Wynne noted that some studies are now suggesting that the U.S. military may not need to rely on transport aircraft like the C-130J to haul its equipment worldwide. New options for getting weapons and supplies to the battlefield include high-speed ships and increased reliance on prepositioned stocks, *Inside Defense* quoted Wynne as saying.¹⁴

COMMERCIAL PROCUREMENT FAILURE

At the heart of the C-130J debacle is the contracting scheme used to acquire it. A July 2004 Department of Defense Office of Inspector General (OIG) report was highly critical of the Air Force's decision to designate the C-130J a "commercial item." Declaring an item "commercial" is a contracting strategy that absolves the defense contractor of responsibility for providing detailed and important cost data, and restricts the government's ability to audit the contractor's books. The use of the commercial acquisition strategy, never before used to purchase a military aircraft, was so out of bounds that the OIG recommended that "civilian and military managers" involved in managing acquisition programs read its audit to learn the do's and don'ts of commercial acquisition. It told managers that the audit "discusses an unjustified decision to use a commercial item acquisition strategy and other problems that occurred because of poor management."

¹³ Ibid., p. 10.

¹⁴ *Inside Defense*, "Wynne: Changing Transportation Needs Triggered C-130J Cancellation," February 10, 2005.

The OIG flatly stated that the Air Force did not properly justify the use of a commercial acquisition strategy, did not properly manage the program, and did not provide the contractor with an incentive to deliver aircraft that worked properly. The audit also criticized the Office of the Secretary of Defense for not providing effective oversight of the program to correct C-130J deficiencies.

The OIG recommended that the Air Force immediately stop the system program office from “contracting for additional block upgrades until a contract-compliant aircraft is designed, developed, and delivered.” It also strongly encouraged the Air Force to modify any future contracts to employ a more traditional procurement method, increase the amount of money withheld from contractors when the government accepts “noncompliant aircraft,” and develop a schedule for fixing problems with the “J” models already in the fleet.

The report also stated: “The Air Force bought the C-130J as a commercial item needing minor modification, but in the 8 years since the Air Force began contracting for the C-130J, Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specification.”¹⁵

The C-130J is the only historical example of a military aircraft being declared a “commercial item.” Its flawed history serves as a textbook case of the perils of employing a commercial acquisition strategy for acquiring a major military weapons system. Normally, a commercial acquisition designation is used to obtain any item that the public can purchase such as computers, office equipment, and automobiles. But in the case of the C-130J, Lockheed Martin was permitted to circumvent laws that protect the taxpayer, such as the Federal Acquisition Regulation, the Truth in Negotiations Act, and Cost Accounting Standards.

These laws require transparency in cost or pricing data so that government purchasers know what they are getting for the government’s money. The result has been a doubling of the per aircraft cost – the “H” model cost \$33.9 million when it went out of production in 1997, while the “J” model has an estimated price tag today of \$66.5 million. With oversight regulations waived, the cost of wiring harnesses on the C-130J increased by five times their original price after the aircraft was designated “commercial,” going from \$91 to \$453. The GAO offered this spare part price-hike as a real-world example of the difficulty involved in making the transition from pricing goods and services based on costs incurred to an ineffective commercial model in which factors other than cost are the principal means used to establish price.¹⁶

The trouble is no one, other than Lockheed Martin, seems to be really sure just how much the C-130J should rightfully cost – not even the government. For example, the Rand study noted that it could not do a cost analysis of the “J” model because, “According to the program office, contractor

¹⁵ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, pp i-ii.

¹⁶ Statement for the Record, Henry L. Hinton, Jr., Assistant Comptroller General, National Security and International Affairs Division, before the House Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, *Federal Acquisition: Trends, Reforms, and Challenges*, General Accounting Office, GAO/T-OCG-00-7, March 16, 2000, p. 10.

T&E [Test and Evaluation] cost data were not available to them because of the nature of the contractor-initiated development effort.”¹⁷

Such commercial agreements also restrict the government’s powers to “routinely” inspect and audit a contractor’s activities. For instance, the 2003 C-130J contract with Lockheed allows the government to inspect and test all supplies, but says that “the Government agrees, consistent with the commercial nature of the C-130J program that such inspections should not be performed on a routine basis, but only where the Government determines in its judgment that inspections are required.”

One Department of Defense auditor-turned-whistleblower who worked at the C-130J plant in Marietta, Georgia, spent months researching the cost of the “J” model, but was frustrated by his attempts to determine an actual, and fair, price for the aircraft. The auditor, Ken Pedeleose, said in a report to Congress that in June 1995 when the government designated the C-130J a “Regulatory Pilot Program,” it “lost all insight into the C-130 operations.” (Appendix F)

In technical reviews for Italy and Norway in late 1996 to early 1997, Pedeleose, an employee of the Defense Contract Management Agency (DCMA), essentially concluded that the prices Lockheed was charging the two governments could not be justified.

“In short, the LMAC (Lockheed Martin) proposed price could not be substantiated based on historical factors and the limited information LMAC provided,” Pedeleose wrote. “Thus the final DCMA evaluation was forced to question the excessive cost and submit the report to the Italian Government for use in negotiations.”

That caused negotiations to stall, and afterward Lockheed complained that DCMA was “interfering” with the company’s negotiations with Italy. After a similar experience with a cost analysis for Norway, Pedeleose concluded that the two projects “verified that LMAC could not support C-130J cost in a commercial marketplace.” He also concluded: “The attitude of LMAC in negotiations and the strenuous nature to which they protect their ‘proprietary’ data for an unjustifiable price is a contributing factor to the poor sales of the C-130J.” Norway never did purchase any C-130Js.

Pedeleose said the history of the C-130J has been one of a “continued trend of excluding technical and financial experts from the process thus allowing further unbridled cost increases, among other issues.”

This became clear by 1998 when Lockheed and the Air Force agreed to keep financial experts in the dark about the program’s costs. For example, in an October 21, 1998, memo about an impending C-130J program review meeting, Lockheed vice president Gene Elmore told an Air Force Colonel on the acquisition team that the discussions could not include any government auditors.

“As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program,” Elmore wrote. The letter also prohibited Air Force acquisition team members from sharing any cost data with auditors. (Appendix G)

¹⁷ *Test and Evaluation Trends and Costs for Aircraft and Guided Weapons*, RAND Corporation, 2004, p. 38. http://www.rand.org/pubs/monographs/2004/RAND_MG109.pdf

One Senator who questioned the “commercial item” designation for the C-130J was Tom Harkin (D-IA). In 1997, Harkin fired off a letter of protest to then-Secretary of Defense William Cohen:

How can Atlas rockets and C-130J aircraft be considered ‘commercial’ items? Obviously, these are not items found in the commercial sector. More importantly, they are not items that are priced due to the forces of supply and demand. Items bought solely or primarily by the federal government should not fall under the ‘commercial’ definition. (Appendix H)

Real commercial items are acquired where a real market with competition exists, giving an assurance of fair and reasonable prices. For non-commercial items, contractors are required to submit cost or pricing data for negotiated procurement. However, in the case of the C-130J, there was no competition to set the price.

One of the Air Force’s reasons for exempting Lockheed from providing cost or pricing data on the C-130J was because Lockheed said the aircraft would be available in the commercial marketplace by the time of delivery. The commercial process is designed to speed up the acquisition process. Ironically, the C-130J’s commercial designation actually delayed the process. The reason: Lockheed had to justify the aircraft’s commercial item status by obtaining a Federal Aviation Administration (FAA) certification to sell it on the commercial market. But technical problems with the aircraft delayed the certification, which was not obtained until September 1998. In 1995, the Air Force contracted for two C-130Js to be delivered in 1997. However, they were not delivered until 1999 – two years behind schedule.¹⁸

The thinly-veiled attempt to justify the C-130J as a commercial item ended up taking a toll on Lockheed’s balance sheet. In June 1999, Lockheed announced it was reducing its earnings outlook for 1999 and 2000, in part due to the cost growth in the C-130J’s development and slower-than-anticipated sales of the aircraft. The company claimed its first profit on the C-130J program in 2004.¹⁹

The FAA certification process and plan to sell the aircraft commercially turned out to be a smokescreen to get the “commercial item” designation from the Air Force. Lockheed has not sold a single C-130J commercially and, in fact, has allowed the FAA commercial certification to expire. (Appendix I) Yet, Lockheed continues to benefit from selling the aircraft as a commercial item to the government, while government auditors still have no capacity to review cost or pricing data.

FAILING PERFORMANCE

The C-130J’s history of problems has kept it from getting a passing grade from the Pentagon’s independent weapons tester, the Director of Operational Test and Evaluation (DOT&E). In the first

¹⁸ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p. 6.

¹⁹ Discussion in Business Segments, Form 10-K, Lockheed Martin Corporation, February 28, 2005, p. 5.

phase of testing, DOT&E declared the C-130J as not operationally “effective” or “suitable,” and has yet to change that designation.²⁰ Not one C-130J was delivered to the Air Force meeting program requirements and, eight years into the program, the aircraft still has not been fully tested by DOT&E. When the Department of Defense Office of Inspector General graded the C-130J’s performance, the report card was clearly less than satisfactory. In uncharacteristically stinging language, the OIG’s July 2004 audit flatly concluded that Lockheed was not meeting its contract specifications and, therefore, that the C-130J was unable to perform its mission of transporting and dropping troops and equipment in combat zones.

Specifically, the OIG report said the Air Force unwisely paid 99 percent of the \$2.6 billion contract price for the first 50 defective aircraft, leaving the contractor little incentive to correct the problems on its own dime. “As a result, the government fielded C-130J aircraft that cannot perform their intended mission, which forces the users to incur additional operations and maintenance costs to operate and maintain older C-130 mission-capable aircraft because the C-130J aircraft can be used only for training,” the audit said.

The OIG said the transport aircraft has been unable to perform such basic and critical missions that include night vision goggle operations, combat search and rescue, visual formation, global air traffic management, and air-dropping paratroopers and containers. In addition, the hurricane hunter versions of the C-130J have experienced radar problems and the aircraft’s six-blade propellers have become dangerously pitted in bad weather.

The Inspector General audit also noted:

- The mission capable rates for the C-130Js are lower than the rates for the older versions, even though the “J” model has not yet been released to perform all C-130 missions. For the released missions the C-130J achieved a 50.4% rating in 2002 and a 62.4% rating in 2003.
- Although the C-130J was billed as being cheaper to maintain than earlier C-130 models, it had a high rate of “built-in-test false detections.” Such false detections mean that unnecessary maintenance actions are being performed too often, increasing the number of needed spare parts and maintenance hours.
- The immaturity of the “J” model’s design increases “aircraft downtime” and “creates a strain on personnel. The high number of workarounds has caused user personnel frustration and additional maintenance hours and costs.”²¹

Lockheed and the Air Force often try to deflect the critics of the C-130J by pointing to the experience of several other countries who purchased C-130Js prior to the U.S. contract. But nearly all

²⁰ *Annual Report FY2004, Department of Defense, Director Operational Test and Evaluation, Air Force Programs, C-130J Airlift Aircraft*, January 2005, p. 251.
<http://www.pogo.org/m/dp/dp-2004-C130J.pdf>

²¹ *Audit Report, Acquisition: Contracting for and Performance of the C-130J Aircraft*, Department of Defense Office of Inspector General, Report No. D-2004-102, July 23, 2004, p. 11.

of those foreign military buyers have had their share of problems with the aircraft: the British had difficulties dropping paratroopers; the Italians had windshield and horizontal stabilizer cracks; the Australians complained that the powerful engines were creating a dangerous vibration; and the Norwegians unsuccessfully jockeyed behind the scenes to determine if the price they were paying for the aircraft was fair.

As for the U.S. Air Force, all 50 of the first lot of C-130J aircraft delivered to and accepted by the Air Force were deficient in one way or another. Those deficiencies have ranged from propellers that peeled to improperly-functioning radar, and some continue even today. Congressional sources say that as of January 2005, only 11 of 33 major Category One open deficiency reports identified by the OIG have been corrected. Category One deficiencies are those that could cause major loss of equipment or systems, or that could directly restrict combat or operational readiness if not corrected.

To date, only two of the 50 C-130Js have been permitted to fly “limited” missions in Iraq, and are said to be accompanied by an unusually large maintenance and support contingent and extra spare parts – designed to inflate the aircraft’s reliability rate. The remaining 48 “J” models have been restricted to training missions.²²

Despite claims that problems identified in the 2004 OIG audit are fixed, the annual DOT&E report released in January 2005 noted that problems remain. “Major issues confronting the C-130J program include funding of logistics support and training systems; hardware, software, and technical order deficiencies; manufacturing quality; sub-system reliability; failure to meet required measures of system effectiveness and suitability; and resolution of documented deficiencies,” the report said. “A program for the correction of deficiencies is being worked.”

The report also noted that “the airdrop mission cannot be evaluated until deficiency corrections are implemented and the developmental and operational tests are completed as planned in FY06.”²³

Clearly, the taxpayers and fighting men and women have been shortchanged with the C-130J program.

HOLDING THE CONTRACTOR ACCOUNTABLE

C-130J supporters have claimed it would cost the Air Force \$2 billion to terminate the contract. That is contrary to the actual contract language, even if the contract is cancelled “at the convenience” of the government. The contract has a ceiling price that the government must pay if it decides to cancel the contract under those terms: \$439.7 million if it cancels by November 2005 and \$383.3 million if it cancels by November 2006. There are no contractual obligations for the government to pay any other termination costs, something the Air Force has confirmed privately to Congress.

²² Ibid., p. I.

²³ *Annual Report FY2004, Department of Defense, Director Operational Test and Evaluation, Air Force Programs, C-130J Airlift Aircraft*, January 2005, p. 252.
<http://www.pogo.org/m/dp/dp-2004-C130J.pdf>

Lockheed Martin is trying have it both ways. The only benefits of commercial purchases to the government are that it is not held responsible for ancillary costs associated with selling specifically to the government. Given that this is a “commercial item,” special manufacturing equipment to produce the C-130J should not have been required, nor should a government contracting officer approve such a purchase. With “just-in-time” materials purchasing, Lockheed Martin and its subcontractors should not have purchased materials to build planes in the out-years. Normally, long-lead should not exceed one year’s worth of material. The termination is not scheduled until the end of 2006.

However, no cancellation fees would be paid by the government if the program is cancelled “for cause” rather than “convenience of the government.” Because all of the first 50 C-130Js delivered to the Air Force had serious deficiencies, the government should cancel the contract for new transport aircraft for cause. Lockheed Martin failed to manufacture an aircraft that meets contract specifications, even after eight years of development and testing. The Federal Acquisition Regulation (FAR) states that a contract may be cancelled for cause “in the event of any default by the Contractor, or if the Contractor fails to comply with any contract terms and conditions, or fails to provide the Government, upon request, with adequate assurances of future performance.”²⁴

The FAR also says in the event of termination for cause “the Government shall not be liable to the Contractor for any amount for supplies or services not accepted, and the Contractor shall be liable to the Government for any and all rights and remedies provided by law.”

If the government does cancel the C-130J contract for cause, the Pentagon needs to learn from past mistakes. History has shown that contractors fight vigorously for every dime, even if its weapons system is proven to be substandard.

The Pentagon has cancelled contracts to develop major weapons systems “for cause” on at least two prior occasions. The first such contract termination was in 1985 when the Army procurement contract office notified the Army’s division air defense gun (DIVAD) contractor, Ford Aerospace & Communications Corp., that the performance on the anti-aircraft system was “totally unacceptable.” Unfortunately for the government, the decision to cancel the DIVAD by then-Secretary of Defense Caspar Weinberger was made two years after the so-called Sergeant York Gun went into production. It ended up costing the taxpayers \$1.4 billion.²⁵

The second major Pentagon weapon system to be cancelled for cause came in 1991, when then-Secretary of Defense Richard Cheney canceled a contract with McDonnell Douglas (now owned by Boeing Company) and General Dynamics to build the Navy’s A-12 Avenger medium attack aircraft, a program riddled with huge cost overruns and schedule delays. Cheney’s decision was based on the fact that the contractors could not complete the work on schedule, nor could they meet the contract requirements. At the time of termination, nearly \$3 billion had been spent on the A-12 project, with

²⁴Federal Acquisition Regulation, Part 52, Solicitation Provisions and Contract Clauses, 52.212-4 – Contract Terms and Conditions – Commercial items, (l).

²⁵ *Orange County Register*, “Ford, Defense Department Settle Over Sgt. York,” February 23, 1989.

nearly \$2.7 billion of that amount already paid to the contractors. The Navy demanded that the contractors pay back the government \$1.35 billion.²⁶

The contract cancellation ended up in the federal courts in June 1991, when the contractors filed a lawsuit against the Navy to recover cancellation costs and damages. A federal judge ruled in 1995 that the A-12 Avenger contract was cancelled at the convenience of the government, and in a final judgement in 1998, awarded the contractors \$1.2 billion plus interest. In 2001, a three-judge appeals court panel ruled in favor of the government's decision to cancel the contract with cause. A subsequent appellate court ruling sent the case back to the trial court. Hearings were conducted in June of last year, and a decision on the case is pending.²⁷

Given this history, the Pentagon should learn from past mistakes and ensure it terminates the C-130J program without any excessive cost to taxpayers.

RECOMMENDATIONS

1. Terminate the C-130J transport aircraft program for cause.
2. Authorize an independent study to determine future C-130 requirements.
3. Study the possibility of bringing older C-130 models that were placed into early retirement back into service to replace aircraft taken out of service.

²⁶ Testimony of Neal P. Curtain, Director, Planning and Reporting, National Security and International Affairs Division, Government Accountability Office, before the House Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, October 3, 1991. <http://archive.gao.gov/t2pbat7/144968.pdf>

²⁷ Discussion of legal proceedings, Form 10-K, General Dynamics, March 4, 2005.

Appendix A

Program Budget Decision 753,
Deputy Secretary of Defense Paul Wolfowitz,
December 23, 2004

FOR OFFICIAL USE ONLY
PROGRAM BUDGET DECISION



UNAUTHORIZED RELEASE OF THE
FOLLOWING PROGRAM BUDGET
DECISION IS PROHIBITED.

PBD 753

TITLE: Other Secretary of Defense Decisions

DATE: December 23, 2004

DECISION: The Deputy Secretary of Defense approved the Alternative Estimate.

FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY
PROGRAM BUDGET DECISION No. 753

(Dollars in Millions)

FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011

Wind Corrected Munitions Dispenser – Extended Range (WCMD-ER Program)

- Terminate the procurement of WCMD-ER program.

Air Force	-	-47.3	-64.2	-59.7	-71.7	-86.9	-73.9

NATO Alliance Ground Surveillance (AGS) program

- Restructure the NATO AGS program.

OSD	-	-4.0	-43.0	-77.0	-120.0	-119.0	-113.0

Carrier Program

- Retire one conventionally powered aircraft carrier in FY 2006, resulting in a carrier force of 11 vice 12 ships.

Navy	-	+134.3	-157.3	-288.3	-276.4	-304.3	-306.5

Transformational Satellite (TSAT) Program

- Reduce the TSAT program.

Air Force	-	-200.0	-200.0	-	-	-	-

E-10A Aircraft

- Restructure the E-10A aircraft program.

Air Force	-	-300.0	-300.0	-	-	-	-

C-130J Aircraft

- Terminate the procurement of C-130J aircraft for the Air Force.
- Procure the remainder of KC-130J for the Marine Corps in FY 2006.

C-130J	=	-25.7	-431.1	-753.4	-1,215.9	-1,306.7	-1,263.7
Navy \$	-	+754.9	-286.7	-286.8	-311.9	-312.0	-312.2
Qty	(-)	(+8)	(-4)	(-4)	(-4)	(-4)	(-4)
Air Force \$	-	-780.6	-144.4	-466.6	-904.0	-994.7	-951.5
Qty	(-)	(-10)	(-9)	(-8)	(-8)	(-8)	(-8)

UNAUTHORIZED RELEASE OF THIS PROGRAM BUDGET DECISION IS PROHIBITED.

FOR OFFICIAL USE ONLY

Appendix B

Table listing Lockheed Martin campaign contributions made from 1999-2004 to 21 signers of
January 10, 2005, letter to President Bush

Beholden?	
C-130J Letter Signatories	Lockheed Martin Contributions 1999-2004
John Isakson (R-GA)	\$23,500.00
Saxby Chambliss (R-GA)	\$21,000.00
James Inhofe (R-OK)	\$15,000.00
Dianne Feinstein (D-CA)	\$10,500.00
Arlen Specter (R-PA)	\$10,000.00
Blanche Lincoln (D-AR)	\$10,000.00
John Cornyn (R-TX)	\$10,000.00
Mike DeWine (R-OH)	\$9,000.00
Richard Lugar (R-IN)	\$9,000.00
Bill Nelson (D-FL)	\$9,000.00
John Rockefeller (D-WV)	\$7,000.00
Rick Santorum (R-PA)	\$7,000.00
Jack Reed (D-RI)	\$7,000.00
Trent Lott (R-MS)	\$7,000.00
Mel Martinez (R-FL)	\$5,000.00
Evan Bayh (D-IN)	\$5,000.00
Robert Byrd (D-WV)	\$5,000.00
James DeMint (R-SC)	\$5,000.00
Kay Bailey Hutchison (R-TX)	\$4,200.00
Richard Durbin (D-IL)	\$2,000.00
Lincoln Chafee (R-RI)	\$2,000.00

Total amount donated to
these Senators b/t 99-04:
\$183,200

Source: www.opensecrets.org

Appendix C

Letter to President George W. Bush from 24 U.S. Senators, January 10, 2005

United States Senate

WASHINGTON, DC 20510

January 10, 2005

President George W. Bush
The White House
1600 Pennsylvania Avenue NW
Washington DC, 20500

Dear Mr. President:

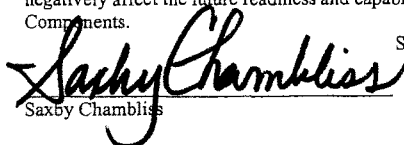
We understand that the Department of Defense is proposing the termination of the C-130J multiyear procurement contract beginning in FY2006. We strongly believe that this cut is ill advised and untimely given the operational shortfalls facing our military and the threats facing our nation. Additionally, the canceling of a multiyear contract to save \$26M in FY2006 is unprecedented.

The C-130 aircraft has been the workhorse of the military's tactical airlift fleet for more than 50 years. Currently, more than half the fleet of combat delivery C-130s is 30 years old or older. Although their longevity is clearly a testament to the value of these critical aircraft, we are very concerned that the C-130 E and H model aircraft continue to age at an alarming rate, putting our tactical airlift capability at risk in the near term. Today, both U.S. and Allied C-130Js are performing operational missions in CENTCOM in support of the warfighter, as well as important operations in support of the Tsunami relief effort in Southern Asia.

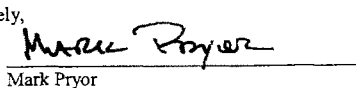
The Defense Department proposed the C-130J multi-year procurement program in 2003 for the Air Force and Marine Corps to mitigate risk associated with the aging C-130 fleet and to lower the procurement cost by 10.5%. The C-130J Bed-down Roadmap is now in jeopardy as the Air Force and Marine Corps will not have sufficient aircraft to complete the modernization of several flying units. The Air Force will be 116 aircraft short of requirement and the Marine Corps will be short 18 aircraft.

This proposed termination will also leave California, Mississippi, Rhode Island, and Pennsylvania Guard and Reserve units only partially modernized. Perceived savings generated by these proposed cuts will be consumed by over \$800 Million in termination liability costs and billions of dollars in increased costs to support aging and less capable aircraft. Consequently, this proposal to end the C-130J program could end up costing the American taxpayer more than the cost of completing the multiyear contract for all 62 aircraft, and leave our military with far less capable tactical airlift. Furthermore, no studies and analysis of the total effect of terminating this program were conducted prior to the cancellation decision.

We believe that any decision to terminate this established and successful C-130J multiyear contract should only be considered after both the Mobility Capabilities Study and the Quadrennial Defense Review are completed later this year. We urge you to re-consider these ill-advised cuts that will negatively affect the future readiness and capability of our Air Force, Marine Corps, and Air Reserve Components.


Saxby Chambliss

Sincerely,


Mark Pryor

Grant Lott

Em Bayh

Miss Davis

Ray Bailey Hutchison

Jack Reed

John Conner

Alvin Leger

C. I. Chafe

Mr. Marten

Dick Decker

Bill Nelson

Tom Green

Kirk Sutorum

Blanche L. Lincoln

Allen Peck

Jay Rappaport

Robert C. Byrd

Stephen

James W. Clarke

Jim DeMint

Joe Felt

James Kristian

Appendix D

March 2003 C-130J contract, Section on Cancellation Under Multiyear Contracts, between U.S.
Force and Lockheed Martin

PART IV. CONTRACT CLAUSES**A. CONTRACT TERMS AND CONDITIONS**

1. The following Federal Acquisition Regulation contract clause is hereby incorporated by reference:

52.212-4 CONTRACT TERMS AND CONDITIONS – COMMERCIAL ITEMS (FEB 2002)

2. The clause at FAR 52.212-4, Contract Terms and Conditions – Commercial Items (FEB 2002), incorporated by reference above, is amended as follows:

(a) Paragraph (a), Inspection/Acceptance is deleted and replaced with the following:

"(a) Inspection/Acceptance

1. Inspection

(i) The Contractor shall provide a quality control system covering all materials, fabrication methods and finished parts and assemblies. This system shall comply with ANSI/ASQC 9001-1994 and Part 21 of the Federal Aviation Regulation (FAR) "Certification Procedures for Products and Parts.

(ii) Additional Inspection Rights

(a) In addition to the Government's inspection rights in FAR 52.212-4(a), the Government has the right to inspect and test all supplies called for by this contract, to the extent practicable, at all places and times, including the period of manufacture, and in any event prior to acceptance. The Government agrees, consistent with the commercial nature of the C-130J program that such inspections should not be performed on a routine basis, but only where the Government determines in its judgment that inspections are required.

(b) These additional inspection rights shall apply with respect to the Contractor's facilities. These rights shall not apply to Contractor's subcontracts unless the Contractor's subcontracting agreements permit such inspections. The Contractor is not under an obligation to modify subcontracts to provide for Government inspection rights at subcontractor facilities. In the event the Government desires to conduct an inspection at a subcontractor where the applicable subcontract does not provide such rights, the Contractor

23. FAR 52.217-2 – Cancellation Under Multiyear Contracts (Oct 1997)

a. The clause at FAR 52.217-2, Cancellation Under Multiyear Contracts (Oct 1997) is incorporated by reference and is hereby amended as follows:

(1) Paragraphs (a), (c), (d), and (e) are deleted and replaced with the following:

(a) "Cancellation," as used in this clause, means that the Government is canceling its requirements for all supplies or services in program years subsequent to that in which notice of cancellation is provided. Cancellation shall occur by the date or within the time period specified in the Multiyear Contract Funding clause, unless a later date is agreed to. The Contracting Officer must notify the Contractor if funds are not available for contract performance for any subsequent program year.

(c) If cancellation under this clause occurs, the Contractor will be paid a cancellation charge not over the cancellation ceiling specified in the Cancellation Ceiling clause of this contract as applicable at the time of cancellation. Production effort for the delivery plan called out in this contract is included within the cancellation ceiling. Subject to required approvals, the contractor may include recurring costs that were reasonably incurred prior to cancellation. In the event the contract is cancelled, the contractor will be required to provide sufficient support to demonstrate that its cancellation proposal claimed costs, including any recurring effort costs claimed, were reasonably incurred to reflect the percentage of the work performed prior to cancellation. The contractor further agrees that its claimed cancellation charges shall not include any amount already paid the contractor, and will not include anticipated profit on the unperformed portion of the cancelled work.

(d) In the event of contract cancellation, as defined in paragraph 23.a of this clause, the Contractor shall submit a commercial cancellation proposal to the Government in accordance with paragraph 23.e of this clause.

(e) The cancellation charge shall be computed and the proposal/claim made for it as if the claim were being made under the Termination for Convenience of the Government clause of this contract. The Contractor shall submit the claim promptly but no later than one (1) year from the date of cancellation.

(b) Paragraphs (f), (g), (h), and (i) are deleted in their entirety.

24. Cancellation Ceiling

a. For the purposes of determining the cancellation ceiling, the contract assumes full funding by 15 November of each fiscal year. Should contract cancellation occur after 15 November, an equitable adjustment to the cancellation ceiling values shall be negotiated by the Government and the Contractor. The equitable adjustment shall be limited to a reasonable amount necessary to account for the additional contract performance required after 15 November and until the actual date of cancellation. No adjustment shall be made to the cancellation ceiling unless the actual date of cancellation occurs after 15 November of the affected fiscal year.

b. The following cancellation ceilings are established:

Cancellation End of FY	Cancellation Ceiling Amount	Assumed Date of Cancellation
FY03	\$110,000,000	16 November 2003
FY04	\$474,200,000	16 November 2004
FY05	\$439,700,000	16 November 2005
FY06	\$383,300,000	16 November 2006
FY07	\$347,300,000	16 November 2007
FY08	\$0	

25. Economic Order Quantity (EOQ) and Advance Procurement (AP) Options and Release of Multiyear Configuration

a. The FY03 USMC KC-130J aircraft (SubCLIN 0002AA) includes funding in the amount of \$2.0 million for a one-time payment event – Release of Multiyear Configuration. This event will release the multiyear configurations into the Contractor's ordering system. This event shall be invoiced as a separate event for the initial multiyear aircraft delivery lot (in addition to the initial payment event at contract award). Liquidation of this payment shall be included on the delivery event invoice in the amount of \$500,000.00 for four (4) each FY03 USMC KC-130J aircraft.

b. The Multiyear prices for the USAF and USMC are based in part on Economic Order Quantity (EOQ) funding of \$30.0 million for the USAF and \$8.0 Million for the USMC.

c. The parties understand and agree that the funding for such is not available at contract award. The Contractor agrees to grant the Government an option to obtain FY03 EOQ procurement funding for USAF aircraft in the amount of \$30.0 million. The Contractor further agrees to grant the Government an option to obtain FY03 EOQ procurement funding for USMC aircraft in the amount of \$8.0 million. Funding will be provided within 90 days of contract award and the contract option shall be exercised at that time. All Multiyear aircraft prices will remain in effect up to the expiration date of the option. If the option is not exercised and the \$30.0 Million USAF EOQ and \$8.0 Million USMC EOQ is not provided by the expiration date the aircraft prices will be renegotiated.

d. In addition to the Economic Order Quantity funding referenced above, the parties understand and agree that the USAF will provide \$39.9 million in FY03 Advance Procurement funding for FY04 CC-130J aircraft. The Contractor agrees to grant the Government an option to obtain FY03 USAF AP for FY04 USAF CC-130J aircraft in the amount of \$39.9 million. The contract option for this Advanced Procurement funding shall be exercised within 90 days of contract award. If the option is not exercised and the \$39.9 Million USAF AP is not provided by the expiration date the aircraft prices will be renegotiated.

e. Any Contractor effort to obtain EOQ or AP described above prior to the Government's purchase (option exercise) of these items is undertaken solely at the Contractor's risk. If this contract is cancelled or terminated prior to the Government's purchase of these items, the Contractor shall not recover any costs related to said Contractor efforts. The Government's contracting authority for FY03 is presently limited to purchasing four (4) USMC KC-130J aircraft.

Appendix E

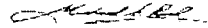
Email from Michael A. Reed, Lockheed Martin Chief Systems Engineer, C-130J, to Wayne Lee,
February 7, 2005

From: Reed, Mike A [mailto:mike.a.reed@lmco.com]
Sent: Monday, February 07, 2005 5:52 PM
To: Lee, Wayne
Cc: [REDACTED]
Subject: Data Delivery Policy Change

Wayne,

As a result of discussions today with the C-130J Directors, including the Director for Contracts, I am instructing you to withhold all requests for data to the SPO or anyone else that is considered Non-contractual until requests are levied by a contracts letter. This policy will be followed until further notice and includes all "Courtesy Copies". Please remove all recently requested non-contractual data from the DAL and EDCS until a contracts letter specifically requesting them can be approved or unless approved by myself.

This action has been taken because the recent flurry of informal SPO requests has exercised employees of LM Aero from Marietta to Ft Worth. Until further notice, there will be but one channel for information requests on the C-130J Program, and that will be by Contracts letter.


MICHAEL A. REED
SPOC, STEELER GROUPS C-130J
(770) 484-8519
MREED@LMCO.COM

Appendix F

“Technical Report on Criminal Vulnerability and Fraud,” Kenneth M. Pedeleose, David J. Bily,
and Henry R. Hagel, Report to Congress, July 26, 2002, pp. 7-14

Department of Defense

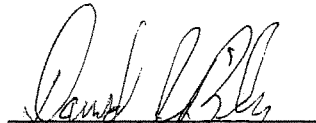
Technical Report on Criminal Vulnerability and Fraud

A Report on Waste, Fraud, Abuse of Discretionary Authority, and
Criminal Vulnerability for the Department of Defense, Defense Contract
Management Agency (DCMA) and Lockheed Martin Aeronautics
Company (LMAC)

July 26, 2002



Kenneth M. Pedeleose
Industrial Engineer, DCMA



David J. Bily
Contracting Officer, DCMA



Henry R. Hagel
Aerospace Engineer, DCMA

Section 1
C-130J Acquisition Reform Pilot Program
(The Beginning)

In 1994 the C-130J cargo airplane was deemed an Acquisition Reform pilot program where commercial practices were to be used in procurement processes. The intent was to reduce cost and have a military aircraft consisting of parts readily available in the commercial market place.

What this project has turned into is an aircraft that has more than doubled in price with spare parts prices exceeding anything reasonable. In short, the C-130J was a precursor of many future problems to come. To prove this point the C-130J cost escalation history is provided:

C-130H 1995-1996:	\$30.160 Million
C-130J (First aircraft October 1995):	\$33.9 Million
C-130J (First 5 Year Contract) (1995 – 2000):	\$44.2 Million - \$49.9 Million
C-130J (Second 5 Year Contract) (2001 -2005):	\$60.0 Million - \$66.0 Million
C-130J (Rumored prices, 2002)	\$73 Million

The following items outline the C-130J history and are provided to show a failure due to overextending Acquisition Reform from removing the controls necessary to contain cost and ensure ethical conduct. These items will also show the continued trend of excluding technical and financial experts from the process thus allowing further unbridled cost increases, among other issues.

A. 1994 SAF/AQQU Report: On June 3, 1994 there was a Pentagon SAF/AQ report passed to our then Deputy Commander (Mr. Steve Shelley). The report is summarized as follows:

- C-130J development was deemed overly optimistic. Costs over and above the estimates were to be charged to Independent Research & Development (IRAD) thus spreading development cost overruns into an overhead account forcing other programs (F-22, C-5, etc) to burden the cost. I confirmed this trend through a technical review of IRAD programs.

This Document Contains Sensitive Data

- The development estimate was based on Level of Effort (LOE) support. That is assigning personnel for a specific period of time. In summary, the passage of time took precedence over performance. I have noticed this on recent proposals as well.

- Comparisons were done between the C-130J, C-130H, and C-130E models. Since the C-130Es are significantly older than the C-130Hs, it is understandable that the cost savings of C-130E versus C-130J would be greater than an H versus J model comparison, thus misrepresenting actual savings.

B. Administrative Agreement (June 30, 1995): To avoid debarment as a defense contractor, LMAC agreed to allow access to its records (for a period of 3 years) to prove that they (LMAC) could be dealt with fairly. LMAC during this period continually denied access to records involving the C-130J, thus violating the administrative agreement.

C. C-130J Regulatory Pilot Program Designation (September 19, 1995): In spite of several concerns regarding the C-130J development, and LMAC actions of the June 30, 1995 administrative agreement (Item B) to avoid debarment, the program was designated as a C-130J Regulatory Pilot Program Designation. By doing this the government lost all insight into the C-130 operations.

D. October 21, 1998 (Exclusive Meeting): Pentagon (SAF/AQ) scheduled a visit to LMAC for a C-130J program review. Part of the review was to determine the reason for the cost increase of the C-130J. The local DCMA Divisional Administrative Contracting Officer (DACO) and DCAA were invited for some of the sessions.

It was suspicious when LMAC formerly excluded DCMA and DCAA (via memorandum) from a limited attendance (exclusive meeting) cost session. The LMAC memorandum indicated; *we are not trying to hide anything, only preserve the commerciality of the program.* This began a trend of openly excluding technical and financial personnel who are experts on LMAC operations and thus losing credibility in what should be open dialog conversations. Future actions will involve the exclusion of government personnel who identify LMAC improper business practices (fraud).

E: Letter of Temporary Exception (LOTE): The LOTE is a documentation mechanism that documents the contractual non-compliance of the C-130J. The illusive part of the LOTE is that aircraft are delivered with known shortcomings; however "on paper" the aircraft is "delivered". This is a misrepresentation of data because the C-130J is delivered, with some withholds, and however is not in usable form.

F. Parts Rotation (Cannibalization): A disturbing issue at LMAC involves rotating parts between Aircraft to accomplish tests and inspections for the C-130J and F-22. There have been investigations which have indicated that since the government about the parts rotations, then no problem exists.

Unseen problems include:

- Combat readiness may be affected if parts shortages or field part rotations must occur,
- Constant rotation increases wear of the parts.
- Misrepresentation of commercial part readiness (lack of spare parts)
- Constant rotation may be a sign of high failure rates, thus effecting combat mission success
- Rotating parts takes time and money, increasing end item cost.

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To help remedy this situation, a process of pad locking aircraft and documenting serial numbers on certain avionics components has been initiated. The issue of commercialization (readily available anywhere – Commercial Off the Shelf (COTS parts)) may be misrepresented.

G. Contractor Proposal Assessment Report (CPARs): The CPARs is used to evaluate contractor performance for future contractor awards. An event was recorded (March 27, 2000) where the government received training from LMAC on how to correctly fill out these forms. This may represent a conflict of interest, and is provided for information reasons.

H. Disclosures & Current Complaints: On April 5, 2000 I disclosed a significant amount of information including test reports, e-mails, etc., to the DCIS (200000836R-27-MAR-00-20AT-E5) on the regarding the C-130J. This followed my experiences on the C-5PDM project, where LMAC and DCMA management were exhibiting a desensitized response towards waste, fraud, abuse, and safety and simply put I became tired of the situation. Samples of this information are as follows:

- C-130J composite propellers structural integrity issues
- Reduced FAA certification on C-130J baseline (thus reducing commerciality of the C-130J)
- C-130J wiring issues
- Color Multipurpose Display Units (CMDUs) burning out
- Reprisal towards military personnel

Having the benefit of time passage, updates can be provided as follows:

- C-130J composite propellers experiencing structural cracks
- LMAC may further reduce FAA certification thus increasing governments need to test and certify
- The CMDU units may still be burning out. I have heard of field complaints and further investigations in this area.

I will support investigations that develop, however, the commercial nature of the C-130J, and the fluid nature of LMAC management and accounting practices, makes status of any LMAC program difficult to impossible to track.

Foreign Negotiations (Italy C-130J)

In late 1996 through early 1997 our office was requested, and funded, by the Italian Government to independently evaluate an LMAC contract proposal for 18 C-130J cargo Airplanes valued at over \$1 Billion. Italy was the first foreign government that requested DCMA assistance in the evaluation of a C-130J proposal and realized that DCMA could provide an independent cost analysis of the LMAC contract.

The evaluation of the proposal was complicated by the commercial nature of the C-130J and LMAC's extreme intransigence in providing supporting data. This further complicated matters due to fact that the Italian Government had to support their purchases through an independent accounting practice, which required substantiation for purchases of this magnitude. It was our task to provide an independent document and analysis that could be used by the Italian Government.

This Document Contains Sensitive Data

In short, the LMAC proposed price could not be substantiated based on historical factors and the limited information LMAC provided. Thus the final DCMA evaluation was forced to question the excessive cost and submit the report to the Italian Government for use in negotiations.

Negotiations between the Italian Government and LMAC stalled due to the differences in the LMAC C-130J asking price versus the independent analysis (DCMA recommended price).

Following this incident, LMAC complained that DCMA was interfering with LMAC establishing "commercial pricing" of the C-130J. In short, LMAC wanted to charge as much as they could for the C-130J despite the fact that a commercial price analysis indicated a lesser cost.

One major item of contention was the fact that the Italian Government did not recognize off-set costs that LMAC had included in their proposal. At one point Colonel Boylan (then DCMA Commander prior to Colonel Evans) indicated that he discussed the issue with Mr. Hanson (LMAC Executive Vice President) as to how DCMA could support the off set cost without calling them off set cost. The timeline begins at this point:

January 17, 1997: Mr. Bily reported Colonel Boylan's actions to the agency Fraud, Waste, and Abuse Counsel for corrective action. The following are a list of Mr. Bily's concerns as related to Colonel Boylan's actions:

1. Interfering with official U.S. Government's Pricing Recommendation.
2. Commander working with the contractor to hide costs.
3. Unethical conduct and relationship between Colonel Boylan and Mr. Hanson (LMAC Executive Vice President).
4. Mr. Bily also requested a formal investigation to determine if Mr. Hanson's actions are in violation of the administrative agreement LMAC signed in the fall of 1995 where LMAC expressed interest in demonstrating that, notwithstanding the misconduct for which LMAC was convicted, Lockheed Martin can be trusted to deal fairly and honestly with the U.S. Government and that suspending or debarring Lockheed Martin from future government contracting is not a necessary protection in this case.

February 12, 1997: Mr. Ryan (DCMA Division Administrative Contracting Officer (DACO)) provided a letter to Colonel Boylan justifying the position of the pricing report submitted to Italy.

March 17, 1997: Mr. Ryan provided a letter to LMAC justifying the position of the pricing report submitted to Italy.

March 28, 1997: Mr. Ryan again writes a letter to Colonel Boylan informing him that the price DCMA recommended was considerably higher than the price paid by the U. S. Air Force and that the DCMA recommended price could be set at the U.S Air Force price and LMAC could be made to justify anything above the Air Force Price. Mr. Ryan also stated that he conferred with legal counsel who conferred that no information should be released to the contractor without securing the permission of the Italian Government.

This Document Contains Sensitive Data

The questioning of cost and disclosures made to Fraud Counsel may have embarrassed LMAC and DCMA management resulting in reprisal actions. One of these actions was Mr. Bily being removed as a point of contact for the pricing team. Reprisal actions against Mr. Bily are further outlined and explained in Section 6.

For the record, there were never any adverse comments involving the analysis of the Italy report, or any proof that the results/conclusions were faulty or suspect.

Italy Summary: LMAC and Italy agreed on a price which gave LMAC a large production contract, and provided the United States Government a brief respite from having to sustain the C-130 program through military budget add-ons.

This should have been viewed as an Acquisition Reform success story which allowed the American people an additional \$1 Billion to put towards education, health care, infrastructure (roads, bridges), the environment, etc., versus sustaining a military add-on program for C-130 airplanes not needed for several years to come.

The contrary was true, and our efforts were not appreciated by DCMA management as became evident on the follow-on proposal to Norway and future disparate personnel actions.

Foreign Negotiations (Norway C-130J)

In late 1997 the government of Norway requested our assistance in the evaluation of their C-130J proposal, similar to that of Italy. The Norway proposal was for 6 C-130Js and some support equipment.

LMAC applied significant pressure, efforts, and sheer stubbornness to avoid independent review of their proposal. The LMAC stonewalling tactics prolonged the technical analysis, and may have been a contributing factor for LMAC losing the contract. The timeline of events supporting the Norway negotiation are as follows:

August 8, 1997: Received advanced word that Norway will be requesting contract administrative services from our office (DCMA) for the purchase of 6 C-130J aircraft.

September 8, 1997: Colonel Boylan (DCMA commander 1994-1998) informed the government pricing team personnel that the company (LMAC) did not believe that DCMA had the qualified people necessary to do an adequate evaluation of the (LMAC) Norway proposal. Mr. Bily advised Colonel Boylan that he had not looked at the proposal as yet, however similar circumstances with the Italian proposal may occur where DCMA may recommend a price reduction.

September 9, 1997: DCMA received authorization to begin work on the Norway proposal from our DCMA international office.

This Document Contains Sensitive Data

September 9, 1997: Mr. Ryan (DCMA DACO) sent a letter to Headquarters Defense Command Norway identifying key points of contact for the pricing effort. Mr. Bily was included as a Price Analyst.

September 9, 1997: A meeting was held by Colonel Boylan (attended by Mr. Bill Ryan (DACO), Mr. Tommy Treat (ACO), Mr. Dan Lee (TAG Manager), Major Rob Cooney (C-130 Program Integrator (PI), and Mr. Dave Bily) to discuss the approach used to evaluate the (LMAC) Norway proposal. The thrust of the meeting was Colonel Boylan's attempt to direct the price analysis approach to support the company's catalog price.

Colonel Boylan indicated that the proposal should be evaluated based on the (LMAC) Foreign Military Sale (FMS) price only. In short, Colonel Boylan was attempting to avoid a price reduction recommended on the Italian C-130J purchase by limiting the scope of the evaluation.

Mr. Bily indicated that the FMS price could be used as a fourth alternative price however, should not be the only alternative since better information was available. Mr. Bily indicated that we should decline Norway's request for evaluation of the C-130J proposal if we could not provide them the best possible information. At this time Mr. Dan Lee indicated to Mr. Bily that he (Mr. Bily) was in direct violation of an order by Colonel Boylan, and that he (Mr. Bily) should read his position description to understand what is expected of him (Mr. Bily).

September 9 or 10, 1997: (Whistle blowing) Mr. Bily contacted our local Fraud, Waste, and Abuse Counsel (Ms Leigh Owens or Leslie Cook) and disclosed what he believed to be an illegal order and unethical conduct by Colonel Boylan. (Mr. Bily disagreed with the direction that Colonel Boylan wanted us to evaluate the (LMAC) Norway proposal.) Mr. Bily indicated that this is actually the second time he reported Colonel Boylan to the Fraud, Waste, and Abuse Counsel for unethical conduct involving our attempt to develop a fair and reasonable recommendation to our customers.

September 10, 1997: Mr. Dan Lee e-mailed Mr. Bily and stated the following guidelines for evaluation of the LMAC Norway proposal:

1. Tommy Treat is the ACO. All Correspondence, both ways will go through him.
2. The ASC (*Aeronautical Systems Center*) Contract FMS price is the Official U. S. Government price for the basic Aircraft. (Tommy will research the price and determine what it should be and what it includes.)
3. We will not request clarification of any information from LMASC. All requests will be made to the Norwegian government.
4. We can make recommendations based on experience, except for the FMS price of the basic aircraft.
5. All reports to Norway will be released by the Commander's Office.

This e-mail limited the involvement of Mr. Bily and Mr. Ryan (financial and pricing experts) from the process.

This Document Contains Sensitive Data

It can be further noted that the established Government FMS price is for a different aircraft. In short attempts were underway to ensure that LMAC's price would not be challenged as occurred on the Italy negotiation. These actions substantiate a trend of not challenging the contractor (LMAC).

September 15, 1997: A draft memorandum of record was issued describing what events have taken place to date concerning the Norway proposal. Mr. Bily had questions involving the accuracy of the letter.

September 16 or 17, 1997: DCMC legal counsel Ms. Leigh Owens and Leslie Cook discussed concerns that the DCMC pricing team had with the Norwegian proposal. Both Ms. Cook and Ms. Owens supported our position and advised we could and should use any method we felt was required in our analysis for the Norwegians. As a result of this meeting, Colonel Boylan reversed his directions provided on September 9, 1997.

September 16, 1997: Mr. Ryan sent an e-mail to Mr. Dan Lee indicating that he disagrees with the results of the meeting as reported (by Mr. Lee). Mr. Ryan questioned the following items:

1. FMS price, except when used as historical data,
2. The need to go through Norway prior to contacting LMAC,
3. The involvement of Mr. Tommy Treat versus himself (whom Norway has been dealing with all along), and
4. The involvement of the commander in the pricing recommendation process.

September 17 – November 7, 1997 (exact date unknown): Mr. Bily contacted the local Office of Special Investigation (OSI) (Mr. Frank Clemmer) to report problems encountered with the contractor's pricing of the C-130J program under Acquisition Reform and the fact that the Government and Foreign Governments are expected to pay for contractor mismanagement.

Mr. Bily disclosed how the contractor changes data points in their regression analysis to support the commercial price, and the fact that Colonel Boylan was involved in the pricing process of Italy and Norway to support the catalog price. Mr. Bily advised the OSI that he believes Colonel Boylan's conduct was unethical and that Colonel Boylan's involvement was interfering with the pricing recommendation being made to a foreign government who is paying for our services.

October 23, 1997: Mr. Bily submitted his official pricing report of Norway's purchase of six (6) C-130J aircraft to the Contracting Officer, Mr. Tommy Treat.

November 6, 1997: Mr. Bily was aware that the report he submitted was being revised by Colonel Boylan. Mr. Bily informed the Contracting Officer (Mr. Treat) that he could not concur with the rewrite of the original report submitted on October 23, 1997. Mr. Bily believed that the revisions removed the information necessary for Norway to negotiate, and the fact that the presentation of the numbers changed the content and recommendations made by the original report.

November 7, 1997: The Contracting Officer (Mr. Treat) sent out Colonel Boylan's final revision as the U.S. Government's position without identifying any reasons or justifications to the changes made to the original report submitted by the Price Analyst (Mr. Bily).

This Document Contains Sensitive Data

In summary, this pricing exercise depicted an event where the commander (Colonel Boylan) interjected himself into negotiations (to the point of re-writing technical reports) to ensure LMAC wishes over the objections of his own personnel, and despite the fact that the Government of Norway paid for an independent pricing report.

Italy/Norway Summary. The Italy and Norway projects verified that LMAC could not support C-130J cost in a commercial market place. This is evidenced by the fact that LMAC international sales have been abysmal. The attitude of LMAC in negotiations and the strenuous nature to which they protect their "proprietary" data for an unjustifiable price is a contributing factor to the poor sales of the C-130J.

The C-130J also clarified the involvement of DCMA management to effect positive outcome in favor of LMAC. When subtle attempts (such as restricting the technical information and analysis) failed, DCMA management resorted to a more direct approach of rewriting the technical report. The following section will show that the C-130J was not an anomaly but was a forerunner of more blatant fraudulent acts yet to come.

Appendix G

Memo to Colonel Steve Busch (SAF/AQD) from Gene Elmore, Lockheed Martin Vice-President
– Hercules Programs, October 21, 1998

LOCKHEED MARTIN

**Memorandum**

Date: 21 October 1998
To: Col. Steve Busch, SAF/AQD
From: Gene Elmore

Attached is our proposed agenda for the C-130J Review here in Marietta next week. We have included your requested topics, including those programmatic issues which affect them, starting the afternoon of the first day.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA, and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.

We believe the facts will show that the commercial item contract is a very good deal for the USG, and we hope that the program issues discussions will result in a win/win way forward for the USAF and Lockheed Martin.

I would appreciate your comments on the proposed agenda. I also need insight into Mrs. Drury's plans for Friday so we can finalize that portion of the agenda.

Gene Elmore
Vice President - Hercules Programs

Attachment

Appendix H

Memo to Defense Secretary William Cohen from U.S. Senator Tom Harkin, October 31, 1997

TOM HARKIN
Sen.

United States Senate

WASHINGTON, DC 20510-1102

October 31, 1997

The Honorable William Cohen
Secretary of Defense
The Pentagon
Washington, DC 20301

Dear Secretary Cohen:

It is come to my attention that certain elements of the Administration's recent acquisition reforms have become a means for contractors to inappropriately avoid important accountability measures. I urge the Department of Defense to review its acquisition policy regarding the definition of commercial items and make changes to end some inappropriate and potentially costly practices.

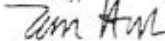
Recent changes to federal acquisition regulations have exempted contractors from supplying cost data if their products are deemed "commercial" (i.e. under FAR Part 12). The intent of these changes was to allow a lower level of scrutiny for commercial items that are "off-the-shelf" and subject to true competition. It makes sense that items whose prices are kept low due to market forces need not have the same level of scrutiny and accountability.

However, the Department of Defense has applied these acquisition policy changes to a number of items which stretch common sense to the breaking point. For example, I must question the DOD's determination that a number of major acquisition items are purchased under the commercial exemption. How can Atlas rockets and C-130J aircraft be considered "commercial" items? Obviously, these are not items found in the commercial sector. More importantly, they are not items that are priced due to the forces of supply and demand. Items bought solely or primarily by the federal government should not fall under the "commercial" definition.

I understand the DOD Inspector General is conducting a number of investigations on items bought under the commercial definition. According to press reports, the IG has found a number of items that are being bought at a price higher than when the items were bought earlier and were not considered "commercial." These examples only underscore the need to apply the commercial definition in a manner that is appropriate.

I therefore urge the DOD to review and change its acquisition practices to correct the current problems in applying the definition of "commercial" items to its contracting procedures.

Sincerely,


Tom Harkin
United States Senator

THE FIRST AVENUE, NE
SUITE 204
TUCUMCARI, NM 86340-1000
(505) 226-0000

100 WASHINGTON ST.
100 FEDERAL BLDG.
DES MOINES, IA 50319
(515) 281-0000

214 E. 10TH ST.
214 FEDERAL BLDG.
DALLAS, TX 75201
(214) 752-1100

200 WEST 10TH ST.
210 FEDERAL BLDG.
DENVER, CO 80202
(303) 333-1100

210 6TH ST.
100 FEDERAL BLDG.
BOULDER, CO 80501
(303) 440-1100

Appendix I

Annual Report FY2003, Department of Defense, Director Operational Test and Evaluation, Air
Force Programs, C-130J Airlift Aircraft, February 2004

2003

AIR FORCE PROGRAMS

C-130J Airlift Aircraft

The C-130J is a medium-range, tactical airlift aircraft designed primarily for the transport of cargo and personnel within a theater of operations. The cargo area can adapt to accommodate a combination of passenger, cargo, and/or aeromedical airlift missions. Variants of the C-130J are intended to perform missions such as weather reconnaissance (WC-130J), electronic combat (EC-130J), and aerial refueling (KC-130J). The WC-130J is discussed in this report, the EC-130J is undergoing modification, and the KC-130J is addressed in a separate report.

The C-130J is more than 70 percent new, relative to previous models. Significant differences include an advanced integrated digital avionics system, a redesigned flight station intended to facilitate a two-person cockpit, a new propulsion system intended to provide improved take-off, climb and cruise performance, and cargo handling system enhancements.

Contractor developmental test and evaluation began in spring 1996, and as capability is added, will likely continue past 2006. The C-130J aircraft procurement is proceeding under a commercial acquisition strategy that entered a multi-year procurement in 2003.

The Federal Aviation Administration (FAA) awarded a Type Certificate for a commercial version (Lockheed 382J, not produced or on contract) of the paper aircraft in 1998. However, significant military requirements were not included in the original FAA certification, and the contractor has not maintained FAA certification of government-required deficiency corrections and modifications. This necessitates additional testing by the Air Force and other U.S. government users.

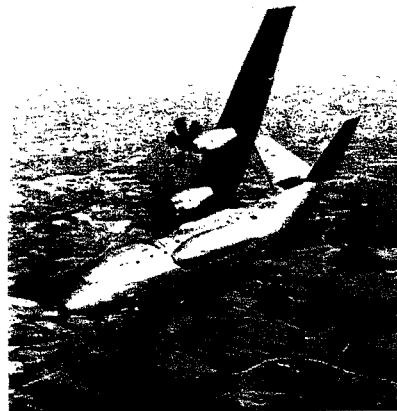
DOT&E designated the C-130J aircraft for LFT&E oversight in May 1995 and approved the Test and Evaluation Master Plan in July 1999. Threats include man-portable air defense systems, surface-to-air missiles, anti-aircraft artillery, air-to-air missiles, rockets, and small arms. The C-130J LFT&E vulnerability reduction program addresses wing dry bay fire, composite propeller blade ballistic vulnerability, engine and engine bay fire, vulnerability to man-portable air defense systems threats, and mission-abort vulnerability.

TEST & EVALUATION ACTIVITY

The operational test program structure has been adjusted to accommodate the developmental test releases of software. Originally, one production representative version of software was to be released. Due to the immaturity, the software was released in increments – Block 5.1, Block 5.2, and Block 5.3. Block 5.3.6 is an upgrade that integrates defensive systems operations with the mission computer. Block 5.4 is now designated the production representative version. Block 6.0 will include global air traffic management capabilities and Block 7.0 is undefined at this time.

Qualification testing for mission software Block 5.3.6 is currently in test. Operational testing of Block 5.4 is scheduled for late CY05. Block 5.4 will contain some correction of previously documented deficiencies, but many fixes will not be addressed until Version 6.0 and Version 7.0 are installed in the FY06 and FY08 timeframes, respectively. The operational test plan is being revised to reflect the current structure of the test program.

The C-130J LFT&E Vulnerability Reduction Program (VRP) Phase 2 (composite blade testing) completed fatigue testing of ballistically damaged propeller blades during 2003. VRP Phase 4 (engine nacelle fire suppression system testing) test planning and test article manufacturing began in July 2003.



The C-130J is a medium-range, tactical airlift aircraft designed primarily for the transport of cargo and personnel within a theater of operations.

AIR FORCE PROGRAMS

TEST & EVALUATION ASSESSMENT

C-130J

Major issues confronting the C-130J program include funding of logistics support and training systems; hardware, software, and technical order deficiencies; manufacturing quality; subsystem reliability; failure to meet required measures of system effectiveness and suitability; and resolution of documented deficiencies.

Due to system immaturity, operational testing was initially segmented into three phases of testing: Phase 1A, Phase 1B, and Phase 2. Phase 1A evaluated the ability of the aircraft to be used to train pilots. Phase 1B evaluated the aircraft's ability to perform the air/land mission. Phase 2, planned for FY06, will evaluate the ability to perform all missions to include airdrop. Based on the evaluation of test results conducted from Phase 1A and Phase 1B, the aircraft is not operationally effective. The airdrop mission cannot be evaluated until deficiency corrections are implemented and the developmental tests are completed in FY06. Aircrew workload issues, software discrepancies, and cargo loading and constraint requirements are still major issues. The using commands (United States Air Force, Air Force Reserves, and Air National Guard) are unable to verify manpower requirements to field this system until the crew workload evaluation is complete.

DOT&E determined that the aircraft is not operationally suitable. The evaluated reliability, maintainability, availability, and logistics supportability during Phase 1B were below operational requirements. Deficiencies were noted with on-aircraft integrated diagnostics and fault isolation systems, portable maintenance aids, maintenance technical orders, and the availability of spare parts. Additional contractor field service representatives are required to assist in the maintenance of the aircraft for the foreseeable future.

Although hardware and software modifications in Block Upgrade 5.3 showed improved navigation functions, flight displays, technical publications, and reduced nuisance faults, a large number of deficiency reports remain open that need to be resolved to achieve operational capability that is equal to the current C-130E/H fleet. An executable plan delineating deficiency correction with adequate funding that will result in an operational capability has not been formulated. Without an executable plan, the units with aircraft that have already been delivered and those that will receive additional aircraft prior to the correction of documented deficiencies are unable to perform the full range of essential combat delivery functions.

Assessment of the live fire VRP ballistic testing of the C-130J composite propeller blades awaits completion of the 46th Test Wing live fire test report. Test facility limitations narrowed the realism of the testing. The test facility was unable to support ballistic testing of dynamically rotating propellers. As a result, ballistic testing was accomplished on stationary blades with fatigue testing of the damaged blades conducted separately after the ballistic testing was complete.

WC-130J

Four major issues confront the weather reconnaissance aircraft. The radar cannot perform the hurricane reconnaissance mission, continuous satellite communication is not achieved, there is propeller delamination, and there is excessive vibration in the auxiliary crew member's station.

The low-power color radar was designed as a weather avoidance radar, but it was installed in the WC-130J to perform the weather penetration mission. The radar does not support operational requirements for the weather mission. The program office has developed a plan to correct this deficiency. Additional software modification tests were planned for late 2003 (storm season), but testing was not accomplished due to software deficiencies. Hardware modifications will be tested approximately 26 months after the contract is awarded. Initial operational capability may be no sooner than FY06. Since the WC-130J cannot perform its primary mission, the correction of this deficiency is critical. The secondary impact is that the ten older WC-130H models that currently perform the mission were to be converted to aerial refueling tankers and transferred to Air Combat Command. That will not occur until the WC-130J is fully operational.

A proposed fix to the propeller delamination problem has been installed on test aircraft. Data are currently being collected by the Air Force Reserves. The fix must be tested in a hurricane environment.

Project On Government Oversight
Exposing Corruption, Exploring Solutions

Written Testimony of
Danielle Brian
Executive Director
Project On Government Oversight
before the
Senate Armed Services Committee, Airland
Subcommittee on
DoD's Use of "Commercial" Acquisitions and
"Other Transaction Authority"

March 15 and 16, 2005

666 11th Street, NW, Suite 500 • Washington, DC 20001-4542 • (202) 347-1122
Fax: (202) 347-1116 • E-mail: pogo@pogo.org • www.pogo.org

POGO is a 501(c)3 organization

I would like to thank Chairman McCain and all the members of the Subcommittee for this opportunity to provide written testimony for the record. POGO commends the Subcommittee for holding hearings on contract reforms that have subjected taxpayer dollars to potential waste, fraud, and abuse. Undoubtedly, the Drury/Boeing tanker fiasco has created a real ground-swell in Washington circles to review conflict of interest and procurement integrity issues. As a result we have heard of unprecedented investigations by the Defense Criminal Investigative Service of senior procurement officials who have gone to work for defense contractors, as well as the creation of the "Procurement Fraud Working Group" by U.S. Attorney Paul McNulty.

I am the Executive Director of the Project On Government Oversight (POGO) which investigates, exposes, and seeks to remedy systemic abuses of power, mismanagement, and subservience by the federal government to powerful special interests. Founded in 1981, POGO is a politically-independent nonprofit watchdog that strives to promote a government that is accountable to the citizenry. In the beginning, POGO (which was then known as Project on Military Procurement) worked to expose outrageously overpriced military spending such as the \$7,600 coffee maker and the \$436 hammer. After many successes reforming the military, POGO expanded its mandate to investigate systemic waste, fraud, and abuse in all federal agencies.

This testimony combines our unique position in the defense and contract oversight program areas. In the recent past POGO has exposed problems with Department of Defense (DoD) weapons systems, problems with the revolving door between the federal government and its top contractors, and numerous problems by so-called procurement or acquisition "reforms," including lack of competition, reduced oversight, and the elimination of transparency. I would specifically like to highlight two reforms that are very problematic: "commercial item" acquisitions and "other transaction authority" (OTA) – two contracting vehicles that are highly favored by government contractors.

POGO is 100% behind the concept of the government buying truly "commercial" goods and services. The commercial marketplace provides genuine checks-and-balances and therefore provides competition and lower prices. The problem arises in instances when the government is stretching the definition of "commercial" to include non-commercial items. In such cases, checks-and-balances are missing, as well as the contracting controls that provide the government with the ability to protect taxpayer dollars.

With regard to OTA, POGO concludes that their creation was based on a fallacy. Congress was lead to believe that hordes of "non-traditional" contractors who were afraid of government red-tape were clamoring to bring the government innovative good or services. OTA was created to welcome these new businesses into the government contracting fold. Well, the hordes never came. Instead, we are left with a system without contracting controls, and billions of dollars being awarded to "traditional" contractors who were already selling goods or services to the government. Although government statistics show that a few "non-traditional" contractors have stepped forward, those same reviews indicate that as much as 97% of OTA funds are going to traditional contractors.

“Commercial Items”

Federal Acquisition Regulation (FAR) Part 12 governs the “Acquisition of Commercial Items” – items that are believed to be subject to competitive market forces. The purpose of such acquisitions is to reduce acquisition time, rather than paying contractors to develop unique items for the government’s use. “For example, contracting officials may reduce the time needed to solicit bids and award contracts by combining certain steps in the solicitation process, using streamlined evaluation techniques, and eliminating certain administrative requirements.”¹ The use of the “commercial item” contract vehicle is based on the premise that there is a “commercial” market for the desired goods or services.² Unfortunately, DoD has stretched the definition of “commercial item” and even went as far as to permit the purchase of items that do “not meet the definition of “commercial item.”³

Problems with “commercial item” purchases, however, date back many years. A March 1983 GAO report stated that “commercial item descriptions” (CIDs) were expected to maximize “the reliance on commercial packaging, packing, and marketing,”⁴ thereby increasing “competition and, as a result, decreas[ing] costs.”⁵ GAO noted, however, that CID purchases require “established commercial market acceptability, using recognized industry standards, instead of Federal specifications or standards, when ever possible, and requiring manufacturers to certify that the products they are selling to the government are the same as those in the commercial market place.”⁶

To encourage such deregulation contractors argued that a “commercial” market ensures reasonable pricing. In practice, however, there are many inherent problems created when the government purchases goods or services using the “commercial item” contract vehicle. Through the

¹ GAO, *Federal Procurement: Federal Procurement Spending and Workforce Trends*, GAO/NSIAD-99-90, August 2003, at p. 17.

² 41 U.S.C. § 403(12) (defining “commercial item”). See 10 U.S.C. § 2376 (defining “commercial item”); FAR 2.101(b) (defining “commercial item”), FAR 12.101(a) (“Conduct market research to determine whether commercial items or nondevelopmental items are available that could meet the agency’s requirements.”), and FAR 12.201 (“Public Law 103-355 establishes special requirements for the acquisition of commercial items intended to more closely resemble those customarily used in the commercial marketplace.”).

³ DFARS 212.7002-1 (allowing “commercial item” contracts to be used for follow-on contracts after use of other transaction authority).

⁴ GAO, *Assessment of the General Services Administration’s Use of Commercial Item Descriptions*, GAO/PLRD-83-43, March 3, 1983, at p. 2.

⁵ *Id.* at p. 1.

⁶ *Id.* at p. 3.

Federal Acquisition Streamlining Act (FASA)⁷ and the Clinger-Cohen Act,⁸ “commercially” available items are exempted from much procurement oversight, such as the Truth in Negotiations Act (TINA) regulations, Cost Accounting Standards (CAS), cost or pricing data requirements, and audit access for examination of contractor records by the GAO or defense auditing agencies.⁹ That problem is compounded by the government’s loose definition of “commercial,” permitting “non-commercial items” to be labeled as “commercial items.” Similarly, items under the loose definition can be merely “**of a type**” sold to the public, rather than a product that actually is sold to the public.¹⁰

The DoD Inspector General (DoD IG) noted that the loose definition of commercial items “qualifies most items that DoD procures as commercial items,” with the result that: “This opens up a major loophole for sole-source vendors to charge prices that cannot readily be evaluated for reasonableness. This concern will continue to grow as more companies merge and the aerospace industry becomes more of a sole-source environment.”¹¹

For instance, the C-130J military transport aircraft has been sold to the government as a “commercial item.” While not a single sale was ever made to civilians, oversight was loosened. The DoD IG has stated: “The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements.”¹² The IG’s report also said:

The commercial acquisition strategy was unjustified, the Air Force did not properly manage the program, and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics did not provide effective oversight. The Air Force bought the C-130J as a commercial item needing minor modification, but in the 8 years since the Air Force began contracting for the C-130J, Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract

⁷ P.L. 103-355, sections 8104 and 8203, October 13, 1994.

⁸ Clinger-Cohen Act of 1996 (formerly called Information Technology Management Reform Act (ITMRA), Division E, National Defense Authorization Act for FY 1996 (P.L. 104-106, February 10, 1996).

⁹ See FAR 12.102(f)(2) and 15.403-1. There is a debate over whether government audits can be conducted. A problem exists, however, because contractors supplying “commercial items” do not supply the government with cost or pricing data and therefore the auditors do not have data to verify.

¹⁰ FAR 12.101 and DoD Directive 5000.2-R 3.3.1.1 (“Commercial and Non-Developmental Items”).

¹¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 14-15.

¹² DoD IG, *Acquisition – Contracting for and Performance of the C-130J Aircraft (D-2004-102)*, July 23, 2004, at p. i.

specifications. In addition, the Air Force did not determine whether the commercial version of the C-130J met the operational requirements before procuring the aircraft.¹³

This “commercial” designation on the C-130J prompted Senator Tom Harkin (D-IA) in 1997 to fire off a letter of protest to Secretary of Defense William Cohen:

How can Atlas rockets and C-130J aircraft be considered “commercial” items? Obviously, these are not items found in the commercial sector. More importantly, they are not items that are priced due to the forces of supply and demand. Items bought solely or primarily by the federal government should not fall under the “commercial” definition.

With oversight regulations waived, the cost of wiring harnesses on the C-130J increased by five times their original price after the aircraft was designated “commercial,” going from \$91 to \$453. The GAO offered this spare part price-hike as a real-world example of the difficulty involved in making the transition from pricing goods and services based on costs incurred to an ineffective commercial model in which factors other than cost are the principal means used to establish prices.¹⁴

Similar government attempts were made to classify the C-17 cargo plane as a “commercial item.” While at the U.S. Air Force, Darleen Druyun was a staunch supporter of the December 2000 proposal to acquire additional C-17 cargo aircraft while sidestepping financial oversight for Boeing. While the acquisition proposal would have been a financial bonanza for Boeing, it would have ultimately put billions of taxpayer dollars at risk. By categorizing such an item as “commercial,” the government would have bypassed important pricing oversight controls that are only intended to be lifted for items that are truly “commercial” and whose prices are set by free market forces. A \$232 million outsize cargo carrier with 173,300 lbs. capacity is clearly not a mass-market item that is sufficiently affected by the free market. Many other “commercial items” are purchased by the public, but with such low frequency that prices are by no means determined by the free market.

Generally, auditors are prevented from obtaining cost or pricing data on “commercial items.” In a memorandum obtain by POGO, the extent to which contractors want to avoid showing cost data to government auditors is laid bare. In preparation for an Air Force visit, a Lockheed Martin official wrote:

Attached is our proposed agenda for the C-130J.

* * *

¹³ *Id.* at ii.

¹⁴ Statement for the Record, Henry L. Hinton, Jr., Assistant Comptroller General, National Security and International Affairs Division, General Accounting Office, before the House Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, *Federal Acquisition: Trends, Reforms, and Challenges*, GAO/T-OCG-00-7, March 16, 2000, at p. 10.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for the start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA [Defense Contract Management Command or Defense Contract Audit Agency], and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.¹⁵ (Emphasis added.)

One DoD auditor-turned-whistleblower who worked at the C-130J plant in Marietta, Georgia, spent months researching the cost of the “J” model, but was frustrated by his attempts to determine an actual, and fair, price for the aircraft. The auditor, Ken Pedeleose, said in a report to Congress that in June 1995 when the government designated the C-130J a “Regulatory Pilot Program,” it “lost all insight into the C-130 operations.”

In 2001, the DOD IG released a report that criticized the use of “commercial item” purchases, concluding:

The Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Defense Advanced Research Projects Agency have made different attempts over the last 3 years to inappropriately use FAR Part 12 contracts to acquire applied research. The lack of a commercial market and established catalog and market prices for applied research, and difficulties in determining fair and reasonable prices for services that do not exist in the marketplace makes the use of commercial item contracts for applied research inappropriate.¹⁶

In 2000, Donald Mancuso, the DoD Deputy Inspector General, testified before Congress regarding the problem with “commercial item” purchases, stating:

In early 1998, we began issuing a series of audit reports on prices paid for aviation spare parts and equipment. As you may recall from your hearings at the time and intermittent publicity since, we found that prices paid under new, commercial type contracting arrangements were considerably higher than was the case when the same

¹⁵ Gene Elmore, Lockheed Martin, Memorandum to Col. Steve Busch, SAF/AQD, October 21, 1998, at p. 1.

¹⁶ DoD IG Report, *Use of Federal Acquisition Regulation Part 12 Contracts for Applied Research*, Report No. D-2001-051, February 15, 2001, at p. I.

items were procured previously under "traditional" Defense contracts or ordering agreements.¹⁷

Before the curtain completely fell on access to "commercial" purchase data, the government was able to compare spare parts prices under the new "commercial item" designation to early data that had been supplied to the government. In its 1999 report, the DOD IG found that AlliedSignal had overcharged the government for spare parts by as much as 618%.¹⁸ The irony is that these parts were bought under the new, much-touted "commercial" price system promoted by the Clinton Administration and Congress. The only way that the outrageous overcharging came to light was because the government still had pre-FASA and pre-Clinger-Cohen Act data to compare the old prices with the new "commercial" prices. POGO suspects that the same overcharges would be revealed in current "commercial items" if government auditors have access to cost or pricing data.

According to the January 1999 investigation by the DoD IG:¹⁹

- The government "paid Allied prices that were higher than fair and reasonable in FYs [Fiscal Years] 1996 and 1997 when compared to the noncommercial prices paid to Allied in previous years." The parts included items such as gearshafts, wheels, nuts, bearings, seals, filters, and valves.
- The Defense Department "paid a 54.5 percent premium for commercial parts from Allied" - in other words, were overcharged by more than 50%.
- For parts that AlliedSignal did not even make itself, but merely bought from original manufacturers or dealers and then sold to the government, some items were variously marked up by as much as 294%, 325%, and 618%.
- The Defense Department paid an even higher average markup in Fiscal Year (FY) 1997 (60.1%) than it did in FY 1996 (45.8%). It appears that in this case an Acquisition Reform "learning curve" is not being realized.
- Defenders of the acquisition system argue that the government paid higher prices because the prices included more stocking services - but the Defense Department failed to use the services.

The DOD IG report blacks out the names of specific spare parts that were grossly overpriced. Although contractors routinely claim such information is "proprietary," the real effect is that the

¹⁷ Donald Mancuso, Deputy Inspector General Department of Defense, Statement made before the Subcommittee on Readiness and Management Support of the Senate Committee on Armed Services on Defense Acquisition, April 26, 2000, at p. 9. Hereinafter Mancuso Statement.

¹⁸ DoD IG, *Commercial Spare Parts Purchased on a Corporate Contract*, Report No. 99-026, January 13, 1999, p. 12.

¹⁹ *Id.* at p. I-10.

public cannot easily find out how much they are overpaying for items they might recognize.

The IG report on AlliedSignal followed 1998 IG reports of overcharging under "commercial" contracts with Boeing and Sundstrand corporations. The earlier reports (see "Acquisition Deform: A Study in Hasty Deregulation," Project On Government Oversight Alert, October 1997) found that:

- Prices were inflated by more than 1,000 percent on a variety of spare parts. For example, the Boeing price for a commercially-available \$24.72 "spoiler actuator sleeve" was \$403.39 - a markup of 1,532 percent.²⁰
- Sundstrand billed the government \$6.1 million for parts that were worth only \$1.6 million.²¹
- Boeing charged \$5 million for parts that were worth \$3.2 million in the competitive market.²²
- A contractor charged \$76 for 57¢ screws.²³
- Another contractor charged \$714 for an electric bell worth \$46.68.²⁴

The IG's 1998 report found that higher prices were paid for "commercial" items than had been paid earlier because:²⁵

- Although Acquisition Reform allowed the Sundstrand items to be purchased under loose "commercial" item rules, in fact "there was no competitive commercial market to ensure the reasonableness of the prices";

²⁰ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17-18.

²¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, February 6, 1998, at p. 12.

²² DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 8.

²³ Department of Defense Authorization Act for Fiscal Year 1999 Report on Authorizing Appropriations, Senate Armed Services Committee, Rpt. 105-189, and "U.S. Senate Panel Tells Pentagon to Stop Parts 'Pricing Abuses,'" Tony Capaccio, Bloomberg Business News, May 29, 1999.

²⁴ *Id.*

²⁵ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 8.

- Sundstrand "refused to provide DLA [Defense Logistics Agency] contracting officers with 'uncertified' cost or pricing data for commercial catalog items";
- Items were defined as commercial as long as they were merely "offered for sale, lease, or license to the general public" (emphasis added); and
- In the Boeing case,

"contracting officers accepted Boeing commercial catalog prices as fair and reasonable without adequate support for price reasonableness, even when DoD was the 'primary' customer procuring significantly larger quantities than other commercial customers and there was no competitive commercial market to ensure the price integrity. The contracting officers made no attempt to exert the leverage that a major customer ought to be able to exert to negotiate significant discounts, as is common commercial practice."²⁶

The purchase of "commercial items" under FAR Part 12 is on the rise. Since FY 2000, contract award dollars and actions have been on the rise. According to GSA's FY 2004 report, the government conducted 367,654 "commercial item" purchases totaling more than \$50 billion.²⁷ In addition, "commercial item" purchases have increased in all categories. The chart below illustrates the increases in both government-wide and "commercial item" purchases.

Fiscal Year	All Contracts ²⁸		"Commercial Items" ²⁹		
	Dollars in Billions	Actions	Dollars in Billions	Actions	% of All Contracts
2004	\$310	1,661,506	\$50	367,654	16 %
2003	\$290	1,006,919	\$62	443,273	22 %
2002	\$234	672,171	\$47	255,480	20 %
2001	\$215	563,014	\$40	185,315	19 %
2000	\$203	519,780	\$31	135,836	15 %

²⁶ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17.

²⁷ GSA, Federal Procurement Data System, Total Federal Snapshot Report, Actions Reported From October 1, 2003 to September 30, 2004, date generated January 17, 2005.

²⁸ GSA, Federal Procurement Data System, Total Federal Snapshot Reports FY 2000 through FY 2004.

²⁹ *Id.*

Not only is the increased use of the “commercial item” contracting vehicle troublesome, but the Acquisition Reform Working Group (ARWG), largely made up of defense contractors, stated in its 2005 Legislative Agenda that it must continue to “push the envelop” regarding the government’s use of “commercial items” purchases. As may be expected, ARWG’s legislative agenda is complete with pro-contractor provisions that severely reduce or eliminate taxpayer protections – protections that allow agencies to oversee and audit government contracts. POGO’s preference is that the “commercial item” designation is only used for goods and services whose price is set by the genuine “commercial” marketplace.

Other Transactions

“Other transaction authority” is a term commonly used to refer to the DoD’s authority to enter into transactions (OT agreements) other than contracts, grants or cooperative agreements.³⁰ DoD has temporary authority to award such agreements in certain circumstances for basic, applied, and advanced research projects.³¹ Its authority was expanded to allow the Director, Defense Advanced Research Projects Agency (DARPA), to enter into OT agreements to carry out prototype projects that are directly relevant to and weapons or weapon systems proposed to be acquired or developed by DoD.³² OTA is a customized agreement rather than contracts that can be specifically tailored based on the government’s needs.³³ The inherent problem, however, is that rather than the government controlling what it needs, the OTA contractors are placed in the powerful position of saying “here’s what we will do for you.”

“Other Transactions” acquisitions generally are not subject to the federal laws and regulations governing procurement contracts. Therefore, OTA is exempt from the usual contracting controls and oversight mechanisms set forth in contracting statutes, the FAR (in particular Truth in Negotiations Act (TINA) regulations and Cost Accounting Standards (CAS), DFARS, audit access for examination of contractor records by the GAO or defense auditing agencies, and Small Business Act requirements for small business participation.³⁴ Mirroring the intended reasons behind “commercial items,” OTA was created to lure non-traditional defense contractors to bring innovative ideas to the

³⁰ 10 U.S.C. § 2371(a).

³¹ *DoD Annual Report on Cooperative Agreements and Other Transactions Entered into During FY2002 Under 10 USC 2371*, no date provided, at p. 1.

³² Mancuso Statement, at p. 15.

³³ Congress has granted the Department of Homeland Security, NASA, and the Department of Transportation with OTA.

³⁴ Statement of Eleanor Hill, Inspector General Department of Defense, For the Subcommittee on Readiness and Management Support Senate Committee on Armed Services On Acquisition Reform in the Department of Defense, March 17, 1999, at p. 16. Hereinafter Hill Statement.

government.³⁵ The numbers do not support the government intent, however, with 72% of the research and 97% of the prototype OTA funding going to traditional DoD contractors in the late-1990s.³⁶ Now we are hearing a new explanation for OTA – that the primary benefit to contractors is that they can fully protect their intellectual property rights. In addition to the elimination of contracting controls, the companies that enter into OT agreements retain their ability to make a dollar from programs that were funded by Uncle Sam.

Soon after DoD started using OTA, the DOD IG began documenting problems with those acquisitions. In 1998, the DOD IG reported on problems for 28 OT agreements awarded by DARPA.³⁷ One recommendation was for better monitoring of the actual costs against the funds paid and inconsistencies with audit provisions.³⁸ One year later, the IG reiterated concerns with OTA, stating:

DoD officials did not receive adequate expenditure reporting needed to monitor “Other Transaction” efforts, did not adjust milestone payments when needed, forfeited interest, and did not receive final research reports. The underlying causes were the lack of management guidance, and a lack of quantifiable performance measures to assess costs and benefits. The Department has issued additional guidance, but establishing the performance measures has been difficult for the Department.

* * *

Given the inapplicability of traditional controls to “Other Transactions,” we believe that if this authority is extended to billion dollar production runs of equipment, additional scrutiny of pricing for sole-source items will be needed to protect DoD and taxpayer interests. In these cases, the Department should require access to cost or pricing data, plus audit access for the Defense Contract Audit Agency, in order to ensure fair prices.³⁹

In 2000, the DoD Deputy IG Donald Mancuso pleaded with Congress to reign in OTA, testifying that “Congress may consider legislative proposals for other transactions this year. Given the inapplicability of traditional controls to other transactions, any expansion of the authority for

³⁵ Under Secretary of Defense for Acquisition, Technology, and Logistics, “*Other Transactions*” (OT) *Guide for Prototype Projects*, January 2001, at p. 11.

³⁶ Mancuso Statement, at p. 15.

³⁷ Hill Statement at p. 17.

³⁸ *Id.* at p. 16-17.

³⁹ *Id.* at p. 18-19.

other transactions should provide the needed protections both for the Department and the American taxpayers.”⁴⁰

Two major DOD acquisitions have come under OTA status: missile defense and Future Combat Systems (FCS) programs. As stated above, these programs are shielded from normal contract oversight mechanisms and proceed virtually unregulated. The real issue is what are we getting for our dollar.

On January 2, 2002, Secretary of Defense Rumsfeld issued a memorandum regarding the direction of the missile defense program. That memorandum included a directive stating that “to encourage flexibility acquisition practices, I delegate to the Director, MDA, authority to use transactions other than contracts grants, and cooperative agreements to carry out basic, applied, and advanced research.”⁴¹

In 2002, DARPA started awarding “other transactions” for development work for the Future Combat Systems (FCS) program. Although only \$20 billion awarded, the total value of the FCS program is believed to run as high as \$120 billion. That makes the FCS program the largest OTA purchase to date. Army officials have countered by claiming that FAR provisions apply to the FCS program. That statement is misleading in the sense that OTA is not subject to the FAR. Last year, however, DoD finalized FAR-like regulations for “other transactions” for prototype projects, although none of those regulations offered oversight controls that protect federal funds (*i.e.*, TINA and CAS).

POGO is concerned that both the missile defense and FCS programs are ripe for abuse and the use of OTA truly eliminates protections of hundreds of billions of taxpayer dollars. The OTA mechanism waives many of the financial oversight requirements of typical contracts for goods or services with the aim of attracting so-called non-traditional defense contractors. “Other transactions” allow contractors to avoid taxpayer protections and transparency requirements in the contract statutes and regulations, which provide protections to ensure fair and reasonable procurement prices. OTA, however, is exempt from those protections and can exempt a defense contractor from undergoing government audits or providing the federal contracting agency and government auditors with access to the contractor's pertinent records.

RECOMMENDATIONS

“Commercial Items”:

1. Restore the definition of “commercial items” to those actually sold to the general public in significant quantities, rather than the current loosened definition: an item

⁴⁰ Mancuso Statement, at p. 16-17.

⁴¹ Secretary of Defense Donald Rumsfeld, Memorandum for Deputy Secretary of Defense Secretaries of the Military Departments *et al.*, *Missile Defense Program Direction*, January 2, 2002, attachment at p. 2.

not necessarily sold to the public, but merely "offered for sale," or "of a type" offered for sale. Today, some "commercial items" never actually experience sales to the public, allowing the defense contractors that produce them to charge exorbitant amounts while pretending that a competitive commercial market is keeping prices in line. Such items should not be exempt from the usual oversight (TINA and CAS); and

2. Stop the proposed rule on use of Time and Material and Labor Hour (T&M and LH) contracts using so-called "commercial item" FAR Part 12 provisions. This attempt is just another way of reliving contractors from oversight on flexibly-priced contracts. T&M and LH contracts could still be used, but they would have to include traditional oversight clauses, which FAR Part 12 prohibits.

Other Transactions:

1. Restore the original intent to bring innovations to the public from non-traditional government contractors, rather than throwing billions of dollars with no oversight controls to the government's top vendors (*i.e.*, prohibit any contractor who has accepted a FAR contract from being eligible to receive an OTA); and
2. Renegotiate such agreements under contracting vehicles that provide taxpayer protections (*i.e.*, FAR Part 15).

General Contract Reforms:

1. Increase competition -- especially for Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts (*e.g.*, GSA schedules, Governmentwide Acquisition Contracts (GWACs), and other multi-agency contracts);
2. Increase oversight for flexibly-priced contracts (*e.g.*, cost-reimbursement contracts, incentive-type contracts, and T&M and LH contracts); and
3. Increase transparency -- by requiring all opportunities (unless there is a security exception), and regardless of how phrased (*e.g.*, contracts, orders, Blanket Purchase Agreement (BPAs), task or delivery orders under schedules GWACs, etc.) to be posted to Fed Biz Ops.

[illegible]

23. FAR 52.217-2 -- Cancellation Under Multiyear Contracts (Oct 1997)

a. The clause at FAR 52.217-2, Cancellation Under Multiyear Contracts (Oct 1997) is incorporated by reference and is hereby amended as follows:

(1) Paragraphs (a), (c), (d), and (e) are deleted and replaced with the following:

(a) "Cancellation," as used in this clause, means that the Government is canceling its requirements for all supplies or services in program years subsequent to that in which notice of cancellation is provided. Cancellation shall occur by the date or within the time period specified in the Multiyear Contract Funding clause, unless a later date is agreed to. The Contracting Officer must notify the Contractor if funds are not available for contract performance for any subsequent program year.

(c) If cancellation under this clause occurs, the Contractor will be paid a cancellation charge not over the cancellation ceiling specified in the Cancellation Ceiling clause of this contract as applicable at the time of cancellation. Production effort for the delivery plan called out in this contract is included within the cancellation ceiling. Subject to required approvals, the contractor may include recurring costs that were reasonably incurred prior to cancellation. In the event the contract is cancelled, the contractor will be required to provide sufficient support to demonstrate that its cancellation proposal claimed costs, including any recurring effort costs claimed, were reasonably incurred to reflect the percentage of the work performed prior to cancellation. The contractor further agrees that its claimed cancellation charges shall not include any amount already paid the contractor, and will not include anticipated profit on the unperformed portion of the cancelled work.

(d) In the event of contract cancellation, as defined in paragraph 23.a of this clause, the Contractor shall submit a commercial cancellation proposal to the Government in accordance with paragraph 23.e of this clause.

(e) The cancellation charge shall be computed and the proposal/claim made for it as if the claim were being made under the Termination for Convenience of the Government clause of this contract. The Contractor shall submit the claim promptly but no later than one (1) year from the date of cancellation.

(b) Paragraphs (f), (g), (h), and (i) are deleted in their entirety.

24. Cancellation Ceiling

a. For the purposes of determining the cancellation ceiling, the contract assumes full funding by 15 November of each fiscal year. Should contract cancellation occur after 15 November, an equitable adjustment to the cancellation ceiling values shall be negotiated by the Government and the Contractor. The equitable adjustment shall be limited to a reasonable amount necessary to account for the additional contract performance required after 15 November and until the actual date of cancellation. No adjustment shall be made to the cancellation ceiling unless the actual date of cancellation occurs after 15 November of the affected fiscal year.

b. The following cancellation ceilings are established:

Cancellation End of FY	Cancellation Ceiling Amount	Assumed Date of Cancellation
FY03	\$110,000,000	18 November 2003
FY04	\$474,200,000	16 November 2004
FY05	\$439,700,000	16 November 2005
FY06	\$383,300,000	16 November 2006
FY07	\$347,500,000	16 November 2007
FY08	\$0	

25. Economic Order Quantity (EOQ) and Advance Procurement (AP) Options and Release of Multiyear Configuration

a. The FY03 USMC KC-130J aircraft (SubCLIN 0002AA) includes funding in the amount of \$2.0 million for a one-time payment event -- Release of Multiyear Configuration. This event will release the multiyear configurations into the Contractor's ordering system. This event shall be invoiced as a separate event for the initial multiyear aircraft delivery lot (in addition to the initial payment event at contract award). Liquidation of this payment shall be included on the delivery event invoice in the amount of \$500,000.00 for four (4) each FY03 USMC KC-130J aircraft.

b. The Multiyear prices for the USAF and USMC are based in part on Economic Order Quantity (EOQ) funding of \$30.0 million for the USAF and \$8.0 Million for the USMC.

c. The parties understand and agree that the funding for such is not available at contract award. The Contractor agrees to grant the Government an option to obtain FY03 EOQ procurement funding for USAF aircraft in the amount of \$30.0 million. The Contractor further agrees to grant the Government an option to obtain FY03 EOQ procurement funding for USMC aircraft in the amount of \$8.0 million. Funding will be provided within 90 days of contract award and the contract option shall be exercised at that time. All Multiyear aircraft prices will remain in effect up to the expiration date of the option. If the option is not exercised and the \$30.0 Million USAF EOQ and \$8.0 Million USMC EOQ is not provided by the expiration date the aircraft prices will be renegotiated.

d. In addition to the Economic Order Quantity funding referenced above, the parties understand and agree that the USAF will provide \$39.9 million in FY03 Advance Procurement funding for FY04 CC-130J aircraft. The Contractor agrees to grant the Government an option to obtain FY03 USAF AP for FY04 USAF CC-130J aircraft in the amount of \$39.9 million. The contract option for this Advanced Procurement funding shall be exercised within 90 days of contract award. If the option is not exercised and the \$39.9 Million USAF AP is not provided by the expiration date the aircraft prices will be renegotiated.

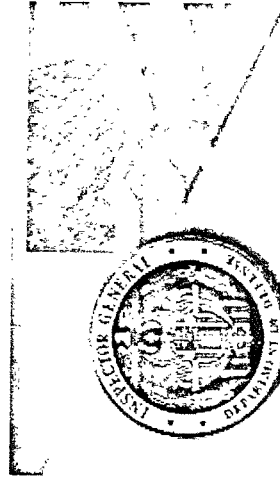
e. Any Contractor effort to obtain EOQ or AP described above prior to the Government's purchase (option exercise) of these items is undertaken solely at the Contractor's risk. If this contract is cancelled or terminated prior to the Government's purchase of these items, the Contractor shall not recover any costs related to said Contractor efforts. The Government's contracting authority for FY03 is presently limited to purchasing four (4) USMC KC-130J aircraft.

Acquisition

Contracting for and Performance of the C-130J Aircraft (Report No. D-2004-102)

538

July 27, 2004



Background on C-130J

- Primary aircraft mission is to airlift and drop troops and equipment in hostile areas.
- C-130J was first procured when two C-130Js were added via modification to a 1990 C-130H contract.
- The C-130J was promoted by the manufacturer, Lockheed Martin, as a commercial aircraft.

Background on C-130J (cont)

- The Air Force contracted for 117 C-130J aircraft for the Air Force, Marine Corps, and Coast Guard at a cost of \$7.5 billion from FY 1995 through 2008.
- Congress authorized and appropriated about \$4 billion for the acquisition of the C-130J aircraft for FYs 1996 through 2004. About \$2.3 billion of the \$4 billion were congressional increases to the Services' budget requests.

Contracting Officer's (CO) Decision to Acquire the C-130J under Commercial Practices

- The contracting officer made the decision whether the item procured met the regulatory requirement.
- The CO stated that there was a 95 percent commonality between the C-130J and L-100J, commercial version.
- The CO also stated that Air Force modifications were considered minor and did not alter the physical characteristics of the aircraft.
- The Air Force did not have documentation to support the stated amount of commonality between the aircraft or the extent of modifications that would be required.

Misrepresented
by USAF

CO's Decision (cont)

- No commercial sales of the commercial version (L-100J) have occurred since production began on the C-130J 8 years ago.
- Because the aircraft was acquired as a commercial item, the Air Force did not have contractor-certified information on contract prices, costs, or profits, and therefore was limited in its ability to protect the Government against possible overpricing.

*need to
discuss
this
further*

Meeting Contract Specification

- The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion.
- None of the aircraft met commercial contract specifications or operational requirements.
- Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specifications in the 8 years since production began.

C-130J Aircraft Testing

- Testing has shown that the C-130J aircraft is not operationally effective or suitable.
- As of December 31, 2003, there were 33 Category One open deficiency reports that could cause death, severe injury or illness, major loss of equipment or systems, or that could directly restrict combat or operational readiness, if uncorrected.

Air Force Management

- The Air Force issued three firm-fixed-price contracts for the C-130J aircraft even though Lockheed Martin continued to show little progress in delivering contract-compliant aircraft.
- As of December 31, 2003, the Air Force paid Lockheed Martin approximately \$2.6 billion for the 50 conditionally accepted aircraft and withheld only \$22.6 million.

withhold less than

1%

Retrofits

- Numerous hours of retrofit work have been performed. As of August 2003, the 32 C-130J aircraft fielded to the Air Force still required 9,529 additional hours of retrofit work.
- Until there is a stabilized design for the C-130J aircraft and all deficiencies are corrected, more retrofit hours will be required and additional corrections will be needed.

Who's going
for this?
//
we have not
yet fielded the
address in
price

AFDTEL IS NOT USAT
Phase 11 is pushed back to 2005

Operational Impacts

- The C-130J aircraft is not operationally effective or suitable. *according to*
- The C-130J aircraft cannot perform its intended mission, and the users have incurred additional operations and maintenance costs to operate and maintain older C-130 aircraft as well as the C-130J aircraft.

Operational Impacts (cont)

- The only version of the C-130J that has been found to be operationally effective is the Marine Corps' KC-130J and this version is only suitable in a permissive threat environment (Combat Zone).

WMA

Recommendations to Air Force

- Refrain from contracting for additional block upgrades until Lockheed Martin can design, develop, and deliver a contract compliant aircraft.
- Use Federal Acquisition Regulation Part 15 for future modifications that add to the scope of the statement of work to the C-130J multiyear contract (F33657-03-C-2014).
Proposals for modification should provide the Government with the contractor's pricing, cost, and profit data.

*put together
that report for
over
mvp*

Recommendations (cont)

- Increase amounts withheld to motivate Lockheed Martin to deliver an aircraft that meets contractual requirements.
- Negotiate a firm schedule for completion of known outstanding retrofits of fielded aircraft within 6 months.

Director, Operational Test and Evaluation

FY 2004 Annual Report



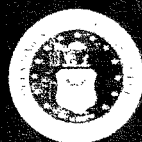
DoD Programs
Missile Defense, Chemical and Biological,
Health Systems, Logistics, Support Systems



Army Programs
Aviation, C4I, Armored Vehicles,
Fire Support, Munitions, UAV Systems



Navy and Marine Corps Programs
Amphibious Systems, Surface Ships,
Mine Warfare Systems, EW, Submarine Systems,
Munitions, C4I, Aviation Systems, UAV Systems



Air Force Programs
Aircraft Systems, Space Systems, Munitions,
C4I, Avionics, UAV Systems

AIR FORCE PROGRAMS

C-130J Family of Aircraft

SUMMARY

- Lockheed Martin initially developed specific versions of the C-130J for the British Royal Air Force and the Royal Australian Air Force.
- Approximately 70 percent of the U.S. variants represent new development and system integration relative to the legacy C-130s flying today.
- The C-130J was neither operationally effective nor operationally suitable in its Initial Operational Test and Evaluation (IOT&E) Phase I.
- The Air Force intends to deploy the C-130J to Central Command early in FY05, before the completion of IOT&E Phase II. Capabilities are limited.
- The C-130J Test and Evaluation Master Plan is being updated for approval in early FY05.
- C-130J operational testing will likely continue past 2008 as the program shifts to spiral development.
- There are no milestone decision reviews planned for any variant of the C-130J.



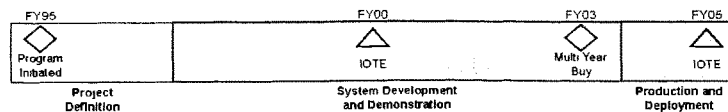
The basic C-130J is a medium-range, tactical airlift aircraft designed primarily for the transport of cargo and personnel within a theater of operations.

SYSTEM DESCRIPTION AND MISSION

The basic C-130J is a medium-range, tactical airlift aircraft designed primarily for the transport of cargo and personnel within a theater of operations. The cargo area can adapt to accommodate a combination of passengers, cargo, and/or aeromedical airlift missions. Variants of the C-130J are intended to perform missions such as fire fighting, weather reconnaissance (WC-130J), electronic combat (EC-130J), and aerial refueling (KC-130J). The combat delivery C-130J has more than 70 percent new equipment, relative to previous C-130 models. Significant differences include an advanced integrated digital avionics system, a redesigned flight station intended to facilitate a two-person cockpit, a new propulsion system intended to provide improved take-off, climb and cruise performance, and cargo handling system enhancements. The Air Force intends to deploy the C-130J to Central Command early in FY05, before the completion of IOT&E Phase II. Capabilities are limited.

DOT&E designated the C-130J aircraft for Live Fire Test and Evaluation (LFT&E) oversight in May 1995 and approved the Test and Evaluation Master Plan in July 1999. Threats include man-portable air defense systems, surface-to-air missiles, anti-aircraft artillery, air-to-air missiles, rockets, and small arms. The C-130J LFT&E vulnerability reduction program addresses wing dry bay fire, composite propeller blade ballistic vulnerability, engine and engine bay fire, vulnerability to man-portable air defense systems threats, and mission-abort vulnerability.

TEST AND EVALUATION ACTIVITY



AIR FORCE PROGRAMS

Due to system immaturity, operational testing was initially segmented into three phases: Phase 1A, Phase 1B, and Phase 2. Phase 1A evaluated the ability of the aircraft to train pilots. Phase 1B evaluated the aircraft's ability to perform the airland mission. Phase 2, planned for FY06, will evaluate all combat delivery capabilities, including airdrop using the Enhanced Cargo Handling System.

Block 5.4 modifications are now designated as the production representative version, with operational testing scheduled for early FY06. Block 6.0 will include Communications, Navigation, and Surveillance for Air Traffic Management (CNS/ATM) capabilities, while Block 7.0 is undefined at this time. Many documented deficiencies will not be corrected until Block 6.0 or 7.0.

There were no Vulnerability Reduction Program activities in FY04. The Air Force delivered the Vulnerability Reduction Program Phase II (Composite Propeller Vulnerability) Test Report to DOT&E in June 2004. Phase IV (Engine Nacelle Fire Extinguishing Evaluation) testing is scheduled for FY05.

TEST AND EVALUATION ASSESSMENT

C-130J

Major issues confronting the C-130J program include funding of logistics support and training systems; hardware, software, and technical order deficiencies; manufacturing quality; sub-system reliability; failure to meet required measures of system effectiveness and suitability; and resolution of documented deficiencies. A program for the correction of deficiencies is being worked.

Based on the evaluation of test results from Phase 1A and Phase 1B, the aircraft is not operationally effective. However, the Air Mobility Command has released a limited cargo carrying capability based on results from a command-initiated Force Development Evaluation. The airdrop mission cannot be evaluated until deficiency corrections are implemented and the developmental and operational tests are completed as planned in FY06.

Aircrew workload issues, software discrepancies, and cargo loading and constraint requirements are still major issues. Air Force users are unable to verify manpower requirements to field this system until the crew workload evaluation is complete. Army developmental and operational test and evaluation for airdrop of cargo and personnel are now scheduled using Block 5.4 hardware and software. Air Force operational test and evaluation requires the completion of Army testing prior to start.

DOT&E determined that the aircraft is not operationally suitable. Phase 1B reliability, maintainability, availability, and logistics supportability results failed to meet operational requirements and legacy standards. Deficiencies were noted with on-aircraft integrated diagnostics and fault isolation systems, portable maintenance aids, maintenance technical orders, and the availability of spare parts. Additional contractor field service representatives are required to assist in the maintenance of the aircraft for the foreseeable future.

DOT&E determined that testing of defensive systems has not demonstrated their effectiveness and suitability. An integrated system-level test is required to characterize system capability. However, the Air Force intends to deploy the C-130J to Central Command early in FY05, before the completion of IOT&E Phase II and the integrated defensive system test. Capabilities are limited to airland operations.

Phase II of the Live Fire Vulnerability Reduction Program showed that the C-130J composite propeller blades are not vulnerable to catastrophic threat-induced failure. Completion of Phase IV testing will conclude Vulnerability Reduction Program testing.

WC-130J

Three major issues confront the weather reconnaissance aircraft. They are the radar performance in the hurricane reconnaissance mission, propeller anti-ice protective cover peeling, and excessive vibration in the Drop Sonde Operator's station.

The low power color radar was designed as a weather-avoidance radar, but it was installed in the WC-130J to perform the weather penetration mission. The radar does not fully support operational requirements for the weather mission. The

AIR FORCE PROGRAMS

program office has developed, but not fully funded, a spiral improvement plan to correct this critical deficiency. Developmental testing is being conducted, and if successful, operational testing will start in June 2006.

A proposed fix to the propeller problem has been installed on test aircraft. The fix must be tested in a hurricane environment, with some data being collected during the 2004 storm season. Integrated System Evaluations and combined developmental/operational test on the low power radar and propeller petal fixes are in progress. If the modifications are successful, then the next phase of OT&E can be performed on the WC-130J in storm season 2005. A possible fix to the excessive vibration problem is included in the Block 5.4 upgrade. Operational testing is planned for Fall 2005.

Headquarters U.S. Air Force

Integrity - Service - Excellence

C-130J

555



“GETTING TO THE FIGHT”

U.S. AIR FORCE

30-Jul-04



U.S. AIR FORCE

Aggressive USAF Involvement

- Held Lockheed's Feet to the Fire
 - Lockheed Paid for Block 5.3 Upgrade
 - AF Fielded Contract Compliant Aircraft
- Blue Ribbon Panel/"Group Hug" Mod
 - Increases Military Capability
- FAR Part 15 Contract Established for New Capabilities Development (Block 6.0)
- Air Mobility Command Sending C-130J "to the fight" - Dec 04

556

Integrity - Service - Excellence

6

U.S. C-130's Costs Soar Despite Reforms

By DAVID PHINNEY

The Pentagon had high hopes it could keep costs low on a new model of the C-130 transport by trading it like any other commercial purchase, but despite the best intentions, the airlifter's price nearly doubled.

Armed with new authorities provided by the 1994 Federal Acquisition Reform Act, the Pentagon's acquisition arm in 1993 set the C-130J program as a "commercial item" for an acquisition reform pilot program.

"It has evolved," wrote contracting officer Kenneth Taylor in the 1995 determination. "It will be made in the commercial marketplace by the act of delivery."

The program was intended to exempt the program from traditional drive-up prices on weapon systems. Also, the contractor would not have to submit monthly cost data to analysts as usual to justify the program's price.

Large paperwork and oversight, along with the competitive pressure of the commercial marketplace, officials reasoned, would keep a lid on the plane's cost.

That reasoning in the whole industry led to a commercial-based acquisition, said Steve Korman, chief architect of many commercial acquisition reforms during the 1990s as procurement policy coordinator with the Office of Management and Enterprise.

"The whole idea is there are many ways for the government to

C-130J COSTS
Costs of the C-130J rose until 2004, when prices will be paid under a multiple contract.



SOURCE: U.S. Defense Acquisition System Reports and Unpublished Research Sources

get a good deal without the analysts getting involved," Korman said. "Analysts may save money when a manufacturer has to be built in a government-owned plant."

But what may work for computer chips appears to have failed spectacularly with the C-130J. In 1994, a single C-130J was priced at \$77.4 million. The unit cost of the first C-130J models, 1996, was nearly double that.

By 2003, the price had soared to \$81 million. This year, the Air Force estimates the unit price of the planes will drop considerably — to about \$66.5 million — because it plans to buy them in a large multiyear procurement.

A much earlier version of the C-130J that is 15 feet longer sells for al-

most \$100 million a copy. The Air Force ordered 40 of those last March.

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place locally viewed as a military workhorse, and they doubt the benefits from the \$1 billion in research and development claimed by Lockheed.

They were assigned in 1996 to produce 100 aircraft for the military, for the Indians and their \$1 billion contract. His request for cost and pricing data based on Lockheed's administrative agreement with the Air Force was denied, but after digging for available records, he

judged the cost per plane to be around \$40 million, a finding that cost analysts and defense officials for off-the-shelf pricing at the Pentagon.

Bly again performed the task in 1997 for Norway, which was considering buying six stretch C-130s. On both international contracts, Lockheed declined to provide pricing data on why it was so expensive. It made \$61.2 million, but Bly estimated the price tag at \$53.6 million.

DCMA commanders chose not to lend Bly's pricing work, and he claims they later pumped up figures to be closer to Lockheed's asking price.

DCMA officials declined to be interviewed on the C-130J price matters, but Bly says he has no problem with Lockheed's pricing work, and he claims they later pumped up figures to be closer to Lockheed's asking price.

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Audit Blasts USAF for C-130J Faults

By NICOLE GAUDIANO

Since replacing their C-130Es with the newer C-130Js, Maryland's Air National Guard 135th Airlift Squadron and the 815th Airlift Squadron at Keesler Air Force Base, Miss., have not been operational for more than four years.

U.S. Air National Guard units in Rhode Island, California and Pennsylvania must rely on the older C-130s for assigned missions even though they have the newer J models.

And the 51st Weather Reconnaissance Squadron in Biloxi, Miss., must use older planes for their "hurricane hunting" mission because their WC-130J's radar can't adequately penetrate storms.

These are among the problems highlighted in a July 23 Pentagon Inspector General's Office audit of the C-130J, which blames the Air Force for buying a plane that does not meet contract specifications and therefore cannot perform its operational mission.

The audit, prepared by a six-member team in the Assistant Inspector General for Acquisition Management's Office, faults the Air Force for its acquisition strategy and for not withholding enough money to motivate Lockheed Mar-

tin to correct its plane's deficiencies. It also blames the Defense Department for not effectively overseeing the program. As a result, more money — and frustration — will go into operating and maintaining older mission-capable C-130 aircraft, the audit team wrote.

"The immaturity of the C-130J aircraft design means that unit maintenance personnel must spend available time correcting deficiencies for block upgrade modifications, testing, and system reliability which increases aircraft downtime and creates a strain on personnel," the team wrote. "The high number of workarounds has caused user personnel frustration and additional maintenance hours and costs."

The auditors recommend that the Air Force refrain from contracting for additional block upgrades until Lockheed can design, develop and deliver a "contract-compliant aircraft."

Responding, Marvin Sankur, assistant secretary of the Air Force for acquisition, stood by the contract with Lockheed Martin, Bethesda, Md., and the Pentagon's oversight, arguing that the C-130J already is compliant. By contract, the government evaluates the aircraft's condition before each deliv-

ery and may accept an aircraft with minor deficiencies.

"The Air Force fully endorses the C-130J program," Sankur wrote in an April 29 response included with the audit. "The program is one of [Air Mobility Command's] top priorities, and in fact, is currently planned to be ready for a combat deployment no later than the end of 2004."

Air Force spokesman Douglas Kana said all the work to bring the C-130Js to operational capability "is either completed or scheduled for completion." Initial operational capability for the models used for weather reconnaissance and electronic warfare is scheduled for next year, he said.

The audit was performed in response to a tipster's charges on the Defense Hotline about oversight of Lockheed's performance on the C-130, F-32 and C-5 aircraft. Sankur is asked to provide comments on the final report by Aug. 23.

Pared-Down Missions

The primary mission of the aircraft is to perform in-theater airlifts and to provide a platform for dropping troops and equipment into hostile areas. The J-model's enhancements include a modern glass cockpit with digital avionics, an improved electrical system,

new engines and propellers, and an enhanced cargo handling and delivery system. It is supposed to reduce the crew number from five to three, cutting out navigators and flight engineers.

Between 1999 and 2003, the Air Force conditionally accepted 50 C-130J aircraft for the Air Force, Marine Corps and Coast Guard at a cost of \$2.5 billion — "even though none of the aircraft met commercial contract specifications or operational requirements," auditors wrote. They arrived with a letter documenting the differences between the planes' actual configuration and the contractual specification in the contract.

By Dec. 31, 2003, Air Force and Navy testees and C-130J users had generated 168 "Category 1" deficiency reports on the aircraft that could result in death, severe injury or illness, major loss of equipment, or restricted combat or operational readiness if not corrected.

Richard Aboulafia, an aerospace analyst for the Teal Group, Fairfax, Va., said the worst-case scenario would be the Air Force continuing to rely on the older E and H models.

"I don't think it will come to that, just because of the limited power the IG report has and the fact that the service is sticking by its system," he said. ■

E-mail: ngaudiano@houstonpress.com

The Washington Post
August 6, 2004, Friday. P. A17

Let it not be said that our nation's armed forces are not New Age. No fewer than 14 senior officers trooped up to the Hill last Friday to respond to concerns about the troubled new C-130J transport. One of the Air Force's handouts -- "Program Is on the Correct Path" -- admitted that before fiscal 2002, there was a "disjointed program."

But then a "Blue Ribbon" group from the armed forces, the "Acquisition Community" and manufacturer Lockheed Martin was formed and got together and had a "Group Hug."

After that, everyone doubtless felt a whole lot better. Too bad the plane apparently still doesn't meet its military requirements.

March 24, 2005 Thursday
Late Edition - Final

SECTION: Section C; Column 2; Business/Financial Desk; Pg. 1

LENGTH: 1679 words

HEADLINE: The Flawed Plane Congress Loves

BYLINE: By LESLIE WAYNE

DATELINE: WASHINGTON

BODY:

It is hard to imagine an airplane with more problems than the C-130J, the latest version of the venerable workhorse the Air Force uses to drop cargo and paratroopers into global hot spots.

The C-130J has so many flaws that it cannot fly its intended combat missions. It is unable to drop heavy equipment, operate well in cold weather or perform combat search-and-rescue missions. Paratroopers cannot jump out of it without risk of banging up against the fuselage.

Still, the C-130J has one important fan: Congress. Powerful members of both the House and Senate want to spend \$5 billion to acquire even more C-130J's for the Air Force, at a cost of \$66.5 million a plane. For all the C-130J's shortcomings, lawmakers love to buy the plane and dole it out to National Guard and Reserve bases around the country, using its deployment as a justification for keeping local bases open.

But, in what could be the nastiest Pentagon budget battle this year, Defense Secretary Donald H. Rumsfeld has vowed to kill the C-130J as part of a larger plan to upgrade the military. In doing so, he is backed by two recent studies - from the Pentagon's inspector general and from its top weapons tester -- that concluded the C-130J is unfit for duty.

"It's going to be a battle royale," said Dov Zakheim, the Pentagon's comptroller and chief financial officer from April 2001 until May 2004. "In other years, Congress went and put money back in the program in spite of the Pentagon. So it shouldn't come as any surprise Congress would not take these cuts sitting down."

The Air Force and the Marine Corps have acquired 50 C-130J's, at a cost of \$2.6 billion, out of a planned total purchase of 117. The planes are the latest version of the celebrated C-130 Hercules E and H models, now in Iraq and Afghanistan, and previously used in Kosovo and Somalia. Yet, the Jmodel of the C-130 Hercules, which shares fewer than 30 percent of the parts of the earlier workhorse models, is a pale version of its predecessors, according to Pentagon reports. For the moment, the Pentagon relies on the roughly 485 E and H models for combat missions, while the J version only can fly within the United States.

The Lockheed Martin Corporation, which makes the plane, declined to comment on the fight over the C-130J, but issued a statement suggesting that any final decision about its fate is a long way off. Mr. Bush's 2006 budget only "marks the first step in a process of review and analysis" of Pentagon needs, the company said.

Mr. Rumsfeld's recommendation is also being challenged by the Air Force, which says many of the C-130J's problems have been fixed. The Air Force, worried about a rapidly aging fleet of planes of all sorts, has switched from being cool to the plane to supporting it on Capitol Hill.

"As the administration becomes less enamored of the C-130J, the Air Force has now decided it likes it," said Loren Thompson, an analyst at the Lexington Institute, a nonpartisan research group in Arlington, Va., that generally supports Pentagon spending.

Across the country, C-130J's sit at Air Force Reserve bases and are assigned to light duty at Air National Guard squadrons since they cannot drop combat troops and heavy equipment because of design deficiencies. Even the specially equipped C-130J "Hurricane Hunters" intended to monitor storms -- eight of them have been delivered to Keesler Air Force base in Biloxi, Miss. -- are not cleared to fly in hurricanes because of inadequate radar. In Iraq, two C-130J's are part of a demonstration project, but neither is allowed to drop cargo while airborne.

Given all these problems, some military planners, including Michael Wynne, the Pentagon's acting acquisition chief, have questioned whether the military even needs large numbers of cargo aircraft to haul equipment, or whether it could turn instead to high-speed ships and other methods of transportation.

"All this has caused us to re-examine the C-130J," Mr. Wynne said at a recent conference in New York, "and what is the right number of them and whether we can do without them."

The inspector general's report, issued last July, found deficiencies in the aircraft that, if left uncorrected, could "cause death, severe injury or illness, major loss of equipment or systems." The report concluded that "Lockheed Martin has been unable to design, develop or produce a C-130J aircraft that meets contract specifications in the eight years since production began."

The Pentagon's chief weapons tester, Thomas Christie, reported in January that the C-130J was "neither operationally effective nor operationally suitable" and has "failed to meet operational requirements."

Another problem, identified by Ken Pedeleose, a senior engineer at the Defense Contract Management Agency in Marietta, Ga., where the C-130J is made, is that the planes' engines are so powerful they flatten the craft's propeller blades on takeoff, making it vulnerable to stalls.

This problem also makes it difficult for paratroopers to jump out of the plane without being in danger of being pulled back to the fuselage, said Mr. Pedeleose, whose contentions about the C-130J led to the inspector general's report.

To speed the acquisition process, the Air Force declared the C-130J to be a commercial item even though no commercial market for it exists. This meant that the Air Force was able to bypass federal truth-in-negotiating rules that require a contractor to give the government complete cost and pricing data.

In 1995, a basic C-130J cost \$33.9 million. By 1998, it had risen to \$49.7 million. Today, the cost is \$66.5 million a plane, with some versions edging close to \$90 million.

"The whole idea behind a commercial purchase approach is that you would reduce red tape and reduce the cost of the plane," said Danielle Brian, executive director at the Project on Government Oversight, a nonprofit group that monitors government contracts. "And here you have costs going through the roof."

For all its problems, the C-130J remains popular in Congress for a few simple reasons. It is largely manufactured in Georgia, long the home state of powerful members of the House and Senate Armed Services Committees, among them former Senator Sam Nunn, a Democrat, and Newt Gingrich, the former speaker of the House and a Republican.

Beyond that, C-130J's have given lawmakers a reason to keep National Guard and Reserve bases open, even as government reports have said this allocation makes no military sense.

"You can base a bunch of C-130J's at an installation and keep alive a squadron at a base in a member of Congress's district that was slated to be shut down," said Pete Sepp, a spokesman for the National Taxpayers Union, an antispending government watchdog group. "Or you can move them around to a base that is scheduled for closure and you have a brand new reason to keep it open."

Indeed, when the Pentagon originally asked for \$2.6 billion to buy C-130J's, lawmakers authorized \$4 billion.

In Congressional testimony last month, Mr. Rumsfeld said that "at \$66.5 million, this aircraft has become increasingly expensive to build and maintain," especially compared with simply modernizing older C-130 models. Mr. Rumsfeld had prevailed over Congress in past years in killing weapons systems like the Comanche helicopter and the Crusader artillery system. This time, however, he has indicated he might soften his position in the face of opposition.

The New York Times March 24, 2005 Thursday

Already, 14 senators have written a letter to President Bush objecting to the proposed cancellation, while 15 representatives from Georgia signed a similar plea. Several members of the Senate Armed Services Committee also had a breakfast last month with Mr. Rumsfeld, in which they urged him to relent.

As part of that effort, many members of Congress, along with some officials in the Air Force, have begun a campaign arguing that it would be almost as costly -- \$2 billion in termination fees, they say -- to end the program as to keep it going.

But **Senator John McCain**, Republican of Arizona, a critic of the C-130J who plans hearings on the program, has said information from Lockheed showed termination costs are in the \$300 million to \$400 million range.

Still other critics say Congress should consider canceling the C-130J for cause because it has failed to meet contract specifications, in which case Lockheed, based in Bethesda, Md., would get no termination payments.

Backers of the C-130J say termination is not in the cards. "You have very strong support on the Hill to restore the program to its original level," said Clyde Taylor, a military legislative assistant to Senator Saxby Chambliss, a Georgia Republican who is a member of the Armed Services Committee. "Most states have at least one based there."

Representative Robin Hayes, a North Carolina Republican, recently termed opponents of the C-130J "hand-wringing bed-wetters" and predicted that the administration would reverse course.

The Air Force, too, is painting a rosy picture. "The J's are a critical part of the modernization of a very old fleet of models" said Gen. Paul Fletcher, the Air Force's deputy director of plans and program. "We've worked through the issues that have been raised."

Doug Karas, an Air Force spokesman, said the Pentagon's investigative reports were based on outdated data. "There will be tests this summer, and after that, the Air Force expects the C-130J will be fully mission capable," Mr. Karas said. "We've worked on fixing and updating."

Adding pressure on Mr. Rumsfeld is the Air Force's announcement -- made just days after Mr. Rumsfeld decided to kill the C-130J -- that it was grounding 30 of the older C-130E versions because of cracks in the airplane's structure and was putting 60 others on restricted flight status.

While the supporters say these cracks demonstrate the need to buy more C-130J's, critics find these problems suspiciously convenient.

"This is a cynical attempt," said Ms. Brian of the Project on Government Oversight, "to stop this cancellation."

URL: <http://www.nytimes.com>

GRAPHIC: Photo: Many in Congress like the \$66.5 million Hercules C-130J because its deployment can justify keeping a local National Guard base open. (Photo by Associated Press)(pg. C2)Drawing (Illustration by The New York Times)(pg. C1)Chart:In July, the Defense Department released the findings of its investigation into reported problems with the C-130J, a new version of the Air Force's cargo plane.**INVESTIGATION RESULTS**"We substantiated the allegation that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission."**OPERATIONS TESTING**"Performance deficiencies include inadequate range and payload, immature software, lack of an automated mission planning system, and difficulties in cold weather operations."**STORM TRACKING**"The WC-130J aircraft cannot perform the hurricane reconnaissance mission because the radar has inadequate storm penetration."**PILOT TRAINING**"Testing has shown that the C-130J is not operationally effective or suitable. Because of major differences between the earlier C-130 and the C-130J versions, pilots cannot be qualified on both aircraft, which causes an additional financial and personnel burden on units that must operate both aircraft simultaneously."C-130J DELIVERIES'99: 14'00: 6'01: 13'02: 8'03: 9(pg. C1)

LOAD-DATE: March 24, 2005

Planes don't meet military requirements

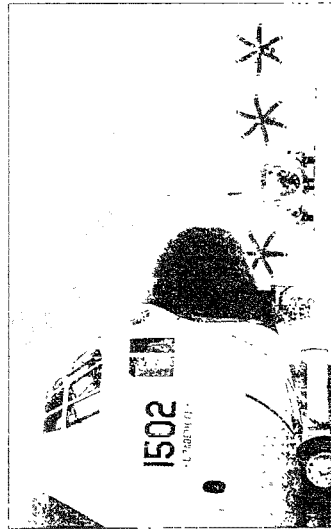
BY R. JEFFREY SMITH
THE WASHINGTON POST

WASHINGTON — The Air Force spent \$2.6 billion to acquire 50 transport planes that don't meet military requirements, preventing

squadrons based in six states from being fully prepared for their missions in the Middle East and elsewhere, the Defense Department Inspector General's office disclosed Friday.

After conducting a lengthy inquiry set off by a whistleblower's phone call, the Inspector General's office said the Air Force used an inappropriate procedure to buy the C130J transport plane from Lockheed Martin and then mismanaged its production. It also said senior Defense Department weapons acquisition officials failed to "provide effective oversight" of the program.

The 34-page report represents the second major critique this year by the Inspector



A C130J, with its six-blade propellers, taxis to the ramp at the U.S. Coast Guard Air Station in Elizabeth City, N.C., in March 2003. The C130J does not meet military requirements, officials say.

ule, and the planes have been cleared to drop equipment over land and water and conduct medical evacuations. They will soon be able to perform other missions, including airdrops of troops and heavy equipment, he said.

Military officials said Friday that the planes have not passed key readiness tests, and so no C130J's have been used as planned by the U.S. Air Force Reserve, Air National Guard or Marine Corps in combat zones or military assaults. Specially modified C130J's also have not been approved for conducting psychological operations and electronic warfare or monitoring hurricanes and tropical storms.

That means that two squadrons in Mississippi and others in California, Rhode Island, Maryland, North Carolina and Pennsylvania are either relying on a dwindling number of older planes to assist the military's Central Command or are unable to carry out their missions at all, according to the report, signed by Assistant Inspector General Mary Ugone.

necessary. A classified paragraph in the April report said the Boeing 767 shared "the same unsound acquisition and procurement practices that are currently evident in the C130J program." Sambur, in a statement appended to the report, said the program is "properly managed," the manufacturer is meeting its delivery sched-



Army Cargo Capability



- Joint Doctrine requires each service to provide for intra-theater movement of personnel and supplies
- The Army has used ground Lines-of-Communication (LOC), but is transitioning to Air LOC due to the location of current deployments
- Other services are not adequately resourced to support Army intra-theater lift requirements
- Army helicopter cargo assets are limited and are dedicated to the forward fight
- Focused Logistics supported by Air LOC is the most effective (cost and tactical) solution
- Current Fixed Wing cargo aircraft are extremely limited
- Senior Army leadership has directed Operational and Organizational (O&O) study to determine solution
- Fixed Wing O&O and cargo aircraft Army Requirements Oversight Council (AROC) to convene on 2 March 2004
- Recommended force structure changes include transition from utility to cargo mission

8-platforms

C-130
473



Current Army Fixed Wing Fleet Composition



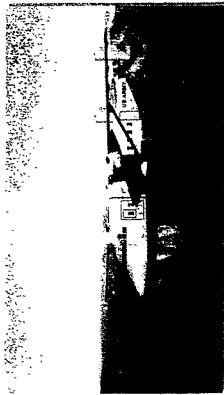
	<u>IOE</u>	<u>TDA</u>	<u>TOTAL</u>
ACTIVE	70	27	97
ARNG	39*	84	123
USAR	39	0	39
MACOMs**	0	39**	39
TOTAL	147	151	298

* Only cargo aircraft in Army inventory (C-23)

**Not PM Managed (Directed by DCSOPS to be pulled under PM Management)



Current Cargo Aircraft C-23



Prime LCCS Contractor: Duncan Aviation Corp
Major Sub-Contractor: Bombardier Services Support Group

Program Phases:

- ◆ Sustainment: Contract Date 13 Jan 00
- ◆ FY 04 LCCS
- ◆ \$21.0M (ARNG)
- ◆ Modification

Current Contract:

- ◆ Army Managed; LCCS Contract
- ◆ Duncan Aviation (19 Beddown Bases)
- ◆ Depot: Bombardier Services Support Group

Material Release Status:

- ◆ DCSOPS Directed

System Description:

- ◆ Platform: Sherpa
 - κ Twin Engine, High-Wing, Turbo Prop, Cargo Aircraft
- ◆ Propulsion
 - κ Twin PT6A-65AR
- ◆ Performance
 - κ Ceiling: 20,000 ft.
 - κ Speed: 180 kts.
 - κ Max Weight: 25,600 lbs.
 - κ Range: 900 NM
- ◆ Unique Capabilities:
 - κ Short Field Capable
 - κ 30 Passenger or 7,280lb. payload

Requirement:

- ◆ The C-23 was a Congressionally Directed Procurement
- ◆ Crew Size: 3
- ◆ Logistics Support: LCCS
- ◆ Transportability: Self Deployable
- ◆ Hardware/Software: Funding Required for GATM and Navigation Safety Equipment
- ◆ Quantity Required: 43 (16 B / 27 B+)
- ◆ Quantity On-Hand: 43 (16 B / 27 B+)

2008-2009



Cargo Fixed Wing Key Performance Parameter (KPPs)



• KPP C-1: Interoperability.

- (T) Must be C4 interoperable, capable of communication and navigation in civil and military airspace. 100% of top-level IERs designated critical. These include GATM-compliant, VHF (voice and data), Secure UHF-AM, Secure SATCOM, Secure HF, transponders w/Mode S, IFF with Mode 5, SINCARS (FM), and JPAL- capable. Communications upgradeable. 100% of top-level IERs.
- (O) This adds: JTA-compliant, JTRS, SIAP-capable, receives, displays, and transmits COP data. A COP station can be plugged into the Cargo area for troop commander/leader.

• KPP C-2: Reliability and Maintainability.

- (T) The aircraft must be highly reliable and easily maintainable. Demonstrated to be easily maintainable to the current DA fully mission capable rate of 80%.
- (O) Demonstrated to be easily maintainable to an Objective Force OR rate of 90%.

• KPP C-3: Range

- (T) 1200 NM with 18,000 lbs of cargo. Self-deployment range of 2100 NM with a reduced cargo load. Both with a 45-minute fuel reserve.
- (O) Self-deployment range of 2100 NM while carrying 18,000 lbs of cargo, plus a 45-minute fuel reserve.

• KPP C-4: STOL

- (T) STOL-capable, able to take-off or land on a 2000 ft unimproved runway, at maximum gross weight, CBR of 4.75 or less.
- (O) STOL-capable, able to take-off or land on a 1900 ft unimproved runway, at maximum gross weight, CBR of 4.75 or less.

• KPP C-5: Payload (Cargo weight and volume)

- (T) 18,000 lbs of cargo, for 1200 NM, with a 45-minute reserve. Cargo area must be at least 88 inches wide, 78 inches high, and 324 inches long; capable of loading and securing three 463L pallets.
- (O) 22,000 lbs of cargo for 1200 NM, with a 45-minute reserve. Cargo area dimensions of 96 inches wide, 81 inches high, and 366 inches long. Capable of carrying a PLS flat rack.



Future Fixed Wing Cargo Aircraft Capabilities

Airspeed (Cruise)	Threshold	Objective
Altitude (Cruise)	300 KTAS	340 KTAS
Cargo Weight	20,000 ft MSL	30,000 ft MSL
Aircraft Survivability	w/maximum cargo load.	w/maximum cargo load.
Equipment (ASE)	18,000 lbs	20,000 lbs
	Detect and defeat	Detect and defeat
	IR & Radar guided	IR, Radar & laser-guided
	anti-aircraft missiles	anti-aircraft missiles
NBC	Both Threshold and Objective	
Ballistic Protection for crew	Detection of NBC and over-pressure/filtration protection	
NVG	Ballistic seat protection for the aircrew should be provided for up to .50 cal.	
Pressurization	NVG-compatible cockpit and exterior lighting	
Multi-role	Pressurized cockpit and cargo	
Personnel Air Drop	Rapidly re-configurable and capable of: airdrop operations; CASEVAC; loading 463L and standard pallets; and loading vehicles. Capable of conducting parachute operations, including HALO, to support SOF operations.	



Fixed Wing Funding (as of Pres Bud FY04)



PM FIXED WING AIRCRAFT		FY 06	FY 07	FY 08	FY 09	FY 10	FY 11
BUDGET (FY 2004 PB)	~~168~~						
UTILITY F/W AIRCRAFT	~~0~~	~~0~~	~~0~~	46,815	93,557	98,000	100,000
UTILITY CARGO AIRPLANE MODS		13,870	9,977	7,266	6,684	9,904	10,112
AIRCRAFT LONG RANGE MODS		781	788	619	558	810	810
GATM (FIXED WING)	~~1~~	8,788	7,811	9,179	8,269	13,000	13,000
* (\$ in Thousands)							



Cargo Aircraft Program Cost and Schedule



- Current acquisition funding profile begins in FY08 and continues throughout EPP
- Funding is adequate for acquisition rate of four (4) aircraft per year
- Desired acquisition rate is eight (8) aircraft per year
- Desired fleet end state is 128 cargo aircraft
- There are two potential material providers
 - **C-27J**
 - ~~**CASA-295**~~
- C-27J has support of ARNG TAGs
- CASA 295 was selected by Coast Guard for “Blue Water” support
- CASA 295 repair, Depot and parts facility to open in Mobile, AL (fall 2005)
- C-27J more closely matches the Army Initial Capabilities Document (ICD)
- C-27J is marketed by Lockheed-Martin
- CASA 295 is marketed by European Aeronautic Defense and Space



Future Fixed Wing Cargo Aircraft



Army preferences

- Best performance for the best price in COTS/NDI solution
- Loading commonality
 - > CH-47
 - > C-130H/J
 - > Standard military 463L pallet
- Parts commonality (if possible with C-130J)
 - > Propulsion
 - > Avionics
- Maintainability/Reliability
 - > Demonstrated to be easily maintainable at a fully mission capable rate of 90%



Future Fixed Wing Cargo Aircraft



Army preferences (continued)

- Performance

- > Max payload greater than 25,000 pounds
- > Floor strength greater than 3,000 lbs./ft.
- > At least 1200NM range with 18,000 pounds
- > Self-deployment range at least 2100NM with a 45 minute fuel reserve
- > STOL capable for takeoff and landing on a runway length of 2000 feet or less, at max gross weight and CBR 4.75 or less
- > Greater than 300 KTAS
- > Greater than 25,000 foot cruising altitude with maximum cargo load

- Equipment

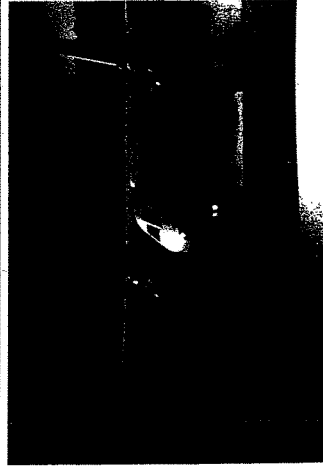
- > Fully modernized ASE suite and GATM compliant avionics package (P3I)
- > APU-equipped for remote area operations
- > Variable height and tilt capability for ease of loading



Back-up Slides



C-295



Initial Cruise Altitude: 27,500 feet
Maximum Cruise Ceiling: 30,000 feet

Max Cruise Speed: 260 ktas
Time to climb to 15K': not available
Steep Descent Capability: not avail
Fuel Capacity: 13,550 lbs.
Floor Strength: 670 lb/ft

Range: 700 nm with 16,000 lbs.
2000 nm (ferry)
CBR 4 Ground Roll: ~2200 feet



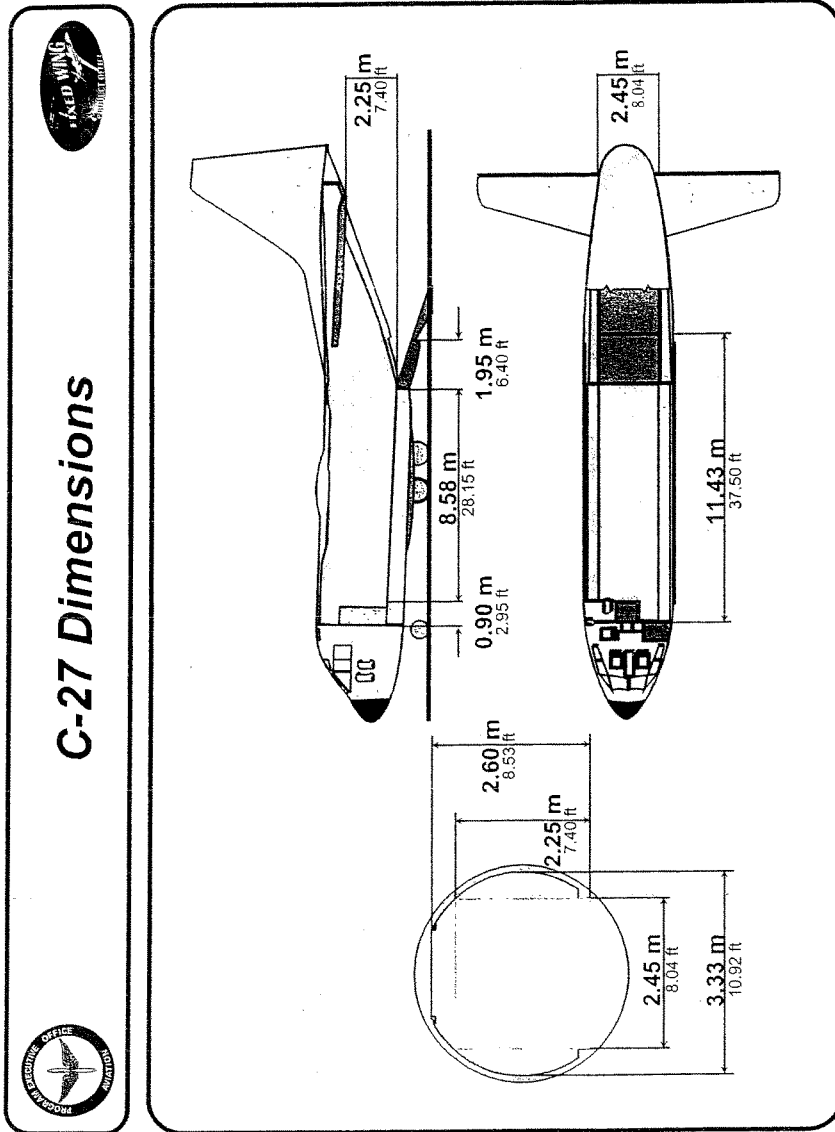
C-27J Spartan



Initial Cruise Altitude: 27,500 feet
Maximum Cruise Ceiling: 30,000 feet
Range: 1000 nm with 20,000 lbs.
3200 nm (ferry)
CBR 4 Ground Roll: < 1640 feet

Max Cruise Speed: 325 kts
Time to climb to 15K': 7.9 mins.
Steep Descent Capability: 4000 fpm
Fuel Capacity: 21,450 lbs.
Floor Strength: 3300 lb/ft

Short takeoff and landings
Assault Capability
3.0g maneuvering
Drive On/Off Capability
APU
Commonality with C-130J
Avionics & Propulsion



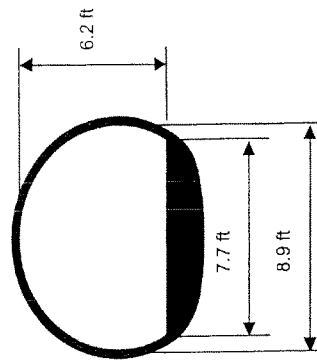
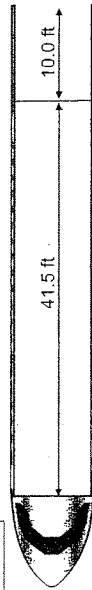


C-295 Dimensions



INTERNAL DIMENSIONS

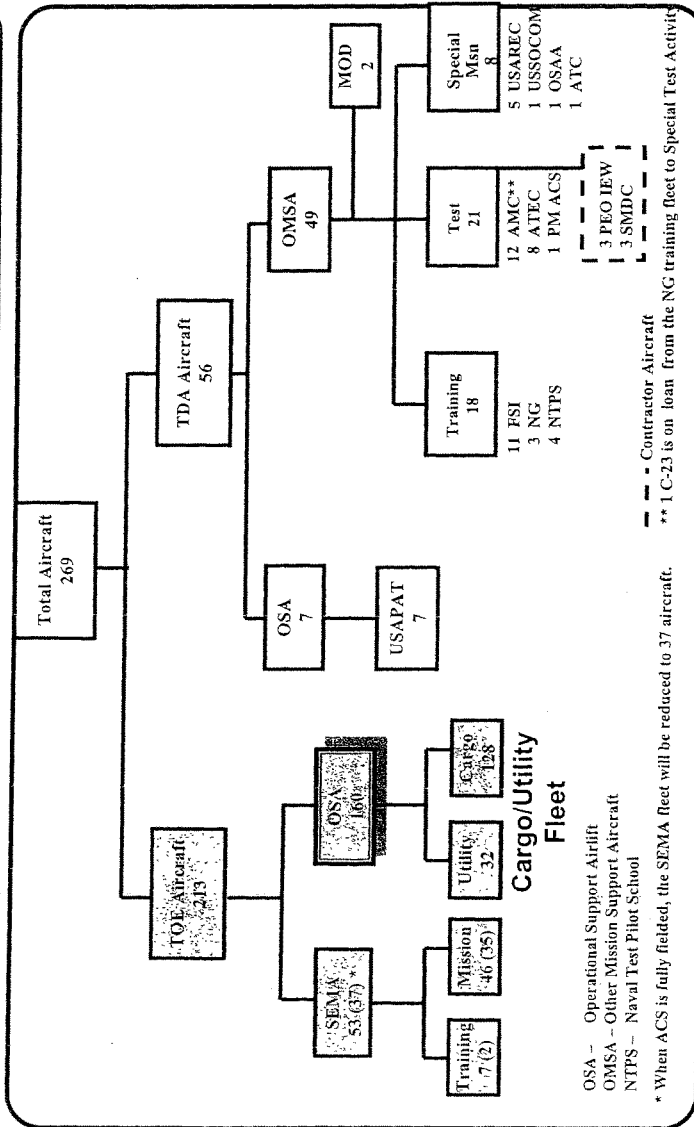
C-295



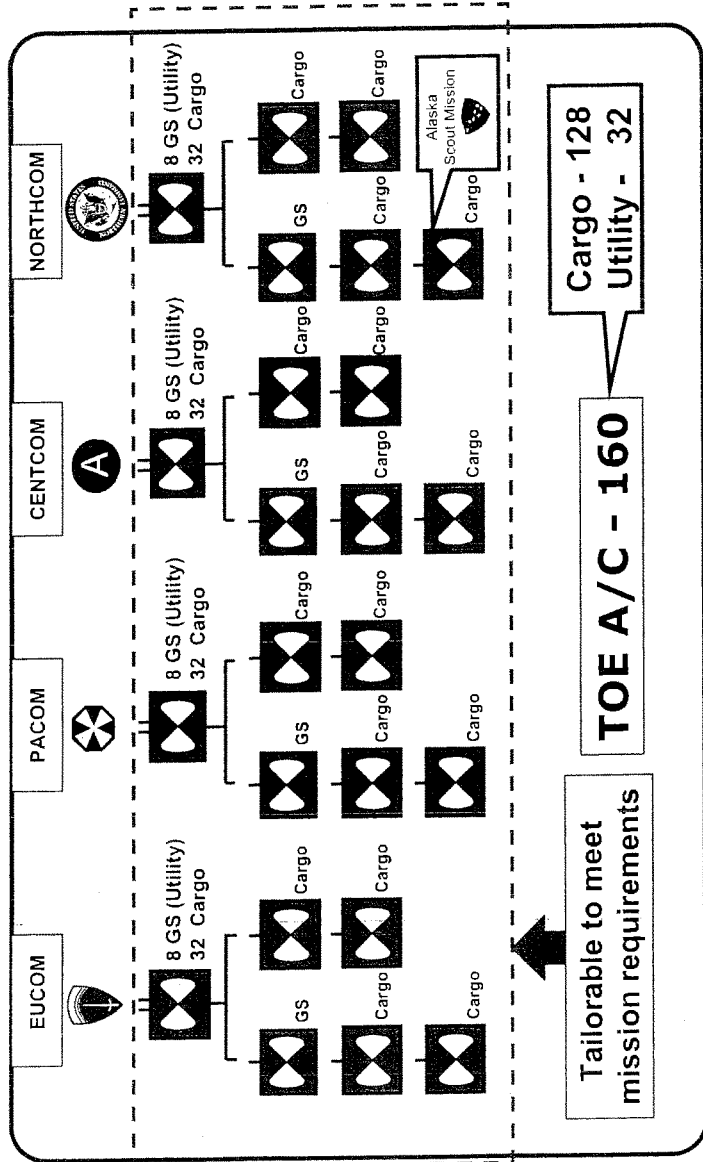
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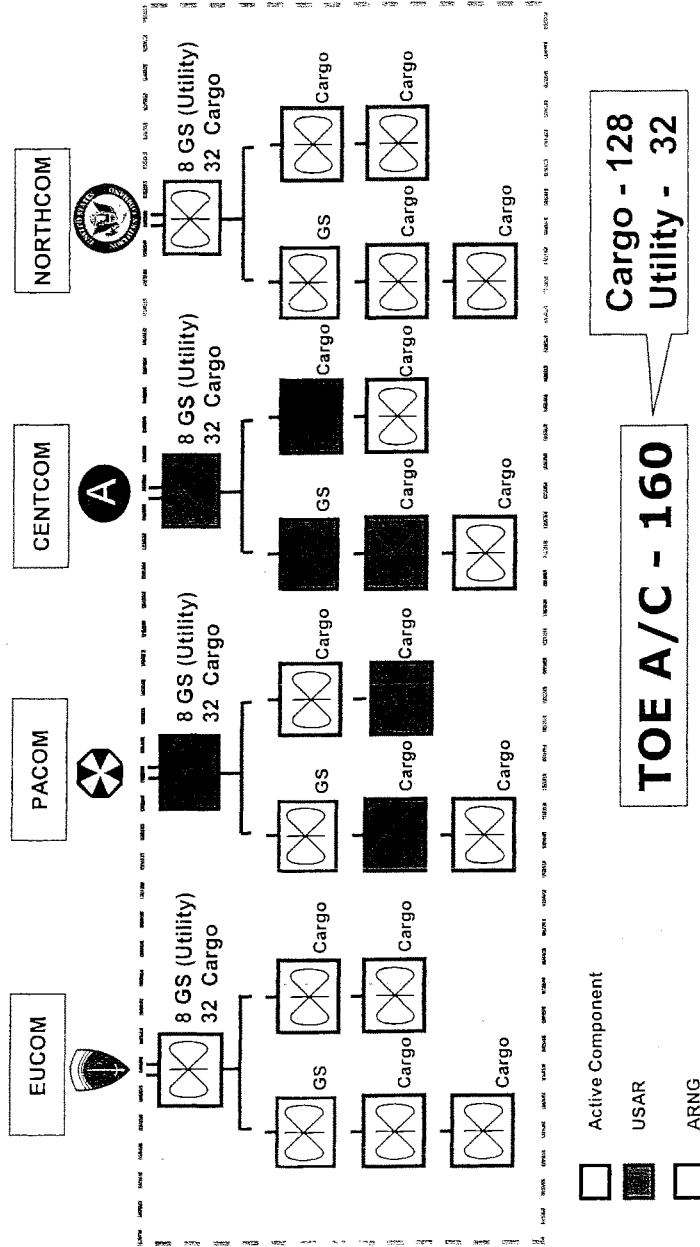
Army Aviation Fixed Wing Force Structure
(With Routine Sustainment Mission
- IAW Previous Draft O&O, 3 May 2002)(TOE & TDA)

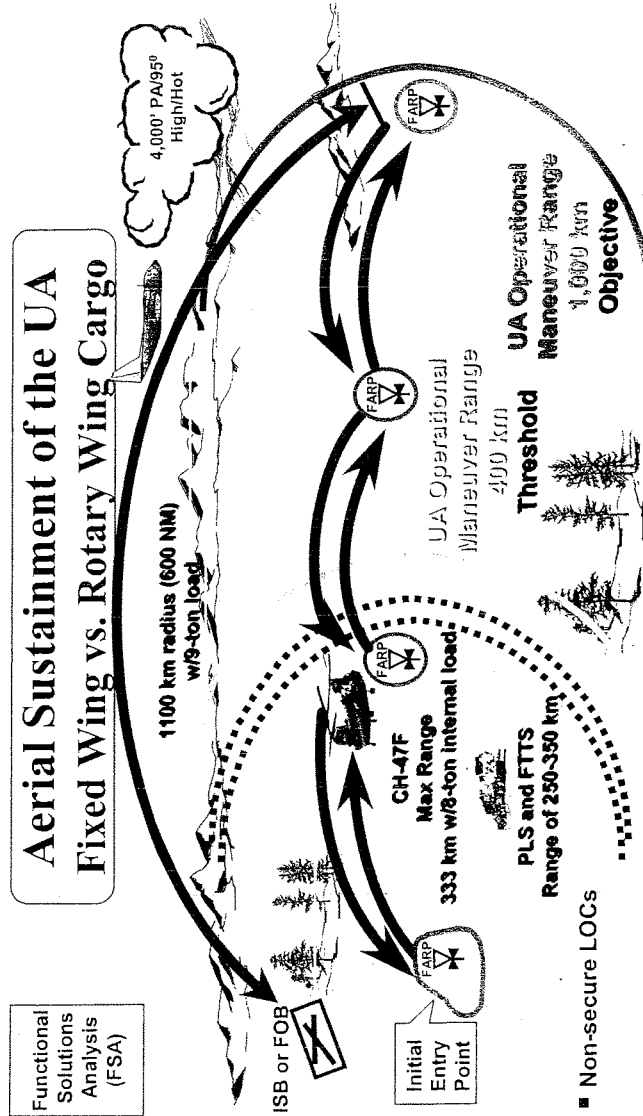


Objective FW Theater Aviation Battalion Structure
 (With Routine Sustainment Mission)
 – IAW Previous Draft O&O, 3 May 2002)



Future Force FW Theater Aviation Battalion Structure





- Upon arrival, FCS combat units immediately employ over operational distances (up to 400 km) to designated area(s) of operation, as a coherent, integrated, combined arms team. [FCS ORD, 22 Jan 2003]
- The FCS FoS must be capable of employing over ranges of 750 km (Threshold) and 1000 km (Objective). [FCS ORD, 22 Jan 2003]
- Within a range of 250-350 km, preliminary analysis has shown that current PLS and projected FTTS would both be adequate, but with significant requirements for protection. However, beyond this range and in terrain conditions rendering ground transportation infeasible, aerial resupply capability will be required. [CASCOM AAR for ATWG 02, 31 MAY 02]

STATEMENT OF MICHAEL J. SULLIVAN, ACQUISITION AND SOURCING MANAGEMENT, GOVERNMENT ACCOUNTABILITY OFFICE

Mr. SULLIVAN. Thank you, Mr. Chairman.

I'm pleased to be here today to participate in the subcommittee's hearing. I'll give a brief oral statement summarizing our recent work on the F/A-22 and Joint Strike Fighter programs, and discuss implications for the Department of Defense's (DOD) overall acquisition process. I also have a written statement that I'd like to submit for the record.

Senator MCCAIN. Without objection, your entire statement will be made part of the record, and that of the other witnesses.

Mr. SULLIVAN. Thank you, Mr. Chairman.

Let me begin with the F/A-22 program. Given current estimates for development costs, quantities, and missions, the F/A-22 program needs a new business case to justify continued investment now. Since the program started in 1986, development cost has more than doubled, initial operational capability has been delayed 10 years, and the aircraft quantities have been reduced from 750 to about 180. A new business case should take a look at the Air Force's needs right now and reconcile them in terms of quantities and capabilities with available resources before investment continues.

In addition, a modernization program has been added to provide robust air-to-ground and intelligence-gathering capabilities to the F/A-22. DOD estimates the cost of that modernization plan at about \$11 billion over the next 15 years. Recently, Program Budget Decision 753 issued last December places that modernization program in doubt. It ends procurement after 2008, and many of the advanced capabilities perceived in that plan were planned for aircraft that now would not be bought under that decision.

In March, we issued a report to recommend that the DOD direct the Air Force to establish a new business case. DOD concurred with that recommendation, stating that it would use the Quadrennial Defense Review to do so.

Let me turn to the Joint Strike Fighter (JSF) program. This program has been proceeding along a similar path as the F/A-22 and is now at a crossroads. Increased development costs, delays, and reduced quantities have made its original business case unexecutable at this point. When the program began, development cost was estimated at \$25 billion over 12 years, to be completed in 2008. Today, it is estimated at nearly \$45 billion over 17 years, to be completed in 2013. This reflects an 81-percent cost increase and a 5-year delay in development. At the same time, procurement quantities have been reduced by more than 535.

The program has experienced problems with aircraft weight that require significant design changes causing cost and schedule uncertainty that they are undergoing right now. It may take a year or more until adequate knowledge about the design and manufacturing of the aircraft can be captured to reduce this uncertainty; however, the program is requesting long lead funding for production in 2006. This investment is at risk.

If production begins without adequate knowledge, design changes in the future can create further significant cost and schedule prob-

lems. For example, between 2007 and the end of the development program, the program plans to increase production spending rates from about \$100 million to nearly \$1 billion a month to invest in production-type tooling facilities and a production workforce. This investment should wait until the program knows the design is ready to produce, yet the first integrated prototype to prove this won't fly until 3 years after production begins.

In our March 15 report, we recommended the program take time now to establish a new business case that's based on better knowledge about the design and manufacturing needs and the resources needed for this aircraft, and adjust its acquisition strategy, moving forward, to better align with DOD's existing acquisition policy that calls for evolutionary knowledge-based product development.

I'd like to make one final important point about DOD's overall acquisition process. It's currently estimated that these two programs I've talked about will spend about \$75 billion in development, twice as much as originally planned. For that cost, they currently plan to deliver about 1,100 less aircraft, and at a slower pace than they had originally planned. That reflects a significant loss of buying power for DOD, and it has serious implications for how well our acquisition process supports the warfighter.

The problems that these two programs have encountered are not atypical. They stem from an acquisition process that allows programs to commit funds without enough knowledge about requirements, technologies, designs, and manufacturing processes at different points in the program, creating significant unknowns that result in a cascade of cost overruns and schedule delays, usually later in the program. DOD recognizes this and rewrote its acquisition policy in 2003; however, the policy still lacks discipline controls and oversight mechanisms, and is not being consistently implemented. More needs to be done to assure the taxpayers a reasonable return on their investment. Reestablishing businesses cases on these two programs at this time, when significant changes have occurred, is a step in that right direction.

Mr. Chairman, that concludes my oral statement. I'd be happy to respond to any questions that you or other members of the subcommittee may have.

[The prepared statement of Mr. Sullivan follows:]

PREPARED STATEMENT FOR MICHAEL SULLIVAN

Mr. Chairman and members of the subcommittee: I am pleased to be here today to participate in the Subcommittee's hearing on the status of two of the Department of Defense's (DOD) major tactical aircraft fighter programs, the F/A-22 Raptor and the F-35, also known as the Joint Strike Fighter (JSF).¹ Both programs are intended to replace aging tactical fighter aircraft with highly advanced, stealthy aircraft. These two programs represent a potential future investment for DOD of about \$240 billion to modernize tactical fixed-wing aircraft.

My statement today will highlight key concerns in the F/A-22 and JSF programs. Our work has shown that because of the significant changes in the F/A-22 development and procurement programs and the key investment decisions remaining, a new business case is needed to justify aircraft quantities and investments in new capabilities. Changes in the JSF program and DOD's intent to begin producing aircraft with at least 6 years of development remaining suggest that the JSF does not yet have the knowledge to justify future investments. In addition to highlighting

¹The third major program, the FA-18EF, currently in production, is not a subject of this testimony.

specific F/A-22 and JSF program issues, I will discuss the implications these development programs have on DOD's overall investment strategy for modernizing the tactical fixed-wing aircraft.

My statement is primarily based on our recent reports on the F/A-22 and JSF programs.² We performed the work associated with this statement in accordance with generally accepted government auditing standards.

SUMMARY

The F/A-22 has been in development for 19 years, and cost increases and delays have created affordability concerns that reduced the number of aircraft planned for acquisition. A changing world environment and threats over this time frame have compelled the Air Force to plan for large investments in new capabilities to keep the F/A-22 viable. Termination of F/A-22 procurement after fiscal year 2008 has also placed modernization plans in doubt. The original business case elements—needs and resources—set at the outset of the program are no longer valid, and a new business case is needed to justify future investments for aircraft quantities and modernization efforts. The F/A-22's acquisition approach was not knowledge-based or evolutionary. It attempted to develop revolutionary capability in a single step, causing significant technology and design uncertainties and, eventually, significant cost overruns and schedule delays. Lessons from the F/A-22 program can be applied to the JSF program to improve on its outcomes.

While relatively early in its acquisition program, the JSF program has experienced design and weight problems that, if not solved, will affect aircraft performance. These problems have led to increased development and procurement costs and schedule delays so far. In addition, the program's customers are still not sure how many aircraft they will need. The combination of cost overruns and quantity reductions has already diluted DOD's buying power and made the original JSF business case unexecutable. Given continuing program uncertainties, DOD could use more time right now to gain knowledge before it commits to a new business case for its substantial remaining investments. The JSF's current acquisition strategy does not embrace evolutionary, knowledge-based techniques intended to reduce risks. Key decisions, like the planned 2007 production decision, are expected to occur before critical knowledge is captured. Time taken now to gain knowledge will avoid placing sizable investments in production capabilities at risk to expensive changes.

Taken together, the current status and continuing risk in these two programs have broader implications to the DOD tactical fixed-wing aircraft modernization program, raising questions as to whether its overarching goals are now achievable. Decreases in quantities alone—about 30 percent since original plans—raise questions about how well the aircraft will complement our tactical air forces in the future.

BACKGROUND

The F/A-22 aircraft program is acquiring the Air Force's next generation, multi-mission fighter for about \$63.8 billion.³ The continued need for the F/A-22, its increasing costs, and the quantities required to perform its mission have been the subject of a continuing debate within DOD and Congress. Supporters cite the F/A-22's advanced features—stealth, supercruise speed, maneuverability, and integrated avionics—as integral to the Air Force's Global Strike initiative and for maintaining air superiority over potential future adversaries for years to come.⁴ Critics, on the other hand, argue that the Soviet threat the F/A-22 was originally designed to counter no longer exists and that its remaining budget dollars could better be invested in enhancing current air assets and acquiring new and more transformational capabilities that will allow it to meet evolving threats. The debate continues as a December 2004 budget decision by the Office of the Secretary of Defense (OSD) reduced F/A-

²GAO, Tactical Aircraft: Status of the F/A22 and JSF Acquisition Programs and Implications for Tactical Aircraft Modernization, GAO-05-390T (Washington, DC: Mar. 3, 2005); GAO, Tactical Airlift: Air Force Still Needs Business Case to Support F/A-22 Quantities and Increased Capabilities, GAO-05-304 (Washington, DC: Mar. 15, 2005); and GAO Tactical Aircraft: Opportunity to Reduce Risks in the Joint Strike Fighter Program with Different Acquisition Strategy, GAO-05-271 (Washington, DC: Mar. 15, 2005).

³This amount consists of \$61.3 billion currently budgeted for the basic program and the initial stages of the modernization efforts, \$1.3 billion for future start-up costs of a separate acquisition program for the latter stages of modernization, and \$1.2 billion in costs to retrofit aircraft with enhanced capabilities and activate depot maintenance activities.

⁴Global Strike is one of six complementary concepts of operations laying out the Air Force's ability to rapidly plan and deliver limited-duration and extended attacks against targets.

22 funding and the number of aircraft to be acquired. A full-rate production decision is expected in early April, but the Air Force already has 98 aircraft on contract.⁵

The JSF program is DOD's most costly aircraft acquisition program. The program's goals are to develop and field more than 2,400 stealthy strike fighter aircraft for the Navy, Air Force, and Marine Corps and potentially several hundred more aircraft for U.S. allies. International participation in the development of this system is a vital part of the acquisition strategy. The JSF is intended to provide greater capability and to replace DOD's aging fighter and attack aircraft. DOD estimates that the total cost to develop and procure its fleet of aircraft will reach \$245 billion, with total costs to maintain and operate the JSF adding another \$344 billion over its life cycle. Since the program began in November 1996, it has experienced technical challenges that have resulted in significant cost increases and schedule overruns. During most of 2004, the program worked to understand and define current development risks in order to prepare more accurate cost and delivery estimates to support development and production investment decisions planned over the next 2 years.

A key to successful acquisition programs is the development of a business case that should match requirements with resources—proven technologies, sufficient engineering capabilities, time, and funding—when undertaking a new product development. First, the user's needs must be accurately defined, alternative approaches to satisfying these needs must be properly analyzed, and quantities needed for the chosen system must be well understood. The developed product must be producible at a cost that matches the users' expectations and budgetary resources. Finally, the developer must have the resources to design and deliver the product with the features that the customer wants and to deliver it when it is needed. If the financial, material, and intellectual resources to develop the product are not available, a program incurs substantial risk in moving forward.

A NEW BUSINESS CASE IS NEEDED TO JUSTIFY CONTINUED INVESTMENT IN THE F/A-22 PROGRAM

Since its inception in 1986, the F/A-22 aircraft program has encountered numerous and continuing management and technical challenges. Changing threats, missions, and requirements have severely weakened the original business case. Program milestones have slipped substantially; development costs have more than doubled; and a modernization program was added. The recent budget decision to terminate procurement after fiscal year 2008, the prospect of additional cuts because of ceilings on program cost, and upcoming defense reviews have significant implications for the program's viability and the future of modernization efforts.

In March 2004, we reported that the significant changes in the F/A-22's cost, quantity, capabilities, and mission and the persistent problems and delays in its development and testing schedules called for a new business case to justify the continued need for the F/A-22.⁶ We recommended that OSD direct the Air Force to consider alternatives and examine the constraints of future defense spending. In subsequent testimony, we reiterated this position, stating that competing priorities—both internal and external to DOD's budget—require a sound and sustainable business case for DOD's acquisition programs based on comprehensive needs assessments and a thorough analysis of available resources.⁷ In response to our recommendation, DOD stated its routine budgeting processes annually addressed business case issues on the F/A-22. We disagreed, as we do not think those processes provide the breadth or depth of analysis needed to develop a comprehensive new business case.

Problems in the F/A-22 Program Strain Future Viability

When initiated, the F/A-22 acquisition program planned to complete development in 1995, achieve initial operational capability by March 1996, and ultimately procure 750 aircraft. The Air Force currently plans to complete system development in 2005, achieve initial operational capability by December 2005, and procure 178 aircraft.

Amidst concerns about escalating costs and schedule, Congress placed cost limitations on both development and production budgets in 1997,⁸ later removing the de-

⁵The Defense Acquisition Board met in late March of this year to discuss the F/A-22's progress and readiness for full-rate production. A final decision by the milestone decision authority is expected in early April.

⁶GAO, Tactical Aircraft: Changing Conditions Drive Need for New F/A-22 Business Case, GAO-04-391 (Washington, DC: Mar. 15, 2004).

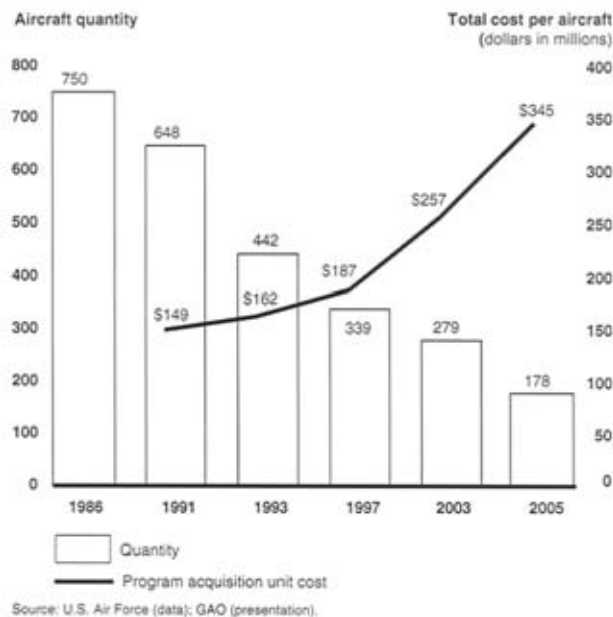
⁷GAO, Tactical Aircraft: Status of the F/A-22 and Joint Strike Fighter Programs, GAO-04-597T (Washington, DC: Mar. 25, 2004).

⁸Pub. L. No. 105-85 (Nov. 18, 1997), section 217.

velopment cost cap.⁹ According to the Air Force, the current production cost cap is \$37.3 billion. Affordability concerns have, in part, led to the steady decrease in procurement quantities. Two major reviews of defense force structure and acquisition plans—the 1993 Bottom-Up Review and the 1997 Quadrennial Defense Review (QDR)—significantly reduced F/A–22 quantities. OSD’s “buy to budget” acquisition strategy essentially placed a ceiling on total program costs resulting in reducing quantities, and in December 2004, Program Budget Decision 753 reduced F/A–22 funding by \$10.5 billion, further reducing in all likelihood procurement quantities from 275 to 178 aircraft.¹⁰ The December 2004 budget decision also ended procurement in fiscal year 2008, instead of fiscal year 2011.

Decreased procurement quantities, along with increased development and production costs and increased costs to modernize and enhance capability, have led to rising acquisition unit costs. Figure 1 illustrates the downward trend in procurement quantities and the upward trend in program acquisition unit costs.¹¹

Figure 1: Quantity and Program Acquisition Unit Cost of F/A–22s



In arguing for reversal of the December 2004 budget decision to stop procurement of the F/A–22 in 2008, Air Force officials noted that the decision obviates production economies and efficiencies that the Air Force expected to achieve through a multiyear procurement contract that was to begin in fiscal year 2008. Officials also stated that cutting production quantities from the final years of the program limits expected savings in annual unit procurement costs. As with many DOD acquisitions, Air Force program officials had assumed in future budgets that the costs for buying F/A–22s would decrease as a result of manufacturing efficiencies, reduced fixed costs, productivity projects, and more economical buying quantities. For example, the average unit flyaway cost for the F/A–22 in 2003 was about \$178 million, while the unit flyaway costs for future annual buys were projected before the budget deci-

⁹Pub. L. No. 107–107 (Dec. 28, 2001), section 213.

¹⁰Program Budget Decision 753 nominally reduced the procurement quantity to 179 aircraft. Subsequently, the Air Force transferred one aircraft to be used as a permanent test bed, reducing the procurement quantity to 178. The recent crash of an F/A–22 has reduced planned operational aircraft to 177.

¹¹Program acquisition unit cost includes funding for development, procurement, related military construction, and initial modernization divided by total production quantity. It does not include later stage modernization costs and certain support costs.

sion to decrease to \$127 million, \$111 million, and \$108 million in fiscal years 2007, 2008, and 2009 respectively.¹² Now that the program will be truncated in 2008, the less expensive aircraft in 2009 and beyond will not be bought and unit costs are now projected at \$135 million in 2007 and \$149 million in 2008 (increases associated with close-out of production).

The F/A-22 program changes have also resulted in schedule delays for completing development testing, operational testing, and, consequently, the full-rate production decision. That decision is currently expected later this month but could slip again given the unsettled environment. One critical input to the decision is the report by the Office of the Director of Operational Test and Evaluation to Congress and defense leadership on the adequacy and results of the recently completed initial operational test and evaluation.¹³ In addition, the F/A-22 program must demonstrate it satisfies criteria established by the Defense Acquisition Board in November 2004, which include delivering a fully resourced plan for follow-on testing to correct deficiencies identified in initial operational testing and evaluation, achieving design stability of the avionics software, demonstrating mature manufacturing processes, and validating technical order data.¹⁴

Final reports detailing the results from initial operational testing and evaluation were not available for our review, but Air Force test officials told us that testing showed the F/A-22 was “overwhelmingly effective” as an air superiority fighter and that its supporting systems were “potentially suitable” pending the correction of identified deficiencies. Operational testing of the limited ground attack capability in the current design was not conducted but is scheduled during follow-on testing planned to start in July 2005.¹⁵ Air Force officials believe that test results support approval of full-rate production. They also believe that deficiencies identified in aircraft reliability and maintainability (including maintaining low observable characteristics) and in the integrated diagnostic systems are readily correctible and the aircraft should meet the needs of the warfighter by the scheduled initial operational capability date in December 2005. However, whether the Air Force can accomplish all of this by December 2005 remains to be seen.

Future of Modernization Plans in Doubt

Originally, the F/A-22 was intended to replace the F-15 and achieve air-to-air superiority to counter large numbers of advanced Soviet fighters in conventional warfare. However, over the 19 years that the aircraft has been in development, the projected Cold War threats never materialized and new threats emerged, changing tactical fighter requirements and operational war plans. The Air Force now plans to implement a Global Strike concept of operations by developing a robust air-to-ground attack capability to allow the aircraft to counter a greater variety of targets, such as surface-to-air missiles systems, that pose a significant threat to U.S. aircraft. It also plans to equip most of the F/A-22 fleet with improved capabilities to satisfy expanded warfighter requirements and to take on new missions, including intelligence data gathering and the suppression of enemy air defenses and interdiction.

To implement its Global Strike concept, the Air Force established a time-phased modernization program. Table 1 shows how the Air Force intended to integrate new capabilities incrementally before the December 2004 budget decision reduced quantities by 96 aircraft. At the time of our review, officials were still determining the impacts of the budget decision on the modernization program content and quantities.

¹² Average unit flyaway cost includes the costs associated with procuring one aircraft, including the airframe, engines, avionics, other mission equipment, and certain nonrecurring production costs. It does not include “sunk” costs for development and test and other costs to the whole system, including logistical support and construction.

¹³ Statute 10 U.S.C. 2399 provides that a major defense acquisition program may not proceed beyond low-rate initial production until initial operational test and evaluation is completed and the congressional defense committees have received the report of testing results from the Director of Operational Test and Evaluation. This report is to contain an opinion of test adequacy and whether the test results confirm that the system actually tested is operationally effective and suitable for combat.

¹⁴ The F/A-22 initial operational test and evaluation was conducted by the Air Force Operational Test and Evaluation Center from April through December 2004 to support the full-rate production decision. Its operational test plan was designed to assess the F/A-22’s combat effectiveness and suitability in an operationally representative environment.

¹⁵ Air-to-ground attack capabilities are increasingly emphasized by the Air Force, and future enhancements are planned for 80 percent of the modernized F/A-22s. More robust ground attack and intelligence gathering capabilities will be tested in the future as they are developed.

Table 1: Planned Modernization Enhancements for the F/A-22 Program

	Fiscal year when enhancements are expected to be incorporated			
	2007	2011 ¹	2013	2015
Capabilities increment	Global Strike Basic	Global Strike Enhanced	Global Strike Full	Enhanced Intelligence, Surveillance, and Reconnaissance
Configuration ²	Block 20	Block 30	Block 40	Block 40
Quantity of F/A-22s	56	91	128	2 ³
Examples of enhancements to be added	Improve capability to launch Joint Direct Attack Munition at faster speeds and at longer distances; upgrade air-to-air capabilities	Enhance air-to-ground capability by adding improved radar capabilities to seek and destroy advanced surface-to-air missile systems; integrate additional air-to-ground weapons	Increase capability to suppress or destroy the full range of air defenses and improve speed and accuracy of targeting	Add capability for full intelligence, surveillance, and reconnaissance integration for increased target sets and lethality

Sources: Air Force and Office of Secretary of Defense.

¹Global Strike Enhanced includes two increments of capability, with the first increment incorporated in fiscal year 2009 and the second in 2011.

²The Air Force planned to have three configurations (called blocks) that included specific enhancements developed in the modernization program.

³This quantity included in Global Strike Full amount. Total 128 aircraft planned for block 40.

In March 2003, OSD's Cost Analysis Improvement Group (CAIG) estimated that the Air Force would need \$11.7 billion for the planned modernization programs through fiscal year 2018.¹⁶ The Air Force's latest estimate includes about \$4.1 billion through fiscal year 2011 for the first two modernization increments (blocks 20 and 30) and about \$1.3 billion through fiscal year 2011 for the latter two increments (block 40). The Air Force will continue to manage blocks 20 and 30 as part of the F/A-22 acquisition program. To manage block 40 efforts, OSD has directed the Air Force to establish a separate modernization program.¹⁷ Future modernization costs beyond 2011 have not been fully definitized and are subject to change. The modernization program manager projected annual funding of \$700 to \$750 million would be needed for the currently planned modernization program after 2011.

The December 2004 budget decision places much of the modernization program in doubt, particularly the latter stages. This is because that decision terminated F/A-22 procurement after fiscal year 2008 and many of these new and advanced capabilities had been planned for aircraft that now will not be bought. Therefore, if the budget cut is sustained, the modernization program as currently planned is largely obsolete and some funding for advanced capabilities planned to be incorporated after fiscal year 2008 could be available for other uses. At the time of our review, Air Force officials were still restructuring the modernization program in response to the budget decision, including revising the desired mix of capabilities and the number of aircraft in each configuration. With the reduced quantity, they are considering having only two configurations, with the second incorporating some enhancements originally planned for the third configuration.

The budget decision causes a ripple effect on other resource plans tied to the modernization. For example, it brings into question the need for (1) upgrades to the computer architecture and processors estimated to cost between \$400 million and \$500 million; (2) upgrades to government laboratory and test range infrastructure like software avionics integration labs, flying test beds, and test ranges estimated to cost about \$1.8 billion; and (3) changes in other activities supporting modernization enhancements in the production line, retrofit of aircraft, and establishing depot maintenance support estimated at more than \$1.6 billion.

NEW JSF BUSINESS CASE AND ACQUISITION STRATEGY IS CRITICAL FOR PROGRAM SUCCESS

Unlike the F/A-22 program, which is near the end of development, the JSF program is approaching key investment decisions that will greatly influence the efficiency of the remaining funding—over 90 percent of the \$245 billion estimated total

¹⁶The OSD CAIG acts as the principal advisory body to the milestone decision authority on program cost. The CAIG estimate included costs for development, procurement, and retrofit of modernized aircraft.

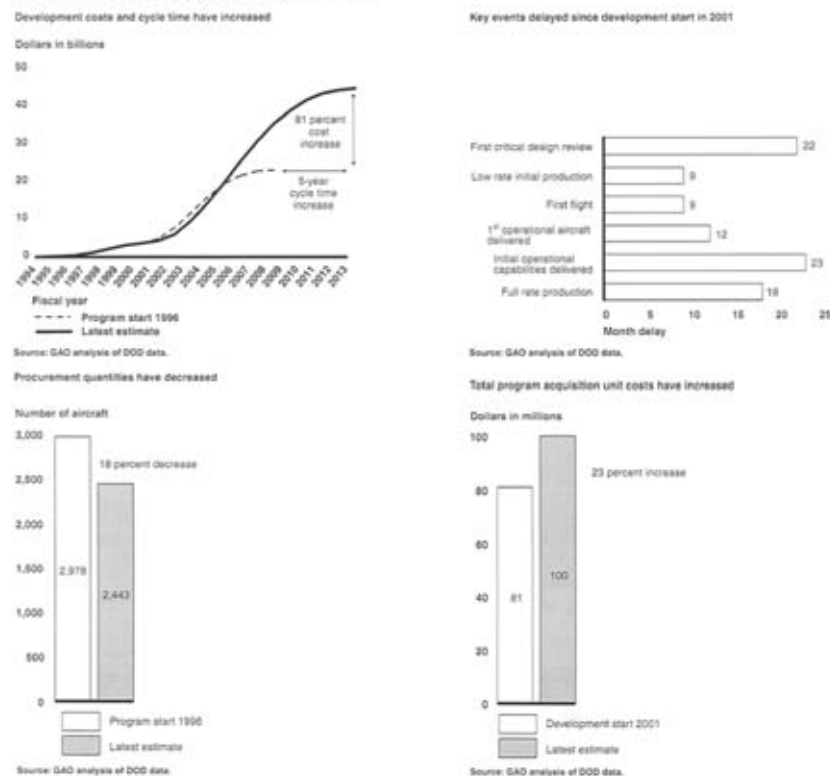
¹⁷In November 2004, the acting Under Secretary of Defense for Acquisition, Technology and Logistics directed the Air Force to hold separate milestone reviews for the latter stages of the modernization program to be consistent with DOD acquisition policy. The Air Force plans to manage these efforts as a separate acquisition program.

program costs—and determine the risk DOD is willing to accept. DOD has not been able to deliver on its initial promise, and the sizable investment greatly raises the stakes to meet future promises. Given continuing program uncertainties, DOD could use more time to gain knowledge before it commits to a new business case and moves forward. Any new business case must be accompanied by an acquisition strategy that adopts an evolutionary approach to product development—one that enables knowledge-based decisions to maximize the return on remaining dollars—as dictated by best practices.

DOD Needs More Time to Develop a New JSF Business Case

Increased program costs, delayed schedules, and reduced quantities have diluted DOD's buying power and made the original JSF business case unexecutable. Program instability at this time makes the development of a new and viable business case difficult to prepare. The cost estimate to fully develop the JSF has increased by more than 80 percent. Development costs were originally estimated at roughly \$25 billion. By the 2001 system development decision, these costs increased almost \$10 billion, and by 2004, costs increased an additional \$10 billion, pushing total development cost estimates to nearly \$45 billion. Current estimates for the program acquisition unit cost are about \$100 million, a 23 percent increase since 2001. Ongoing OSD cost reviews could result in further increases to the estimated program cost. At the same time, procurement quantities have been reduced by 535 aircraft and the delivery of operational aircraft has been delayed. Figure 2 shows how costs, quantities, and schedules have changed since first estimates based on data as of January 2005.

Figure 2: Measures of JSF Cost and Schedule Changes



Ongoing program uncertainties—including uncertainties about the aircraft's design and procurement quantities—make it difficult to understand what capabilities

can be delivered with future investments. For example, DOD has been working over the past year to restructure the JSF program to accommodate changes in the aircraft's design; until this restructuring is completed, it will be difficult to accurately estimate program costs. The need for design changes largely resulted from the increased weight of the short takeoff and vertical landing variant and the impact it was having on key performance parameters. The other JSF variants' designs were affected as well. The program plans to have a more comprehensive cost estimate in the spring of 2005. However, a detailed assessment has not been conducted to determine the impact that the restructured program will have on meeting performance specifications. Until the detailed design efforts are complete—after the critical design review in February 2006—the program will have difficulty assessing the impact of the design changes on performance. While the program office anticipates that recent design changes will allow the aircraft to meet key performance parameters, it will not know with certainty if the weight problems have been resolved until after the plane is manufactured and weighed in mid-2007.

Program officials are also examining ways to reduce program requirements while keeping cost and schedules constant. Design and software teams have found greater complexity and less efficiency as they develop the 17 million lines of software needed for the system. Program analysis indicated that some aircraft capabilities will have to be deferred to stay within cost and schedule constraints. As a result, the program office is working with the warfighters to determine what capabilities could be deferred to later in the development program or to follow-on development efforts while still meeting the warfighter's basic needs. It may be some time before DOD knows when and what capabilities it will be able to deliver. The content and schedule of the planned 7-year, 10,000-hour flight test program is also being examined. According to the program office, the test program was already considered aggressive, and recent program changes have only increased the risks of completing it on time.

Finally, uncertainty about the number and mix of variants the services plan to purchase will also affect JSF's acquisition plans. While the Air Force has announced its intention to acquire the short takeoff and vertical-landing variant, it has yet to announce when or how many it expects to buy or how this purchase will affect the quantity of the conventional takeoff and landing variant it plans to buy. The number and mix of JSF variants that the Navy and Marine Corps intend to purchase—and their related procurement costs—also remain undetermined. Foreign partners have expressed intent to buy about 700 aircraft between 2012 and 2015, but no formal agreements have been signed at this time. The 2005 Quadrennial Defense Review—an examination of U.S. defense needs—could also affect the procurement quantities and schedule. In developing a reliable business case, knowing the quantities to be purchased is equally as important as other elements. Without knowing types and quantities the program manager cannot accurately estimate costs or plan for production.

Timely Capture of Product Knowledge Needed to Support Future Business Decisions

In recent years, DOD has revised its weapons acquisition policy to support an evolutionary, knowledge-based strategy based on best practices—key to executing a future business case and making more informed business decisions.¹⁸ With an evolutionary acquisition approach, new products are developed in increments based on available resources. Design elements that are not currently achievable are planned for and managed as separate acquisitions in future generations of the product with separate milestones, costs, and schedules. While JSF's acquisition strategy calls for initially delivering a small number of aircraft with limited capabilities, the program has committed to deliver the full capability by the end of system development and demonstration in 2013 within an established cost and schedule for a single increment, contrary to an evolutionary approach.

In addition, JSF's planned approach will not capture adequate knowledge about technologies, design, and manufacturing processes for investment decisions at key investment junctures. Our past work has shown that to ensure successful program outcomes, a high level of demonstrated knowledge must be attained at three key junctures for each increment in the program. Table 2 compares best practice and JSF knowledge expectations at each critical point.

¹⁸ DOD Directive 5000.1, The Defense Acquisition System (May 2003); DOD Instruction 5000.2, Operation of the Defense Acquisition System (May 2003). The directive establishes evolutionary acquisition strategies as the preferred approach to satisfying DOD's operational needs. The directive also requires program managers to provide knowledge about key aspects of a system at key points in the acquisition process.

Table 2: Knowledge Attainment on JSF Program at Critical Junctures

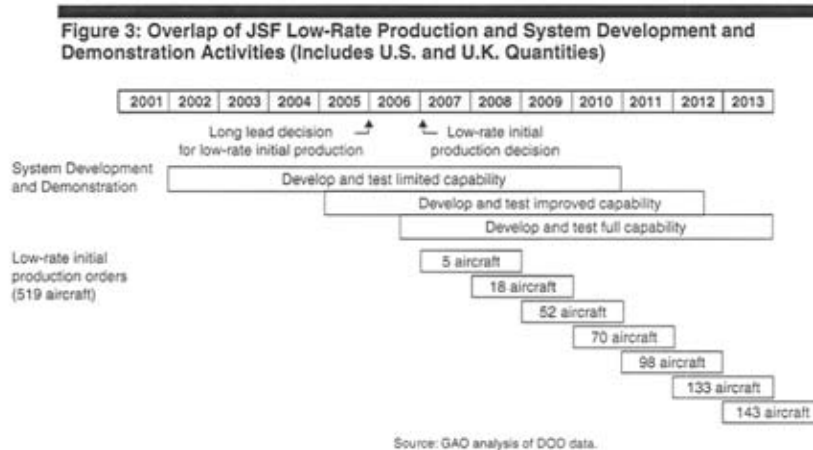
Best practice	Knowledge point 1	Knowledge point 2	Knowledge point 3
	Should be achieved at development start.	Should be achieved by the design review.	Should be achieved by the start of production.
	Separate technology and product development, deliver mature technology, and have preliminary design based on systems engineering principles.	Completion of 90 percent of engineering drawing packages for structures and systems, critical design review completed, and design prototyped.	100 percent of critical manufacturing processes under statistical control, demonstration of a fully integrated product in its operational environment to show it will work as intended, and reliability goals demonstrated.
JSF practice	Knowledge point 1 was not attained at milestone B in 2001.	Knowledge point 2 will not be attained by design review in 2006 under current plan.	Knowledge point 3 will not be attained by start of production in 2007 under current plan.
	Failed to separate technology and product development. Critical technologies not mature and sound preliminary design not established. Several technologies not expected to be mature until after production begins.	The program estimates 35 percent of the engineering drawing packages are expected to be released at the critical design reviews. Also, prototype testing will not be done prior to the design review. The design will not be stable until after production begins.	Program does not expect to demonstrate that the critical processes are under statistical control until 2009. Program expects to demonstrate that a fully integrated aircraft will work as intended and meets reliability goals in 2010-2012 timeframe.

Source: GAO data and analysis of DOD data.

As shown in Table 2, the JSF program will lack critical production knowledge when it plans to enter low-rate initial production in 2007. The department has included about \$152.4 million in its fiscal year 2006 budget request to begin long lead funding for low-rate initial production. This production decision is critical, and the knowledge required to be captured by knowledge point 3 in our best practice model should be achieved before this critical juncture is reached. If production begins without knowledge that the design is mature, critical manufacturing processes are under control, and reliability is demonstrated, costly changes to the design and manufacturing processes can occur, driving up costs and delaying delivery of the needed capability to the warfighter. The size of the potential risk is illustrated in the production ramp-up and investments planned after this decision is made. Between 2007 (the start of low-rate production) and 2013 (the scheduled start of full-rate production) DOD plans to buy nearly 500 JSF aircraft—20 percent of its planned total buys—at a cost of roughly \$50 billion. Under the program's preliminary plan, DOD expects to increase low-rate production from 5 aircraft a year to 143 aircraft a year, significantly increasing the financial investment after production begins.¹⁹ Between 2007 and 2009, the program plans to increase low-rate production spending from about \$100 million a month to more than \$500 million a month, and before development has ended and an integrated aircraft has undergone operational evaluations, DOD expects to spend nearly \$1 billion a month.

To achieve its production rate, the program will invest significantly in tooling, facilities, and personnel. According to contractor officials, an additional \$1.2 billion in tooling alone would be needed to ramp up the production rate to 143 aircraft a year. Over half of this increase would be needed by 2009—more than 2 years before operational flight testing begins. Figure 3 shows the planned production ramp up, along with the concurrently planned development program for the JSF.

¹⁹The preliminary plan was what was being considered at the time of our review. Since then, in its fiscal year 2006 budget submission, DOD has reduced the planned procurement quantities for the U.S. by 38 aircraft through fiscal year 2011. This includes planned quantities for the United Kingdom of 2 aircraft in fiscal year 2009, 4 aircraft in fiscal year 2010; 9 aircraft in fiscal year 2011, 9 aircraft in fiscal year 2012, and 10 aircraft in fiscal year 2013.



Following are examples of technology, design, and production knowledge that should be but will not be captured when the low-rate production decision is scheduled to be made.

- Only one of JSF's eight critical technologies is expected to be demonstrated in an operational environment by the 2007 production decision.
- Only about 40 percent of the 17 million lines of code needed for the system's software will have been released, and complex software needed to integrate the advanced mission systems is not scheduled for release until about 2010—3 years after JSF is scheduled to enter production. Further, most structural fatigue testing and radar cross section testing of full-up test articles are not planned to be completed until 2010.
- The program will not demonstrate that critical manufacturing processes are in statistical control, and flight testing of a fully configured and integrated JSF (with critical mission systems and prognostics technologies) is not scheduled until 2011.

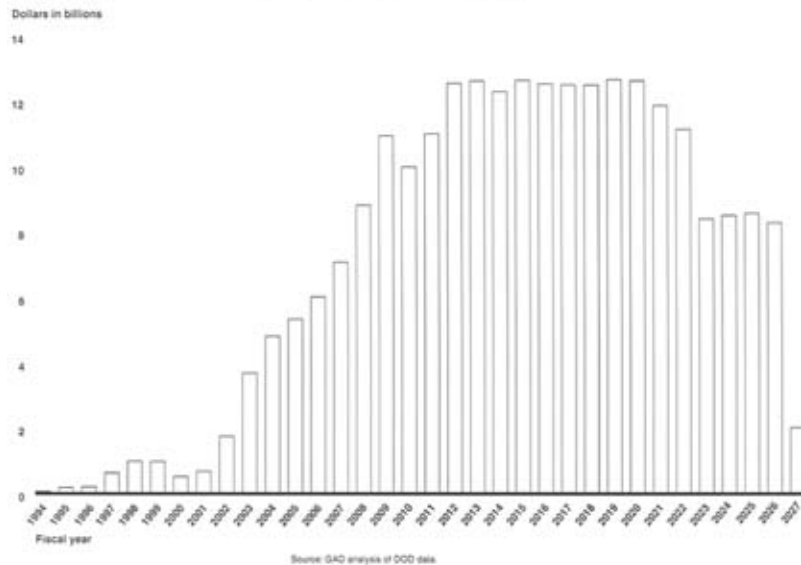
Further, because of the risk created by the extreme overlap of development and production, the program office plans to place initial production orders on a cost reimbursement contract, placing a higher cost risk burden on the government than is normal. These contracts provide for payment of allowable incurred costs, to the extent prescribed in the contract. They are used when uncertainties involved in contract performance do not permit costs to be estimated with sufficient accuracy to use any type of fixed-price contract and place greater cost risk on the buyer—in this case, DOD. In the case of the JSF, a fixed-price contract will not be possible until late in the development program.

JSF'S SUBSTANTIAL FUNDING REQUIREMENTS MAY BE DIFFICULT TO SUSTAIN IN THE CURRENT FISCAL ENVIRONMENT

Regardless of likely increases in program costs, the sizable continued investment in JSF must be viewed within the context of the fiscal imbalance facing the Nation over the next 10 years. The JSF program will have to compete with many other large defense programs as well as other priorities external to DOD's budget. JSF's acquisition strategy assumes an unprecedented \$225 billion in funding over the next 22 years or an average of \$10 billion a year (see fig. 4).²⁰

²⁰This is based on DOD's December 2003 JSF cost estimate.

Figure 4: JSF Program's Annual Funding Requirements (as of December 2003)



Funding challenges will be even greater if the program fails to stay within current cost and schedule estimates. For example, we estimate that another 1-year delay in JSF development would cost \$4 billion to \$5 billion based on current and expected development spending rates. A 10-percent increase in production costs would amount to \$20 billion.

IMPLICATIONS FOR THE CURRENT STATUS OF TACTICAL AIRCRAFT PROGRAMS

Continuing changes and uncertainties in the F/A-22 and JSF programs present significant challenges to DOD in achieving its modernization plans which attempt to blend many factors within affordability constraints. Factors in the decision making process can include aircraft age, ownership costs, readiness, force structure, operating concepts, competing needs, available funds, defense policy, and others.²¹ Today, both F/A-22 and JSF programs include significantly fewer aircraft than originally planned—30 percent fewer or over 1,000 aircraft. Deliveries intended to provide an operational capability have also been delayed in both programs, almost 10 years in the case of the F/A-22, requiring legacy systems to operate longer than planned. As legacy tactical aircraft age and near the end of their useful life, they require ever increasing investments to keep them ready and capable as the threat evolves—the cost of ownership.

The reduced F/A-22 force size, now fewer than 180 F/A-22 aircraft instead of 750 aircraft planned at the start of the program, could affect the Air Force's force structure and employment strategy. The Air Force still maintains it has a nominal requirement for 381 aircraft to meet its new Air and Space Expeditionary Forces—the operational mechanism through which the Air Force allocates forces to meet the combatant commanders' force rotation requirements—and Global Strike concept of operations. The Air Force planned on 10 F/A-22 squadrons to support this operational concept. Using the Air Force's normal methods for calculating force requirements, only about 110 aircraft of the total aircraft procured would be classified as available for combat and assignment to operational units²²—yielding only 4 or 5 typical fighter squadrons for assigning across the planned 10 air and space expedi-

²¹ GAO, Tactical Aircraft: Modernization Plans Will Not Reduce Average Age of Aircraft, GAO-01-163 (Washington, DC: Feb. 9, 2001). Today acquisition plans include 3,083 aircraft (F/A-22, FA-18EF, and JSF). The Air Force has been discussing buying fewer JSF, which would further lower the amount of planned new tactical aircraft.

²² The remaining aircraft are used for training and development activities and to account for aircraft in for maintenance and those held in reserve for normal attrition.

tionary units. The reduced fleet size may require the Air Force to consider the F/A-22 as a low-density/high-demand asset, which would require changes in these expected management and employment strategies. It also has implications for related resources and plans, including military personnel requirements, numbers of operating locations, support equipment, spare parts, and logistical support mechanisms.

Other factors will come to play in the 2005 Quadrennial Defense Review. OSD has directed the review to include an assessment of joint air dominance in future warfare and the contributions provided by all tactical aircraft. An announced defense policy goal is to redirect investment from areas of conventional warfare, where the United States enjoys a strong combat advantage, toward more transformational capabilities needed to counter "irregular" threats, such as the insurgency in Iraq and the ongoing war on terror. DOD is also conducting a set of joint capability reviews to ensure acquisition decisions are based on providing integrated capabilities rather than focused on individual weapons systems. The study results, although still months away, could further affect the future of the F/A-22 and JSF programs including the F/A-22's modernization plan. In these analyses, the new tactical aircraft will also have to compete for funding, priority, and mission assignments with operational systems, such as the F-15 and F/A-18, and other future systems, such as the Joint Unmanned Combat Air Systems.

The 2005 Quadrennial Defense Review provides an opportunity for DOD to assess tactical fixed-wing aircraft modernization plans and weigh options for accomplishing its specific as well as overarching tactical aircraft goals. It is critical that their investment be well-managed and balanced against DOD's other priorities. Through the review, DOD can seek answers to overall investment strategy questions:

- What is the role of tactical aircraft in relation to other defense capabilities?
- Will planned investments in tactical aircraft allow DOD to achieve these capabilities and overall transformational goals?
- Where disconnects exist between goals and expected investment outcomes, what are the impacts and how will DOD compensate to minimize future security and investment risks?

If DOD fails to answer these questions and continues with its current modernization strategy, it will likely arrive in the future with needs similar to those that exist today but with fewer options and resources to resolve those needs. As DOD evaluates its tactical aircraft investment alternatives, knowledge at the program level is needed to understand how the F/A-22 and JSF can help achieve overall tactical aircraft modernization goals. More specific questions need to be answered for these programs including:

- Is the F/A-22 the most cost-effective alternative to fill gaps in ground attack and intelligence-gathering requirements?
- How many F/A-22s are needed and affordable to carry out the aircraft's original mission, air superiority, and new ground attack and intelligence gathering missions?
- If requirements for the new F/A-22 capabilities are legitimate and not solvable by other means, does the Air Force have the resources (mature technologies, design knowledge, time, and money) to begin investments in a new development program for the F/A-22 enhancements?
- What is the immediate need for JSF aircraft? Delivery of its ultimate capability or replacing aging aircraft with an initial capability? Does the acquisition plan satisfy this need?
- Does the program have the required knowledge about needed quantities and capabilities and resources (mature technologies, design knowledge, time, and money) to develop a reliable business case at this time?
- Does DOD have the right acquisition strategy to develop and produce a JSF that will maximize its return on the more than \$220 billion investment that remains in this program?

While the JSF program started off with a higher-risk approach by starting system development with immature technologies, now is the time to implement an evolutionary and knowledge-based acquisition strategy to manage the system development phase and stabilize the design before making large investments in tooling, labor, and facilities to test and manufacture the aircraft. The JSF is relatively early in its system development and demonstration phase and has an opportunity to learn from the F/A-22 program experience. It must take the time needed now to gather knowledge needed to resolve key issues that could ultimately result in additional cost increases, delays, and performance problems.

Our March 2005 reports on the F/A-22 and JSF made recommendations to the Secretary of Defense that would require answering some of these questions before

making significant additional investments. For the F/A-22, we recommended that a new business case be made to justify investments in new capabilities and the quantities needed to satisfy mission requirements. For the JSF, we recommended the establishment of an executable program consistent with policy and best practices, including an affordable first increment with its own business case, and the implementation of a knowledge-based acquisition approach to guide future investments and reduce risks.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or other members of the subcommittee may have.

CONTACTS AND STAFF ACKNOWLEDGMENTS

For future questions about our work on the F/A-22 or JSF, please call me or Michael J. Hazard at (202) 512-4841. Other individuals making key contributions to this statement include Michael W. Aiken, Marvin E. Bonner, Lily J. Chin, Matthew T. Drerup, Bruce D. Fairbairn, Steven M. Hunter, Matthew B. Lea, David R. Schilling, and Adam Vodraska.

Senator McCAIN. Thank you very much.

Mr. Schmitz, welcome back.

STATEMENT OF HON. JOSEPH E. SCHMITZ, INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

Mr. SCHMITZ. Thank you, Mr. Chairman, Senator Lieberman. Thank you for the opportunity to appear today and answer your questions regarding our audit report, which is entitled "Contracting for and Performance of the C-130J Aircraft." My staff has already provided you a copy of the full report.

July 23, 2004



Acquisition

Contracting for and Performance of
the C-130J Aircraft
(D-2004-102)

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Acronyms

AFOTEC
QOT&E

Air Force Operational Test and Evaluation Command
Qualification Operational Test and Evaluation



INSPECTOR GENERAL
DEPARTMENT OF DEFENSE
400 ARMY NAVY DRIVE
ARLINGTON, VIRGINIA 22202-4704

July 23, 2004

MEMORANDUM FOR ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Report on Contracting for and Performance of the C-130J Aircraft
(Report No. D-2004-102)

We are providing this report for review and comment. We considered management comments on a draft of this report in preparing the final report. We performed this audit in response to allegations to the Defense Hotline concerning the Defense Contract Management Agency's oversight of Lockheed Martin's performance on the C-130, F-22, and C-5 aircraft.

DoD Directive 7650.3 requires that all recommendations be resolved promptly. Based on comments from the Assistant Secretary of the Air Force for Acquisition, we revised Recommendation 2. to address future modifications to the C-130J contracts. We request that management provide additional comments on Recommendations 1., 2., 3., and 4. Additional comments should be received by August 23, 2004.

If possible, please send management comment in electronic format (Adobe Acrobat file only) to Audam@dodig.osd.mil. Copies of the management comments must contain the actual signature of the authorizing official. We cannot accept the / Signed / symbol in place of the actual signature. If you arranged to send classified comments electronically, they must be sent over the SECRET Internet Protocol Router Network (SIPERNET).

We appreciate the courtesies extended to the staff. Questions should be directed to Mr. Bruce A. Burton at (703) 604-9071 (DSN 664-9071) or Mr. Rudolf Noordhuizen at (703) 604-8959 (DSN 664-8959). See Appendix D for report distribution. The team members are listed inside the back cover.

By Direction of the Deputy Inspector General for Auditing:

Mary L. Ugone
Assistant Inspector General
for Acquisition Management

Office of the Inspector General of the Department of Defense**Report No. D-2004-102**
Project No. (D2003AB-0084)**July 23, 2004****Contracting for and Performance of the C-130J Aircraft****Executive Summary**

Who Should Read This Report and Why? Civilian and military managers involved in managing acquisition programs should read this report to obtain information about commercial item acquisition, requirements evolution, and test and evaluation planning because the report discusses an unjustified decision to use a commercial item acquisition strategy and other problems that occurred because of poor management.

Background. We performed this audit in response to allegations to the Defense Hotline concerning the Defense Contract Management Agency's oversight of Lockheed Martin's performance on the C-130, F-22, and C-5 aircraft. This is the third in a series of three reports concerning the allegations. This report addresses the allegation that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission.

The primary mission of the C-130J remains unchanged from the existing C-130 fleet. The C-130J performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The C-130J aircraft is a medium-range, tactical aircraft and is the newest upgrade to the C-130 fleet. Enhancements include a modern glass cockpit with digital avionics, an improved electrical system, new engines and propellers, and an enhanced cargo handling and delivery system. In addition, the C-130J aircraft requires only a three-person flight crew instead of the five-person flight crew that the previous H-version required. Lockheed Martin, the manufacturer, discontinued production of the H version in 1997 and promoted the C-130J as a commercial aircraft.

Results. We substantiated the allegation that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission. The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. The Air Force also paid Lockheed Martin more than 99 percent of the C-130J aircraft's contracted price for the delivered aircraft. As a result, the Government fielded C-130J aircraft that cannot perform their intended mission, which forces the users to incur additional operations and maintenance costs to operate and maintain older C-130 mission-capable aircraft because the C-130J aircraft can be used only for training. The Assistant Secretary of the Air Force for Acquisition should stop the System Program Office from contracting for additional block upgrades until a contract-compliant aircraft is designed, developed, and delivered; use Federal Acquisition Regulation Part 15 for future modifications that add to the scope of the statement of work to the C-130J multiyear contract (F33657-03-C-2014); increase contract withhold amounts for acceptance of noncompliant aircraft; and develop a schedule for completing outstanding retrofits to accepted and fielded aircraft. (See the Finding section of the report for the detailed recommendations.)

Management Comments and Audit Response. The Assistant Secretary of the Air Force for Acquisition nonconcurred with the finding and recommendations. The Assistant Secretary stated that the commercial acquisition strategy of the C-130J was legitimate, the Air Force properly managed the program, and DoD provided effective oversight. The Assistant Secretary stated that Lockheed Martin is delivering contract-compliant C-130J aircraft, and that upgrades are necessary to meet DoD requirements. He also stated that the use of Federal Acquisition Regulation Part 12 was appropriate. In addition, withholds were consistent with the contract, and the Air Force did not have problems motivating Lockheed Martin to correct within-scope deficiencies. The Assistant Secretary also stated that all outstanding retrofits had been scheduled or completed.

The Assistant Secretary's comments were nonresponsive to the report and its recommendations. We do not agree with the Assistant Secretary's comments and stand by our finding and intent of the recommendations. Because the Air Force had already accepted noncompliant aircraft, visibility on modification and development costs are lacking, the multiyear contract has already been awarded, and it would require a bilateral agreement to change the terms and conditions of the contract, we revised the recommendation from changing the existing multiyear contract terms and conditions to using Federal Acquisition Regulation Part 15 for future modifications that add to the scope of the work of the multiyear contract. The commercial acquisition strategy was unjustified, the Air Force did not properly manage the program, and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics did not provide effective oversight. The Air Force bought the C-130J as a commercial item needing minor modification, but in the 8 years since the Air Force began contracting for the C-130J, Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specifications. In addition, the Air Force did not determine whether the commercial version of the C-130J met the operational requirements before procuring the aircraft. The Air Force C-130J withholds do not correlate with C-130J aircraft outstanding contract deficiencies, nor do current levels of withholds ensure that corrections are performed in a timely manner. All contract deficiencies should be resolved and retrofits should be performed before the Air Force funds additional upgrades. We request that the Assistant Secretary of the Air Force for Acquisition provide comments on the final report by August 23, 2004.

Although not required, the Director, Operational Test and Evaluation in the Office of the Secretary of Defense provided comments on the report. See the Management Comments section of the report for the complete text of the comments.

See the Finding section of the report for a discussion of the Assistant Secretary of the Air Force for Acquisition's comments and the Management Comments section of the report for the complete text of the comments.

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Background

We performed this audit in response to allegations to the Defense Hotline concerning the Defense Contract Management Agency's oversight of Lockheed Martin's performance on the C-130, F-22, and C-5 aircraft. This is the third and final report concerning the allegations. Specifically, this report addresses the allegation which states that the C-130J Aircraft does not meet contract specifications and therefore cannot perform its operational mission.

Congressional Authorization and Appropriation. Congress authorized and appropriated about \$4 billion for the acquisition of the C-130J aircraft for FYs 1996 through 2004. About \$2.3 billion of the \$4 billion were congressional increases to the Services' budget requests. In 2003, the DoD submitted a request for approval of a multiyear contract for the C-130J aircraft. The 2003 Authorization Conference Report 107-772 authorized multiyear procurement authority for the C-130J aircraft program.

C-130J Aircraft. The primary mission of the C-130J remains unchanged from the existing C-130 fleet. The C-130J performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The Air Mobility Command, Theater Commands, Air National Guard, Air Force Reserve, Air Force Special Operations Command, Marine Corps, and Coast Guard use the C-130 aircraft fleet in peace and war missions. The C-130J aircraft is a medium range, tactical aircraft and is the newest upgrade to the C-130 fleet. Specialized versions of the aircraft include the C-130J Stretch where the cargo floor length of the aircraft is increased from 40 feet to 55 feet, the WC-130J that performs weather reconnaissance missions, the EC-130J that performs electronic warfare missions, the KC-130J that performs air-refueling missions, and the HC-130J that performs search and rescue missions. In this report, all aircraft will be referred to as the C-130J unless the discussion relates to a specific aircraft version.

Enhancements for the C-130J aircraft include a modern glass cockpit with digital avionics, an improved electrical system, new engines and propellers, and an enhanced cargo handling and delivery system. In addition, the C-130J aircraft requires only a three-person flight crew instead of a five-person flight crew that the previous C-130H version required. Lockheed Martin, the manufacturer, discontinued production of the military C-130H version in 1997 and promoted the C-130J as a commercial aircraft to replace aging C130 aircraft.

C-130J Program Information. The Under Secretary of Defense for Acquisition, Technology, and Logistics designated the C-130J Program as an Acquisition Category IC* program and assigned the Air Force acquisition executive as the milestone decision authority. The Air Force Contracting Officer determined that the C-130J aircraft was a commercial item that would meet the Government's needs with minor modification.

*Acquisition Category IC programs are Major Defense Acquisition Programs with expenditures for research, development, test, and evaluation of more than \$355 million or procurement of more than \$2.135 billion. The milestone decision authority is the Component head, or Service acquisition executive.

Lockheed Martin developed and produced the C-130J aircraft using a commercial aircraft model performance specification. Lockheed Martin initiated the C-130J upgrade and managed the program development, developmental testing, and production process. Because the Air Force contracting officer determined that the C-130J aircraft was a commercial item, the Air Force did not apply the normal milestone decision process to this program. The only DoD acquisition decision was whether to buy the C-130J aircraft, which was based on force structure requirements and system affordability.

Based on the congressional authority to purchase C-130J aircraft, the Air Force decided to buy the aircraft in the quantities authorized. Because of the contracting officer's decision to designate the aircraft as a commercial item, Federal Acquisition Regulation Part 15, Contracting by Negotiation, which allowed access to contractor cost and pricing data as well as other Government oversight, did not have to be applied to the C-130J procurement. In total, the Air Force contracted for 117 C-130J aircraft for the Air Force, Marine Corps, and Coast Guard at a cost of \$7.45 billion. As of December 31, 2003, the Air Force had accepted 50 C-130J aircraft at a cost of \$2.6 billion.

Objectives

The overall audit objective was to determine whether the allegation that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission has merit. We determined that the allegation had merit, which resulted in our report. See Appendix A for a complete discussion of the audit scope and methodology.

Contracting for and Management of the C-130J Program

The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. The Air Force also paid Lockheed Martin more than 99 percent of the C-130J aircraft's contracted price for the delivered aircraft, leaving the contractor little financial incentive to correct deficiencies. These conditions occurred because:

- The Air Force contracting officer did not properly justify the use of a commercial item acquisition strategy;
- The Air Force did not adequately manage the program operation;
- The contracts did not provide sufficient financial incentives for delivering compliant aircraft; and
- The Office of the Secretary of Defense did not provide effective oversight of the C-130J Program to correct significant program deficiencies.

As a result, the Government fielded C-130J aircraft that cannot perform their intended mission, and the users incurred additional operations and maintenance costs to operate and maintain older C-130 aircraft as well as the C-130J aircraft.

Criteria

Federal Acquisition Regulation. Federal Acquisition Regulation Subpart 2.1, "Definitions," September 2001, states that a commercial item is customarily used for nongovernmental purposes, and has been sold or offered for sale, lease, or license to the public. A commercial item can also require minor modifications not customarily available in the commercial marketplace to meet Federal Government requirements. Minor modifications do not significantly alter the nongovernmental function or essential physical characteristics of an item or component or change the purpose of a process. The Government contracting officer determines whether an item that is proposed as commercial is actually commercial or can be modified in some minor way to meet the Government's needs.

DoD Guidance. DoD Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, requires that test and evaluation determine the effectiveness and suitability of a system under realistic operational conditions, including combat, determine whether the thresholds in the approved operational requirement document and the critical operational issues have been satisfied, and assess impacts on combat operations.

Conditional Acceptance of C-130J Aircraft

From 1999 to 2003, the Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. In addition, the Air Force paid more than 99 percent of the contract price for the 50 conditionally accepted aircraft; withholding less than 1 percent as incentive to fix noncompliant issues. Table 1 shows the number of aircraft by Component and year.

Table 1. Aircraft Delivery Schedule
(As of December 31, 2003)

Year	Air Force Reserve	Air National Guard	Marine Corps	Coast Guard	Total
1999	7	7	0	0	14
2000	1	4	1	0	6
2001	2	4	7	0	13
2002	4	2	1	1	8
2003	0	1	3	5	9
Total	14	18	12	6	50

The C-130J aircraft delivered to the Government did not meet the commercial model specification. Lockheed Martin delivered all 50 aircraft with a Letter of Temporary Exception. The Letter of Temporary Exception documented the differences between the actual configuration of the C-130J aircraft delivered and the commercial specification incorporated in the contract. In addition, Air Force testing disclosed many deficiencies in aircraft operational performance and suitability.

Air Force and Navy testers and the C-130J users generated deficiency reports that addressed commercial model specifications and operational deficiencies. The deficiencies fell into two categories. Category 1 deficiencies could cause death, severe injury or illness, major loss of equipment or systems, or directly restrict combat or operational readiness, if uncorrected. Category 2 deficiencies were all other deficiencies that did not meet the criteria of Category 1. Table 2 shows the number of open and closed deficiency reports generated on the C-130J Program as of December 31, 2003.

Table 2. C-130J Deficiency Reports
(As of December 31, 2003)

	Category 1	Category 2	Total
Open	33	151	184
Closed	135	532	667
Total	168	683	851

Lockheed Martin and the Government must retrofit previously delivered aircraft as the deficiency reports are closed and corrections implemented.

Air Force Acquisition Strategy

The Air Force used an unjustified commercial item acquisition strategy to acquire the C-130J aircraft. The Government contracting officer's justification stated that the C-130J aircraft was a commercial item because the C-130J aircraft had evolved from a series of Lockheed Martin-developed and produced commercial aircraft configurations certified by the Federal Aviation Administration. The contracting officer stated that the C-130J included Lockheed Martin-developed advances in technology and performance. The contracting officer's justification also stated that the aircraft would be available in the commercial marketplace by the time of delivery under a Government contract. In addition, the Government contracting officer included in his justification a statement that only minor modifications to the commercial aircraft would be required to fulfill Government needs. Based on the contracting officer's commercial item determination, the Air Force adopted a commercial item acquisition strategy for the C-130J aircraft.

The contracting officer's justification that the aircraft was commercial and the decision to pursue a commercial acquisition strategy were flawed in several ways. First, the contracting officer stated that 95 percent of the features between the military and civilian versions of the aircraft were the same. However, Air Force contracting personnel could not provide the evidence to support that statement. The contracting officer also stated that the aircraft evolved from a series of Lockheed Martin-produced commercial aircraft. However, the most current prior version, the C-130H was only used for government purposes. The contracting officer also could not produce support for the determination that modification to include customer requirements would be minor. The Air Force was also unable to show that the commercial specification was compared to operational requirements and would meet Government needs. This flawed justification and decision led to a number of problems.

As a result of the commercial specification not meeting user needs, the Air Force and Marine Corps decided to revise their requirements documents to reduce the initial capabilities required and to satisfy operational requirement deficiencies through block upgrade programs at the Government expense. Essentially, what began as a contract to obtain a commercial aircraft that would meet the Government's needs with minor modification evolved into efforts by the Air Force to manage the C-130J as a spiral development at additional expense to the Government.

In addition, by acquiring the C-130J as a commercial item, using Federal Acquisition Regulation, Part 12, "Acquisition of Commercial Items," the Government did not apply the normal acquisition milestone decision process and limited program oversight. Also, because the Air Force acquired the C-130J aircraft using Federal Acquisition Regulation, Part 12, the Air Force contracting official could not require Lockheed Martin to provide certified cost or pricing data. Therefore, without knowledge of Lockheed Martin's prices, costs, or profits, the Air Force contracting officer was limited in his ability to protect the Government against overpricing. In 1995, the price for the basic C-130J aircraft was \$33.9 million, but by 1998, the price had risen to \$49.7 million. The FY 2004 contract price for the C-130J Stretch aircraft is \$66.5 million.

Air Force Management

The Air Force did not adequately manage program operations or financing for the C-130J. Since 1996, the Air Force issued three, consecutive, firm-fixed-price contracts for the C-130J aircraft even though Lockheed Martin continued to show little progress in delivering contract-compliant aircraft. In addition, the Air Force did not withhold sufficient funds from Lockheed Martin to adequately motivate the contractor to build a compliant aircraft and correct deficiencies in delivered aircraft.

Operation. In October 1995, the Government contracted for the first two C-130J aircraft in a modification to the C-130H aircraft contract. Production for the initial C-130J aircraft began in 1996. Lockheed Martin originally planned to deliver the initial aircraft in July 1997 but did not deliver the aircraft until February 1999. In November 1996, the Government signed a 5-year option contract that resulted in the purchase of 35 C-130J aircraft.

In January 1999, the Air Force became aware that Lockheed Martin could not meet the C-130J commercial model specification and agreed to a contractor-initiated, three-phase, block upgrade program, consisting of block upgrades 5.1, 5.2, and 5.3. However, the Air Force continued to contract for additional aircraft and exercised options for more aircraft before the first aircraft was delivered.

Because Lockheed Martin was experiencing design, test, and qualification problems, the first two C-130J aircraft were not delivered until February 1999, and even those aircraft were conditionally accepted. In December 2000, the Air Force signed another 5-year option contract for 20 C-130J aircraft, even though Lockheed Martin still had not designed, developed, or delivered a C-130J aircraft that met the commercial model specification. Testing showed that even with the block 5.1, 5.2, and 5.3 upgrades, the aircraft was still not compliant with the commercial model specification or operational requirements.

In October 2002, 6 years after initial production, the Air Force and Lockheed Martin reached an agreement that the design would be considered compliant with the successful completion of an agreed-upon action plan. Corrections in the agreement are to be completed in block upgrade 5.4, which is scheduled for installation in 2005.

However, the Air Force commingled contract specification work with out-of-scope work in block upgrade 5.4. As a result, customers who cannot afford the cost of the out-of-scope work will not receive the upgrade needed to have compliant aircraft.

In March 2003, the Air Force made another poor decision to obtain approval from Congress to award a multiyear contract to purchase 60 additional C-130J aircraft. Section 2306b, title 10, United States Code requires a stable design for a multiyear contract. The design of the C-130J is not stable and the C-130J aircraft has not passed operational testing. Table 3 shows the number of C-130J aircraft purchased and delivered by contract, as of December 31, 2003.

Table 3. Number of C-130J Aircraft Purchased and Delivered
(As of December 31, 2003)

<u>Contract Number</u>	<u>Purchased</u>	<u>Delivered</u>
F33657-90C-0071	2	2
F33657-95C-2055	35	35
F33657-00C-0018	20	13
F33657-03C-2014	60	0
Total	117	50

In addition to the problems of upgrading the aircraft to obtain compliance, the 50 already accepted aircraft needed to be retrofitted to incorporate corrections that were required for the aircraft to adhere to the most current design configuration. Lockheed Martin and the Government have already performed numerous hours of retrofit work on fielded C-130J aircraft to make the required changes. Table 4 shows the estimated retrofit hours that Lockheed Martin and the Government still needed to perform on the 32 C-130J aircraft fielded to Air Force units, as of August 2003.

Table 4. Estimated Hours to Retrofit Air Force Aircraft
(As of August 2003)

<u>Component</u>	<u>No. of Aircraft</u>	<u>Estimated Hours Needed</u>	<u>Hours Scheduled</u>	<u>Hours Unscheduled</u>
Air Force Reserve	14	3,846	2,399	1,447
Air National Guard	18	5,683	2,351	3,332
Total	32	9,529	4,750	4,779

The 4,750 hours scheduled for retrofitting began in August 2003 and will be completed in August 2004. Lockheed Martin and the Government have not negotiated an implementation plan for the 4,779 unscheduled retrofit hours. In addition, until there is a stabilized design for the C-130J aircraft and all deficiencies are corrected, more retrofit hours will be generated and additional corrections will be needed. The Air Force was unable to provide an estimate of retrofit hours needed for the 12 Marine Corps or the 6 Coast Guard C-130J aircraft.

The above condition could have been alleviated if the Air Force had provided adequate financial incentives by withholding more funds.

Financial Incentive. The Air Force decisions for providing financing to Lockheed Martin were not sound, because Lockheed Martin had no incentive to produce a compliant aircraft or make timely corrections to fielded aircraft. The contracts were structured to provide payments based on completed events. A percentage was then paid for each event. The Air Force also increased the amount paid for earlier interim events with each new contract. For example, the original contract payment at aircraft assembly completion was 65 percent; payment increased to 75 percent on the second contract and to 85 percent on the current contract. The Air Force has paid almost the entire price of the aircraft

before aircraft acceptance inspection and delivery. The Air Force should have increased the amounts withheld to motivate Lockheed Martin to deliver aircraft that meet contractual requirements.

The Air Force could have and should have withheld sufficient money for the noncompliant items to motivate the contractor to timely fix deficiencies, but the Air Force managed the financing poorly and paid the contractor almost the full price of the aircraft on acceptance. Specifically, as of December 31, 2003, the Air Force paid Lockheed Martin approximately \$2.6 billion for the 50 conditionally accepted aircraft while withholding only \$22.6 million (see Table 5).

Table 5. Program Office Payments to Lockheed Martin
(As of December 31, 2003)

<u>Component</u>	<u>No. of Aircraft</u>	<u>Amount Paid</u>	<u>Amount Withheld</u>	<u>Contract Price</u>
Air Force	14	\$618,998,713	\$4,401,287	\$623,400,000
Reserve				
Air National Guard	18	936,854,587	245,413	937,100,000
Marine Corps	12	679,472,377	13,777,623	693,250,000
Coast Guard	6	353,369,586	4,230,414	357,600,000
Total	50	\$2,588,695,263	\$22,654,737	\$2,611,350,000

Office of the Secretary of Defense Oversight

In addition to the deficiencies in Air Force management of the C-130J aircraft, higher-level DoD officials were informed and involved in the decision process and should have acted to assist in correcting cost, schedule, and performance problems in the program. Since September 1995, when the Air Force became the milestone decision authority, the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics has provided limited oversight of the C-130J Program. However, officials in the Office of the Under Secretary of Defense were fully aware of the acquisition strategy, the changes to the operational requirements document, and the deficiency reports on the C-130J Program, but they did not act to assist the Air Force in correcting known problems or improve the management of the troubled program. Further, the Office of the Secretary of Defense supported the multiyear contract by submitting a report to Congress for approval of the multiyear contract, even though the C-130J design was not stable and the C-130 aircraft did not meet the contract model specification or operational requirements.

C-130J Operations and Maintenance

The Government has fielded C-130J aircraft that cannot perform its intended mission, and the users have incurred additional operations and maintenance costs to operate and maintain older C-130 aircraft as well as the C-130J aircraft.

Testing. Testers identified deficiencies that degrade system operations and prevent successful mission accomplishment. The Air Force Operational Test and Evaluation Center (AFOTEC) conducted a Qualification Operational Test and Evaluation (QOT&E) to evaluate and report on the operational effectiveness and suitability of the aircraft and to identify deficiencies that could affect the ability of the C-130J aircraft to accomplish its missions. AFOTEC used an operational test plan to lay out the testing approach for the C-130J Program. The plan identified a two-phase QOT&E approach. Phase 1 testing evaluated the C-130J air land mission in September 2000 and Phase 2 testing will evaluate the C-130J air drop mission. Phase 2 testing is scheduled for November 2005.

Phase 1 Testing. AFOTEC completed Phase 1 testing in September 2000, which showed that the C-130J aircraft was not effective or suitable for the air land mission. AFOTEC Report, "C-130J Hercules II Qualification Operational Test and Evaluation Phase 1 Report," January 8, 2001, stated that the block 5.2 upgrade for the C-130J was not effective. Performance deficiencies included inadequate range and payload, immature software, lack of an automated mission planning system, and difficulties in cold weather operations. The report also stated that the C-130J aircraft was not suitable in its current configuration because its integrated diagnostic capability was poor, including high built-in-test false alarm rates and deficient technical orders. The Air Force stopped the suitability evaluation on August 30, 2000, due to the extent of the deficiencies identified. The report stated that many of the deficiencies noted in Phase 1 testing were programmed to be corrected in the block 5.3 upgrade.

Operational Assessment. AFOTEC performed an operational assessment on block upgrade 5.3 to assess the C-130J Program's progress towards readiness for Phase 2 QOT&E testing. The "C-130J Hercules II Operational Assessment (1) Final Report," November 2001, stated that the C-130J aircraft's progress in the effectiveness area was rated "unsatisfactory." AFOTEC identified that deficiencies remained in the defensive systems, global air traffic management compliance, the mission planning systems, interoperability with the existing C-130 fleet, training, publications, and the ground maintenance system. The report stated that the C-130J Program was also progressing unsatisfactorily in the suitability area. The report mentioned that the large number of open deficiency reports did not allow a definitive assessment of the operational impacts on C-130J performance.

Development schedule slips, system immaturity, and training issues caused AFOTEC to reschedule Phase 2 operational testing from July 2000 to November 2005. The deficiencies that AFOTEC found in block upgrade 5.3 necessitated the C-130J program office to make another block upgrade in block 5.4. Phase 2 QOT&E was aligned with contractor implementation of the block upgrade 5.4.

Operational Limitations. Deficiencies identified by the testers in the C-130J Program affected the aircraft's ability to perform its missions. Based on the QOT&E test results, the Air Mobility Command determined the missions that the C-130J could safely perform and released users to perform those aircraft missions. Specifically, the Air Mobility Command released the C-130J to perform the following missions: basic air land, assault, overwater operations, and medical

evacuation. Operational limitations restrict the C-130J from performing night vision goggle operations, combat search and rescue, visual formation, global air traffic management, and air dropping paratroopers and containers. Because the aircraft performed poorly during testing, the Air Mobility Command could not release the C-130J to perform required heavy equipment air drop, coordinated aircraft positioning system/station keeping equipment formation, and hostile environment missions. The installation of block upgrade 5.4, which is scheduled for 2005, is intended to allow the C-130J to air drop paratroopers and containers and to perform night vision goggle operations, combat search and rescue, visual formation, global air traffic management, coordinated aircraft positioning system/station keeping equipment formation, and hostile environment operations. Installation of block upgrade 6.0, which is scheduled for installation in 2007, will allow the C-130J to perform heavy equipment air drop. Appendix B shows a summary of the effects on each unit receiving the C-130J aircraft.

C-130J. The basic aircraft is the C-130J. The primary mission of the C-130J aircraft to air land and air drop personnel and equipment remains unchanged from older versions of the C-130 aircraft. Testing has shown that the C-130J aircraft is not operationally effective or suitable. The 815th Air Squadron and the 135th Airlift Squadron have been nonoperational for more than 4 years since they replaced the C-130E with the C-130J aircraft. In addition, three Air National Guard components and one Air Force Reserve component have a combination of C-130H or E and C-130J aircraft. Those components must use the older C-130 aircraft to perform their assigned missions and use the C-130J mainly for training. Because of major differences between the earlier C-130 and the C-130J versions, pilots cannot be qualified on both aircraft, which causes an additional financial and personnel burden on units that must operate both aircraft simultaneously.

WC-130J. The WC-130 aircraft performs reconnaissance missions to provide information on hurricanes, tropical storms, and winter storms; however, the WC-130J aircraft cannot perform the hurricane reconnaissance mission because the radar has inadequate storm penetration. AFOTEC reported that all the weather reconnaissance missions were affected by sustainability of the propeller, which was damaged during all test missions. As a result, the Air Force Reserve component must operate its old WC-130 aircraft to perform the mission. Based on the Air Force schedule to fix the radar, the component will not be able to perform the hurricane hunter mission with the WC-130J aircraft until at least 2005. The propeller requires further testing before it can be determined whether the propeller can perform adequately for the weather mission. Propeller testing is scheduled during the 2004 hurricane season.

KC-130J. The KC-130J performs air land, air delivery, and air-refueling missions for the Marine Corps. The Navy Commander Operational Test and Evaluation Force conducted an operational evaluation of the KC-130J aircraft. The KC-130J Aircraft System Operational Evaluation OT-III A/B was performed from October 4, 2003, through January 9, 2004. The purpose of the test was to determine the operational effectiveness and operational suitability of the KC-130J for air land and air delivery missions (Block A), aerial refueling (Block B), and its readiness for fleet introduction. The report, "KC-130J Aircraft System Operational Evaluation OT-III A/B Report" April 21, 2004, stated the KC-130J

met or exceeded all effectiveness and suitability critical operational issue threshold values with the exception of availability, logistic supportability, and training. The evaluation did not include aircraft survivability equipment; therefore, the aircraft should only be employed in a permissive threat environment until aircraft survivability equipment testing is completed. The report stated that the KC-130J is operationally effective and suitable in a permissive threat environment and recommended full fleet introduction of the KC-130J for operational use in a permissive threat environment. DoD defines a permissive threat environment as an operational environment in which the host country's military and law enforcement agencies have control as well as the intent and capability to assist operations that a unit intends to conduct.

EC-130J, HC-130J. The EC-130J is to perform electronic warfare missions, and the HC-130J to perform search and rescue missions. The effects of C-130J performance deficiencies on the EC-130J electronic warfare missions and the HC-130J search and rescue missions have not yet been determined through testing.

Maintenance. Unit level maintenance officials stated that C-130J aircraft performance deficiencies caused an inability to support operations and schedule flights. Released missions for the C-130J were limited to training and basic air land, assault, overwater operations, and medical evacuation. An aircraft is fully mission capable if it can perform all of its assigned missions. An aircraft is partially mission capable if it can perform at least one but not all of its assigned missions. The aircraft is not mission capable if it cannot perform any of its assigned mission. Because it did not pass operational tests, the C-130J is not capable of performing many of its planned missions.

The mission capability rate for the C-130J indicates that the aircraft is able to perform only those missions it has been released to perform and not all the missions that it is assigned to perform. The mission capability rates for the C-130J are lower than the rates for the older C-130 versions, even though it has not been released to perform all the C-130 missions. For the released missions, the C-130J aircraft was available for use at a rating of 50.4 percent in 2002 and 62.4 percent in 2003.

The C-130J has a high rate of built-in-test false detections that have resulted in decreased availability and increased maintenance time and costs. The built-in-test false detection rate means that unnecessary maintenance is performed and functional line replaceable units are removed, which, in turn, increases the number of spare parts and maintenance hours needed to maintain the aircraft.

In addition, the immaturity of the C-130J aircraft design means that unit maintenance personnel must spend available time correcting deficiencies for block upgrade modifications, testing, and system reliability, which increases aircraft downtime and creates a strain on personnel. The high number of workarounds has caused user personnel frustration and additional maintenance hours and costs.

Conclusion

The Government purchased the C-130J as a commercial item needing minor modifications to meet operational requirements, but Lockheed Martin has been unable to design, develop, and manufacture an aircraft that meets commercial model specifications. Since first contracted for in 1995, the C-130J aircraft has not met the operational requirements of the users and the design has not stabilized. Testers and users have identified many aircraft deficiencies that affect the satisfaction of the commercial model specifications and the operational requirements. Further, the conditional acceptance of and near full payment for noncompliant C-130J aircraft unnecessarily increased the Government cost risk on the C-130J Program and reduced the incentive for Lockheed Martin to correct deficiencies. In addition, because the aircraft was designated as a commercial aircraft and acquired under Federal Acquisition Regulation Part 12, the Air Force did not have contractor certified information on contract prices, costs, or profits and therefore was limited in its ability to protect the Government against possible overpricing.

Management Comments on the Finding and Audit Response

The Assistant Secretary of the Air Force for Acquisition nonconcurred with the finding. The Assistant Secretary stated that the Air Force followed regulatory mandates and processes to determine and validate the commercial acquisition strategy. In addition, the Assistant Secretary stated that the commercial derivative of the C-130J aircraft is available in the commercial marketplace. The Assistant Secretary stated that the C-130J program is properly managed. The conditional acceptance of C-130J aircraft is consistent with the terms and conditions of the contract, and withholds are based on an analysis of the price of deficient items. The Assistant Secretary also stated that the Office of the Secretary of Defense provided effective oversight of the C-130J Program.

We do not agree with the Assistant Secretary of the Air Force for Acquisition's comments. The Air Force bought the C-130J as a commercial item needing minor modification. The contracting officer did not support the basis for his decision. That Lockheed Martin has been unable to design, develop, or deliver the contracted for C-130J aircraft for 8 years casts serious doubt on the commercial nature of the purchase. Also, the conditional acceptance of and payment for noncompliant C-130J aircraft unnecessarily increased the Government's cost risk on the C-130J Program and reduced the incentive for Lockheed Martin to correct deficiencies. Although DoD officials were fully aware that the C-130J design was not stable and that the C-130 aircraft did not meet the contract model specification or operational requirements, they did not assist the Air Force in an oversight capacity to correct known problems or to improve the management of the troubled program.

Although not required, the Director, Operational Test and Evaluation of the Office of the Secretary of Defense commented that the Air Force did not apply the

normal milestone decision process to this program and the only Government acquisition decision was to buy or not buy the C-130J aircraft based on force structure requirements and system affordability.

Recommendations, Management Comments, and Audit Response

Revised Recommendation. As a result of management comments, we revised draft Recommendation 2. to require a change to future multiyear contract modifications.

We recommend that the Assistant Secretary of the Air Force for Acquisition:

1. Refrain from contracting for additional block upgrades until Lockheed Martin can design, develop, and deliver a contract compliant aircraft.

Air Force Comments. The Assistant Secretary of the Air Force for Acquisition did not concur with the recommendation. The Assistant Secretary stated that Lockheed Martin is already delivering C-130J aircraft that are compliant with the contract specification. The Assistant Secretary stated that the baseline C-130J aircraft is the same as the commercial derivative and only the military unique modifications are developmental. As provided in the contract, the Government evaluates the condition of the aircraft before each aircraft delivery and may accept an aircraft with minor deficiencies. The Assistant Secretary stated that additional block upgrades are required to meet DoD-mandated requirements and a delay would be detrimental to the Air Mobility Command mission. In addition, he stated that the Air Force is revising its operational requirements document to reflect a spiral approach.

Audit Response. The Assistant Secretary of the Air Force for Acquisition's management comments were nonresponsive. We disagree with the Assistant Secretary's comments. Not one C-130J delivered aircraft was fully compliant with the contract specification. In addition, the Air Force did not ensure that the purchased C-130J aircraft met the operational requirements of the user. The revision of the operational requirements document to a spiral approach is a reduction of initial capabilities that the user required. All contract deficiencies should be resolved and retrofits should be performed before the Air Force funds additional upgrades.

We request the Assistant Secretary of the Air Force for Acquisition to reconsider his position and provide additional comments on the final report.

2. Use Federal Acquisition Regulation Part 15 for future modifications that add to the scope of the statement of work to the C-130J multiyear contract (F33657-03-C-2014). Proposals for modification should provide the Government with the contractor's pricing, cost, and profit data.

Air Force Comments. The Assistant Secretary of the Air Force for Acquisition did not concur with the original recommendation to change the multiyear contract to a Federal Acquisition Regulation Part 15 acquisition. The Assistant Secretary stated that the use of Federal Acquisition Regulation Part 12 was appropriate, based on the commercial nature of the C-130J aircraft. He stated that future upgrades to the C-130J aircraft will be contracted for under Federal Acquisition Regulation Part 15 because they are Government-financed enhancements to the C-130J aircraft.

Audit Response. We reconsidered the practicality of recommending that the multiyear contract be changed to a Federal Acquisition Regulation Part 15. Because the Air Force had already accepted noncompliant aircraft, visibility on modification and development costs are lacking, the multiyear contract has already been awarded, and it would require a bilateral agreement to change the terms and conditions of the contract, we revised Recommendation 2. to address future modifications that add to the scope of the statement of work to the C-130J multiyear contract (F33657-03-C-2014). We maintain our position that the contracting officer did not adequately support the determination that the C-130J aircraft was a commercial item as defined in Federal Acquisition Regulation Part 12. That Lockheed Martin has been unable to design, develop, or deliver the contracted for C-130J aircraft also casts serious doubt on that determination. By acquiring the C-130J using Federal Acquisition Regulation Part 12, the Air Force contracting official could not require Lockheed Martin to provide certified cost and pricing data. Accordingly, without knowing Lockheed Martin prices, costs, or profits, the Air Force contracting officer was limited in his ability to protect the Government from possible overpricing.

In response to the final report, we request the Assistant Secretary of the Air Force for Acquisition provide comments on the revised recommendation, which will require the use of Federal Acquisition Regulation Part 15 on all modifications to the C-130J multiyear contract (F33657-03-C-2014).

3. Increase amounts withheld to motivate Lockheed Martin to deliver an aircraft that meets contractual requirements.

Air Force Comments. The Assistant Secretary of the Air Force for Acquisition did not concur with the recommendation. The Assistant Secretary stated that withholds are consistent with the terms of the contract and are based on a Government analysis of the price of the noncompliant items. In addition, he stated that the Air Force has not had an issue with motivating Lockheed Martin to correct within-scope deficiencies.

Audit Response. The Assistant Secretary of the Air Force for Acquisition's management comments were nonresponsive. We disagree with the Assistant Secretary of the Air Force for Acquisition's comments. Lockheed Martin has not built or delivered a C-130J aircraft that met contractual requirements. All 50 C-130J aircraft delivered between 1999 and 2003 still require retrofit work to conform to contract requirements. As of December 31, 2003, 18 of the 50 delivered C-130J aircraft (36 percent) were paid in full and had no withholds despite the aircraft still having outstanding contract requirement deficiencies. As of April 30, 2004, 86 percent of the within-scope deficiencies were more than

2 years old. Accordingly, the amount of the withholds did not ensure that Lockheed Martin performed corrections in a timely manner.

We request the Assistant Secretary of the Air Force for Acquisition reconsider his position and provide additional comments on the final report.

4. Negotiate a firm schedule for completion of known outstanding retrofits of fielded aircraft within 6 months.

Air Force Comments. Although the Assistant Secretary of the Air Force for Acquisition did not concur with the recommendation, his comments were responsive. The Assistant Secretary stated that all outstanding retrofits have been scheduled or completed.

Audit Response. Although the Air Force nonconcurred with the recommendation, the stated Air Force actual or planned action meets the intent of the recommendation. However, we request additional management comments on the final report that identify when all C-130J aircraft retrofits are scheduled for completion.

Appendix A. Scope and Methodology

We performed audit work to examine an allegation made to the Defense Hotline that the C-130J aircraft did not meet contract specifications and therefore cannot perform its operational mission.

We reviewed documents dated from September 1995 through December 2003. We reviewed policies for commercial acquisitions, operational testing, and weapon system operations and maintenance. We discussed the allegations with the complainants. We reviewed the C-130J Program documents, operational requirement documents, operational test reports, and contract files. We interviewed officials in the DoD, the Air Force, the Navy, the Marine Corps, the Defense Contract Management Agency, and the Federal Aviation Administration.

We performed this audit from February 2003 through March 2004 in accordance with generally accepted government auditing standards.

Limitations. We did not review the management control program because the audit focused on whether the allegation that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission has merit.

Use of Computer-Processed Data. We did not use 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 weapons acquisition process high-risk areas.

Related Coverage

During the last 5 years, the Inspector General of the Department of Defense (IG DoD) issued three audit reports and one investigative report discussing commercial aircraft acquisition strategy and related allegations on the C130H aircraft and the C-5 aircraft spare parts. Unrestricted Inspector General of the Department of Defense audit reports can be accessed at <http://www.dodig.osd.mil/audit/reports>.

IG DoD

IG DoD Report No. D-2004-064, "Acquisition of the Boeing KC-767A Tanker Aircraft," March 29, 2004. This report determined that the Air Force plans to use a similar sole-source commercial item acquisition strategy for the tanker with a fixed-price contract. The Boeing KC-767A Tanker Program does not meet the statutory definition of a commercial item. No commercial market for this aircraft exists 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 to an independent reviewer the level of accountability needed to conclude that the prices negotiated represented a fair expenditure of DoD funds.

IG DoD Report No. D-2004-054, "Allegations of the Defense Contract Management Agency's Performance in Administering Selected Weapon Systems' Contracts," February 23, 2004. The report included an allegation that the Government paid an excessive price for a C-5 aircraft bracket. This allegation was not substantiated because a final price for this part had not been negotiated. However, a related Defense Criminal Investigative Service report (report cited below) found that cost or pricing data in the proposal that included this part was based on false information.

IG DoD Report No. D-2003-115, "Allegations Concerning the Administration of Contracts for Electronic Flight Instruments on the C-130H Aircraft," June 30, 2003

Defense Criminal Investigative Service, Criminal Vulnerability Report No. 2002-01, November 28, 2001. The report discussed the lack of appropriate controls and contract requirements in the procurement of spare parts for the C-5 aircraft, which were based on cost and pricing data that were known to be false and purposely overstated. The report recommended that the Defense Supply Center, Richmond, Virginia, and the Defense Contract Management Agency, Marietta, Georgia, review procedures and controls and implement appropriate action to ensure that future contracts are negotiated based on current, accurate, and complete cost and pricing data.

Appendix B. Mission Capability Limitations in the Air Force Reserve, Air National Guard, Marine Corps, and Coast Guard

The C-130J aircraft were fielded to operational units in the Air Force Reserve, Air National Guard, Marine Corps, and Coast Guard. A summary of each unit is below.

Air Force Reserve

815th Air Squadron. The 815th Air Squadron located at Keesler Air Force Base in Biloxi, Mississippi, performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The 815th Air Squadron has received four C-130J aircraft and expected to receive an additional four by 2005. The 815th Air Squadron has been converting from the C-130E aircraft to the C-130J aircraft since 1999. Because the C-130J aircraft has not been released to air drop troops and equipment, the unit is unable to perform their mission. The unit is not operational and does not report readiness.

53rd Weather Reconnaissance Squadron. The 53rd Weather Reconnaissance Squadron located at Keesler Air Force Base in Biloxi, Mississippi, performs hurricane, tropical storm, and winter storm reconnaissance. The 53rd Weather Reconnaissance Squadron has received eight WC-130J aircraft; however, they cannot perform the hurricane mission. The 53rd Weather Reconnaissance Squadron must maintain both H and J aircraft fleets.

Air National Guard

135th Airlift Squadron. The Maryland Air National Guard 135th Airlift Squadron performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The 135th Squadron has been converting its weapon system since receiving the first C-130J aircraft in July 1999. The 135th Squadron has released its C-130E aircraft and now possesses eight C-130J aircraft. The unit is not operational and does not report readiness.

143rd Airlift Squadron. The Rhode Island Air National Guard 143rd Airlift Squadron performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The 143rd Squadron has the stretch version of the C-130J in which the cargo floor length of the aircraft is increased from 40 feet to 55 feet. The Squadron considers itself in a transition status rather than a conversion status because it has three C-130J aircraft and five C-130E aircraft. The C-130E aircraft are used to perform the mission.

146th Airlift Squadron. The California Air National Guard 146th Airlift Squadron performs the intratheater portion of the airlift mission and is a platform for dropping troops and equipment into hostile areas. The Squadron is transitioning from the C-130E to the C-130J aircraft. The Squadron has two C-130J aircraft but performs its mission with the Squadron's C-130E aircraft.

193rd Special Operations Wing. The 193rd Special Operations Wing at Pennsylvania Air National Guard provides unified and theater commanders with airborne information operations capabilities specializing in psychological operations broadcast capabilities to support worldwide combat operations, contingencies, and special operations missions. The unit has received two EC-130J Super J aircraft. In addition, three C-130J aircraft are being converted to EC-130Js Commando Solo aircraft at the Lockheed Martin-Palmdale facility. No EC-130J aircraft-specific testing has been performed to determine the deficiencies to the mission. The 193rd Special Operations Wing must use its EC-130E aircraft to perform its mission.

Marine Corps

The Marine Aerial Refueler and Transport Squadron 252 provides aerial refueling service in support of Fleet Marine Force air operations assault air transport of personnel, equipment, and supplies. The Squadron is converting to the KC-130J. The Squadron uses the KC-130J aircraft for training and its older aircraft to perform the mission. The KC-130J has been cleared for operational use in a permissive threat environment.

Coast Guard

No information was requested from the Coast Guard during the audit.

Appendix C. Audit Response to Comments on the Report

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

Commercial Item Acquisition Strategy. The Assistant Secretary of the Air Force for Acquisition nonconcurred with the finding. The Assistant Secretary stated that the Air Force followed regulatory mandates and processes to determine and validate the commercial acquisition strategy. The Assistant Secretary stated that the DoD IG ignored the fact that Lockheed Martin developed the C-130J at its own risk for the commercial and military marketplace. Also Lockheed Martin sold previous C-130 models commercially and currently offers the commercial derivative of the C-130J for commercial sales. The commercial derivative is substantially the same aircraft but also includes features not available in the commercial marketplace. The Lockheed Martin C-130J Five-Year Option Contract dated December 1995 identified the cost of the Air Force-unique configuration of the C-130J as 6 percent of the total aircraft price. The Assistant Secretary also stated that the DoD IG is opposed to applying the acquisition of commercial items to major system procurements and misapplied the statutory and Federal Acquisition Regulation criteria applicable to commercial items for the C-130J aircraft.

Audit Response. We do not agree with the Assistant Secretary of the Air Force for Acquisition's comments. The Air Force used a commercial item acquisition strategy that was unjustified. The Air Force bought the C-130J as a commercial item needing minor modification. The contracting officer did not support the basis for his decision. Even if the commercial derivative is substantially the same aircraft as the C-130J, the fact that Lockheed Martin has been unable to design, develop, or deliver the contracted C-130J aircraft for 8 years casts serious doubt on the commercial nature of the purchase. The increase in costs to acquire the C-130J aircraft shows that the Government, not Lockheed Martin, bears the risk for the development of the C-130J aircraft. Even though Lockheed Martin has sold previous C-130 models commercially and currently offers the commercial derivative of the C-130J for commercial sales, there have been no sales of the C-130J commercial derivative aircraft (the L-100J). In addition, we are not opposed to applying the acquisition of commercial items to major system procurements when the item is justified as commercial.

Air Force Program Management. The Assistant Secretary stated that the C-130J Program is properly managed. The conditional acceptance of the C-130J aircraft is consistent with the terms and conditions of the contract, and withholds are based on an analysis of the price of deficient items. The Assistant Secretary stated that the C-130J Program cost performance is tracking to the program budget and the contractor is meeting the delivery schedule. In addition, the Assistant Secretary stated that the program is within established acquisition guidelines and there have been no breaches to the approved acquisition program

baseline. The Assistant Secretary stated that insufficient Government personnel resources hampered evaluations of contract deficiencies.

Audit Response. The Air Force did not adequately manage the program operation and financing. The conditional acceptance of and payment for noncompliant C-130J aircraft unnecessarily increased the Government cost risk on the C-130J Program and reduced the incentive for Lockheed Martin to correct deficiencies. We did not determine whether the C-130J Program cost performance, delivery schedule, acquisition guidelines, or the approved acquisition program baseline were met. Our objective was to determine whether the C-130J aircraft met contract specifications and whether it could perform its operational mission. We determined that the Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion, even though none of the aircraft met commercial contract specifications or operational requirements.

Office of the Secretary of Defense Program Oversight. The Assistant Secretary also stated that the Office of the Secretary of Defense provided effective oversight of the C-130J Program. The Assistant Secretary stated that the Air Force provides quarterly Defense Acquisition Executive Summaries and annual Selected Acquisition Reports for the Office of the Secretary of Defense and congressional review. The Air Force and the Office of the Secretary of Defense have also established periodic Integrating Integrated Product Team meetings to review the status of the C-130J Program. The Assistant Secretary stated that the Office of the Secretary of Defense began expressing concern with the C-130J testing, program management, and performance in February 1999. The Assistant Secretary stated that combined efforts of the Air Force and the Office of the Secretary of Defense have resulted in more stabilized funding and close scrutiny of deficiency reports to resolve problems and meet requirements.

Audit Response. The Office of the Secretary of Defense did not provide effective oversight of the C-130J Program to correct significant program deficiencies. Although DoD officials were fully aware that the C-130J design was not stable and that the C-130 aircraft did not meet the contract model specification or operational requirements, they did not assist the Air Force in an oversight capacity to correct known problems or to improve the management of the troubled program. The Air Force signed a multiyear contract to purchase more C-130J aircraft that did not meet the commercial contract specification or operational requirements and that cannot perform their intended mission.

Appendix D. 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)
 Director, Operational Test and Evaluation
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Department of the Army

Auditor General, Department of the Army

Department of the Navy

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Department of the Air Force

Assistant Secretary of the Air Force for Acquisition
 Assistant Secretary of the Air Force (Financial Management and Comptroller)
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Other Defense Organizations

Director, Defense Contract Audit Agency
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Congressional Committees and Subcommittees, Chairman and Ranking Minority Member

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Senate Subcommittee on Defense, Committee on Appropriations
Senate Committee on Armed Services
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House Committee on Appropriations
House Subcommittee on Defense, Committee on Appropriations
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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

Department of the Air Force Comments



Office Of The Assistant Secretary

DEPARTMENT OF THE AIR FORCE
WASHINGTON DC

APR 29 2004

MEMORANDUM FOR OFFICE OF THE INSPECTOR GENERAL
DEPARTMENT OF DEFENSE

FROM: SAF/AQ

SUBJECT: Air Force Response to DoD IG Draft Report, "Contracting for and Performance of the C-130J Aircraft," Project Number D2003AB-0084

Attached is the Air Force response in reply to your 25 Mar 2004 memorandum requesting the Air Force review and comment on the subject report. The Air Force takes issue with all of the DoD IG findings and recommendations.

If you require further assistance, feel free to contact my staff, Colonel Paul Stipe at (703) 588-7756 or Colonel John Zahrt at (703) 588-7740.

A handwritten signature in black ink, appearing to read "Marvin R. Sambur", is positioned above the typed name.

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

Attachment:
AF Response to DoD/IG Draft Report

**Air Force Response to Office of the Inspector General, Department of Defense (DoD/IG)
Draft Report D2003AB-0084**

Executive Summary

The DoD/IG Report, "Contracting for and Performance of the C-130J Aircraft," Project Number D2003AB-0084 responds to allegations to the Defense Hotline concerning the Defense Contract Management Agency's oversight of Lockheed Martin's performance on the C-130, F-22, and C-5 aircraft. The allegation specifically addressed in the Report states that the C-130J aircraft does not meet contract specification and therefore cannot perform its operational mission. **The Air Force non-concurs with all the recommendations and findings within the DoD/IG report.** The report centers on three issues: 1) justification for commercial acquisition strategy, 2) management of program operation and financing, and 3) oversight by Office of the Secretary of Defense. The first finding relates to the C-130J program's origination—the determination that C-130J is a commercial program. The history and current uses of the C-130J (including the C-130J's commercial derivative, the L-100J) justify the Air Force position that the C-130J is a "commercial item" as defined by 41 U.S.C. § 403(12) and FAR 2.101. Second, the Air Force has properly managed the program operation and financing. The C-130J program is meeting cost, schedule, contract and regulatory commitments. Third, OSD did provide effective oversight. The Air Force provides quarterly reports to OSD on program progress and participates in oversight meetings with the OSD staff.

Findings and Responses: The subject report provides three findings, which are listed below with the Air Force responses:

Finding 1. "The Air Force used a commercial item acquisition strategy that was unjustified."

The Air Force non-concurs. A number of the recommendations are based on the DoD/IG's assertion that the C-130J is not a commercial acquisition and that the Air Force should utilize a traditional FAR Part 15 procurement approach to acquire the aircraft. The Air Force disagrees. The commercial item procurement strategy followed on this program is a legitimate business approach. The DoD/IG ignores the fact that the Lockheed Martin Corporation developed the C-130J at its own risk for the commercial and military marketplaces. Also, LMC has sold prior C-130 models commercially and currently offers the commercial derivative of the C-130J for commercial sales. The recent DoD/IG report on the KC-767 tanker program and this report's findings on C-130J commerciality, when viewed together, suggest that DoD/IG is opposed to applying the Congressional preference for the acquisition of commercial items to major system procurements. The DoD/IG has misapplied the statutory and FAR criteria applicable to commercial item acquisitions in this case.

Finding 2. "The Air Force did not adequately manage the program operation and financing."

The Air Force non-concurs. The C-130J program is properly managed—program cost performance is tracking to the program budget and the contractor is meeting the delivery schedule. Further, the program is within established acquisition guidelines and there have been no breaches of the approved acquisition program baseline. The C-130J program follows practices with regard to withholds employed on programs such as KC-135 GATM, C-17 and JPATS. Execution of C-130J withholds is consistent with the terms and conditions of the contract, as withholds are reasonably based on a government analysis of the price of any deficient items. The aircraft currently enjoys operational release for the following missions: airland, over-water, medical evacuation, and assault. Following procedure development, single ship low level and Night Vision Goggles (NVG) operations will be released in the summer of 2004. Heavy Airdrop and Personnel Airdrop operations will be released after Block 5.4 testing is complete.

Finding 3. "The Office of the Secretary of Defense did not provide effective oversight of the C-130J Program to correct significant program deficiencies."

The Air Force non-concurs. The Air Force provides quarterly Defense Acquisition Executive Summaries and annual Selected Acquisition Reports for OSD and Congressional review. The Air Force and OSD have also established periodic Integrating Integrated Product Team meetings to continually review status of the program. This is consistent with the level of oversight of other ACAT IC programs and is effective. OSD began expressing its concern with C-130J testing, program management, and performance in February 1999. More recently, our combined efforts to improve the program have resulted in more stabilized funding and close scrutiny of deficiency reports to resolve problems and meet requirements. Furthermore, a new Operational Requirements Document is being written in conjunction with contracted Block 5.4 upgrades to meet realistic mission needs.

Recommendations and Responses: The subject report provides four recommendations which are listed below with the Air Force responses:

Recommendation 1. "Refrain from contracting for additional block upgrades until Lockheed Martin can design, develop, and deliver a contract compliant aircraft."

The Air Force non-concurs. Timely Block Upgrades are required to meet DoD mandated Global Air Traffic Management and Navigation Safety requirements; a delay would be detrimental to the Air Mobility Command mission. Lockheed Martin is already delivering contract compliant aircraft. Prior to each delivery, the government carefully evaluates the condition of the aircraft and may accept an aircraft with minor deficiencies (codified in Letters of Temporary Exception) under the terms of the contract and established Air Force business practices.

Recommendation 2. "Change the C-130J multiyear contract from a FAR Part 12 contract to a FAR Part 15 contract. The contract specification in the renegotiated contract must meet the specification in the operation requirements document and provide the Government with the contractor's pricing, cost, and profit data."

The Air Force non-concurs. The use of FAR Part 12 was determined to be the most effective means of meeting the cost and schedule requirements of the multiyear aircraft acquisition and to be appropriate given the commercial nature of the C-130J aircraft. Future upgrades to the C-130J aircraft will be contracted under a FAR Part 15 arrangement that the Air Force considers more appropriate for government financed enhancements to the C-130J.

Recommendation 3. "Increase amounts withheld to motivate Lockheed Martin to deliver an aircraft that meets contractual requirements."

The Air Force non-concurs. Withholds on the C-130J contract are consistent with the terms and conditions of the contract and are based on a government analysis of the price of any deficient items. We have not had an issue motivating Lockheed Martin to correct within-scope deficiencies.

Recommendation 4. "Negotiate a firm schedule for completion of known outstanding retrofits of fielded aircraft within 6 months."

The Air Force non-concurs. All modifications of fielded Air Force and US Coast Guard aircraft are managed IAW TO 00-5-15, *Air Force Time Compliance Technical Order Process*. All known outstanding retrofits are scheduled and are being performed per this process. The US Marine Corp manages their own retrofit program IAW NAVALINST00-25-300, *Technical Directive System*. All outstanding USMC retrofits have been either completed or scheduled IAW this process.

Conclusion

The Air Force disagrees with all of the DOD/IG's findings and recommendations. While some of the facts presented in the DOD/IG Report are accurate, the findings and conclusions ascribed to these facts cannot be supported. The Air Force fully endorses the C-130J program. The program is one of AMC's top priorities and, in fact, is currently planned to be ready for a combat deployment no later than the end of 2004. The program has disciplined plans in place to meet the stated operational need and to continue to enhance the platform to meet DoD mandated initiatives and evolving AMC mission needs.

Detailed Comments

1. DoD/IG Findings, Recommendations and Air Force Responses: The subject Report offers three Findings and four Recommendations that are listed below with the Air Forces' detailed response.

Finding 1. "The Air Force used a commercial item acquisition strategy that was unjustified."

The Air Force objects to the DoD/IG's characterization of the commercial acquisition strategy as "unjustified." In fact, there was significant justification prepared, examined and validated at the highest levels of the Air Force before the acquisition of any C-130J aircraft. As evidenced in the Commercial Determination, Lockheed Martin had sold C-130 model aircraft in the commercial market place since the early 1960s. The Federal Aviation Authority (FAA) certified the aircraft design (382J) in 1998. Moreover, the commercial derivative of the C-130J aircraft, the L-100J, has been made available in the commercial marketplace:

- "The most recent addition to the L-100 family is the L-100J, a commercial derivative of the stretched new generation C-130J-30 Hercules II." www.worldwideairlink.com
- "The L-100J would be a commercial derivative of the new generation C-130J Hercules II. Improvements would include new 3425kW (4591 shp) Rolls-Royce (Allison) AE-2100D3 advanced turboprop engines driving six blade props, two crew Electronic Flight Instrument System EFIS flightdeck and significantly lower maintenance and operating costs. The C-130J first flew on April 5, 1996, while US FAA civil certification was awarded in September 1998." www.airliners.net
- "The most recent addition to the L-100 family is the L-100J, a commercial derivative of the stretched new generation C-130J-30 Hercules II. Improvements include more powerful advanced turboprop engines and two-person EFIS flightdeck." www.aerosite.net

The L-100J (382J) is substantially the same aircraft as the C-130J, sharing structure, landing gear, engines, propellers and cockpit/displays. The Air Force readily acknowledges that the C-130J also includes features not customarily available in the commercial marketplace, including aerial delivery (cargo and paratroop), defensive systems, secure voice communications, station keeping, night vision imaging and satellite communication. Notwithstanding these features, the C-130J still qualifies as a commercial item, as it satisfies the FAR 2.101 definition. FAR 2.101(a), "Commercial Item," (3) provides that commercial item means:

Any item that would satisfy a criterion expressed in paragraphs (1) or (2) of this definition¹, but for —

* * *

¹ Criterion 1 provides that a commercial item is "[a]ny item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and (i) [h]as been sold, leased, or licensed to the general public; or (ii) [h]as been offered for sale, lease, or license to the general public."

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. Minor modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of the process. Factors to be considered in determining whether a modification is minor include the value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor.

The Lockheed Martin C-130J Five Year Option Contract proposal dated December 1995 identified the cost of the USAF unique configuration of the C-130J as \$2.8M (6%) of the \$45.4M total aircraft price. The USAF unique modifications required were minor in size and value when compared to the value and size of the commercial product and limited to military-unique capability described above. The modification also did not significantly alter the aircraft's nongovernmental function (to transport people and cargo by air) nor does it alter the essential physical characteristics of the aircraft.

The US Air Force followed regulatory mandates and processes to determine and validate the commercial acquisition strategy. Based on the sound acquisition strategy, the US Air Force entered into a valid binding contract with Lockheed Martin for the production and delivery of the aircraft.

Finding 2. "The Air Force did not adequately manage the program operation and financing."

The Air Force non-concurs. Conditions for acceptance of the initial C-130J aircraft were that the design be FAA certified and military utility testing be completed. Lockheed Martin Corporation did not meet these conditions until 1998, thus delaying initial acceptance of the aircraft from Jun 1997 to Jan 1999. As a result of deficiencies identified during testing, the SPO was reluctant to accept the first six aircraft. Lockheed Martin provided a viable, contractor-funded plan to correct the deficiencies leading to basic airland capability that was available after Block 5.2. Block 5.3, also contractor-funded, was intended to bring the aircraft to specification compliance and in Lockheed Martin's view it accomplished that purpose. The Air Force disagreed and a number of disputed deficiencies remained open until they were adjudicated in 2002. The delay in reaching this milestone was primarily attributed to insufficient government personnel resources to accomplish the necessary evaluations. Throughout this period, the Air Force evaluated the impact of accepting aircraft with known minor deficiencies and concluded that the aircraft had sufficient utility to justify acceptance.

The contracts awarded for the C-130J resulted from Congressional initiatives to insert additional airlift capability into the USAF inventory. The two Five Year Option Contracts (FYOC) (awarded in 1996 and 2000) allowed the Air Force to respond to the initiatives efficiently, certainly demonstrating prudent management. Thirty of the 36 USAF aircraft procured under the two FYOCs were congressional adds.

The DoD/IG Report misstates the situation regarding retrofits. The Air Force tracks Time Compliance Technical Orders (TCTO) by content and required completion date. The reference to hours has no meaning for tracking implementation of TCTO's. All current TCTOs remaining to be accomplished have been scheduled for US Government users. As with all aircraft programs TCTOs will continue to be developed to support modification and repair of the aircraft fleet.

The Air Force does not negotiate payment schedules independent of the other contract aspects. It is our judgment that the payment associated with specific events on each contract is correct in the context of the entire contract and the effort expended by the contractor. In addition, the payment schedule is consistent with other USAF programs such as C-37, KC-135R/T GATM System and Next Generation Small Loader.

Finding 3. "The Office of the Secretary of Defense did not provide effective oversight of the C-130J Program to correct significant program deficiencies."

The Air Force non-concurs. The Air Force provides quarterly Defense Acquisition Executive Summaries and annual Selected Acquisition Reports for OSD and Congressional review. The Air Force and OSD have also established periodic Integrating Integrated Product Team meetings to continually review status of the program. This is consistent with the level of oversight of other ACAT 1C programs and is effective. OSD began expressing its concern with C-130J testing, program management, and performance in February 1999. More recently, our combined efforts to improve the program have resulted in more stabilized funding and close scrutiny of deficiency reports to resolve problems and meet requirements. Furthermore, a new Operational Requirements Document is being written in conjunction with contracted Block 5.4 upgrades to meet realistic mission needs.

DoD/IG Recommendation 1: "Refrain from contracting for additional block upgrades until Lockheed Martin can design, develop, and deliver a contract compliant aircraft."

The Air Force non-concurs. The recommendation to curtail additional block upgrades hinges on the argument that the C-130J is entirely a military product, when, in fact, the baseline aircraft is the same as commercially derivative aircraft (L-100J) available to the public for nongovernmental purposes. Only select modifications are military unique. The fact that military unique upgrades are required to make the baseline commercial aircraft suitable for military operations is not a basis for concluding that the commercial configuration is still under development. In fact, it is only the military unique upgrades that are developmental. This is similar to numerous other commercial derivative platforms (e.g., C-32, C-37, C-40, and VC-25) that have baseline commercial configurations requiring military unique modifications. The report offers no assessment of the operational impact of suspending all upgrades. The adverse operational impact, however, is severe. Specifically, AMC's mission would be severely affected. The Block Upgrade program is planned around DoD mandated Global Air Traffic Management requirements intended to support the goals of Global Reach/Global Power. GATM makes extensive use of the International Civil Aviation Authority (Federal Aviation Authority in the US) initiative Communication Navigation Surveillance/Air Traffic Management. GATM is a

shift from Air Traffic Control to Air Traffic Management and failure to accomplish the initiatives in a timely manner will restrict international airspace access. AMC is currently revising their Operational Requirements Document (AMC 205-91-IV/II-A, Revision II, dated Sep 2003) to reflect a spiral approach to GATM compliance.

DoD/IG Recommendation 2. "Change the C-130J multiyear contract from a FAR Part 12 contract to a FAR Part 15 contract. The contract specification in the renegotiated contract must meet the specification in the operation requirements document and provide the Government with the contractor's pricing, cost, and profit data."

The Air Force non-concurs. As discussed above, the C-130J meets the FAR definition of "commercial item." Accordingly, the FAR Part 12 acquisition strategy is entirely appropriate. Moreover, for the current contracts, such a conversion is not feasible. The contracts were negotiated bilaterally with a FAR Part 12 structure as a central term and condition. As such, Lockheed Martin is not bound to accept such a fundamental change. If they were to accept the change, it would likely entail a significant equitable adjustment. There are few precedents for reverting from a FAR Part 12 to a FAR Part 15 structure, although programs like the F117 engine and JPATS have evolved from FAR Part 15 to FAR Part 12.

The Air Force could not unilaterally dictate the change from FAR Part 12 to FAR Part 15 on current contracts without invoking a contract dispute, which would introduce significant litigation and programmatic risk for the Government. Simply stated, such a move by the Air Force would amount to a breach of contract.

Because the Air Force properly concluded that the C-130J was a commercial item, the Air Force is prohibited from seeking certified cost or pricing data from Lockheed Martin Corporation. FAR 15.403-1(b) provides that the contracting officer "shall not require submission of cost or pricing data to support any action (contracts, subcontracts, or modifications) * * * (3) [w]hen a commercial item is being acquired" (emphasis added). FAR 15.403-1(c)(3) further provides that "[a]ny acquisition for an item that meets the commercial item definition in 2.101, or any modification, as defined in paragraph (3)(i) or (ii) of that definition, that does not change the item from a commercial item to a noncommercial item, is exempt from the requirements for certified cost or pricing data."

The Air Force has, however, recently awarded a FAR Part 15 contract to Lockheed Martin that will be used in support of the GATM program. Contracting under FAR Part 15 was determined to be appropriate to the nature of the work under contract, development of the GATM enhancements to the C-130J aircraft. Upgrades, starting with Block 6.0 are adding capabilities above and beyond the basic operational aircraft and are appropriately done under Far Part 15 procedures.

DoD/IG Recommendation 3. "Increase amounts withheld to motivate Lockheed Martin to deliver an aircraft that meets contractual requirements."

The Air Force non-concurs. Two standard business practices apply to C-130J withholds: 1) The C-130J program determined and codified the withhold calculation methodology at the time

of contract award; and 2) the withhold amount is consistent with the value of the deficient item(s). Other programs following these standard practices include C-17, JPATS and KC-135R/T GATM. In addition, withholds on the C-130J contract are consistent with the terms and conditions of the contract and are based on a government analysis of the price of any deficient items. We have not had an issue motivating Lockheed Martin to correct within scope deficiencies.

DoD/IG Recommendation 4. "Negotiate a firm schedule for completion of known outstanding retrofits of fielded aircraft within 6 months."

The Air Force non-concurs. All modifications of fielded Air Force and US Coast Guard aircraft are managed IAW TO 00-5-15, *Air Force Time Compliance Technical Order Process*. All known outstanding retrofits are scheduled and are being performed per this process. The US Marine Corp manages their own retrofit program IAW NAVAIRINST00-25-300, *Technical Directive System*. All outstanding USMC retrofits have been either completed or scheduled IAW this process.

Director, Operational Test and Evaluation



OFFICE OF THE SECRETARY OF DEFENSE
1700 DEFENSE MONTAGAN
WASHINGTON, DC 20301-1700

APR 15 2004

MEMORANDUM FOR DoD INSPECTOR GENERAL

SUBJECT: Comments on Contracting and Performance of the C-130J Aircraft Draft Report

Thank you for the opportunity to comment on your report. I recommend that you change the sentence in the last paragraph of page 1 from "Because the Government . . ." to "The Government did not apply the normal milestone decision process to this program. The only Government acquisition decision on whether to buy the C-130J aircraft was based on force structure requirements and system affordability."

My points of contact for this action are Tom Carter, (703 695-8978), Dr. Leonidas Sakell, (703 695-9085), or Matt Keough (703 693-7780).

Thomas P. Christian
Thomas P. Christian
Director

DC:
USD(A7&L)



Team Members

The Office of the Deputy Inspector General for Auditing of the Department of Defense, Acquisition Management prepared this report. Personnel of the Office of the Inspector General of the Department of Defense who contributed to the report are listed below.

Bruce A. Burton
Rudolf Noordhuizen
Lisa Novis
Jennifer L. Jezewski
Paul R. Glenn
Jacqueline N. Pugh

We conducted the audit in response to allegations made to the Defense Hotline that the C-130J aircraft does not meet contract specifications and, therefore, cannot perform its operational mission. Our report addresses the issues in the Subcommittee's invitation letter; namely "whether or not use of a commercial acquisition strategy to procure the C-130J was justified," and "the C-130J's ability to meet contract specifications and perform its operational mission."

In summary, we concluded that the Air Force used an unjustified commercial item acquisition strategy to acquire the C-130J aircraft and fielded aircraft that did not meet contract specifications or perform their intended mission. Ultimately, the Air Force agreed with all of our recommendations for the way forward.

The primary mission of the C-130J aircraft is to airlift and drop troops and equipment into hostile areas. The Air Force contracted with Lockheed Martin for 117 C-130J aircraft for the Air Force, Marine Corps, and Coast Guard, at a cost of \$7.5 billion, from fiscal year 1995 through fiscal year 2008.

The Air Force initially contracted with Lockheed Martin for two C-130J aircraft, in 1995, through a modification to a 1990 contract for C-130H aircraft. Our audit found that Lockheed Martin promoted the C-130J as a commercial aircraft, and the Air Force undertook to buy additional C-130J aircraft as commercial items.

By acquiring the C-130J aircraft as a commercial item using Federal Acquisition Regulation Part 12, the Air Force did not apply the normal acquisition process, and could only provide limited program oversight to the \$7.5 billion aircraft program. The Director, Operational Test and Evaluation, Department of Defense, in his comments to a draft of our audit report, pointed out that the only government acquisition decision on whether to buy the C-130J aircraft as a commercial item was based on force needs and affordability.

The Air Force commercial item acquisition strategy was fundamentally unjustified. The Air Force was unable to provide evidence supporting its claim that 95 percent of the features were the same between the military and civilian versions of the aircraft. The Air Force contracting officer's statement that the aircraft evolved from a series of Lockheed Martin development—developed produced commercial aircraft configurations is contradicted by the fact that the prior version of the aircraft, the C-130H, was only used for government purposes. Further, at the time of our audit, the Air Force acknowledged that no commercial version of the C-130J currently existed, and no sales had been made to the public. Because the Air Force determined that the C-130J was a commercial item, the Air Force relied on the commercial contract specifications to meet mission requirements.

In January 1999, the Air Force became aware that Lockheed Martin could not meet the C-130J commercial model specification, and agreed to a contractor-initiated three-phase upgrade program consisting of upgrades 5.1, 5.2, and 5.3. Testing showed that, even with the upgrades, the C-130J aircraft was still not compliant with the commercial model specifications or, more importantly, operational requirements.

In October 2002, the Air Force and Lockheed Martin reached an agreement that the design would be considered compliant with the successful completion of an agreed-upon plan of action. Corrections, as agreed upon, are supposed to be completed in upgrade 5.4, which, at the time of the audit, was scheduled for installation in 2005.

Air Force testers had identified performance deficiencies that degraded C-130J operations after the contractor began aircraft delivery. The Test and Evaluation Center had developed a testing plan with a two-phased approach. The first phase evaluated the airlift capability of the C-130J, and the second phase is intended to evaluate other capabilities, including the airdrop mission. At the time of our audit, the second phase of operational testing was scheduled for late 2005.

The first phase of testing, in September 2000, showed that the C-130J was not effective or suitable in the airlift mission. The Air Force stopped the suitability test in August 2000 because of the extent of the deficiencies identified.

In November 2001, the Air Force Operational Test and Evaluation Center assessed the program's progress towards readiness for the second phase of testing. The Air Force assessment found that the aircraft was not ready for the second phase of testing, and progress in the effectiveness and suitability areas was also unsatisfactory.

In addition, schedule slips, system immaturity, and training issues caused the Air Force Operational Test and Evaluation Center to reschedule the second-phase operational testing from July 2000 to November 2005.

Based on the test results, the Air Mobility Command determined the missions that the C-130J could safely perform, and restricted the aircraft from night-vision goggle operations, combat search and rescue, visual formation, global air-traffic management, and airdrop of paratroopers and containers. Also, because the aircraft performed poorly during testing, the Air Mobility Command could not release the C-130J to perform other essential missions, including heavy-equipment airdrop and hostile-environment missions.

We have one related audit of commercial acquisition practices in the Department of Defense. This is the audit of commercial contracting practices for procuring Defense systems, and it will determine whether procurement officials are complying with the Federal acquisition regulations when procuring Defense systems or their subcomponents. Specifically, we will evaluate the justifications used to determine whether major systems or subsystems meet commercial item criteria, and evaluate the adequacy of the basis for establishing price reasonableness. However, this audit is currently suspended, due to audit support for Base Realignment and Closure (BRAC) and other operational priorities.

This concludes my oral statement. I'd be glad to answer any questions.

[The prepared statement of Mr. Schmitz follows:]

PREPARED STATEMENT BY HON. JOSEPH E. SCHMITZ

Mr. Chairman and members of the Airland Subcommittee: Thank you for the opportunity to appear before the subcommittee today and to answer your questions regarding our audit report, "Contracting for and Performance of the C-130J Aircraft,"

which my staff previously provided to the subcommittee. We conducted the audit in response to allegations made to the Defense Hotline that the C-130J aircraft does not meet contract specifications and therefore cannot perform its operational mission. Our report addresses the issues in the subcommittee's invitation letter, namely "whether or not use of a commercial acquisition strategy to procure the C-130J was justified," and "the C-130J's ability to meet contract specifications and perform its operational mission." In summary, we concluded that the Air Force used an unjustified commercial item acquisition strategy to acquire the C-130J aircraft and fielded aircraft that did not meet contract specifications or perform their intended mission. Ultimately, the Air Force agreed with all our recommendations.

C-130J AIRCRAFT

The primary mission of the C-130J aircraft is to airlift and drop troops and equipment into hostile areas. The Air Force contracted with Lockheed Martin for 117 C-130J aircraft for the Air Force, Marine Corps and Coast Guard at a cost of \$7.5 billion from fiscal year 1995 through fiscal year 2008.

COMMERCIAL ITEM ACQUISITION STRATEGY

The Air Force initially contracted with Lockheed Martin for two C-130J aircraft in 1995 through a modification to a 1990 contract for C-130H aircraft. Our audit found that Lockheed Martin promoted the C-130J as a commercial aircraft and the Air Force undertook to buy additional C-130J aircraft as commercial items. Specifically, Lockheed Martin developed and produced the C-130J aircraft using a commercial aircraft model performance specification. Lockheed initiated the C-130J upgrade and managed the program development, developmental testing, and production process. By acquiring the C-130J aircraft as a commercial item, using Federal Acquisition Regulation Part 12, "Acquisition of Commercial Items," the Air Force did not apply the normal acquisition process and could only provide limited program oversight to this \$7.5 billion aircraft program. The Director, Operational Test and Evaluation, Department of Defense, in his comments to a draft of our audit report, pointed out that the only Government acquisition decision on whether to buy the C-130J aircraft as a commercial item was based on force needs and affordability.

The Air Force commercial item acquisition strategy was unjustified. The Air Force was unable to provide evidence supporting its claim that 95 percent of the features were the same between the military and civilian versions of the aircraft. In fact, at the time of our audit, the Air Force acknowledged that the C-130J included features not customarily available in the commercial marketplace including aerial delivery (cargo and paratroop), defensive systems, secure voice communication, night vision imaging, and satellite communication. The Air Force contracting officer statement that the aircraft evolved from a series of Lockheed Martin developed/produced commercial aircraft configurations is contradicted by the fact that the prior version of the aircraft, the C-130H, was only used for government purposes. Further, at the time of our audit, the Air Force acknowledged that no commercial version of the C-130J (L-100J) currently existed and no sales of the L-100J had been made to the public. A website cited by the Air Force in its comments response to a draft of our audit report showed that the L-100J "would be a commercial derivative" of the C-130J. Also, the determination that modification (that also considered customer requirements) would be minor had no supporting analysis. Finally, the Air Force was unable to show that the commercial contract specification would meet the operational requirements. Because the Air Force determined that the C-130J was a commercial item, the Air Force relied on the commercial contract specifications to meet mission requirements.

CONTRACT SPECIFICATIONS

In January 1999, the Air Force became aware that Lockheed Martin could not meet the C-130J commercial model specification and agreed to a contractor-initiated, three-phase upgrade program, consisting of upgrades 5.1, 5.2, and 5.3. Notwithstanding, the Air Force continued to contract for additional aircraft and exercised options for more aircraft before the first aircraft was delivered or tested. The first two C-130J aircraft were not delivered until February 1999 and even those aircraft were conditionally accepted. Testing showed that even with the 5.1, 5.2, and 5.3 upgrades, the C-130J aircraft was still not compliant with the commercial model specifications or, more importantly, operational requirements. In October 2002, the Air Force and Lockheed Martin reached an agreement that the design would be considered compliant with the successful completion of an agreed-upon action plan. Corrections as agreed upon are supposed to be completed in upgrade 5.4, which, at the time of the audit, was scheduled for installation in 2005. However, the Air Force

commingled the contract specification work with out-of-scope work in upgrade 5.4. Since the Air Force was procuring the aircraft for the Coast Guard, the Marine Corps, and Air Force units, those customers who could not afford the cost of the out-of-scope work would not receive the improvements needed to have a mission capable aircraft.

Federal Acquisition Regulation Part 12.208, "Contract quality assurance," requires that contracts for commercial items shall rely on contractors' existing quality assurance systems as a substitute for Government inspection and testing before tender for acceptance. As of the time of the audit, the Air Force had conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion and the contractor had been unable to deliver a specification compliant aircraft.

PERFORMANCE OF OPERATIONAL MISSION

Air Force testers had identified performance deficiencies that degraded C-130J operations after the contractor began aircraft delivery. The Test and Evaluation Center had developed a testing plan with a two phased approach. The first phase evaluated the airlift capability for the C-130J and the second phase is intended to evaluate other capabilities including the air drop mission. At the time of our audit, the second phase of operational testing was scheduled for late 2005.

The Air Force Operational Test and Evaluation Center completed the first phase testing in September 2000. That testing showed that the C-130J was not effective or suitable in the airlift mission. Performance deficiencies included inadequate range and payload, immature software, lack of an automated planning system, and difficulties in cold weather operations. The test also showed that the C-130J was not suitable in its current configuration because its integrated diagnostic capability was poor, including high built-in-test false alarm rates. The Air Force stopped the suitability test in August 2000 because of the extent of the deficiencies identified. The report stated that many of the deficiencies were programmed to be corrected in upgrade 5.3.

In November 2001, the Air Force Operational Test and Evaluation Center performed an operational assessment of upgrade 5.3 to assess the program's progress towards readiness for the second phase of testing. The Air Force operational assessment stated that the progress in the effectiveness of the C-130J was unsatisfactory. Identified deficiencies included defensive system problems, global air traffic management compliance, mission planning system deficiencies, and interoperability issues with the existing C-130 fleet. The report also mentioned that progress in the suitability area was unsatisfactory. Development schedule slips, system immaturity, and training issues caused the Air Force Operational Test and Evaluation Center to reschedule the second phase operational testing from July 2000 to November 2005. Further, the deficiencies found in upgrade 5.3 resulted in the C-130J Program Office requiring another upgrade.

Based on the qualification operational and evaluation testing results, the Air Mobility Command determined the missions that the C-130J could safely perform given the known deficiencies. Specifically, the Air Mobility Command released the C-130J to perform basic air, land, assault, overwater operations, and medical evacuation, but restricted the aircraft from performing night vision goggle operations, combat search and rescue, visual formation, global air traffic management, and air drop of paratroopers and containers. Because the aircraft performed poorly during testing, the Air Mobility Command could not release the C-130J to perform heavy equipment air drop and hostile environment missions. Installation of upgrade 5.4 is supposed to resolve those limitations except for heavy equipment air drop. Installation of upgrade 6.0, which is scheduled for installation in 2007, is supposed to allow the C-130J to perform the heavy equipment air drop mission.

RECENT DIRECTOR OF OPERATIONAL TEST AND EVALUATION ASSESSMENT

In the 2004 Director of Operational Test and Evaluation Annual report, issued in February 2005, the Director reported that the aircraft is not operationally suitable. Demonstrated C-130J reliability, maintainability, availability, and logistics supportability failed to meet operational requirements and legacy standards. Deficiencies were noted with on-aircraft integrated diagnostics and fault isolation systems, portable maintenance aids, maintenance technical orders, and the availability of spare parts. Further, the testing of defensive systems did not demonstrate their effectiveness and suitability.

RELATED ONGOING AUDITS

We have one related audit of commercial acquisition practices in the Department of Defense. The Audit of Commercial Contracting Practices for Procuring Defense

Systems (Project No. D2004AB-0182) will determine whether procurement officials are complying with Federal Acquisition Regulation Part 12 "Acquisition of Commercial Items," and Part 15, "Contracting by Negotiation," when procuring defense systems or their subcomponents. Specifically, we will evaluate the justifications used to determine whether major systems or subsystems meet commercial item criteria and evaluate the adequacy of the basis for establishing price reasonableness. However, this audit is currently suspended due to audit support for Base Realignment and Closure and other operational priorities.

Senator MCCAIN. Thank you very much.
Mr. Bolkcom, welcome.

STATEMENT OF CHRISTOPHER BOLKCOM, SPECIALIST IN NATIONAL DEFENSE, CONGRESSIONAL RESEARCH SERVICE, LIBRARY OF CONGRESS

Mr. BOLKCOM. Thank you, Mr. Chairman.

Distinguished members of the committee, thank you very much for inviting me to speak with you today about DOD tactical aviation programs. As requested, this testimony will focus on how well the capabilities offered by these programs match DOD's most pressing military challenges.

In short, DOD tactical aviation faces three interrelated challenges: relevance, balance, and budget. These three challenges will be explored at greater length in my written statement, which I've submitted for the record.

The first challenge is relevance. Observing that DOD tactical aviation faces a relevance challenge is, at first blush, counterintuitive. After all, our air forces dominate state-on-state conflict. Achieving significant military objectives against non-state actors, however, including terrorists and insurgents, has proven more difficult.

The terrorist attacks of September 11th graphically illustrate that small groups of non-state actors can exploit commercially-available technology to conduct destructive attacks over great distances. Increasingly, it is recognized that, in many cases, combating non-state actors presents different, and sometimes greater, challenges than combating a conventional military foe.

Generally speaking, today's Armed Forces were organized, trained, and equipped with conventional state-on-state warfare in mind. This is true for our air forces. Yet air power can offer significant contributions to irregular warfare and counterinsurgency. Intelligence-gathering, persistent surveillance, aerial insertion of troops, and medical evacuation of friendly forces are all potentially valuable aviation missions.

The air-dominance and strike missions at which our tactical aircraft excel are, of course, important to counterinsurgency and other small wars. These missions, however, don't typically require the high performance characteristics found in the F/A-22, Joint Strike Fighter, and F/A-18E/F Super Hornet.

The second challenge is balance. There's a consensus view in defense circles that air power is one of our great military advantages. Some are increasingly concerned, however, that military aviation is too focused on the demands of fighting conventional foes, to the detriment of irregular warfare. The challenge for U.S. air forces is to reshape themselves to increase their relevance in small wars,

while maintaining the capability to win major conflicts. In other words, a balance must be struck.

Supporters of DOD's current tactical aviation plan say that the F/A-22, Joint Strike Fighter, and F/A-18E/F are required for state-on-state conflict, despite our preeminence in this area. Only these aircraft, they say, can cope with scenarios in which adversaries are equipped with their own modern aircraft and advanced surface-to-air missiles.

Supporters argue that the F/A-22, Joint Strike Fighter and the Super Hornet can be made more applicable to small wars through new concepts of operation, organizational schemes, or technology upgrades.

Those seeking a re-balancing of DOD tactical aviation, however, argue that the most stressing scenarios that require advanced tactical aviation will be rare. U.S. dominance in standoff weapons, air-borne warning and control, electronic warfare, and other elements of the overall air-power system will enable U.S. tactical aircraft to prevail, with fewer numbers.

The third challenge is budget. For more than 20 years, some have predicted a train wreck in DOD's tactical aviation budget. Observers see too many tactical aircraft chasing too few dollars. Budget pressures have already taken their toll. Over the past 14 years, the number of tactical aircraft that some estimate DOD can afford has dropped by over 30 percent. Tactical aviation budgets may be increasingly squeezed by other aviation demands, such as purchasing long-range bombers, new unmanned aerial vehicles (UAVs), and new helicopters. Perhaps the most intense budget competition will come from the need to replace our aging tanker fleet.

Some also believe that the costs of fighting the war on terrorism and pending initiatives to increase personnel benefits and personnel end strength will exacerbate budget pressures and bring the tactical air (TACAIR) train wreck to fruition.

In conclusion, it's noteworthy that in a recent interview Navy Secretary Gordon England appears to confirm that DOD leaders recognize these challenges to tactical aviation and see a need to re-balance the force. Mr. England advocated that DOD examine its entire tactical aviation enterprise and search for efficiencies and savings.

One model for this examination, he said, is the recent Navy and Marine Corps tactical air integration. By better combining Navy and Marine Corps tactical aviation assets, the Department was able to reduce purchases of tactical aircraft and save \$35 billion in procurement while maintaining the same combat capabilities.

Mr. Chairman, this concludes my remarks. Thank you, again, for the opportunity to appear before you, and I look forward to your questions.

[The prepared statement of Mr. Bolkcom follows:]

PREPARED STATEMENT BY CHRISTOPHER BOLKCOM

Mr. Chairman, distinguished members of the subcommittee, thank you for inviting me to speak to you today about DOD tactical aviation programs.

As requested, this testimony will address the applicability of DOD's tactical aviation modernization programs to the full range of military challenges facing the United States. I will discuss how the capabilities offered by these programs match

up against DOD's most pressing military challenges. In short, DOD tactical aviation modernization faces three interrelated challenges: relevance, balance, and budget.

RELEVANCE

Observing that DOD tactical aviation modernization programs face a relevance challenge is, at first blush, counterintuitive. By all accounts, the U.S. air forces dominate state-on-state conflict. The United States has not faced a true peer military competitor since the Soviet Union collapsed. Since 1991, U.S. military aircraft have flown in excess of 400,000 combat sorties, and lost only 39 aircraft to enemy action. Recent conflicts, such as Panama, Libya, Iraq (Desert Storm) Bosnia, Kosovo, Afghanistan, and Iraq (Iraqi Freedom) illustrate that in a variety of circumstances, U.S. Air Forces have proven very effective at achieving classic military objectives against the armed forces of other countries. Achieving significant military objectives against non-state actors, however, has proven more difficult.¹

In the past, combating non-state actors was seen by many to be a "lesser included case." Non-state actors appeared to be less threatening to national security than the well funded, well organized, and much more militarily potent Armed Forces of an enemy nation-state. If, for example, the U.S. military was deemed adequate to deter or defeat the Soviet military, then it was also deemed adequate to combat non-state actors.

The terrorist attacks of September 11, 2001 graphically illustrate, however, that small groups of non-state actors can exploit relatively inexpensive and commercially available technology to conduct very destructive attacks over great distances. Few observers today consider non-state actors to be a "lesser included case." Increasingly it is recognized that in many cases, combating non-state actors presents a different—and in many cases—a greater set of challenges than combating a conventional military foe.

Military planners have a number of tools at their disposal to attempt to find, identify, track, capture, neutralize, or kill terrorists, counterinsurgents and other non-state actors. A survey of counterinsurgency and anti-terrorism efforts indicates, that in general, military aviation plays a prominent role in performing these tasks. Airpower has proven very valuable in contemporary (e.g. Iraq, Philippines) and historical (e.g. El Salvador) counterinsurgencies. The most critical missions, appear to be persistent surveillance and reconnaissance, aerial insertion of troops, combat search and rescue, medical evacuation, tactical air mobility, and tactical airlift and resupply.

The air dominance and strike missions at which today's tactical aircraft excel are also important to counterinsurgency and other non-state actor operations. These missions, don't however, typically require the high performance characteristics of the combat aircraft that DOD is currently developing and beginning to produce. Non-state actors do not have resources to effectively challenge even modest Air Forces. In some circumstances, aircraft less capable than the F/A-22, JSF and F/A-18E/F may even be preferred for strikes against insurgents owing to their lower airspeeds.

In general, the U.S. Armed Forces that are fielded today were organized, trained and equipped principally with conventional, state-on-state warfare in mind. This is true for DOD's major tactical aviation programs. The F/A-22 traces its lineage to the Advanced Tactical Fighter program (ATF) which began in the early 1980s. The F/A-18E/F program was initiated in 1991 as the Navy's A-12 Naval ATF, and F-14 re-manufacturing programs were terminated. The Joint Strike Fighter (JSF) program, then called Joint Advanced Strike Technology (JAST), began in 1993. Even in a "post-September 11 environment," those developing these programs still see these aircraft as most applicable to conventional warfare. For example, the most recent F/A-22 Operational Requirements Document (ORD), from the spring of 2004, contains no mention of counterinsurgency missions, irregular warfare, or capabilities to defeat terrorists.

One of the primary reasons why the relevance of DOD's tactical aviation programs to defeating non-state actors is questioned, is because the operational challenges are fundamentally different from conventional military challenges. Compared to the armed forces of a nation state, non-state actors are relatively easy to defeat in direct combat. Non-state actors typically lack the equipment, training and discipline that

¹ "Non-state actors" is an umbrella term that refers to a number of armed groups such as political terrorists, narco-traffickers, paramilitary insurgents, and even international organized criminal organizations. These terms are not mutually exclusive. Paramilitary groups can, for example, engage in narco-trafficking, terrorism, and crime. Other terms which appear synonymous include "Military Operations Other Than War (MOOTW), and "irregular warfare." Others use the term "small wars."

define a military force. Actually engaging in direct combat with non-state actors is the core operational challenge. Non-state actors typically don't wear uniforms. Indeed, they generally strive to integrate themselves into the local civilian population. Thus, target identification is very challenging. Non-state actors rarely mass into easily recognizable formations. They typically lack large infrastructure or obvious logistics processes. Therefore, non-state actors present few "high value" targets for U.S. forces. This challenge has not been lost on DOD leadership. For example Lt. Gen. Wooley, Commander of Air Force Special Operations notes:

For many years, though, there's been a concern that intelligence collection capability basically rested in the ability to find a tank or an artillery piece hiding in a grove of trees. The problem now becomes how to find individuals hiding in groups of people. . . . This presents a huge problem for us.²

The leadership and structure of many non-state organizations are opaque. Such organizations might be diffuse and operate over long distances. Al Qaeda, for example, often operates through partner organizations which might be small and have fluid leadership. One DOD leader has said "When we kill or capture one of these leaders, another one steps in and quickly takes their place."³ Once identified, non-state actors are often difficult to engage due to concerns over collateral damage. Even conventional state-on-state conflict presents collateral damage concerns. When one party is actively trying to shield itself behind non-combatants, however, delivering weapons with extreme precision and minimum effects takes on increased importance. A recent RAND study summed up the operational challenges:

. . . ferreting out individuals or small groups of terrorists, positively identifying them, and engaging them without harming nearby civilians is an extremely demanding task. Substantial improvements will be needed in several areas before the Air Force can be confident of being able to provide this capability to combatant commanders.⁴

In sum, identifying and characterizing the insurgent or terrorist target is a key problem for DOD, and it is difficult for many to see how tactical aviation plays a leading role in overcoming this challenge. Similar observations can be made for counterinsurgency and irregular warfare tasks such as persistent surveillance, stealthy insertion of troops, rapid resupply or medical evacuation of friendly forces operating in remote and austere areas.

BALANCE

Senior leaders in DOD appear to appreciate the distinct challenges that combating non-state actors present, however, and are taking steps to ensure that these challenges are reflected in long-term military plans, programs, and policies.

DOD's 2006 Strategic Planning Guidance found that the U.S. is well positioned to deal with a conventional military adversary. Increasingly, however, the U.S. may find itself facing non-conventional foes, for which it is not well prepared.⁵ Further, it has been reported that DOD leadership has instructed regional combatant commanders to "develop and maintain new war plans designed to reduce the chance of postwar instability like the situation in Iraq."⁶ Based on these plans, some believe that this year's Quadrennial Defense Review (QDR) "could upend U.S. military procurement plans as Pentagon officials shift their focus from waging conventional warfare to developing new ways to counter catastrophic, disruptive and irregular threats—in a word, terrorism."⁷

There is a consensus view in defense circles that airpower is one of the United States' great military advantages. Some are increasingly concerned, however, that military aviation is focused too much on the demands of fighting conventional foes to the detriment of irregular warfare, and that "the challenge for the Air Force is to re-shape its forces to increase their relevance in small wars, while maintaining the capability to win major conflicts."⁸ In other words, a balance must be struck.

²Lt. Gen. Michael W. Wooley, Commander, Air Force Special Operations Command. "Application of Special Operations Forces in the Global War on Terror." Air & Space Conference 2004. Washington, DC. September 14, 2004.

³Ibid.

⁴David Ochmanek. "Military Operations Against Terrorist Groups Abroad." RAND. 2003.

⁵"Building Top-Level Capabilities: A Framework for Strategic Thinking." Briefing to Senior Level Review Group. August 19, 2004.

⁶Greg Jaffe and David Cloud. "Pentagon's New War Planning to Stress Postconflict Stability." Wall Street Journal. October 25, 2004.

⁷Jason Sherman. "U.S. War on Terror Looms for QDR." Defense News. October 25, 2004.

⁸Thomas McCarthy. National Security for the 21st Century: The Air Force and Foreign Internal Defense. School of Advanced Air and Space Studies. Air University. Maxwell AFB, AL. June

Supporters of DOD's current plan for tactical aviation modernization say that the F/A-22, JSF and F/A-18E/F are still required for state-on-state conflict, despite U.S. preeminence in this area, and that new concepts of operation, new organizational schema, or technology upgrades may increase these systems' applicability to counterinsurgency and irregular warfare challenges. Those who support DOD's current tactical aviation modernization plans, could argue that fluid threat environments are nothing new. Platforms with long development time lines and long operational lives often must be modified and used differently than originally intentioned so as to keep pace with new threats and military objectives. It is much more difficult, to take the opposite approach, they could argue. From their perspective, DOD can't develop technologically less sophisticated weapons systems to address unconventional threats, and then improve these systems in the future if more high tech threats arise.

While "low-tech" insurgents and other non-state actors appear to deserve more attention than in the past, the United States shouldn't slight its traditional military strengths, tactical aviation supporters argue. DOD has evolved from a "threat based" to a "capabilities based" planning framework. Threats can change, but the military capabilities we desire, tend to have a longer life-span. We know that achieving air dominance is a key military capability we must maintain, supporters of DOD's current tactical aviation say, and we must prepare to achieve air dominance in the most stressing scenarios; such as a potential conflict with China, for example.

Russian SA-10 and SA-12 surface-to-air missiles (SAM) have been operational since the 1980s. These "double digit" SAMs are a concern for military planners due to their mobility, long range, high altitude, advanced missile guidance, and sensitive radars. The Russian SA-20, still under development, has been likened to the U.S. Patriot PAC-2 missile, but with an even longer range, and a radar that is very effective in detecting stealthy aircraft. Military planners are concerned that a country with only a handful of these SAMs could effectively challenge U.S. military air operations by threatening aircraft and disrupting operations from great distances.

A variety of new technologies and military systems could exacerbate the "double digit" SAM challenge. First, commercial information and communications technologies are enabling adversaries to better network the elements of their air defense systems. This allows them to disperse radars, SAM launchers and other associated platforms throughout the battlespace, and to share targeting information among launchers. This, in turn, suggests that radars may be used less frequently and for shorter periods of time, complicating efforts to avoid or suppress them. Second, terminal defenses are being marketed by a number of international defense companies. These radar-guided Gatling guns are designed to protect "double digit" SAMs or other high value air defense assets. These systems could prove quite effective in shooting down missiles aimed at enemy air defenses. Third, Russia and other countries have developed and are selling GPS jammers. Over varying distances, these low-watt jammers may degrade the GPS guidance signals used by many U.S. precision-guided munitions (PGMs) to augment inertial guidance systems, reducing their accuracy.

If these double digit SAMs are protected by an enemy air force equipped with advanced Russian or European combat aircraft, the military problem becomes dire, say supporters of DOD tactical aviation. According to press reports, a recent Air Force exercise with the Indian Air Force, called Cope India, illustrates that pilots from non-North Atlantic Treaty Organization (NATO) countries can receive excellent training and execute advanced air combat tactics. When flying advanced combat aircraft such as the SU-30, such well trained pilots could effectively challenge U.S. Air Forces, some say.

DOD's tactical aviation programs are designed to prevail in scenarios where enemies field advanced SAMs, advanced fighter aircraft, and associated technologies. Supporters argue that a reduction in U.S. tactical aviation would threaten our ability to prevail and could jeopardize key U.S. national security goals.

Most would agree that DOD still requires advanced tactical aircraft to deter and fight tomorrow's conventional conflicts. However, many argue that the efforts and resources expended to develop and produce the F/A-22, JSF, and F/A-18E/F are not balanced with current and foreseeable conventional military challenges. The ability to achieve air dominance is a key capability that DOD must sustain, but against whom? Air dominance was achieved in about 15 minutes over Afghanistan and Iraq, some say, and, for the most part, with aircraft designed 30 years ago (e.g. F-15s, F-16s, AV-8Bs).

The stressing air dominance scenario described above may require some of the aircraft currently being developed by DOD. However, how many of these scenarios might realistically emerge in the future? Many would agree that a “Taiwan straits scenario” could be one such challenge, but other examples are very difficult to credibly imagine. Those who seek a rebalancing of DOD tactical aviation argue that the proliferation of advanced SAMs has not occurred, and will likely not occur in the future, at the rate predicted by DOD.

Despite being on the market for over 20 years, Russia reportedly has only managed to sell double digit SAMs to five other countries (Bulgaria, China, Czech Republic, Germany, and Greece), three of which were Soviet client states at the time of the sale. While these weapons are clearly dangerous, they are also expensive, and require extensive training to operate effectively, some argue. This has arguably slowed the proliferation of these systems, and may also do so in the future. Russia failed to sell SA-10 and SA-12 SAMs to Chile, Egypt, Hungary, Iran, Kuwait, Serbia, South Korea, Syria, and Turkey. These countries have opted instead to purchase either U.S. SAMs, or more modest air defense systems. According to one well known missile analyst

Russia has traditionally played a significant role in world-wide SAM export. But Russian SAM sales have taken a nose dive since their heyday in the 1970s and 1980s. Particularly disappointing has been the very small scale of sales of the expensive high altitude systems like the S-300P and S-300V. The Russian industries had expected to sell 11 S-300P batteries in 1996–97, when in fact only about three were sold. Aside from these very modest sales to China and Greece, few other sales have materialized. Combined with the almost complete collapse of Russian defense procurement, the firms developing these systems have been on the brink of bankruptcy in recent years.⁹

Those who wish to re-balance DOD tactical aviation also argue that the proliferation of, and threat from advanced combat aircraft is also overstated. Building, operating, and maintaining a modern air force is much more expensive and resource intensive than fielding advanced SAMs. Few countries have the resources and national will to develop and maintain an air force that could challenge U.S. airpower, they argue. Some say that advanced Russian and European aircraft being developed and fielded today may compare well to 30-year old U.S. combat aircraft, on a one-to-one basis. But aircraft don’t fight on a one-to-one basis. Instead, they are part of a much larger airpower system. This system is composed, for example, of combat, intelligence, surveillance, airborne warning and control, aerial refueling, electronic warfare, and mission control assets. The importance of well trained pilots and maintenance personnel, which take considerable time and resources to create, cannot be over emphasized.

No other country has an airpower system on par with the United States, nor is one predicted to emerge. Therefore, some argue, today’s DOD’s tactical aviation programs can be safely reduced in order to free up funds to address other military challenges, and thus bring scarce resources more into balance. The resources saved from these cuts to DOD tactical aviation could be used to invest in systems and personnel more applicable to combating terrorists and insurgents, or to conduct homeland defense.

BUDGET

For more than 20 years—since 1993—some observers have predicted a “train wreck” in DOD’s tactical aviation programs. These observers see too many aircraft competing for too few dollars. It may be that a budgetary train wreck is looming. As the table below suggests, a more apt metaphor for the tactical aviation budget to date, may be one of a “slow leak.” Over the past 14 years, budget pressures have reduced the number of aircraft that some estimate DOD can afford by more than 30 percent.

ESTIMATED NUMBER OF AIRCRAFT TO BE PROCUREDⁱ

Fiscal Year	F/A-22	JSF ⁱⁱ	F/A-18E/F	Total
1991	648	2,978	1,000	4,626
1993	442	2,978	1,000	4,420
1997	339	2,978	548	3,865
2000	333	2,866	548	3,859

⁹ Steven Zaloga. World Missile Briefing. Teal Group. Inc. Fairfax, VA. February 2005.

ESTIMATED NUMBER OF AIRCRAFT TO BE PROCUREDⁱ—Continued

Fiscal Year	F/A-22	JSF ⁱⁱ	F/A-18E/F	Total
2004	279	2,866	462 ⁱⁱⁱ	3,607
2006	179 ^{iv}	2,443	462	3,084

ⁱEstimates by DOD Comptroller, GAO, CBO, CRS.

ⁱⁱThe United Kingdom plans to buy 150 JSFs. However, budget shortfalls may force the U.K. to reduce purchases.

ⁱⁱⁱFigure does not include 90 EA-18G electronic attack aircraft.

^{iv}If PBD-753 recommendations are approved.

This “slow leak” in tactical aviation funding may continue. Or, budgets may hold steady. (Few predict that tactical aviation budgets will increase in real terms.) However, other aircraft acquisition challenges may continue to erode tactical aviation’s budget. Spending on Unmanned Aerial Vehicles (UAVs), doubled between 2001 and 2003 (\$667 million to \$1.1 billion) and DOD’s appetite for these systems continues to grow. All the Services wish to recapitalize their helicopter fleets. Advocates of long range bombers have been pressuring the Air Force to maintain its current inventory of bombers, and to field a replacement earlier than the planned date of 2037. Also, as Congress is well aware, replacing DOD’s aging fleet of long range aerial refueling aircraft will be costly. Outgoing Acting Secretary of the Air Force Peter Teets recently told reporters that he believed recapitalizing the Air Force’s aerial refueling aircraft to be the Service’s biggest challenge.¹⁰ This suggests that tankers could also compete well with fighters in the current Quadrennial Defense Review.

Some also believe that previously unanticipated costs associated with combating terrorism may mean that the “tac air train wreck” has fully arrived. CRS estimates that since the September 11 terrorist attacks, DOD has received over \$201 billion for combat operations, occupation, and support for military personnel deployed or supporting operations in Iraq and Afghanistan and for enhanced security at military installations. If pending supplemental appropriations are approved, the figure through fiscal year 2005 will amount to \$270 billion.¹¹ Pending DOD and congressional initiatives to increase both personnel benefits and personnel “end strength” could also increase pressure to reduce tactical aviation budgets.

The act of matching resources (i.e. budget) to objectives in a procurement program can be called a “business case.” Government Accountability Office (GAO), for one, has argued that the F/A-22 lacks a business case (GAO-05-304), and that the JSF’s business case is “unexecutable” (GAO-05-271). This assertion suggests to some, at least implicitly, that the relevance of these aircraft, as reflected in their currently planned procurement quantities, to the current military environment, is unclear. Air Force representatives say that they are developing a new business case for the F/A-22.

CONCLUSION

Recent remarks by Navy Secretary, and Deputy Secretary of Defense nominee, Gordon England appear to reflect the three challenges to DOD tactical aviation programs discussed above, and to suggest one means to meet these challenges. In a March 21, 2005 interview, Secretary England reportedly advocated that DOD examine its “whole [tactical aviation] enterprise” and search for efficiencies and savings. He predicted, reportedly, that “the most efficient, effective way to construct our air assets” may be one of the biggest debates in the current Quadrennial Defense Review.

According to reporters, Mr. England recognized that tactical aviation programs amount to “a huge amount of money,” and noted that by better integrating Navy and Marine Corps tactical aviation assets, the Department was able to reduce aircraft purchases and save \$35 billion, while maintaining the same combat capabilities. Increased efficiencies that might be realized across DOD’s tactical air enterprise might include better integration, and more common assets, he told reporters.¹²

Mr. Chairman, this concludes my remarks. Thank you again for the opportunity to appear before you. I look forward to any questions you may have.

Senator McCain. Thank you very much, Mr. Bolkcom.

¹⁰ Sharon Weinberger. “Teets Says Tankers Number One Air Force Priority.” Defense Daily. March 24, 2005.

¹¹ See CRS Report RS21644. The Cost of Operations in Iraq, Afghanistan, and Enhanced Security.

¹² Christopher J. Castelli. “DEPSECDEF Nominee Sees Potential For DOD-Wide TACAIR Integration.” Inside the Navy. April 4, 2005.

Just to start out, one of the most spectacular aspects of the war in Afghanistan was our capability to illuminate targets using special forces personnel on horseback, but the remarkable accuracy, pinpoint accuracy, of our weapons delivered both from carriers and tactical aircraft, even some launched from the United States, does that argue for a high-performance tactical aircraft?

Mr. BOLKCOM. Sir, I think that the most relevant resources to irregular warfare tend not to be those most high-tech sort of platforms. As you mentioned, helicopters special operations or forces air-liaison officers equipped with laser range-finders and radios can be very valuable. It's difficult to see an application, for a 9G supersonic fighter in that sort of specific scenario.

Senator MCCAIN. Mr. Sullivan, you, several times in your statement, make the comment that they have to make a new business argument. What is that business argument?

Mr. SULLIVAN. For?

Senator MCCAIN. What argument, given the nature of your report, of your assessment, what is the new business argument that they can make?

Mr. SULLIVAN. Well, generally speaking—I'm just basically speaking, when we talk about a business case, we're talking about as basic as you can get at matching needs with resources. So there's a need—right now, we think that, in both programs, the Air Force, with the F/A-22, probably more critically right now, with the air-to-ground need that they are developing, that seems to be not a need that has been really definitized real hard yet, that they haven't done a strong analysis of alternatives, for example, to make that need concrete. They need to understand the need more for the air-to-ground mission that they want the F/A—that strike mission they want the mission they want the F/A-22 to do.

Senator MCCAIN. Originally, it was an air-to-air platform.

Mr. SULLIVAN. The F/A-22 was an air-dominant fighter, yes.

Senator MCCAIN. Do you know of any aircraft on the drawing board in any country, in the world, that would challenge present, existing aircraft fighter aircraft.

Mr. SULLIVAN. The F/A-22, in fact, just went through initial operational test, did a fine job performing as an air-dominance-type fighter. If we start talking about threats, we'd probably get into a classified discussion pretty quickly.

Senator MCCAIN. Classified situation.

Mr. SULLIVAN. But the air-to-air mission is important to the F/A-22. The air-to-ground mission, we're less clear about. I think they need to make that case, and that's part of the business case we're talking about.

Now, on the flip side of that is, when do you need it? How many of those do you need? How can that be deployed properly in the Air Force's concept of operations? How much money is that going to cost? Right now, they're talking about an \$11 billion/15-year program.

Senator MCCAIN. One of the problems we always experience is that initially we're going to plan on a huge number of aircraft, many hundreds. I've seen this forever.

Mr. SULLIVAN. On most programs, I agree.

Senator MCCAIN. Yet then the cost goes up, so we're going to reduce the numbers. But then the cost goes up because we're reducing numbers. What's the answer to that one?

Mr. SULLIVAN. Well, I think perhaps what we do in these two reports is focus on the total cost the total investment. To develop an aircraft would be development cost in the billions of dollars, and then procurement costs. You can look at it two ways. You can look at sum cost, which would be like a total program—average program cost for aircraft of the F-22, for example, is very high. Right now, if they terminate that and only build 180 aircraft, for example, if you add up all those costs and divide by 180, you get 345 million, or something. The flip side of that is that there's a flyaway—the cost of the last one coming off the line obviously is—

Senator MCCAIN. One of the great imponderables in history is the actual cost of an aircraft. [Laughter.]

Mr. SULLIVAN. Yes, sir.

Senator MCCAIN. I've never even heard the actual cost of a F-4 Phantom, much less—anyway, I thank you.

Mr. Schmitz, do you know who made the decision to base the acquisition of C-130J as a commercial venture?

Mr. SCHMITZ. It was a push by Lockheed Martin. There was a contracting officer; and, ultimately, the contracting officer was being supervised, as we understand, by the same contracting—

Senator MCCAIN. By Ms. Druyun.

Mr. SCHMITZ. Yes, sir.

Senator MCCAIN. Wouldn't that argue for the Air Force to go back and reevaluate that contract when they found out that it was Ms. Druyun that made the decision to have this as an other transaction agreement (OTA), rather than under the normal procurement procedures, you would think?

Mr. SCHMITZ. Yes, sir.

Senator MCCAIN. Did the Air Force contracting officer, top acquisition executive, properly justify the use of a commercial item—have you gotten any cost data from Lockheed Martin, actual cost data? I understand that they have not been forthcoming with any of it. Is that true? Maybe that's a question for the next panel, but—

Mr. SCHMITZ. Yes. Let me just check with my audit—

VOICE: Lockheed Martin is not required to provide any cost or pricing data.

Mr. SCHMITZ. Did you understand that, Mr. Chairman?

Senator MCCAIN. They're not required to, so they're not, because they have an exemption from Federal Acquisition Regulation (FAR) Part 12.

In 1995, the price for the basic C-130J was \$33 million. 1998, it's now \$50 million. 2004, the price is now \$67 million. Because the Air Force is acquiring these C-130Js using a FAR Part 12, a commercial item acquisition strategy, the Air Force's established position that it cannot require Lockheed Martin to provide certified cost or pricing data. Is that a concern, Mr. Schmitz?

Mr. SCHMITZ. Well, it is for us, because, without the knowledge of Lockheed Martin's prices, costs, profits, or data, the Air Force

contracting officer is limited in his ability to protect the government against overpricing or fraud.

Senator MCCAIN. Your report concluded that Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specifications in the 10 years since production began. You made several significant recommendations to resolve contract deficiencies, ensure what repairs to nonoperational aircraft are performed by Lockheed Martin in a timely manner. Did Air Force assistant Secretary Sambur agree with your recommendations?

Mr. SCHMITZ. Initially not. But, by the time we got through the process of finalizing our report, we essentially had full concurrence in our recommendations from the Air Force.

Senator MCCAIN. Did Secretary Sambur, as the top Air Force acquisition executive, withhold any monies from Lockheed Martin to leverage them to fix the C-130J?

Mr. SCHMITZ. Not that we're aware of.

Senator MCCAIN. July 30, 2004, brief to the Senate Armed Services Committee, Secretary Sambur concluded the way to increase military capability for the C-130J and to motivate Lockheed Martin to fix deficiencies was to establish, in 2002, a C-130J group-hug Blue Ribbon Panel. As far as you know, did the establishment of the C-130J group-hug Blue Ribbon Panel fix the C-130J deficiencies?

Mr. SCHMITZ. As far as I know, no, sir.

Senator MCCAIN. As far as your latest evaluation is concerned, the C-130J is still not operationally capable?

Mr. SCHMITZ. We've heard, in the last 6 months, the Air Force has made some improvements. This is only hearsay, but I'm told that they made improvements, and there may be some operational C-130Js now. Limited operational.

Senator MCCAIN. Thank you.

Mr. Bolkom, thank you for your overview.

Mr. BOLKCOM. Yes, sir.

Senator MCCAIN. We appreciate it. It's always important to view these specific programs in the general overview of the strategic challenges. I thank you.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Mr. Chairman.

Mr. Sullivan, I wanted to ask you some questions about your report. I mean, to say the obvious, this committee has worked very hard—we and our predecessors here over the years—to provide the military with the best equipment we can. It's doubly, maybe more than that, frustrating for us as we watch the cost of the programs escalate, and the number of items being reduced, as you've documented very compellingly here, with regard to technical aircraft.

If you had to sum it up in a paragraph, what lessons have we learned from the story of the F/A-22, up until this point, that, for instance, can be applied to the Joint Strike Fighter program?

Mr. SULLIVAN. If there's one lesson that you could apply right now to the Joint Strike Fighter program, it would be to wait until you have a design, an aircraft that has a stable design, to do the mission that the requirements call for it to do.

Senator LIEBERMAN. But to wait until it has that stable design to do what?

Mr. SULLIVAN. To be able to perform the key performance parameters for that aircraft, in terms of how far it can fly, how fast it can fly, what kind of payload it can deliver, air-to-ground mission, air-to-air mission, all of those different things. They have a requirements document that lays all of that out.

Senator LIEBERMAN. Yes.

Mr. SULLIVAN. They're trying to build an aircraft to meet those requirements now. They're having trouble with that, at this point.

Senator LIEBERMAN. Right.

Mr. SULLIVAN. If there's one lesson I think they learned from the F/A-22, it's to measure twice and cut once, if you will.

Senator LIEBERMAN. Yes.

Mr. SULLIVAN. It's to stop right now and try to get an engineering-type prototype that they are fairly certain will be able to meet at least some of those missions.

The other thing that they can do is look at their acquisition strategy and be more evolutionary, maybe go a block approach earlier, where they're not reaching for all of the capability that they envision on that aircraft right now. But this gets to the business case. Maybe reduce some of those capabilities for a first increment of that aircraft, get the aircraft built, and put on what they know how to do now. The lesson is knowledge. What they should do is build what they know how to build at this point.

Senator LIEBERMAN. Right.

Who should we hold accountable for the fact that that didn't happen with the F/A-22?

Mr. SULLIVAN. That's a good question. The Services are required to train, organize, and equip the forces, but the Department of Defense has an acquisition office that also more or less heads up the decisionmaking on those programs. But I think, even more than that, if we want to get down to laying blame, there's probably a lot of people that you could blame for programs getting this far out of balance.

Senator LIEBERMAN. Is it because we try to consistently add more to the program?

Mr. SULLIVAN. On the F/A-22, for example, there has been classic requirements-creep.

Senator LIEBERMAN. Right.

Mr. SULLIVAN. We try to establish the toughest requirements that we can have for the warfighter, so the warfighter is dominant in the field, and sometimes they're not very easy to get to. So, yes, I'd say we overreach very often on setting requirements.

Senator MCCAIN. Could I ask, is lack of congressional oversight one of those factors?

Mr. SULLIVAN. We believe that—well, when we look at acquisition programs, is, we focus on the Pentagon, more than congressional oversight, and the policies that they have for their acquisitions. I think there are a lot of rules and laws. We're talking about some of these—FAR Part 12 versus FAR Part 15, for example. These two programs were both FAR Part 15 programs, which means that statute has been written to put in an awful lot of oversight, including cost accounting standards, Truth in Negotiation

Act (TINA) for cost pricing data, Competition in Contracting Act, and all of those things. Both of these programs had those. There was a lot of oversight on the program, yet they still got out of control. Right.

Mr. SULLIVAN. When we look at DOD's—the Pentagon's acquisition policies themselves, these are the people that are going to manage these programs, and we think the policies lack a lot of internal controls that could be put into place. The policies are not ever executed very consistently. I just believe those policies have been lax.

Senator LIEBERMAN. Right.

Mr. SULLIVAN. There are a lot of contracting issues that go along with that as well.

Senator LIEBERMAN. Yes.

So those are the lessons you'd draw as we go forward with the Joint Strike Fighter. Do you think it's the correct decision to terminate procurement in fiscal year 2008, as is now proposed, for the F/A-22?

Mr. SULLIVAN. That would not be for me or the Government Accountability Office (GAO) to answer, but I think that's why, when we looked at the program this year with that as part of its environment, we decided, if nothing else, the Air Force has to at least stop and recalculate, recalibrate, if you will, what they're going to do, given that budget decision hanging out there right now. They need to come back with a very rational decision about how many aircraft they need and how they're going to use them.

Senator LIEBERMAN. So the business case would really be to continue the program beyond 2008. Am I right?

Mr. SULLIVAN. Yes. If they want to continue right now, as it stands, the modernization program that they said they've needed to bring a very robust air-to-ground strike capability to the F/A-22, under the decision, as it stands right now, it will be very difficult to do that, because they will not procure any aircraft after 2008. That modernization program was to fit those aircraft, past 2008, with those capabilities.

Senator LIEBERMAN. One last question. In the case of the Joint Strike Fighter, you also indicate that there's a need for a new business case for both aircraft—for that program, but you mentioned that the program's critical design review is not going to occur until early in 2006. Shouldn't we have the results of that review before the Department decides on aspects of a revised Joint Strike Fighter business case?

Mr. SULLIVAN. We would say, ideally, that a critical design review is a key point in a program where you should come out of that review with the knowledge that you have a stable design. So, you're right, I think you should wait until a review like that is over. But in the case of the Joint Strike Fighter, we think that review, as it's scheduled right now, is probably happening a little bit too early, because they will be having a review that's supported by an aircraft design that's overweight. We'd like to see them get that slimmed-down version; not necessarily integrated, but perhaps another 6 months to a year beyond that, when they can fly that first prototype. Then we believe they will have a very stable design, and

it wouldn't take a lot of changes after that, when it gets very expensive.

Senator LIEBERMAN. Thank you.

Mr. SULLIVAN. So I'd say somewhere past a year.

Senator LIEBERMAN. Thanks, Mr. Chairman.

Senator MCCAIN. Senator Chambliss?

Senator CHAMBLISS. Mr. Sullivan, you're talking about that problem with the Joint Strike Fighter? That was a similar problem you had with the F/A-22, relative to weight, initially, wasn't it?

Mr. SULLIVAN. I believe the F/A-22 did have weight issues.

Senator CHAMBLISS. Similar problem we had with the F-15, wasn't it?

Mr. SULLIVAN. Yes, sir.

Senator CHAMBLISS. Similar problem we had with the F-4, wasn't it?

Mr. SULLIVAN. Yes, sir.

Senator CHAMBLISS. In other words, my point is, anytime you have a new tactical aircraft to come out, you're going to have problems that are consistently appearing on all of the aircraft that are not that unusual. We have problems in the design, research, and development of basically every airplane, do we not?

Mr. SULLIVAN. Yes, sir, we do.

Senator CHAMBLISS. That's the reason we have research and development. Your point about the F/A-22 being designed for air-to-air, when this airplane was originally conceived, was the real threat out there, and that was why we needed this follow-on airplane to the F-15, isn't that correct?

Mr. SULLIVAN. Yes, sir.

Senator CHAMBLISS. That changed during the course of the last several years to require the Air Force to come back to the contractor and say, "We still want that air-to-air capability, but, in addition to that, we want air-to-ground capability," right?

Mr. SULLIVAN. Yes, sir.

Senator CHAMBLISS. That is a major change, isn't that correct?

Mr. SULLIVAN. Yes, sir. That's a lot of extra additional requirements. It will be tough to get.

Senator CHAMBLISS. Have we ever manufactured a tactical fighter where the Air Force said, "We want you to have air-to-air and air-to-ground capability"?

Mr. SULLIVAN. I couldn't answer that right now.

Senator CHAMBLISS. Well, from the standpoint of air dominance, we obviously have to be able to knock out the enemy on the ground, correct? That was to be one function of this air-to-ground availability of the F-22, right?

Mr. SULLIVAN. Yes. That's a function they want now, yes.

Senator CHAMBLISS. If any of them got away, we wanted to make sure we had the most superior aircraft in the world to be able to knock them out air-to-air. Is that airplane headed in that direction now?

Mr. SULLIVAN. I think that its air-to-air capability has been tested and looks very robust. I could not comment on where the Air Force is now with the air-to-ground capabilities. They're just beginning that. I think the requirements are still not locked down in the

modernization program. They're still working on coming up with a plan to implement that.

Senator CHAMBLISS. Okay.

Mr. Chairman, I assume at some point we're going to have a classified hearing where we can talk a little more about the specifics of that, so I'll leave that alone for right now.

Mr. Schmitz, wasn't the commercial contract on the C-130J unusual to have for an airplane like that?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. In fact, it was a pilot testing project to have a commercial contract for that airplane.

Mr. SCHMITZ. Generally speaking, that was a test. Yes, sir.

Senator CHAMBLISS. That's the reason you have projects like that, to see whether or not it works, from a commercial standpoint, correct?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. As you look back on it, do you think a commercial contract for the C-130J is probably the best route to go, or should we go the normal contracting route?

Mr. SCHMITZ. Well, it certainly doesn't give us the level of oversight that a standard system acquisition strategy would give us.

Senator CHAMBLISS. Okay. In your report, you cited some significant deficiencies in the airplane, all of which deficiencies were addressed by the Air Force. Is that right?

Mr. SCHMITZ. In their comments, they addressed them. Yes, sir.

Senator CHAMBLISS. The Air Force totally disagrees with your assessment of the airplane. Is that a fair statement?

Mr. SCHMITZ. They did, initially, at the time that we circulated our report; but we've actually worked with them, in terms of coming to an agreed-upon way forward to address the deficiencies.

Senator CHAMBLISS. Yes. In fact, they've addressed each one of the four areas where you felt there were deficiencies with the airplane.

Mr. SCHMITZ. They addressed them in their comments? Or they've actually solved?

Senator CHAMBLISS. No, they've actually addressed them.

Mr. SCHMITZ. Yes, this is an ongoing process. I would say they are addressing them. Yes, sir.

Senator CHAMBLISS. Yes. Well, they've addressed them to the point to where you pointed out that 50 of the airplanes were delivered, and—what was your exact term? They were not operationally suitable. Is that the term you used? I just had it a minute ago. I apologize.

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. Is that the term you used?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. The fact of the matter is that the airplane is flying in theater today, isn't it?

Mr. SCHMITZ. We understand, in the last 6 months, there have been some operational missions. Yes, sir.

Senator CHAMBLISS. Yes. In fact, the Air Force pretty well refuted your statement beginning in February 2003, that the delivery of these airplanes was not operationally suitable. In fact, they said

that every one of them was operationally suitable under the terms of the commercial contract. Isn't that correct?

Mr. SCHMITZ. Is that what the Air Force said?

Senator CHAMBLISS. Yes.

Mr. SCHMITZ. Is that what you're asking?

Senator CHAMBLISS. Yes.

Mr. SCHMITZ. I believe that's an accurate description of the Air Force's position at the time.

Senator CHAMBLISS. Okay. I understand what your job is. You have a difficult job in trying to assess each one of these programs and trying to determine whether or not the Air Force is doing exactly what they're supposed to do under the contract. After reading your report and looking at the Air Force's response to your report, you really didn't find anything that the Air Force was either not addressing at that point in time of your report or that they have sat down, as you said, and been willing to address with you, to get that aircraft to the point to where it's capable of flying in theater, in combat, today. Is that fair?

Mr. SCHMITZ. It is fair to say that they have addressed all of the issues we raised. They are addressing them. My understanding is, as of today, there are still over a hundred deficiencies that they are outstanding, and are still being addressed.

Senator CHAMBLISS. But the plane is flying in combat today, is it not, with those deficiencies still being worked on.

Mr. SCHMITZ. There have been limited, not all of the delivered aircrafts, I believe, are operationally capable. I believe that it's been very limited operational success, thus far, sir.

Senator CHAMBLISS. Are you aware of any C-130Js that have been sold to other countries, that have been flying in theater for the last couple of years?

Mr. SCHMITZ. No, sir.

Senator CHAMBLISS. Okay. Did you ask about those?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. What were you told?

Mr. SCHMITZ. I believe we did ask about them. There are no—the British? There—I stand corrected, sir. There is a British C-130J.

Senator CHAMBLISS. Yes, I want to make sure you all understand they've been flying in theater for a couple of years.

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. Now, Senator McCain's question to you relative to these documents, I want to make sure I understand this, because I have great sympathy for the fact that contractors ought to provide this committee or you with whatever documents that they're supposed to give you. Withholding documents is a pretty serious charge. But is it my understanding that the fact that this is a commercial contract exempts the contractor from the requirement of giving you certain documents?

Mr. SCHMITZ. That's right. We did not ask for them, and so, there were none to withhold.

Senator CHAMBLISS. Again, going back to the issue of whether or not this should have been a commercial contract or not. Just looking at it from that perspective, Mr. Schmitz, getting the various

documents that you asked for, was this a mistake to go with a commercial contract?

Mr. SCHMITZ. Well, it goes back to what you said at the beginning, that this was a test case, and I think we've learned some very good lessons from this test case. It ultimately comes down to a level of oversight that both you, as Congress has, and we, are able to exercise as an oversight entity. It's a choice. It's a calculated risk. The bottom line in this case is that with very limited exceptions, the U.S. Services have not gotten an operationally capable aircraft. Yet.

I would also point out, my staff has reminded me, the British operational capabilities are not the same as the U.S. specifications. So it is true that there are some British.

Senator CHAMBLISS. Which might tell us something about our requirements, I guess?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. I don't want to dwell on this too long, Mr. Chairman, but let me just close with this question. Is the Air Force continuing to work with your office to make sure that all the deficiencies which you, as the civilian oversight arm of DOD, working with you to do everything possible to make the corrections that you have identified?

Mr. SCHMITZ. Yes, sir. I would point out that the Air Force is using FAR Part 15 for future upgrades, as a result of the lessons learned thus far.

Senator CHAMBLISS. Has there been any pushback from either the Air Force or the contractor relative to addressing the deficiencies which you have noted?

Mr. SCHMITZ. Well, initially there was significant pushback, and, as we've worked through things, we've gotten them to cooperate with our recommendations.

Senator CHAMBLISS. Thank you, Mr. Chairman.

Senator MCCAIN. Thank you. I want to thank the witnesses.

We'll now move to our next panel, which is the Honorable Mike Wynne, Under Secretary of Defense for Acquisition, Technology, and Logistics; the Honorable John Young, Assistant Secretary of the Navy for Research, Development, and Acquisition; Vice Admiral Joseph Sestak, Deputy Chief of Naval Operations for Warfare, Requirements, and Programs; Major General Stanley Gorenc, Director, Operational Capabilities and Requirements, United States Air Force; and Brigadier General Martin Post, USMC, Assistant Deputy Commandant for Aviation, United States Marine Corps.

As the witnesses are taking their seats, I would like to just make a personal comment to Secretary Wynne. I thank you for your service. I appreciate your willingness to stay on in your position. We may have had differences from time to time, but I think you have always been honest and honorable in your attempts to do what's best for the United States and the taxpayer, and I thank you, Secretary Wynne.

Mr. WYNNE. Thank you, Mr. Chairman, for those kind remarks.

Senator MCCAIN. We'll begin with you.

STATEMENT OF HON. MICHAEL W. WYNNE, UNDER SECRETARY OF DEFENSE FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS

Mr. WYNNE. Thank you, Mr. Chairman, members of this committee, Senator Lieberman, Senator Chambliss. It's a pleasure to be here to address my decision to expand my normal oversight role, temporarily, to oversee selected Air Force programs beyond the normal category 1D, to category 1C.

This temporary change, I felt, was necessary, given the vacancies in the Air Force and the timing that is required to restore the management structure. This action is meant to assist the new Acting Air Force Secretary by overseeing and providing advice on important Air Force programs during this time of transition.

The result is that I will now be the milestone decision authority for at least 21 additional major defense acquisition programs that were previously overseen by the Air Force acquisition executive. I have, in fact, asked the Air Force to provide, by this Saturday, a list of all significant programs and the milestone decisions expected in the next 6 months for these programs so that I might plan my schedule.

To a large extent, I plan to rely on the existing reporting process, such as the Defense Acquisition Executive Summary (DAES) process. In this process, I already review, on a quarterly basis, all of the nearly 90 defense acquisition programs, both those for which I have been the decision authority, as well as those for which the Service acquisition executives, and sometimes their subordinates, are normally the decision authority. I have always reviewed these programs in terms of performance, schedule, cost, funding, tests, interoperability, logistics, contracting management, and production. The difference now is that I will also be the milestone decision authority for the specified 21 programs.

I also plan to rely on the Air Force Acquisition Corps to continue their high-quality efforts on these programs, and to provide me with any necessary information for decisions on these programs. After all, they are, in fact, one floor above me in the building, although that may change as we rearrange the Pentagon. I'll look to them, in particular, to provide input on technical cost and testing issues. My staff support for this oversight will be Dr. Glenn Lamartin and Mr. John Landon, who now support me in the management of the major programs that I currently oversee, such as the F-22 and the small-diameter bomb.

There is no set timeline for this temporary designation. I am working closely with the acting Secretary of the Air Force, Michael Dominguez, and the Air Force acquisition workforce. I have advised him and the Service leadership that I will not be spending their resources without their direct involvement, and I plan to return oversight of these 21 programs to the Air Force when the Air Force acquisition leadership is properly staffed such that it provides adequate checks and balances to guarantee the integrity of the system.

Again, thank you, Mr. Chairman, Senator Lieberman, Senator Chambliss, and members of the committee, for the opportunity to testify before you. I'd be happy to answer your questions.

[The prepared statement of Mr. Wynne follows:]

PREPARED STATEMENT BY HON. MICHAEL W. WYNNE

Mr. Chairman, members of the committee, I am pleased to appear before you this afternoon to address my decision to expand my normal oversight role temporarily to oversee selected Air Force programs beyond the normal Category 1D to the Category 1C.

This temporary change is necessary given the vacancies in the Air Force and the timing to restore the management structure. This action is meant to assist the new Acting Air Force Secretary by overseeing and providing advice on important Air Force programs during a time of transition.

I will now be the milestone decision authority for at least 21 Major Defense Acquisition programs that were previously overseen by the Air Force Acquisition Executive. I have asked the Air Force to provide, by this Saturday, April 9, a list of all significant programs and milestone decisions expected in the next 6 months for these programs.

To a large extent, I plan to rely on the existing reporting process, such as the Defense Acquisition Executive Summary (DAES). In this process, I already review on a quarterly basis all of the nearly 90 Major Defense Acquisition Programs—both those for which I have always been the decision authority, as well as those for which the Service Acquisition Executives are normally the decision authority.

I have always reviewed these programs in terms of performance, schedule, cost, funding, testing, interoperability, logistics, contracting, management, and production. The difference is that now I will also be the milestone decision authority for these programs.

I also plan to rely on the Air Force acquisition corps to continue their high quality efforts on these programs and to provide me with any necessary information for decisions on these programs. After all, they are only one floor above me. I will look to them in particular to provide input on technical, cost, and testing issues.

My staff support for this oversight will be Dr. Glenn Lamartin and John Landon, who support me in the management of the Air Force Major Programs that I currently directly oversee, such as the F/A-22 and the Small Diameter Bomb.

There is no set timeline for this temporary designation. I am working closely with Acting Secretary of the Air Force Michael L. Dominguez and the Air Force acquisition workforce.

I have advised him and the Service leadership that I will not be spending their resources without their direct involvement, and that I plan to return oversight of these 21 programs to the Air Force when the Air Force's acquisition leadership is properly staffed such that it provides adequate checks and balances to guarantee the integrity of the system.

Again, thank you, Mr. Chairman and members of the subcommittee, for the opportunity to testify before you. I would be happy to answer your questions.

Senator McCAIN. Thank you very much.

Mr. Young.

STATEMENT OF HON. JOHN J. YOUNG, JR., ASSISTANT SECRETARY OF THE NAVY FOR RESEARCH, DEVELOPMENT, AND ACQUISITION

Mr. YOUNG. Mr. Chairman, Senator Lieberman, members of the committee, it is a great privilege to appear before the committee today to discuss the status of Navy and Marine Corps aviation programs in the fiscal year 2006 budget request. Mr. Chairman, thank you for introducing my colleagues.

In multiple theaters throughout the world, your Navy and Marine Corps team is prosecuting the global war on terror and a wide range of operations. From pursuit of hostile forces in Iraq and Afghanistan to providing humanitarian relief after the tsunami, your Navy and Marine Corps team has executed superbly. In each of these operations, naval aviation has provided a unique demonstration to the world of the immense capabilities of the United States Navy and Marine Corps team.

This committee and Congress have been instrumental in helping the Department attain these results. Building on this support, the

fiscal year 2006 budget request reflects the investments that will most improve our warfighting capability by developing and investing in future seabased and expeditionary forces for our Navy and Marine Corps.

The fiscal year 2006 request includes funds for 138 aircraft, reflecting the continuous successful efforts by the Department to increase the number of aircraft we are purchasing to modernize our force. Within these efforts, it's also important to improve how we buy aircraft and weapons. The Congress' steady calls for jointness and discipline in acquisition, as well as support of new initiatives has enabled the Department of the Navy to make significant progress.

There are a number of programs and initiatives that merit your consideration. In the interest of time, I will only highlight a few actions.

In the urgent category, the Marine Corps and the acquisition team acted to install advanced survivability equipment on all helicopters going into Iraq with 1 Marine Expeditionary Force (MEF) last spring. To achieve greater efficiency, the Navy has used multi-year procurements to attain savings and stability in procurement accounts. The fiscal year 2006 request continues multi-year procurements for F/A-18E/F, the airframe and the engine; MH-60S helicopter; MH-60S/R Common Cockpits; and the E-2C Hawkeye.

The Department achieved Initial Operating Capability for Tactical Tomahawk, awarding the Navy's first weapons multi-year contract at a 12-percent savings for up to \$1.6 billion and 2,200 missiles, including innovative measures that reward performance and incentivize cost reduction in future missiles beyond this contract.

We successfully awarded the Multi-Mission Maritime Aircraft System Development and Demonstration (SDD) contract, leveraging the commercial aircraft industry base.

The F-18E/F Super Hornet continues to transition to the fleet, improving survivability and strike capability of the carrier airwing.

The E/A-18G continues development as the Navy's Advanced Electronic Attack Aircraft replacement for the E/A-6B. The Navy is using the F/A-18E/F multi-year to buy four SDD aircraft in fiscal year 2006 and install and integrate the Improved Capabilities System-III (ICAP-III) on these aircraft.

The Marine Corps has taken delivery of 17 KC-130J aircraft to date, with four more deliveries scheduled in 2005, and 12 aircraft are planned for fiscal year 2006. The KC-130J provides significant enhancements to the current fleet. Additionally, we have continued to ensure the tactical capability of our existing KC-130 F, R, and T series by installing night-vision kits and upgraded advanced survivability equipment.

The H-1 Upgrades Development Program is over 90 percent complete, with operational evaluation (OPEVAL) beginning this summer. We initiated a cost-reduction initiative for Joint Standoff Weapon (JSOW) Block II, lowering the cost of that weapon by \$84,000 and increasing our buy requirements.

Working jointly, the naval team recommended specific JSF design, ground-rule, and requirements changes, which restored short take-off and vertical landing (STOVL) aircraft viability and also initiated the Independent Review Team to help us.

The STOVL variant has been reduced in weight by 2,500 pounds through design optimization. Installed thrust improvements, drag improvements, and ground-rule assumptions have allowed this plane to meet its key performance parameters (KPP).

Another joint program, the V-22 Osprey, has flown in excess of 4,900 hours since resuming flight tests in May. Operational Evaluation began on March 28, 2005, and should lead to full rate production in 2006.

Finally, the Navy led an effort that merged the Joint Tactical Radio System (JTRS), Clusters 3 and 4, to ensure interoperability between the Navy and Air Force on a aircraft-based JTRS.

Mr. Chairman, out of respect for the committee, I will stop here, leaving much more to say. We are grateful for the chance to offer just a few examples of how the Department is working day in and day out supporting sailors and marines in the global war on terrorism. Congressional support of these aviation programs is vital to achieving these results, and I thank you for your consideration of our budget request. We look forward to your questions.

[The joint prepared statement of Mr. Young, Admiral Sestak, and General Post follows:]

JOINT PREPARED STATEMENT BY HON. JOHN J. YOUNG, JR.; VADM JOSEPH A. SESTAK, JR., USN; AND BRIG. GEN. MARTIN POST, USMC

Mr. Chairman, distinguished members of the subcommittee, thank you for this opportunity to appear before you to discuss the Department of the Navy's Fiscal Year 2006 Acquisition and Research, Development, Technology, and Evaluation (RDT&E) programs.

In multiple theaters in the global war on terror today, your Navy and Marine Corps Team is involved in a range of operations, from combat ashore to Extended Maritime Interdiction Operations (EMIO) at sea. EMIO serves as a key maritime component of the global war on terror, and its purpose is to deter, delay, and disrupt the movement of terrorists and terrorist-related materials at sea. Your team has conducted over 2,200 boardings in this last year alone, even as it has flown more than 3,000 sorties while dropping more than 100,000 pounds of ordnance from sea-based tactical aircraft in Iraq; and providing nearly 5,000 hours of dedicated surveillance in and around Iraq to Coalition Forces.

At the same time, our Nation took advantage of the immediate global access provided by naval forces to bring time-critical assistance to tsunami victims in South Asia. By seabasing our relief efforts in Operation Unified Assistance, the *Abraham Lincoln* Carrier Strike Group (CSG) and the Bonhomme Richard Expeditionary Strike Group (ESG)—with marines from the 15th Marine Expeditionary Unit—delivered more than 6,000,000 pounds of relief supplies and equipment quickly, and with more political acceptance than may have been possible if a larger footprint ashore might have been required.

The fiscal year 2006 budget request maximizes our Nation's return on its investment by positioning us to meet today's challenges—from peacekeeping/stability operations to global war on terror operations and small-scale contingencies—and by transforming the force for future challenges.

YOUR FUTURE NAVY AND MARINE CORPS TEAM

We developed the Sea Power 21 vision in support of our National Military Strategy. The objective of Sea Power 21 is to ensure this Nation possesses credible combat capability on scene to promote regional stability, to deter aggression throughout the world, to assure access of joint forces and to fight and win should deterrence fail. Sea Power 21 guides the Navy's transformation from a threat-based platform centric structure to a capabilities-based, fully integrated force. The pillars of Sea Power 21—Sea Strike, Sea Shield, and Sea Base—are integrated by FORCEnet, the means by which the power of sensors, networks, weapons, warriors, and platforms are harnessed in a networked combat force. This networked force will provide the strategic agility and persistence necessary to prevail in the continuing global war on terror, as well as the speed and overwhelming power to seize the initiative and swiftly defeat any regional peer competitor in Major Combat Operations (MCO).

The Navy and Marine Corps Team of the future must be capabilities-based and threat-oriented. Through agility and persistence, our Navy and Marine Corps Team needs to be poised for the “close-in knife fight” that is the global war on terror, able to act immediately to a fleeting target. The challenge is to simultaneously “set the conditions” for a MCO while continuing to fight the global war on terror, with the understanding that the capabilities required for the global war on terror cannot necessarily be assumed to be a lesser-included case of an MCO. Our force must be the right mix of capabilities that balances persistence and agility with power and speed in order to fight the global war on terror while prepared to win a MCO. To do so, it must be properly postured in terms of greater operational availability from platforms that are much more capable as a distributed, networked force. While the fabric of our fighting force will still be the power and speed needed to seize the initiative and swiftly defeat any regional threat, FORCEnet’s pervasive awareness (C⁴ISR) will be more important than mass. Because of its access from the sea, the Navy and Marine Corps are focusing significant effort and analysis in support of joint combat power projection by leveraging the maneuver space of the oceans through Seabasing. Seabasing is a national capability that will project and sustain naval power and joint forces, assuring joint access by leveraging the operational maneuver of sovereign, distributed, and fully networked forces operating globally from the sea, while accelerating expeditionary deployment and employment timelines. The Sea-based Navy will be distributed, netted, immediately employable and rapidly deployable, greatly increasing its operational availability through innovative concepts such as, for example, Sea Swap and the Fleet Response Plan. At the same time, innovative transformational platforms under development such as Maritime Prepositioning Forces (MPF(F)), Amphibious Assault Ship (LHA(R)), and high-speed connectors, will be instrumental to the Sea Base.

To this end, the technological innovations and human-systems integration advances in future warships are critical. Our future warships will sustain operations in forward areas longer, be able to respond more quickly to emerging contingencies, and generate more sorties and simultaneous attacks against greater numbers of multiple aimpoints and targets with greater effect than our current fleet. The future is about the capabilities posture of the fleet. Our analysis is unveiling the type and mix of capabilities of the future fleet and has moved us away from point solutions towards a range of 260–325 ships that meet all warfighting requirements and hedges against the uncertainty of alternate futures.

DEVELOPING TRANSFORMATIONAL JOINT SEABASING CAPABILITIES

The Naval Power 21 vision defines the capabilities that the 21st century Navy and Marine Corps Team will deliver. Our overarching transformational operating concept is Sea Basing; a national capability, for projecting and sustaining naval power and joint forces that assures joint access by leveraging the operational maneuver of sovereign, distributed, and networked forces operating globally from the sea. Seabasing unifies our capabilities for projecting offensive power, defensive power, command and control, mobility and sustainment around the world. It will enable commanders to generate high tempo operational maneuver by making use of the sea as a means of gaining and maintaining advantage.

Sea Shield is the projection of layered defensive power. It seeks maritime superiority to assure access, and to project defense overland.

Sea Strike is the projection of precise and persistent offensive power. It leverages persistence, precision, stealth, and new force packaging concepts to increase operational tempo and reach. It includes strikes by air, missiles, and maneuver by Marine Air Ground Task Forces (MAGTF) supported by sea based air and long-range gunfires.

Sea Base is the projection of operational independence. It provides the Joint Force Commander the ability to exploit Expeditionary Maneuver Warfare (EMW), and the capability to retain command and control and logistics at mobile, secure locations at sea.

FORCEnet is the operational construct and architectural framework for naval warfare in the joint, information age. It integrates warriors, sensors, networks, command and control, platforms and weapons into a networked, distributed combat system.

Sea Trial is the Navy’s recently created process for formulating and testing innovative operational concepts, most of which harness advanced technologies and are often combined with new organizational configurations, in pursuit of dramatic improvements in warfighting effectiveness. Sea Trial concept development and experimentation (CD&E) is being conducted in close coordination with the Marine Corps combat/force development process and reflects a sustained commitment to innova-

tion. These efforts tie warfare innovation to the core operational challenges facing the future joint force.

As a means of accelerating our investment in Naval Power 21, we employ the Naval Capability Development Process (NCDP) and Expeditionary Force Development System (EFDS). The NCDP and EFDS take a concepts-to-capabilities approach to direct investment to achieve future warfighting wholeness. The NCDP takes a sea-based, offensive approach that provides power projection and access with distributed and networked forces featuring unmanned and off-board nodes with penetrating surveillance via pervasive sensing and displaying that rapidly deliver precision effects. The EFDS assesses, analyzes and integrates MAGTF warfighting concepts, and requirements in a naval and joint context to support the overarching operational concept of Joint Seabasing. Both processes are designed to incorporate innovative products of Service and Joint CD&E and Science and Technology (S&T) efforts.

The fiscal year 2006 budget request reflects the investments that will most improve our warfighting capability by developing and investing in future sea based and expeditionary capabilities for the Navy and Marine Corps. We will briefly summarize our programs, and address transformation of our capability pillars by describing some of the key aviation enablers.

Aviation Programs

The fiscal year 2006 President's budget request balances continued recapitalization in obtaining new capabilities and reducing operating costs while simultaneously sustaining the legacy fleet aircraft that are performing magnificently in current operations. Taking advantage of multi-year procurement (MYP) to achieve significant savings in procurement accounts, the Navy has entered numerous MYP contracts that will define the future of weapons systems and further investment. The Department's fiscal year 2006 budget request continues MYP arrangements for the F/A-18E/F (both airframe and engine), the KC-130J, the MH-60S, the MH-60S/R Common Cockpit, and the E-2C to maximize the return on our investment. Our proposed plan will procure 44 tactical, fixed wing aircraft (38 F/A-18E/F aircraft, 4 EA-18G System Development and Demonstration assets, and 2 E-2C aircraft), as well as 26 MH-60S, 12 MH-60R, 9 MV-22, and 10 upgraded UH-1Y/AH-1Z helicopters. This plan also continues the development of the F-35, the E-2C Advanced Hawkeye, the EA-18G, the Multi-mission Maritime Aircraft (MMA), the Aerial Common Sensor (ACS), and the Presidential Helicopter Replacement Aircraft (VXX), and initiates development of the Heavy Lift Replacement (HLR, CH-53X) aircraft.

SEA SHIELD

Multi-mission Maritime Aircraft (MMA)/P-3C

The future for the Navy's maritime patrol force includes plans for sustainment, modernization, and re-capitalization of the force. Results of the P-3 Service Life Assessment Program (SLAP) have revealed the need for an aggressive approach to P-3 airframe sustainment. Key elements of the sustainment plan are strict management of requirements and flight hour use, special structural inspections to keep the aircraft safely flying, and increased use of simulators to satisfy training requirements. The fiscal year 2006 budget request reflects \$74.5 million for Special Structural Inspections (SSI) and Special Structural Inspections-Kits (SSI-K), which will allow for sustainment and continued operation of approximately 166 aircraft. As the sustainment plan progresses, the inventory may be further reduced to around a number approaching 130 aircraft. The fiscal year 2006 budget request also reflects a modernization budget of \$51.3 million for continued procurement and installation of the USQ-78B acoustic processor and for completion of final installations of Anti-Surface Warfare Improvement Program (AIP) kits. We are working on plans for further mission system modernization to allow us to continue meeting combatant command (COCOM) requirements. To recapitalize these critical aircraft, the Navy is procuring a MMA. The MMA program entered System Development and Demonstration (SDD) phase in May 2004 and awarded a contract to the Boeing Corporation for a 737 commercial derivative aircraft. The fiscal year 2006 budget requests \$964.1 million for continuation of MMA SDD. Our comprehensive and balanced approach has allowed for re-capitalization of these critical assets.

MH-60R and MH-60S

The fiscal year 2006 budget requests \$655.5 million in procurement and \$48.1 million in RDT&E for the replacement of the Light Airborne Multi-Purpose System (LAMPS) MK III SH-60B and carrier-based SH-60F helicopters with the new configuration designated as MH-60R. The procurement quantity was reduced to pro-

vide an orderly production ramp. A Full Rate Production decision is scheduled during the second quarter of fiscal year 2006.

The fiscal year 2006 budget requests \$608.7 million in procurement and \$78.6 million in RDT&E funds for the MH-60S, which is the Navy's primary combat support helicopter designed to support Carrier and Expeditionary Strike Groups. It will replace four legacy platforms with a newly manufactured H-60 airframe. The MH-60S is currently in the full rate 5-year MYP contract with the Army. The Army and Navy intend to execute another platform MYP contract commencing in fiscal year 2007. Navy's total procurement requirement was increased from 237 to 271 to provide a force structure that supports the Navy-approved helicopter concept of operations.

AIM-9X

The fiscal year 2006 budget requests \$37.8 million for 165 missiles. AIM-9X continues deployment to operational sites after a successful Full Rate Production decision last year.

SEA STRIKE

F/A-18E/F

The F/A-18E/F continues to transition into the fleet, improving the survivability and strike capability of the carrier air wing. The Super Hornet provides a 40-percent increase in combat radius, 50 percent increase in endurance, and 25 percent increase in weapons payload over our older Hornets. Over 300 F/A-18E/Fs have been procured through fiscal year 2005, on track to complete procurement of the program of record 462 aircraft in 2011. The fiscal year 2006 budget requests \$2.82 billion for 38 F/A-18E/F aircraft for the second year of the 5-year MYP contract (fiscal year 2005 to 2009). The Super Hornet has used a spiral development approach to incorporate new technologies, such as the Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Shared Reconnaissance Pod System and Multifunctional Information Distribution System data link. The first Low Rate Initial Production Advanced Electronically Scanned Antenna Radar system has been delivered to Boeing for installation into an F/A-18 and will undergo operational testing in 2006.

F-35 Joint Strike Fighter (JSF)

Our recapitalization plan includes the JSF, a stealthy, multi-role fighter aircraft designed jointly to be an enabler for Naval Power 21. The fiscal year 2006 budget request contains \$2.4 billion for continuation of System Development and Demonstration on the JSF. The JSF will enhance the DON's precision strike capability with unprecedented stealth, range, sensor fusion, improved radar performance, combat identification and electronic attack capabilities compared to legacy platforms. The carrier variant (CV) JSF complements the F/A-18E/F and EA-18G in providing long-range strike capability and much improved persistence over the battlefield. The short takeoff and vertical landing (STOVL) JSF combines the multi-role versatility of the F/A-18 and the basing flexibility of the AV-8B. The commonality designed into the JSF program will reduce acquisition and operating costs of Navy and Marine Corps tactical aircraft and allow enhanced interoperability with our allies and sister Services.

The JSF has completed the third year of its development program, and the program continues working to translate concept designs to three producible variants. Manufacture/assembly of the first flight test aircraft conventional takeoff and landing (CTOL) is underway and roughly 40 percent complete, with assembly times much less than planned. Two thousand engine test hours have been completed through mid-January 2005. Detailed design work continues for the CTOL and STOVL variants. First flight is scheduled for 2006. The JSF program has aggressively addressed the performance issues associated with weight and airframe design. The STOVL variant weight has been reduced by 2,500 lbs. through design optimization. Installed thrust improvements and aerodynamic drag reduction as well as requirements tailoring are being incorporated to further improve aerodynamic performance. All three variants are projected to meet Key Performance Parameter (KPP) requirements.

The JSF program is completing a replan effort that began approximately a year ago. The software block plan and test plan are being reviewed consistent with the revised schedule and Service needs. The fiscal year 2006 budget reflects the revised System Development and Demonstration and production schedule.

V-22

The MV-22 remains the Marine Corps' number one aviation acquisition priority. The Osprey's increased range, speed, payload, and survivability will generate trans-

formational tactical and operational capabilities. Ospreys will replace the aging Marine fleets of CH-46E and CH-53D helicopters beginning in fiscal year 2005, which will provide both strategic and tactical flexibility to meet emerging threats in the global war on terror. Utilization far above peacetime rates, and the physical demands of continuous operations in the harsh conditions of Iraq and Afghanistan, are accelerating the deterioration and increasing operating costs of the legacy aircraft that the MV-22 will replace. These factors make a timely fielding of the MV-22 critical.

The fiscal year 2006 budget request includes \$1.3 billion for nine MV-22s, trainer modifications and retrofits and \$206.4 million for continued development, testing, and evaluation. The V-22 Osprey resumed flight-testing in May 2002, and it has flown in excess of 4,900 hours. The Commander Operational Test and Evaluation Force (COTF) Letter of Observation was completed in February 2005 to support Section 123 Certification to Congress to allow the program to increase production above minimum sustaining rate of 11 aircraft. Operational Evaluation began on March 28, 2005, and should lead to Full Rate Production in early fiscal year 2006.

Heavy Lift Replacement Program (HLR, CH-53X)

The fiscal year 2006 budget requests \$272 million RDT&E to begin the SDD phase of the HLR program that will replace the aging fleet of CH-53E platforms. The Marine Corps' CH-53E continues to demonstrate its value as an expeditionary heavy-lift platform, with significant assault support contributions in Afghanistan, the Horn of Africa, and Iraq. Vertical heavy lift will be critical to successful operations in anti-access, area-denial environments globally, enabling force application and focused logistics envisioned within the joint operating concepts. The CH-53E requires significant design enhancements to meet future interoperability requirements, improve survivability, expand range and payload performance, improve cargo handling and turn-around capabilities, and reduce operations and support costs. An Analysis of Alternatives determined that a "new build" helicopter would be the most cost-effective solution. The Operational Requirements Document defining HLR capabilities was approved in December 2004. The HLR will replace our aging fleet of CH-53E Super Stallion helicopters to fill the vertical heavy lift requirement not resident in any other platform that is necessary for force application and focused logistics envisioned in Sea Basing and joint operating concepts. With the ability to transport 27,000 pounds to distances of 110 nautical miles under most environmental conditions, commanders will have the option to insert a force equipped with armored combat vehicles or two armored High Mobility Multi-Wheeled Vehicles (HMMWVs) per sortie. To sustain the force, the HLR will be able to transport three independent loads tailored to individual receiving unit requirements and provide the critical logistics air connector to facilitate sea-based operations. This reliable, cost-effective heavy lift capability will address critical challenges in maintainability, reliability, and affordability found in present-day operations supporting the global war on terror.

F/A-18 A/B/C/D

The fiscal year 2006 budget request contains \$422.4 million for the continuation of the systems upgrade programs for F/A-18 platform. As the F/A-18 program transitions to the F/A-18E/F, the existing inventory of over 900 F/A-18A/B/C/Ds will continue to comprise half of the Carrier Strike Group until 2012. Included in this request is the continued procurement of recently fielded systems such as Joint Helmet Mounted Cueing System, Advanced Targeting FLIR, Multi-Function Information Distribution System, and Digital Communications System. The Marine Corps continues to upgrade 76 Lot 7-11 F/A-18 A and C to Lot 17 F/A-18C aircraft capability with digital communications and tactical data link. The Marine Corps anticipates programmed upgrades to enhance the current capabilities of the F/A-18C/D with digital communications, tactical data link and tactical reconnaissance systems. This upgrade ensures that our F/A-18s remain viable and relevant in support of TACAIR Tactical Air Integration and Expeditionary Maneuver Warfare. The Marine Corps expects the F/A-18A+ to remain in the active inventory until 2015. The Marines are also employing the Litening targeting pod on the F/A-18 A+ and D aircraft in OIF. When combined with data link hardware, the Litening pod provides real time video to ground forces engaged with the enemy. The capabilities of the Litening pod with data link are highly effective for Marine Corps expeditionary F/A-18 operations. The fiscal year 2006 budget request also includes procurement of Center Barrel Replacements to extend service life of F/A-18 A/C/Ds 7 years to meet fleet inventory requirements until 2022.

Integrated Defensive Electronic Countermeasures (IDECM)

The fiscal year 2006 budget reflects \$7.6 million in RDT&E to continue the development of the IDECM Block III (ALQ-214 w/the ALE-55 (fiber optic towed decoy)) that will undergo Operational Test and Evaluation (OPEVAL) in fiscal year 2006. Additionally, \$86.5 million in Aircraft Procurement funding is included for the procurement of 55 ALQ-214 systems.

EA-18G

The E/A-18G continues development as the Navy's replacement for the EA-6B Airborne Electronic Attack (AEA) aircraft. The Navy is using the F/A-18E/F multi-year contract to buy four Systems Design and Development aircraft in fiscal year 2006 to install and integrate Northrop Grumman's in-production Improved Capabilities (ICAP)-III Airborne Electronic Attack (AEA) system. These aircraft will support EA-18G operational testing and allow the department to deliver the next generation AEA capability at reduced cost and in the shortest possible timeframe. The Marine Corps initiated studies to examine options for replacing their electronic attack aircraft.

The fiscal year 2006 budget request reflects \$409 million for Systems Design and Development. The Systems Design and Development continues on schedule with construction underway of the two development aircraft. First flight is scheduled for the fourth quarter of fiscal year 2006. A total quantity of 30 systems will be procured in low rate initial production (LRIP) with a planned fiscal year 2009 initial operational capability (IOC) and fiscal year 2012 final operational capability (FOC). The EA-18G will replace carrier-based Navy EA-6B aircraft by 2012.

AH-1Z/UH-1Y

The H-1 Upgrades Program will remanufacture 180 AH-1W and 100 UH-1N helicopters into state-of-the-art AH-1Z and UH-1Y models. The fiscal year 2006 budget requests \$307.5 million APN funds to procure 10 UH-1Y/AH-1Z aircraft and \$42.0 million RDT&E funds to complete the H-1 Upgrades Engineering and Manufacturing Development phase. The development program is over 90 percent complete with five aircraft being readied for OPEVAL, which will begin this summer. Work on the first LRIP lot, awarded to Bell Helicopter in December 2003, is progressing well and the second LRIP lot will be awarded by the end of March 2005. The program is seeking opportunities to reduce unit cost and minimize the negative impact the remanufacture strategy could have on ongoing military operations. Regarding the latter point, we anticipate that some number of airframes will be newly fabricated instead of remanufactured in order to reduce the amount of time aircraft would otherwise be out of service. The optimum mix of remanufactured and newly fabricated aircraft is being evaluated with the results to be reflected in future budget requests.

The H-1 Upgrade Program is a key modernization effort designed to resolve existing safety deficiencies, enhance operational effectiveness of both the AH-1W and the UH-1N, and extend the service life of both aircraft. The program will provide 100 UH-1Ys and 180 AH-1Zs with 10,000 hour airframes. Additionally, the commonality gained between the AH-1Z and UH-1Y (84 percent) will significantly reduce life-cycle costs and logistical footprint, while increasing the maintainability and deployability of both aircraft.

AV-8B

The fiscal year 2006 budget requests \$15.5 million RDT&E funds to support development of the Engine Life Management Plan (ELMP)/Accelerated Simulated Mission Endurance Testing, Tactical Moving Map Display, and Aircraft Handling initiatives. The fiscal year 2006 budget also requests \$36.6 million procurement funding for Production Line Transition efforts, procurement of Open Systems Core Avionics Requirement, ELMP upgrades, and the Readiness Management Plan which addresses aircraft obsolescence and deficiency issues associated with sustaining the AV-8B until JSF transition.

EA-6B

The fiscal year 2006 budget request of \$120.6 million reflects the total budget for wing center section modifications and procurement of three Improved Capability (ICAP) III systems. The aging EA-6B has been in ever-increasing demand as DOD's only tactical radar jamming aircraft that also engages in communications jamming and information operations. EA-6B operational tempo has continued at extremely high levels during the past year. Safety considerations, due to wing center section and outer wing panel fatigue, have reduced aircraft available to the fleet from 95 to 85. Aircraft inventory is projected to return to above 95 by the end of fiscal year

2005. Program priorities are current readiness and successful fleet introduction of the ICAP III selective reactive jamming system.

Precision-Guided Munitions (PGM)

The U.S. Navy weapons programs of the 21st century are evolving to address the challenges of a dynamic and unpredictable enemy. New weapon systems are planned or have been developed and delivered to the combatant commanders to provide new options to engage enemy forces in support of the global war on terror. The Navy's fiscal year 2006 budget supports PGM programs that continue to allow domination of the maritime environment, support in-land operational forces, and enhance the overall department strategy to deter and dissuade potential adversaries while supporting our allies and friends.

Joint Direct Attack Munitions (JDAM)

JDAM has been the Department's weapon of choice for OEF/OIF. In October 2004, the U.S. Navy provided an Early Operational Capability (EOC) and accelerated deliveries for a 500 lb. JDAM variant (GBU-38) for Navy F/A-18 A+/C/D platforms. After approving production of this variant, we immediately deployed it in order to meet an urgent warfighter need to employ precision munitions with limited collateral effects in the congested urban environments of Iraq. The fiscal year 2006 budget request of \$82.6 million procures 3,400 DON JDAM tail kits for all variants, thus supporting all current and projected warfighter requirements. The fiscal year 2006 budget reduces procurements to 1,500 kits per year starting in fiscal year 2008; however, the Department will closely monitor all JDAM variant requirements and combat expenditures in order to make any necessary adjustments.

Joint Standoff Weapon (JSOW)

A new variant of the JSOW called JSOW-C was approved for Full Rate Production in December 2004. Similar to the new 500 lb. JDAM program, this capability is in demand by the warfighter to provide new options for precision attack against point targets vulnerable to blast fragmentation effects and hardened targets. The new JSOW-C variant employs an augmenting charge with a follow-through penetrator bomb for hard targets that can also be set to explode both payloads simultaneously. This lethal package is coupled with an Imaging Infrared Seeker and GPS/INS to provide the standoff precision attack capability in demand by the warfighter. The fiscal year 2006 budget fully funds JSOW-C production and support. It also shifts funding from production of a submunition variant of JSOW to all JSOW-Cs until there is resolution of unexploded battlefield ordnance issues that are of concern to the Department and our allies. The Navy/contractor JSOW Team is dedicated to reducing acquisition costs. Specifically, we are expecting to achieve a unit cost reduction of more than 25 percent by 2006 due to the implementation of lean initiatives, innovative processes, and engineering changes.

Advanced Anti-Radiation Guided Missile (AARGM)

The fiscal year 2006 budget request continues the development of a next generation defense suppression weapon system, the AARGM. AARGM ensures continued air dominance and multi-mission flexibility to the F/A-18 and EA-18 aircraft across suppression and defeat of enemy air defenses, strike, and electronic warfare missions. The Department recently entered into international partnership negotiations with our North Atlantic Treaty Organization (NATO) partner Italy, and we plan an Initial Operating Capability for F/A-18 C/D during fiscal year 2009.

The Navy is dedicated to developing new means by which the Joint warfighter can defeat time critical strike targets in anti-access scenarios, address counter-weapons of mass destruction (WMD) missions, and improve our ability to fight the global war on terror. Towards that end, we are working with the other Services, the Joint Chiefs of Staff, and the combatant commanders to begin studies that may afford opportunities for the possible development of the next generation of affordable weapons. We envision that these weapons may allow us to employ long-range standoff weapons in direct attack roles via advanced high-speed propulsion and deployment of a variety of lethal packages.

Tactical Tomahawk (TACTOM)

The fiscal year 2006 budget supports the Navy's commitment to replenish our precision-guided munitions inventories utilizing the Navy's first MYP contract for a weapon. TACTOM entered Full Rate Production in August 2004. We completed our second and final remanufacture program, converting all available older Tomahawk airframes to the latest Block III configuration. The Firm Fixed Price 5-year contract (fiscal years 2004-2008) for TACTOM will save the taxpayer ~12 percent over annual procurements. TACTOM's advanced design and manufacturing processes have

cut procurement cost to \$729,000 or half the cost of a Block III missile and maintenance costs by half of the cost of its predecessor. TACTOM provides a more capable missile with a 15-year product warranty and a 15-year recertification interval. This approach mitigates price growth of follow-on procurements by providing incentive for the contractor to manage for obsolescence, which will control future price growth on follow procurements.

SEA BASE

KC-130

The fiscal year 2006 budget requests \$1,093 million for 12 KC-130J Hercules aircraft. These aircraft will be procured under an existing Air Force multi-year contract. The Marine Corps has taken delivery of 16 KC-130J aircraft to date, with 5 more deliveries scheduled for fiscal year 2005. Twelve aircraft are planned for procurement in fiscal year 2006 to bring the total number of KC-130J aircraft to 33. The KC-130 fleet once again proved itself as a workhorse during operations in Iraq. The KC-130J provides major enhancements to the current fleet of KC-130s, extending its range, payload, and refueling capabilities. The first KC-130J squadron (12 aircraft) has achieved IOC and will immediately be deployed in support of the global war on terror. Bold steps in simulator training and joint flight instruction place the KC-130J program on the leading edge of the transformation continuum. Additionally, we have continued to ensure the tactical capability of our existing KC-130 F, R, and T series aircraft by installing night vision kits and upgraded aircraft survivability equipment.

C-40

The fiscal year 2006 budget requests \$10.3 million to support delivery of C-40 (Boeing 737-700C) aircraft previously funded. The C-40 replaces the aging C-9 aircraft providing intra-theater logistics support. To date, the Navy has taken delivery of eight C-40s with one more on contract. An additional six are planned for procurement in the FYDP.

COMMAND, CONTROL AND NET-CENTRIC CAPABILITIES

Joint Tactical Radio System (JTRS)

We are working with the Air Force to successfully converge development of Navy and Air Force versions of JTRS (JTRS-AMF) to provide a common acquisition approach. Closely coupled with the JTRS Program and building on the initial Multifunctional Information Distribution System (MIDS), we have developed a promising joint effort with the Air Force that will significantly improve interoperability to the cockpit and maintain alignment with our tactical radio transition to the JTRS environment. This effort also has four international partners who are paying participants in the program.

E-2C and Advanced Hawkeye (AHE)

The E-2C AHE is a critical enabler of transformational intelligence, surveillance, and reconnaissance, providing a robust overland capability against current and future cruise missile-type targets. The AHE program will modernize the E-2 platform by replacing the current radar and other system components to maintain open ocean capability while adding transformational surveillance as well as theater air and missile defense capabilities. The fiscal year 2006 budget requests \$249 million to procure two TE-2Cs in the third year of a 4-year MYP. This effort will keep the production line viable while the AHE, formerly known as the Radar Modernization Program, continues spiral development toward an Initial Operational Capability in fiscal year 2011. The AHE program continues to execute the SDD program of record. Further, OA standards are being integrated into E-2C aircraft and AHE program to enhance interoperability with DOD systems.

Aerial Common Sensor (ACS)/EP-3

The fiscal year 2006 budget requests \$133.6 million of RDT&E for joint ACS aircraft development. ACS is an Army Lead program that entered the SDD phase in July 2004. The Army awarded a contract to Lockheed-Martin for a commercial-derivative Embraer ERJ-145 aircraft. ACS replaces the Army's Guardrail and Airborne Reconnaissance Low systems as well as the Navy's EP-3E aircraft. It will provide a transformational multi-intelligence platform capable of providing strike support to the warfighter. The Navy became a fully integrated partner in February 2005. The fiscal year 2006 budget requests \$55.1 million to modernize and sustain the EP-3E fleet until ACS IOC of 2012.

Unmanned Aerial Vehicles (UAV)

The global war on terror continues to place emphasis on the importance of UAVs. The fiscal year 2006 budget request reflects our commitment to a focused array of UAVs that will support and enhance both surveillance and strike missions with persistent, distributed, netted sensors.

Fire Scout UAV

The fiscal year 2006 budget requests \$77.6 million to continue development of the Fire Scout UAV. The Fire Scout is a Vertical Takeoff and Landing Tactical UAV (VTUAV) designed to operate from all air-capable ships, carry modular mission payloads, and operate using the Tactical Control System and Tactical Common Data Link. The Fire Scout UAV will provide day/night real time ISR and Targeting as well as communication-relay and battlefield management capabilities to support core Littoral Combat Ship (LCS) mission areas of ASW, MIW, and ASUW for the naval forces. Upgrades will include a four-bladed rotor and increased payload capacity. Upgraded Fire Scout capability will be fielded with LCS Flt 0.

The Army has selected the Fire Scout for their Army Future Combat System Class IV UAV. Numerous similarities in hardware components, testing, logistics, training, software and support requirements, offer potential for overall program cost reduction which would clearly benefit both the Army and Navy. We expect to sign a memorandum of agreement (MOA) with the Army for the acquisition of the Fire Scout airframe, and selected subsystems on a single Navy contract. The airframes will be subsequently modified to Service specific requirements under separate existing Navy and Army contracts. The goal is to maximize common support opportunities, eliminate redundant costs, maximize common avionics and sensor configuration to promote interoperability, and eliminate redundant tests.

Vertical Unmanned Air Vehicle (VUAV)

UAVs have played a critical role in recent operations and are also a key element of our transformation. The Marine Corps is pursuing the replacement of its almost 20-year-old Pioneer UAV system that has flown over 6,950 hours in support of OIF highlighting the criticality of these systems for our Marine forces. Requirements for VUAV are being developed in consonance with Ship to Objective Maneuver concepts from Expeditionary Maneuver Warfare, the naval concepts of Sea Basing and Seapower 21, and with lessons learned from recent operational experience. The fiscal year 2006 budget requests \$9.2 million to evaluate the Eagle Eye UAV, currently being developed by the United States Coast Guard in connection with its Deepwater Program. The Department will also continue to evaluate the capabilities of Fire Scout for this mission, seeking commonality within the Department.

Joint Unmanned Combat Air System (JUCAS)

The fiscal year 2006 budget realigns funding to the Air Force to establish a Joint Program Office with Navy representation to advance the JUCAS Program. The Department is committed to a JUCAS initiative, developed in partnership with the Air Force and Defense Advanced Research Projects Agency (DARPA). The Navy and the Air Force have defined a common set of science and technology requirements that recognize the unique needs of each Service that will form the basis for developing air vehicles that will contribute to a joint warfighting concept of operation.

OTHER SIGNIFICANT CAPABILITIES

Presidential Helicopter Replacement Aircraft (VXX)

The fiscal year 2006 budget requests \$936 million RDT&E for SDD efforts for the VXX program. The goal of this accelerated program is to introduce a new Presidential helicopter by October 2009. The VXX program will utilize an evolutionary acquisition approach through a two-part incremental development to deliver a safe, survivable and capable vertical lift aircraft while providing uninterrupted communications with all required agencies. The Department completed a Milestone B/C Defense Acquisition Board on January 13, 2005, and on January 28, 2005, a contract was awarded to LMSI to proceed into SDD and Pilot Production of the first increment aircraft.

T-45

The fiscal year 2006 budget requests \$239 million for six T-45 aircraft. The request also includes funding to start Required Avionics Modernization Program (RAMP) installations.

SEA TRIAL AND SEA ENTERPRISE IN ACTION: OPERATION RESPOND

In support of the I Marine Expeditionary Force's (I MEF) return to Iraq scheduled to begin March 2004, and in support of deployed Marines in Afghanistan, the Secretary of the Navy established a formalized process and action team, Operation Respond, to rapidly respond to technological and materiel requirements generated from deployed marines. A senior Navy and Marine Corps Team co-chaired by the Assistant Secretary of the Navy (Research, Development, and Acquisition) and the Deputy Commandant for Combat Development will review and coordinate technical and materiel requirements for deployed units and utilize the technical and engineering expertise throughout the DON and industry to expedite the best solutions available to counter rapidly evolving threats. This process served I MEF well in the initial year of deployment to OIF and OEF. The DON is establishing a Naval Innovation Lab environment to develop innovative ways to meet emerging technology problems within the global war on terror. This effort under the Assistant Secretary of the Navy (Research, Development, and Acquisition) (ASN (RDA)) will leverage and expand the current roles and capabilities of our established requirements generation and materiel development and acquisition commands in order to better respond to innovative enemy threats.

Counter-Improvised Explosive Device (IED) Technology, Equipment and Operations

The Department has reprogrammed over \$28.0 million in fiscal years 2004 and 2005 for the testing, assessment and fielding of technology and equipment to counter and exploit the IED threat. Specific focus areas include joint, manportable explosive ordnance disposal (EOD) and intelligence, surveillance, and reconnaissance robots, IED electronic countermeasures, backscatter X-Ray systems, specialized search dogs and establishing and maintaining an IED countermeasures group at our Naval EOD Technical Division, Indian Head, Maryland. This group is responsible for support to the joint, forward-deployed and continental United States (CONUS)-based IED exploitation cells, analysis of tactical and technical IED threats, development and dissemination of EOD threat advisories and EOD tactics, techniques and procedures, and provision of technical and training support to EOD operational teams. The Marine's IED Working Group coordinates closely with Naval EOD Technical Division, the Army's IED Task Force, and the Joint IED Defeat Integrated Process Team.

Intelligence, Surveillance, and Reconnaissance (ISR)

The Marine Corps is engaged in initiatives to provide enhanced ISR capabilities in theater. The Dragon Eye UAV is in full-scale fielding and the Marine Corps is working to conduct an Extended User Assessment of the Silver Fox UAV system. The Marine Corps is in the process of creating requirements for a Tier II UAV system to provide an organic UAV to the Infantry Regiment. The I MEF Scan Eagle services lease had codified a capability gap at this echelon and the Marine Corps Warfighting Lab is coordinating with Marine Corps Combat Development Command to find a long-term solution. The Marines have also employed aerostat balloon platforms to provide persistent ISR capability.

Aircraft Survivability Equipment (ASE)

As a result of Army aviation lessons learned, Navy and Marine Corps aviation Staffs undertook a coordinated rapid fielding initiative of more than \$152 million to upgrade ASE for Marine aviation units, preparing to deploy to Iraq in 2004. These efforts focused on ASE to counter infrared man-portable missiles and small arms being employed by insurgents in more advanced anti-aircraft tactics. As a result of the focused efforts by our Navy and Marine Corps aviation maintenance teams and hard-working contractors, every Marine Helicopter engaged in OIF II is today supporting combat operations with upgraded ASE. All deploying aircraft receive the "V2" upgrade to the AAR-47 Missile and Laser Warning Set and the new ALE-47 Countermeasure Dispensing systems; AH-1W aircraft received IR suppressor exhaust modifications to reduce their signatures; AH-1W, UH-1N, and KC-130 aircraft have been equipped with the more advanced APR-39AV2 radar detection system; CH-53E aircraft received interior ballistic armor and new ramp-mounted GAU-21 .50 caliber machine guns; existing IR jamming systems on the CH-46E and KC-130 aircraft were upgraded. CH-46 aircraft received the M-240 7.62 caliber machine guns, lightweight armor, and lightweight armored cockpit seats. Marine Aviation still requires \$23 million to complete ASE modernization on its assault support aircraft utilized to fight the global war on terrorism.

SUMMARY

Our mission remains taking the fight to our enemies. The increasing dependence of our world on the seas, coupled with growing uncertainty of other nations' ability or desire to ensure access in a future conflict, will continue to drive the need for naval forces and the capability to project decisive joint power by access through the seas. The increased emphasis on the littorals and the global nature of the terrorist threat will demand the ability to strike where and when required, with the maritime domain serving as the key enabler for U.S. military force.

Accordingly, we will execute the global war on terror while transforming for the future fight. We will continue to refine our operational concepts and appropriate technology investments to deliver the kind of dominant military power from the sea envisioned in Sea Power 21. We will continue to pursue the operational concepts for seabasing persistent combat power, even as we invest in technology and systems to enable naval vessels to deliver decisive, effects-based combat power in every tactical and operational dimension. We look forward to the future from a strong partnership with Congress that has brought the Navy and Marine Corps Team many successes today. We thank you for your consideration.

Senator McCAIN. Thank you very much,
Admiral SESTAK. Thank you.

**STATEMENT OF VADM JOSEPH A. SESTAK, JR., USN, DEPUTY
CHIEF OF NAVAL OPERATIONS FOR WARFARE, REQUIRE-
MENTS, AND PROGRAMS**

Admiral SESTAK. Mr. Chairman, I have no statement, except to say I'm standing by for your questions.

Senator McCAIN. Thank you.
General GORENC.

**STATEMENT OF MAJ. GEN. STANLEY GORENC, USAF, DIREC-
TOR, OPERATIONAL CAPABILITIES AND REQUIREMENTS**

General GORENC. I, also, have no statement. It's an honor for me to be here and provide any information that you need, as far as oversight.

Senator McCAIN. General Post.

**STATEMENT OF BRIG. GEN. MARTIN POST, USMC, ASSISTANT
DEPUTY COMMANDANT FOR AVIATION**

General POST. Sir, I have no statement, and look forward to your questions.

Senator McCAIN. Well, thank you very much.

Secretary Wynne, I've been briefed that there are alternative aircraft for intra-theater aircraft missions. Has an analysis of alternative been completed for intra-theater aircraft missions?

Mr. WYNNE. Well, sir, I believe in the mobility capability study that's underway, I don't know that there's going to be a comprehensive analysis of alternatives for completing that. I think the mobility capability study more addresses what's available right now. A true analysis of alternatives would have considered things that might not be available right now. If your question specifically addresses the C-130J, sir, that was a decision made in 1996, to proceed, and I'd have to go back and examine the record.

Senator McCAIN. What's the cost to terminate the C-130J program? Do you have an idea of that?

Mr. WYNNE. No, sir, although we're getting pretty good at cancellation, with the Crusader and the Comanche. I know that there's

direct cost for the plant. I can rack up the categories for you, but I'd be loathe to negotiate with the contractor here in this meeting.

Senator MCCAIN. Would you, even if it's in a confidential manner, communicate at least a round number? Because I think that's going to have some effect on the decision on Congress' part as to the future of the C-130J.

I just want to mention, there, I have a memo here from Mr. Mike Reed that was sent to Lee Wayne, who, I take it, are in Lockheed Martin. "Wayne, as a result of discussions today with the C-130J directors, including the director for contracts, I'm instructing you to withhold all requests for data to the SPO or anyone else that is considered contractual until requests are levied by a contracts letter." Have you asked for information from Lockheed Martin concerning the C-130J?

[The information referred to follows:]

From: Leake, Harvey
Sent: Tuesday, February 08, 2005 7:29 AM
To: Marietta Lckhd C-130JEng
Subject: FW: Data Delivery Policy Change

FYI

Please review the change in LM policy.

Harvey M. Leake, DCMA
C-130 Engineering Team Leader
86 S. Cobb Dr. Marietta, Ga 30063-0260
harvey.leake@dcma.mil
770-494-1051

DCMA wants your feedback. Please complete survey at
http://csaf.dcmamil/custsat/customer_sat/main.jsp

to help us better support your needs.

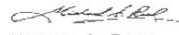
From: Reed, Mike A [mailto:mike.a.reed@lmco.com]
Sent: Monday, February 07, 2005 5:52 PM
To: Lee, Wayne
Cc: Franklin, Marilou T; Martinez, Judy; Wood, Adeline; Cox, Wender K; Leake, Harvey; Conforto, Robert T.; Mallard, James; Guidice, R; Smith, Michael
Subject: Data Delivery Policy Change

Wayne,

As a result of discussions today with the C-130J Directors, including the Director for Contracts, I'm instructing you to withhold all requests for data to the SPO or anyone else that is considered Non-contractual until requests are levied by a contracts letter. This policy will be followed until further notice and includes all 'Courtesy Copies'. Please remove all recently requested non-contractual data from the DAL and EDCS until a contracts letter specifically requesting them can be

approved or unless approved by myself.

This action has been taken because the recent flurry of informal SPO requests has exercised employees of LM Aero from Marietta to Ft Worth. Until further notice, there will be but one channel for information requests on the C-130J Program, and that will be by Contracts letter.


 MICHAEL A. REED
 BRILL SYSTEMS ENGINEER D-130J
 (772) 494-5019
 MKE.A.REED@NMIC.COM 

From: Hagel, Henry
 Sent: Tuesday, April 12, 2005 8:26 AM
 To: Lesko, Harvey
 Cc: Jones, Charles E., Jr; LCCol, USAF; Conforto, Robert T.; Snow, Henrietta; Allen, Linda C., LMM; Floude, Nicole, Col USAF
 Subject: Denial of Access to Review Change Requests
 Importance: High

Harvey,

I am getting extremely upset the way things are being handled on the configuration change request process. Is DCMA supposed to provide oversight of LM-Aero at this facility or are we marching to LM-Aero orders and instructions. I agree with you that the Single Process Initiative [SPI] # 2001-06 for Configuration Management is unacceptable and not in the best interests of the US government. This was another wonderful imitative of the Darleen Druyun era that affected, lessened and degraded our abilities to operate as an oversight operation. If SPI #2001-06 is not in the best interests of DCMA than we should cancel the document.

4/12/2005

DCMA/Engineering [Henry R. Hagel] review of Major/Minor change requests at this facility has come to a total and complete standstill. For the past three [3] weeks, LM-Aero has not provided DCMA/Engineering sufficient change request data/information to review for configuration concurrence/non-concurrence. Mr. Michael Reed, LM-Aero C-130J Chief Systems Engineer, stated yesterday [to me] that DCMA/Engineering will only be provided brief one line summaries that go directly to you [Harvey] for review and/or disbursement. Mr. Reed stated that if additional information is needed by DCMA/Engineering that a request would be made thru Mr. Leake to LM-Aero. LM-Aero would review each request, on a "case by case basis," to see if they were obligated to provide any additional information. This approach is ridiculous and totally unacceptable.

1. DCMA/Engineering is being denied access to the configuration change request data.
2. This looks like another attempt by LM-Aero to keep me out of the change request review loop.
3. LM-Aero is treating me like a "non-trusted agent" for the US government.
4. I am preparing a Level 2 Corrective Action Request [CAR] to issue to LM-Aero today.

VR

Henry R. Hagel

Henry R. Hagel
Aerospace Engineer
DCMA-RHNC
770 494-9825
April 12, 2005

LOCKHEED MARTIN

Memorandum

21 October 1998

To: Col. Steve Busch, SAF/AQD
Gene Elmore

Attached is our proposed agenda for the C-130J Review here in Marietta next week. We have included your requested topics, including those programmatic issues which affect them, starting the afternoon of the first day.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA, and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.

We believe the facts will show that the commercial item contract is a very good deal for the USG, and we hope that the program issues discussions will result in a win/win way forward for the USAF and Lockheed Martin.

I would appreciate your comments on the proposed agenda. I also need insight into Mrs. Drury's plans for Friday so we can finalize that portion of the agenda.



Gene Elmore
Vice President - Hercules Programs

Attachment



DEFENSE LOGISTICS AGENCY
 DEFENSE CONTRACT MANAGEMENT COMMAND
 LOCKHEED MARTIN MARIETTA
 86 SOUTH COBB DRIVE
 MARIETTA, GA 30083-0260

IN REPLY
 REFER TO:

DCMDE-RHTC

July 17, 1997

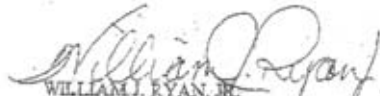
MEMORANDUM FOR DCMDE-RHD, COLONEL BOYLAN

THRU: DCMDE-RHT, MR. LEE

SUBJECT: C-130J Acquisition Would Cost (Development and Production)

This morning I thoroughly reviewed the draft of Mr. Billy's memorandum of July 16, 1997, subject as above. I am in complete agreement with Mr. Billy on this matter and I fully endorse his comments and conclusions. The great bulk of the "would cost" data presented by Mr. Taylor is the product of fantasy and invention, utterly unsupportable. Worse, I think Mr. Taylor's calculations represent a purposeful and self-serving attempt to deceive the Air Force, the Department of Defense, and the public regarding the merits of the C-130J acquisition. I am very reluctant to be so harsh in my comments. Were there any rational and supportable basis for these "Should Cost" numbers, were they merely the product of optimism and enthusiasm, I would be more restrained. These numbers, however, represent gross exaggerations and distortions of fact. The report is a shabby lie, and we should condemn it as vehemently as possible.

Thank you for your consideration of my comments. Although I am currently attending a training class, I try to visit the office each day, at noon or after class. If you wish to discuss the matter with me, please leave a voice mail message, and I will get back to you.


 WILLIAM J. RYAN, JR.
 Division Administrative Contracting Officer
 Business Assessment Team

cc: DCMDE-RHTC, Mr. Billy

MEMORANDUM OF AGREEMENT

between

DEFENSE CONTRACT MANAGEMENT COMMAND (DCMC),
LOCKHEED MARTIN AERONAUTICAL SYSTEMS, MARIETTA, GEORGIA

and

C-130J DEVELOPMENT SYSTEM OFFICE (DSO), WRIGHT-PATTERSON AFB, OHIO

1. This Memorandum Of Agreement (MOA) is made and entered into by DCMC, Lockheed Martin, Marietta, Georgia, and the C-130J DSO, Wright-Patterson AFB, Ohio, in support of the current C-130J contract (P00066 to contract F33657-90-C-0071) and subsequent contracts.

2. By execution of this MOA we agree to work together to accomplish the necessary tasks to achieve the most efficient, effective and economical use of both DCMC and DSO resources. Among the challenges is understanding and assessing the Contractor's management effectiveness and control of the contractor-managed processes used to produce C-130J aircraft. The objective of these efforts is a more affordable and high quality C-130J for the Government.

3. General Operating Principles:

a. Use of Specifications/Standards. The Contractor is encouraged to use commercial practices to the maximum extent possible. Performance will then be measured by the Federal Aviation Administration (FAA) and DCMC assessments, using the Contractor selected specification/standards (Commercial/other selected documents).

b. Evaluations/Assessments. The DCMC and the FAA will minimize duplication of assessments and evaluations to the maximum extent possible based upon documented assessments/evaluations that the FAA will cover.

c. Certified Cost/Pricing Data in Commercial Acquisitions. In accordance with FAR 15.804-1(a), the Government will not receive cost/pricing data for the C-130J. Instead, the Government will rely on a Contracting Officer determination of a "price reasonableness" concept based on the price analysis of the C-130H and other C-130 derivatives as well as the price analysis of the C-130J as a commercial item. DCMC (and DCAA) will be requested to provide a price reasonableness evaluation for the initial contract award and major ECPs tasking the Contractor to deliver C-130Js in unique configurations (such as WC-130Js for Keesler AFB, MS). Specific guidance in writing will be provided by the DSO for each tasking.

d. Manufacturing/Production/Assembly Line Quality. Recognizing this acquisition is a commercial buy and that the DCMC is responsible for accepting the aircraft on behalf of the

Government, the DCMC will rely on the Contractor's management system and FAA evaluations/certifications/assurance for product insight as much as possible. In-line process assessments will be made in the context of a commercial procurement with the focus on sufficient insight for product acceptance.

e. Ground and Flight Risks. The contractor will acquire commercial insurance and will be totally responsible for each C-130J aircraft until the Government signs the DD Form 250.

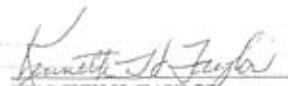
f. Development Testing and Support. Limited test support is required. However, since much of the test program will be conducted at the Lockheed Martin C-130J Aircraft Facility in Marietta, Georgia, and the DCMC has unique talent in some aspects of conducting a flight test, the DCMC may be asked to support the test program in some capacity by the Air Force Flight Test Center (AFFTC) or the C-130 System Program Director (WR-ALC/LB). The framework of the Government participation in the Contractor managed C-130J Flight Test Program and the required Government added tests are covered by the Contract F33657-90-C-0071, P00066.

g. Aircraft Acceptance Testing. Aircraft acceptance testing will be jointly conducted by the Contractor and the Government. The inspection and acceptance provisions of Contract F33657-90-C-0071, P00066 (the H/J Swap Aircraft) and Contract F33657-95-C-2055, contains acceptance testing.

3. Details explaining how the DCMC will accomplish the above, including reporting, is defined in the attached Customer Service Plan. It is understood that the activities outlined in this Customer Service Plan are dynamic, and will be updated as required, but reviewed in full at least annually (in conjunction with this MOA). In addition, the C-130J Contract Administration Delegation Letter (attachment 2) provides more insight regarding the administration of the commercial contracting concept.


 KEVIN K. RANKIN, Lt Col, USAF
 C-130J Development System Manager
 Wright-Patterson AFB, OH
 23 Apr 96
 Date


 GARY D. BOYLAN, Col, USAF
 DCMC Lockheed Martin Marietta
 Commander
 7 May 96
 Date


 KENNETH H. TAYLOR
 Deputy, Contract Management Division
 Aircraft Product Support Office
 4/24/96
 Date

2 Attachments

1. C-130J Customer Service Plan
2. C-130J Contract Administration Delegation Letter



DEFENSE LOGISTICS AGENCY
 DEFENSE CONTRACT MANAGEMENT COMMAND
 LOCKHEED MARTIN MARIETTA
 88 SOUTH COBB DRIVE
 MARIETTA, GA 30063-0280

IN REPLY
 REFER TO:

DCMDE-RHTC

June 23, 1998

MEMORANDUM FOR DCMDE-RHOA
 ATTN: Mr. T. Trest, ACO

SUBJECT: Past Performance Questionnaire - C130J Program

Although I wasn't invited to the team meeting that occurred yesterday, I am certainly familiar enough with the progress made to date on the C-130J to provide answers and opinions on several of the items questioned. I would remind the team that the purpose of the questionnaire is to obtain your opinion of the contractor's past performance. In that regard, I think if the scope of the response is too finely narrowed, the point of the exercise is lost. After all, the reason for issuing the questionnaire in the first place is to determine the contractor's ability to perform in future contracts, not to play a game proscribed by elaborate rules. If, for example, the narrow answer to the question "Ability to manage program within contract price?" is "Yes. So far there's been no trouble on the USAF C-130J, which is an FFP contract," I think it would be remiss not to mention that the C-130J development program in total is grossly overrun, and those development costs do affect the costs of the Aircraft to all its customers. With that thought in mind, my comments are:

MANAGEMENT:

Competent/ Effective Program Management. Rating: POOR

The C-130J program since its very inception has been poorly managed. Schedules have slipped and one unforeseen development after another has arisen to drive up costs and delay aircraft delivery. This has occurred despite the fact that the C-130J is not an all-new aircraft. It is an enhanced C-130 that employs the basic airframe used in C-130s produced here since 1960. Developmental problems have arisen in virtually every area -- flight characteristics, engine integration, avionics, and the use of new composite material. Lockheed's original estimated cost of developing the C-130J was approximately \$300 million. Its current estimate is over \$1.2 billion. This is extremely poor performance and it reflects poor management.

The Government of the UK has been so dissatisfied with the progress of its C-130J program that it has severely penalized Lockheed for late deliveries and the failure to meet contractual provisions. These penalties have cost LMASC over \$100 million.

DCMDE-RHTC

PAGE 2

JUNE 23, 1998

16. Responsive to Customer Involvement. Rating: POOR

LMASC personnel from the PM on down have repeatedly voiced their repugnance towards customer involvement in the program in any shape. They refuse to provide data, lie and evade customer questions, and have only with the greatest reluctance worked with us in Quality and Engineering Surveillance matters. To date they have adamantly refused to inventory the GFP and GFE supplied them on the contract and have been aggressive in their resistance to customer-sponsored initiatives.

17. Overall Management/personnel performance. Rating: POOR

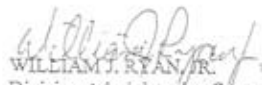
Again, I would justify my rating on the basis of their excessive cost overruns and abject inability to deliver aircraft on schedule.

COST:

21. Ability to manage program within contract price? Rating: POOR

Although the current USAF C-130J contract is FFP and therefore forces the contractor to adhere to contractual costs, total program cost performance has, in fact, been abysmal. The C-130J development program was originally estimated by LMASC to cost approximately \$300 million. It will now probably exceed \$1.2 billion, and may not even be kept to that level. Costs have escalated because of poor management and ongoing developmental problems. We have little insight into this, however, because as a "commercial" program, LMASC is managing the development of the C-130J on its own. We do know that costs are grossly overrun, the overruns have affected overhead rates as well as direct costs, and have driven up the price of the "commercial" aircraft to the US Government.

Please feel free to call me if you have any questions. I can be reached at (commercial only) 770-494-2003, and my fax number is 770-494-8241.


WILLIAM J. RYAN, JR.
Division Administrative Contracting Officer
Corporate Support Team

cc:

Mr. W. Walker	Ms. C. Dollar	Major Olsen
Mr. G. Tucker	Mr. J. Bernais	Mr. Bily
Mr. J. Jennings	Mr. K. Pedeleose	
Mr. D. Pritchett	Major Cooney	

Mr. WYNNE. I have not personally asked them for the information, sir.

Senator McCAIN. Has the Air Force?

General GORENC. No, sir.

Senator McCAIN. Well, given the fact that it's escalating in cost, shouldn't we display some curiosity?

Mr. WYNNE. Yes, sir. I think the fact of the escalating costs is somewhat disturbing, and, of course, the issue before us now is so stark, being a binary decision in the President's budget 2006, rel-

ative to continuation or non-continuation, but I believe that the insistence on moving forward FAR Part 15 for changes is a good sign.

Senator MCCAIN. I was just going to mention—Secretary Harvey announced yesterday that the Future Combat System (FCS) would now fall under FAR 15. I certainly applaud your decision to make any further acquisition of C-130Js under those same parameters. I met with the Chief Executive Officer (CEO) of Lockheed Martin, and I asked him about the pricing data. He said he would get back to me. He hasn't bothered to further communicate. We may have to ask the Committee to subpoena this information, because I think we need to know it, as we determine what happened. I don't like to use that, but if Lockheed Martin continues to stonewall us, I don't see how we can carry out our responsibilities.

General GORENC. Yes, sir.

Senator MCCAIN. General Gorenc, you've had to ground some C-130s, right?

General GORENC. Yes, sir.

Senator MCCAIN. Possibly, or probably, there's a scenario of the C-130J being canceled. What can we do to ensure the capability to provide intra-theater airlift, et cetera?

General GORENC. Yes, sir. I think obviously we're going to have to look at it very closely. It's a capability that we want. It's a capability that we need. As I heard the panel before me, just to make sure that everything is straight with the rest of those numbers, there are two C-130Js in the theater. They are flying missions and have flown missions since December.

Senator MCCAIN. Aren't those missions only in a permissive environment?

General GORENC. Sir, they are doing exactly the same thing that the other C-130s are doing within the area. So they've flown well over 413 sorties.

Senator MCCAIN. Do they have airdrop and troop-drop capability?

General GORENC. Sir, those are the things that have not been asked of the other individuals yet. However, they are working to resolve the long and short variance to make sure that that is fully tested. As a matter of fact, I have indications that tests for the drop for the short aircraft, in fact, has been fully completed. The long version should also be done very quickly. The Army has come onboard that that is perfectly safe and acceptable. They have done 75 of 75 heavy drops right now, and that is full and ready to go, and they should be released as part of the phase-two report.

So, the point that was made earlier by Mr. Chambliss with regards to how much effort is really being done by the Air Force to ensure that all issues are being addressed, I think, is very valid. The fact of the matter is that it is being done.

Senator MCCAIN. Well, it's not exactly a brand-new aircraft, and we've gone from 1995, \$33 million—

General GORENC. Yes, sir.

Senator MCCAIN. 1998, \$50 million; 2004, \$67 million. This is basically a cargo aircraft—we're getting into one heck of an expensive airplane, at \$67 million a copy for an aircraft that fundamentally is, what, Secretary Wynne, 30, 40 years old?

Mr. WYNNE. Yes, sir, this is a pretty good upgrade, but the fundamental design.

Senator MCCAIN. Doesn't that raise some red flags with you, when an aircraft, in 10 years, goes from \$33 million to \$67 million, and we're not even privy to the basic information, because it's being advertised as a commercial aircraft, and there is no commercial market for it. I'm told that Air Gabon flies two C-130s. No one really realistically expected it, when the decision was made to list this as a "commercial aircraft."

Do you know, General, of any commercial enterprise, airline, nation, or anybody who is contemplating buying the C-130J for commercial purposes?

General GORENC. Commercial purposes? Sir, I don't know, personally. But I can say right now that you do have the U.K. that has 25 that they're flying. You also have Italy that has 22.

Senator MCCAIN. I was talking about commercial purposes.

General GORENC. Oh, no. Commercial, no. But, sir, may I also add that capability-wise—and, again, I'm not an airlifter by trade, but I am aware that, for example, 33 percent increase in cargo capability, increased speed—it has allowed it, in some cases, to, in fact, do, in one day, what a C-130E, for example, in the theater, would take two.

Senator MCCAIN. Well, that's marvelous. What was the cost of a C-130E, General? Do you remember?

General GORENC. I don't.

Senator MCCAIN. I can tell you. It was around \$5 million to \$10 million. So it does the work of five, at seven times the price. So, we always have to have some kind of balance here. I just think the costs have—I've seen testimony before this subcommittee that never contemplated that kind of price level. We don't have unlimited dollars. We're going to have to make tough decisions here, and I, frankly, have great respect for Secretary Rumsfeld and those decisionmakers in the Pentagon who had to make some very tough decisions here. So, we're trying to try to help sort it out, which is part of our responsibility.

Finally, Secretary Wynne, Congress approved \$100 million to be dedicated to the KC-135 replacement fund. You provided specific and, in my opinion, sound and well-reasoned guidance as to how the tanker analysis of alternatives was to be conducted. Presumably the use of the money in the KC-135 tanker replacement fund will rise from recommendations set forth in the analysis of alternatives (AOA). In other words, that money will not be used for an approach to recapitalize other refueling tankers that's not specifically supported by the AOA. Is that correct?

Mr. WYNNE. I understand, for that \$100 million, sir, that there is specific focus language that surrounds it. What the Air Force has done in order to respond to my letter is, in fact, to reprogram a sum amount of money to specifically fill out the remainder of the AOA. If it would come out differently than, perhaps, was expected, I would expect that they would have to reprogram some additional funds in order to follow those paths.

Senator MCCAIN. I thank you.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Mr. Chairman. Thanks to the witnesses for being here this afternoon.

Secretary Wynne, since our Subcommittee's hearing last year, the Air Force has completed initial operating tests and evaluation for the F/A-22 aircraft, the Raptor, which showed that the aircraft is operationally effective, which, I take it, means it basically works as advertised, and potentially operationally suitable, meaning that it has not yet met the goals for ease of maintenance and support.

I wanted to ask you whether the test rating of "potentially operational—operationally suitable" gives you concern that the Air Force will be able to meet its goals of achieving these significant operating and cost savings.

Mr. WYNNE. In fact, Senator Lieberman, I'm pleased to answer that question.

Senator LIEBERMAN. Please.

Mr. WYNNE. One of my favorite kinds of people is maintainers. I think that the testers really should stand in for the maintenance people, because they're the only people between them and doing the work.

The "potentially suitable," effectively, was because you were going to have to have more people in order to achieve the operational readiness rate that was expected.

Senator LIEBERMAN. Right.

Mr. WYNNE. The Air Force is fully committed to essentially fund through the final operational test and evaluation (FOT&E) and take another reading during FOT&E, of all of the major findings for the maintenance and suitability. So, that makes me feel like SRO they'll be far closer. It may still be a potential rating, but it will be far closer to what they were supposed to achieve in the reliability and spares area.

Senator LIEBERMAN. Okay, that's encouraging. I'd like to keep in touch on that.

On another aspect of the program, Mr. Secretary, in 1997—so you're not accountable here—the Air Force testified to the subcommittee that annual operating and support costs of the F/A-22 would be roughly 47 percent less than those for the F-15C aircraft that the F/A-22 was intended to replace. The Air Force, at that time, told Senator Glenn that the 22 would cost \$56.3 million per year to operate. Do you have any idea what the current estimates are, what the costs will be to operate the F/A-22?

Mr. WYNNE. Sir, I think the only one I know is the effectiveness comparison. There was—actually, in 1992, there was an acquisition decision memorandum (ADM) that came out that specified that the F-22 should be twice as good as the F-15. We did that comparison test, even against the modern F-15, and it was far more than twice as good.

Now, your question is against—again, that's effectiveness—your question is to suitability.

Senator LIEBERMAN. That's right.

Mr. WYNNE. I really have not—

Senator LIEBERMAN. Twice as good, in some sense, is as originally advertised at half the operating cost.

Mr. WYNNE. Yes, it was supposed to be at half the operating cost. We have made some improvements in maintenance, but I have not

calculated the specifics. There is a strange quantification that I've been familiar with, which is the number of C-17s it takes to carry the squadron overseas. I have to get back to you with the specifics on it.

[The information referred to follows:]

Prior to the F/A-22 Full Rate Production Milestone in March 2005, the Air Force Cost Analyses Agency (AFCAA) updated their comparison of F/A-22 and F-15C operating and support (O&S) costs. Based on mid-life costs for the F-15C and estimated mid-life cost for the F/A-22, the Air Force concluded that the F/A-22 and F-15C O&S costs per flight hour were almost equal.

Senator LIEBERMAN. I'd appreciate that, if you would, and that's fine.

General Post, let me see if I can get you into this one, talking about lift. I want to focus on the Marine Corps requirements. The Navy and the Marine Corps have decided the Department should buy new helicopters to replace the existing CH-53E fleet, rather than re-manufacturing the existing helicopters. Would this CH-53(X) program meet the Marine Corps requirements, as you understand them?

General POST. Yes, sir, absolutely. The requirements for the heavy-lift requirement, HLR, as the program is known, is validated by both the Marine Corps and the Joint Requirements Oversight Council (JROC) here, in December 2004. Of course, there was an AOA done previous to that, that made the determination that a new-build was the most cost-effective way to go for that program.

From a requirement standpoint, with the current utilization of our CH-53 Echo (CH-53E), the high maintainability cost, as far as joint maintenance man-hours per flight hour, and the cost per flight hour, of that airplane, and how we're utilizing that aircraft, about 30 percent of our force is on the ground in Iraq right now, flying about two-and-a-half times the rate of normal peacetime utilization. So, when it comes to the future as we look downrange, especially for our future warfighting concepts, this is a required capability for the United States Marine Corps, specifically from a seabasing standpoint in the future.

Senator LIEBERMAN. As far as you know, there are no other reasonable alternatives for meeting this requirement than the 53(X)?

General POST. No, sir, not that I'm aware of.

Senator LIEBERMAN. I understand that the Navy is sitting on some of the current research-and-development funding for the CH-53(X), and has not signed a contract for the fiscal year 2005 risk-reduction effort. Secretary Young, I wonder if I could ask you why the Navy has not signed that contract yet?

Mr. YOUNG. Senator, I agreed to release \$20 million, and then I recently, in the last month, agreed to release another \$30 million for the initial design and assessment of what this program will cost. I'm very concerned that the cost be reasonable. I understand the requirements are indeed valid, but at some point we have to rationalize that against finite budget resources. I have not agreed to let the program have full green-light approval to proceed until we assess the costs. Over the last 6 months, the costs on the program have grown substantially. We're going to have to sit down and have a serious discussion about requirement versus cost.

Senator LIEBERMAN. Okay. So you accept the requirement, obviously, and that this is the existing alternative to meet the requirement. Your hesitation is, at this point, on cost. But you have let some of that money go.

Mr. YOUNG. Yes, sir.

Senator LIEBERMAN. Okay. We'll keep in touch with you on that.

Secretary Wynne and Secretary Young, I wanted to go back to a reference that was made by someone here earlier to a comment that Secretary England recently made. Of course, now everything Secretary England said takes on added significance, right? He was quoted as supporting integration of tactical aviation across the Department of the Navy and the Department of the Air Force. Obviously, we, here, are familiar with the integration efforts that have gone on between the Navy and the Marine Corps, which involve additional carrier-wing deployments for Marine Corps F-18 squadrons and other changes in force deployment that actually did result in reductions in the numbers of F/A-18 and the Joint Strike Fighter aircraft that the Navy intends to buy.

I wonder whether either of you, Secretary Wynne or Secretary Young, have any view of the pluses or minuses that might be associated with integration, the kind of integration across the Air Force and Navy that I gather Secretary England was referring to?

Mr. WYNNE. I can only say that we are really fostering a joint fight. We're fostering an opportunity for the Navy, Marine Corps, and the United States Air Force to interact not only with themselves, but also with their coalition partners. This, frankly, gave rise to an idea that, under restricted resources, maybe there's some analysis to be performed, which is probably what Secretary England was talking about.

As a point of fact, I think the initial lay-in for the Navy and the Marine Corps was essentially based on the reliability statistics that were extant for their current air fleet.

Senator LIEBERMAN. Right.

Mr. WYNNE. The targets that you spoke about for F-22, they have actually taken tougher targets for the Joint Strike Fighter reliability, which, in fact, would allow a little bit of more consolidation of the fleet, just because you're going to improve your operational readiness rate and maintenance. One of the larger figures in that consolidation of the United States Navy and Marine Corps was, in fact, taking advantage of the reliability statistics and the consolidation there.

We're already starting to think about consolidated training of pilots. So this is just, if you will, another extension of it. But I have no idea, sir, as to what he has planned. He, of course, is prospective, so he can't really plan which we all know.

Senator LIEBERMAN. Sure.

Mr. WYNNE. But we have our ear to the ground and are trying to figure it out.

Senator LIEBERMAN. Okay.

Secretary Young, what do you think, are there ways to achieve the missions more efficiently by the possibilities of integration across technical aviation in these two Services?

Mr. YOUNG. Secretary England is certainly conscious of the work that Admiral Sestak's team has done that points to our strike capa-

bility that the chairman alluded to earlier. Secretary England has frequently talked about it. Now, one plane strikes multiple targets, which, even going back to the Gulf War, wasn't the case.

Senator LIEBERMAN. Right.

Mr. YOUNG. We have great precision and multiple-target capability. We did exactly what Secretary Wynne said, that is, we have improved our maintenance practices to reduce how many aircraft are in the pipeline for overhaul. We're trying to move them through more quickly. We reduced the number of aircraft needed to perform the missions, and better integrated the assumptions of Navy and Marine Corps jointly performing those missions. I believe the Secretary thinks that could be looked at, at a Department level. For the Navy, it paid great dividends. It was also testified by the first panel, we saved \$35 billion through 2020, and cut 497 planes out of the program—arguably, planes that would have been hard to fit in the budget or created opportunities for us to make other investments.

Senator LIEBERMAN. So there's potential like that, do you think, between the Navy and the Air Force?

Mr. YOUNG. I think there's no reason not to sit down and analyze jointly performing the mission.

Senator LIEBERMAN. Admiral Sestak, I didn't realize that you had worked on this. Do you want to get into this at all?

Admiral SESTAK. Yes, sir. What Mr. Young was referring to, I think, is that over the past couple of years, Admiral Clark has emphasized bringing to the table analysis based upon campaigns and modeling, and trying to remove from the table the weight and strength of personality. Part of this was, in this TACAIR integration, we didn't even know how to go about it. We actually had to bring in an outside party. But a lot of it had to do with the analysis incumbent upon how to take an adversary by force jointly.

So, what Mr. Young is referring to, I think, is that we are in a good stead for this, particularly in this QDR year, because, over the past 2 years, the joint staff, under the new Joint Capabilities Integration and Development System (JCIDS) process, has actually gone about a similar process, called the Analytic Agenda, where they have done a number of scenarios, watching how the communities, the different communities, different air forces, have gone about trying to address the threats out there. So you no longer just take an operational plan that has been around 5 or 10 years, and it says so many aircraft are needed in order to address a threat in a certain country, such as North Korea. What you now have is actual campaign analysis. So, you can potentially, I think—much as you had to take two different cultures, the Marine Corps and the Navy and resolve our tactical aircraft integration—have something objectively on the table to say, "Yes, maybe we could do it with less." I think that's what the Secretary was alluding to.

Senator LIEBERMAN. Thanks.

General Gorenc, in fairness, you should have an opportunity to speak to this, from the Air Force point of view.

General GORENC. Yes, sir. I think that that's absolutely right. There is, actually, a great opportunity here. In a sense, we actually do this in another forum. For example, air-to-air missiles, air-to-ground initiatives where we are trying to get together much more,

and get to some of the commonality issues that we want to work. So I think that this would be a natural extension. I think it's an idea that has a lot of merit and a lot of good opportunity.

You're right, sir, at this time, during the QDR, to initially start bringing up—we do that routinely, truly. It's just a matter of changing the organization now, if you're going to do that kind of a routine.

Senator LIEBERMAN. I appreciate the willingness to take a look at something that, maybe at an earlier time, would have been unheard of. But it's necessary now. So, thank you.

Thank you, Mr. Chairman.

Senator MCCAIN. Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman.

I should have told the other panel this, and I want to make sure I tell you folks, that we appreciate the difficult job all of you have to do. We get pretty excited over here, because, Senator McCain's right, we're running out of money, and we appreciate the tough job that the OSD has, relative to budgets. But it's particularly tough on your end to try to come up here and make arguments, and then have to justify. We want you to know how much we appreciate you.

Secretary Wynne, first of all, we've had several conversations with the Pentagon, all the way to Secretary Rumsfeld, relative to review of the C-130 proposal in the President's budget. I was told by the Secretary that, while he hated deadlines, he would put a deadline of April 1 to send an amended budget up here. Can you tell me where that stands? I've called and I know my staff has, and we haven't gotten an answer. Can you update us there?

Mr. WYNNE. No, sir, I can't. I can certainly take it for the record. [The information referred to follows:]

The Department is reviewing the decision to cancel the C-130J multi-year contract, based on new information regarding contract termination costs. I anticipate Secretary Rumsfeld will announce his decision soon. The Department will come back with a budget amendment if necessary.

Mr. WYNNE. That's really Under Secretary of Defense (USD) Comptroller action to update and amend that budget.

Senator CHAMBLISS. Right.

Mr. WYNNE. I have not seen the action come through.

Senator CHAMBLISS. Well, if you wouldn't mind doing that, we're going to be into the mark-up here before long on the authorization bill, and we need to really know what direction the Pentagon wants us to go, there.

Senator MCCAIN. Could I add one comment, along with what Senator Chambliss says? If, indeed, there is not, in the amended proposal, resumption of C-130J, I think we also need to know what the plans are, since there is clearly a need for tactical airlift. It seems to me that that—don't you think, Senator Chambliss?

Senator CHAMBLISS. Absolutely.

Senator MCCAIN. Thank you.

Senator CHAMBLISS. In fact, that's a question that I had down here for Secretary Wynne. If we do shut this down in 2007, as proposed, what I'm told is that the only tactical airlift remaining in production is a French airbus, A-400M. Is that correct?

Mr. WYNNE. I don't know how far that is in production, but, yes, that would be the one.

Senator CHAMBLISS. So, I think that answers your question. We'll be buying from the French, Senator, and I'm not sure we're prepared to do that.

General Gorenc, the previous panel addressed several issues relative to the capabilities, and lack thereof, regarding the C-130J, particularly as it relates to its combat readiness. They did indicate that they think the U.K. has been flying C-130Js in theater for some time. We know we have two that have been over there since December, I believe. Would you tell us a little bit about the operation of those airplanes?

Also, I'm a little surprised that they did not do any more investigation of other countries that are flying the 130J. As I understand it, the Australians, the Italians, and the Danish are also flying those.

General GORENC. Yes, sir.

Senator CHAMBLISS. Would you tell us a little bit about the operation of the 130J in theater?

General GORENC. Yes, sir. I went back, and I looked at their data and their stats. Interestingly enough, they have flown there since December 2004, and have accumulated up to 480-some sorties, 600, 700-some hours. Don't call me on that, specifically. But for sure on the sortie counts.

Surprisingly enough, also, their mission-capable rates were actually 92 percent, overall, during this period. Now, the problem with that, of course, is, it's a small fleet, so you don't want to necessarily use that too much as an indicator. But the bottom line is that other aircraft in theater, the Es and the Hs, are generating about the 85 percentile area in the combat zones; 92 for the J models. The normal fleet, overall, of course, when they're not in a combat zone, they tend to be in the mid 70s, which is where the J is, also.

But the bottom line is, as far as mission-capable and what they're doing there, they are doing exactly what a normal, straight-up C-130 would be doing. They're doing exactly what the other individuals have been tasked to do. They're performing very well.

Senator CHAMBLISS. I saw a statement the other day that said that our 130Js that are in theater in Iraq today are performing missions in 1 day that it takes 130 Es and Hs 2 days to perform.

General GORENC. Sure.

Senator CHAMBLISS. Is that a fair statement?

General GORENC. That is a fair statement. I have confirmation on that also. The funny part about that is, I also hear of individuals that go, "Well, geez, all they're doing is taking one tire from one place to another," is the logic tree of what they're carrying, which, of course, is a statement that's interesting to me, unless you're the guy on the other end waiting to get the tire so you can get into the convoy to get where you need to go. So the point is, everything that they are doing there is relatively important. But to get it done twice as fast as the normal aircraft is an interesting point.

Now, here's another aspect, in my view, from having been in the area of responsibility (AOR) awhile back; I would rather be having these type of aircraft that can go from one location to another location without having to air refuel—or, not air refuel, but to stop along the way. I mean, you can start considering manportable air

defense (MANPAD) issues and other things that may be problems as you come in and out of airports. So, it's another aspect to this whole equation, in the truest sense.

The bottom line is, the guys are in theater; they're doing the job, just like the other C-130s, and they're doing it with coalition partners, such as the U.K. individuals, who have bought aircraft; the Italians, who have bought aircraft; Denmark, who just recently bought three, if I'm not mistaken. Overall, it's a pretty good story, depending on, of course, where you're sitting on it.

Senator CHAMBLISS. Are there any plans to increase the number of 130Js in the Iraqi theater?

General GORENC. Sir, I have not heard that. I have not heard that from the operations side, at this stage.

General POST. Sir, if I may add, the Marine Corps has six KC-130Js deployed with the 2nd Marine Aircraft Wing in Iraq. They've been over there for about 30 days. The numbers we're seeing, the mission-capable rates are well over 90 percent, so it's performing very well. Of course, our mission for the KC-130Js is a little bit different from the Air Force C-130 mission, but we're very, very pleased with the performance of the airplane.

Senator CHAMBLISS. Yes.

General Post, going back to Senator McCain's question, there, that the Marine Corps has a requirement—I believe it's 51 KC-130Js, is that correct?

General POST. Yes, sir.

Senator CHAMBLISS. Currently, under the proposed budget of the President, you would have 33, which would leave you 18 short of your requirement. How would you fulfill that requirement?

General POST. Sir, we would have to maintain those aircraft as a legacy fleet. Our F models are 42-year-old aircraft. Our R models are approximately 28 years old. So what we would have to do is keep the R-model fleet, obviously, longer than we'd like, and maintain those, and probably do some sort of level of maintenance to those aircraft to keep them in airworthy condition.

Senator CHAMBLISS. You haven't considered leasing any tankers, have you? [Laughter.]

General POST. No, sir.

Senator CHAMBLISS. Good. I just wanted to make sure of that.

Senator MCCAIN. What's that?

Senator CHAMBLISS. They have not considered leasing any tankers, Mr. Chairman.

Senator MCCAIN. Oh, thank you. That's good news. [Laughter.]

Senator CHAMBLISS. Secretary Wynne, I want to go back to this cost again because the chairman's correct, we have a money problem that we have to deal with. But the 130J, versus the older models the 130J is stretched out. Is that correct?

Mr. WYNNE. It has elongated, yes, sir. That's why they have this qualification on the short version, then on the longer version.

Senator CHAMBLISS. Okay. The former planes, we were buying at the rate, I believe, of 24 a year, and now we're at 12 a year. Is that right?

Mr. WYNNE. Sir, I would have to take that and say I believe we are, but I do not know, personally.

Senator CHAMBLISS. Obviously, the more we buy, the cheaper they are.

Mr. WYNNE. It is always that way.

Senator CHAMBLISS. I'm assuming you don't know about any contractor discounts relative to the earlier models that might have been given.

Mr. WYNNE. I understand that they went through a significant investment program. At least they certainly told me that. So I would take that as a early-model discount, if that's what you mean.

Senator CHAMBLISS. Okay.

General Gorenc, what's the opinion of the Air Force relative to the operation of the current F/A-22s you're flying?

General GORENC. Well, sir, I was recently down at Tyndall, and, obviously, everybody who's flying the machine is, number one, very impressed with the capabilities. I think that the guys down there who are training and getting spun-up to become initial operational capability (IOC) up at Langley, of course, are very impressed with the aircraft. I think that the individuals flying out at Nellis are finding the capabilities that were talked about earlier, as far as how they would match up against certain fighters, have come to fruition, in the sense of the aircraft being exactly everything that was said that it was going to be, which is very much a piece of machinery that can really handle the job as a weapon system. So everything is looking good, as far as the aircraft itself and the employment. The issue is getting the modernization portion taken care of to make sure that you get the full capability, as we were talking about a little bit earlier, with regards to air-to-ground and intelligence, surveillance, and reconnaissance (ISR) capability.

Senator CHAMBLISS. We talked with the previous panel about the air-to-ground capability that now was being asked of the F/A-22. Again, from a tactical-fighter standpoint, it's my understanding F/A-22 will fire not once, not twice, but three shots once it's inside enemy lines, without being detected.

General GORENC. Yes, sir.

Senator CHAMBLISS. Do we have any other tactical fighter that has that capability?

General GORENC. Well, sir, let me just say, the bottom line on this is, it's very difficult to fly air-to-air against somebody if everybody that you're up against is actually better than your aircraft. But, obviously, you have the surface-to-air missiles and things of that sort that you're going to have to go after to, in fact, open up the corridors and give you the ability to get through the door and allow some of the other coalition partners, and even U.S.-capable legacy jets, to get into the target areas. So, the bottom line is the need there for an air-to-ground capability that—the sooner the better, as far as we would like. It needs to be a full-up kit, because the nature of the threats are such that you just never know whether you're going to have to shoot an aircraft in the sky or somewhere else.

Senator CHAMBLISS. Secretary Wynne, there's been recent testimony characterizing costs of the F/A-22 at a quarter-billion dollars. Actually, under the current buy, my calculation of the planes that we now have in acquisition is \$128 million per copy. Is that correct, according to your numbers?

Mr. WYNNE. Well, it's one of those things, sir, that the cost of an airplane is certainly hard to define and explain, but I have heard a range of \$128 million to \$135 million would encompass all of that. Flyaway cost, by my definition, is, kind of, the airplane rolling down the runway.

Senator CHAMBLISS. Again, same old story relative to the more we buy, the cheaper they become. Is that fair to say?

Mr. WYNNE. I think there has been some progress in that regard, over the lots that we've had recent history with.

Senator CHAMBLISS. Okay.

I think that's all I have, Mr. Chairman. Thank you.

Senator MCCAIN. General Gorenc, let's talk just for a second about what the witness from the Congressional Research Service talked about, and that's the threat. Now, we can get into a very classified discussion in a big hurry, but do you accept the premise that the F-22 was originally designed for air-to-air combat?

General GORENC. Yes, sir, I do.

Senator MCCAIN. Then we saw the nature of the world situation change. We no longer had to worry about new generations of "Soviet" fighters. Now, what, in your view, is the threat or the scenario that would dictate such a high-performance fighter—I'm not trying to set you up here.

General GORENC. I know.

Senator MCCAIN. But clearly, in Afghanistan and Iraq, what really did the job was airplanes with air-to-ground capability. Now, some of them came as far away as from bases in the United States; others were the old A-10, around since the 1970s. We've tried to retire them three or four times, and then a conflict comes up, and the old A-10 does a hell of a job. So, give me the argument, in your mind, that dictates, for the \$300 million airplane, tactical aircraft, given the nature of warfare, the way that it's changed since the fall of the Soviet Union.

General GORENC. From my standpoint—

Senator MCCAIN. Because this is what we really have to grapple with here. Okay.

General GORENC. This is tricky. I mean, it depends on how you look at the situation. Personally, I'm not entirely sure that Afghanistan or Iraq are truly the example of what you may, in fact, encounter in the future. Let's just say that. Let's pretend you go with a different scenario and a different threat that is viable is a China scenario in a few years. The issue is that once—again, and I know I'm speaking to a well-educated group, but, for myself—

Senator MCCAIN. Don't assume that, General. [Laughter.]

General GORENC. From my standpoint, what I see is, you have double-digit surface-to-air missiles (SAMs) that may be protecting certain key target areas that will not allow certain aircraft to get within even 50 to 60, 70 miles to take that target out. What you need is an aircraft that will allow you to go in there and destroy that particular hindrance to your ability to do what you want to do in the immediate target area. That capability is inherent in the F-22. You're able to get in; you're able then to allow other aircraft that may not have the stealth, the supercruise, the technology to identify, to get through that same corridor and, in fact, start taking out aircraft. So it's really a complementary system.

Now, from my standpoint, when I talk to folks and think about it, you go, "Well, this is strictly a U.S. issue here, where you want to make sure that everybody can get into the fight," so you have your F-22s, your JSFs, and things of that sort, and the Navy brotherhood of F-18s. Surely, what we're talking about is, as we think about it in coalitions for the future, do I want to have other capable aircraft that may not have that stealth, that supercruise, to get into that area? Actually, I would. I want them on the team. The question is, they may not be holding the ball to start the fight with, but I want to hand it off and either get my aircraft back into an area where they are no longer needed for another contingency and allow those other aircraft to stay. But they've opened up the door.

So, it's almost a situation, from my standpoint, that, as I think about the case, it's like the SWAT team that's trying to get into a house where there is a hostage or someone being held up. There is this individual, and you always see him after all the negotiation is done and everything's square, whether he comes in with this ramrod and maybe one or two of them, and they, no lie, knock that door in and say, "Come on in, let's go." You see the rest of the guys, kind of, scurrying up and doing their thing. That's almost what I see the F-22—is this thing that allows you to get through that door and allows you to go in and take care of the situation.

Senator MCCAIN. Look, I accept your scenario, and I think more and more of us are thinking about the challenge of an emerging China, without assuming that it is an adversarial one, but there's no doubt about their superpower status, but does your argument then convince us that we need large numbers of F-22s? With your scenario of, these are the ones that kick down the door, and the rest of the others follow?

General GORENC. Sir, that's where I think that the QDR and the future studies here that are going to actually be done in a very quick fashion are going to prove to very much invaluable. The issue is, it really just all depends on what the world situation may evolve to. You may find yourself in a situation where you have a China and another threat somewhere else. Hopefully, that doesn't happen, and we would have been able to say, "Gosh, you know, we overbought." But maybe the fact that we overbought, in fact, dissuaded or deterred somebody else from becoming that second axis of potential problems.

The point is, I think we'll certainly carry that debate and those discussions forward in the Quadrennial Defense Review, and I think we're going to get some pretty good analysis out of that for those type of scenarios.

Senator MCCAIN. Yes, but one of our problems is that we're making some of these decisions before the QDR is out. Then that presents us with some—

Mr. WYNNE. I would say it this way, Senator, that we've really put aside sea dominance, because we just presume it in our analysis now. We don't yet assume air dominance. Even when we were into Baghdad, which we would all recognize now for what it was; we were not prepared to commit our front-line fighters without first committing our stealth forces. Some 20 years ago, we set out to have an all-stealth Air Force. We need to continue to pursue

that, without a doubt. How we get there and what it is comprised of is the issue and the balance that you're talking about.

But, in the future, I predict we're going to have a proliferation of these double-digit SAMs that we're talking about, because they're far less expensive to produce, if you will. What we have to find out and balance is the economics of warfare that we're really faced with; and, frankly, try to make some of our enemies produce and spend \$100, and we spend a dollar. We used to be able to do it. We're not as proficient at it right now.

Senator MCCAIN. Well, this discussion needs to be held, not only in hearings like these, but on the floor of the Senate and various forums around the country, because the counter to the comment about the double-digit SAMs is the capability of extending our standoff capability so that we don't put pilots and aircraft at risk. So we can go back and forth, but some of these decisions, I think—and maybe it's our fault for not being more engaged in it, but a lot of these discussions, I don't think have been held. Maybe now that we're faced with some tough decisions, maybe we can do them in a more in-depth fashion.

Senator LIEBERMAN.

Senator LIEBERMAN. Thanks, Mr. Chairman. I agree with you totally.

I had one more question, and in some ways it moves directly off the general subject-matter area, but—the future, which is about the Joint Unmanned Combat Air System program. I know that Senator Warner has been very interested in this. I believe General Jumper has also been very committed to it. It's really a next-generation program. Since last year, the Department has transferred management of the program from DARPA to the Air Force, and removed a billion dollars from the planned budget resources for the program over the FYDP. I wonder, Secretary Wynne, why the Department has taken those actions and what those actions say about the possibility of the program moving forward in any reasonable time frame.

Mr. WYNNE. First, let me describe the Joint Unmanned Combat Air System and its associated control system as one of the most exciting ventures we've started out on, frankly.

Senator MCCAIN. It particularly excites the pilots, I'm sure. [Laughter.]

Mr. WYNNE. Fairly actively analyzed by a lot of folks, and great discussion has erupted, as Senator McCain has indicated, in his own way.

Senator LIEBERMAN. He has a way with words, doesn't he? [Laughter.]

Mr. WYNNE. In fact, there were some that indicated it would have a bad spelling in there with the U in there, but at any rate, I think it has, in fact, taken hold, and has found a potential place within the construct of manned and unmanned mixed fleet.

That having been said, the Department is making very difficult choices in resources. I think last year I talked very strongly to Secretary Roche about, what was the appropriate time for the Air Force to take charge of the program? We, in fact, have actively engaged the Navy. In fact, the Navy is now considering as to whether or not we could get a carrier-based Joint Unmanned Combat to es-

entially do fleet overwatch in the out years. They are now actively engaged in doing that analysis.

The Air Force senior leadership and the Navy senior leadership are trying to decide as to exactly what they want. We're hoping we do not have to down-select, but we are, in fact, already taking action to essentially slim down the common operating system and try to make it simply safety-of-flight and an open system that I can add on systems to it.

So, it is a difficult resource decision. I think it's one that you all are contending with, as well. All I can say is, it was tough when we looked at it, and it's not going to be any easier when you look at it, sir.

Senator LIEBERMAN. Yes. So you'd say, at this point, the Department is still committed to the unmanned program?

Mr. WYNNE. I would say that the Department is looking at it very carefully, and I think the question is, just how much can we afford?

Senator LIEBERMAN. Right.

Secretary Young, just, finally, I was going to ask you what role the Navy would play now in this program, since it's being transferred to the Air Force, but maybe Secretary Wynne has answered. What's the Navy's attitude toward the unmanned combat system?

Mr. YOUNG. Secretary England and the CNO have been adamant about the persistent intelligence surveillance and reconnaissance role this capability would provide off the aircraft carrier. We are very happy with DARPA's management of the program, and anxious to see the prototypes perform. We would hope the program would continue on a path to deliver that demonstrated capability under Air Force management, and that'll be our discussion basically with the Air Force. It's to try to keep pace and get the demonstrators out there. As Secretary Wynne said, when you have that core aircraft and open operating system, we can add capabilities to it as we go in a prudent manner.

Senator LIEBERMAN. Okay. Thank you very much.

Thanks, Mr. Chairman.

Senator MCCAIN. Senator Chambliss.

Senator CHAMBLISS. Just one other question, Mr. Chairman.

Mr. Wynne, the Joint Strike Fighter, which is going to be a great airplane, depends, to some extent, upon the R&D, as well as the testing being done on the F-22. Is that correct?

Mr. WYNNE. Yes, sir. I believe they have some shared systems.

Senator CHAMBLISS. If you terminate the production of the F-22, as proposed in the President's budget, what's going to happen to the cost per copy of the Joint Strike Fighter?

Mr. WYNNE. One of their shared systems is the overhead mix for the Lockheed Martin Corporation. I would say that they will also lose a little bit, in the sense that if some of the componentry is shared between the two airplanes, then that vendor will obviously lose that volume. I do not have a precise figure, sir, but it is another piece of the calculation for both of the airplanes in the Marietta facility.

Senator CHAMBLISS. So, do I understand you to say that the cost of the Joint Strike Fighter would increase?

Mr. WYNNE. I would have to say that there would be some upward pressure, and I just don't know how much.

Senator CHAMBLISS. Yes.

Thank you.

Senator MCCAIN. Just briefly, Mr. Secretary, we've enjoyed this hearing. On the issue of UAVs, or unmanned aircraft, I am convinced that one of the greatest challenges we face in the war on terror is the protection of our borders, and we're not going to be able to do it with people. I think that UAVs are a critical item. I've tried to, and will continue to try to, get the attention of the Department of Homeland Security, because I think they can help in the funding, because there is clearly a use for UAVs on our long extended borders, both to south and north.

Mr. WYNNE. Senator, that's why Australia is very interested in the Global Hawk. Remember, it made that flight over to Australia? That really was the intriguing feature. Their northern border.

Senator MCCAIN. So, I would hope we are funding Department of Homeland Security extensively, which it should. In my view, they need to look at high-tech, as well as people. We're all for 2,000 more border patrol, but you're never going to control that border without using high-tech equipment, and I would argue that we've reached a point of maturity now that UAVs can play a tremendously contributory role in trying to control our borders.

Anything more?

Senator LIEBERMAN. No, thank you.

Senator MCCAIN. Thank you very much.

Senator LIEBERMAN. Thank you all very much.

Senator MCCAIN. This hearing is adjourned.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

F/A-22

1. Senator MCCAIN. Mr. Bolcom, you have written extensively on the Air Force F/A-22 program. In your opinion, what should be the role and mission of the F/A-22, and how many aircraft do you think would enable the U.S. to accomplish those missions?

Mr. BOLKOM. The number of Raptors that the Air Force indicates it needs has changed over time. Although the current budget appears to fund 179 F/A-22s, Air Force leaders have stated they need 381 Raptors. An argument may be made, however, that no F/A-22s are required to accomplish the roles and missions for which it is designed.

The Air Force has consistently described the mission for the F/A-22, and the F-22 before it, as achieving air dominance, or air superiority. Supporters and critics alike appear to agree that this is the appropriate mission for the Raptor. On the other hand, the exact role that the Air Force says the F/A-22 could play in achieving air dominance has changed over time and is the subject of debate. The traditional role is to defeat enemy fighter aircraft in air-to-air combat. However, the F/A-22 appears to be over-designed to achieve air superiority against the fighter aircraft we face today, and are likely to face in the near future.

General Gorenc described the contemporary threat environment in his testimony when he noted "it's very difficult to fly air-to-air against somebody if everybody that you're up against is actually burying their aircraft." U.S. dominance in air-to-air combat is so great, that many adversaries would prefer to run or hide than to stand and fight. Since 1991, the United States has flown in-excess of 400,000 combat sorties, and lost only one aircraft to another fighter, according to official Department of Defense (DOD) estimates and Congressional Research Service (CRS) analysis. Some observers have characterized the need to procure any F/A-22s based on this historical record as weak.

Air Force officials, including Chief of Staff General John Jumper, argue that the F/A-22 is needed because future conflicts are not likely to resemble the permissive air environments of Afghanistan or Iraq. F/A-22 supporters argue that even though it is difficult to envision a peer competitor, the Air Force must prepare today for a potential worst case scenario in the future because it takes decades to develop and field advanced combat aircraft.

The U.S. success in this combat domain goes well beyond Operations Enduring Freedom and Iraqi Freedom. The United States faced little or no air-to-air opposition in Libya, Lebanon, Panama, Grenada, Haiti, Bosnia, and Kosovo. The United States has faced no air-to-air opposition in the hundreds of humanitarian and disaster relief missions it has flown, nor in the numerous military operations other than war (MOOTW) it has fought in countries like the Somalia, Philippines, Colombia, and the Horn of Africa. It appears to many analysts, that the future will look much like Afghanistan and Iraq in terms of achieving air dominance, and that the potent air threats that General Jumper predicts, will be few, if they emerge at all.

Perhaps because of this reduced air-to-air threat, the Air Force has emphasized the F/A-22's potential air-to-ground capabilities, especially against advanced Russian Surface-to-Air Missiles (SAMs). This appears to be the role for which the F/A-22 has gained the most traction. There appears to be a consensus that the combination of these SAMs, and an advanced, well equipped and maintained air force, could present the most difficult air dominance challenge in the future, and might warrant some number of F/A-22s. However, opinions vary on the number of F/A-22s required to deal with what many see as the most pressing threat—a potential conflict with China over Taiwan.

The U.S. Navy likely could be the first on the scene to deal with such a crisis. The Navy, however, has no plans to acquire the F/A-22. Either the Navy believes that it can adequately deal with China's Air Force and advanced SAMs with its less sophisticated and less expensive aircraft, or it is going to depend on the Air Force to "kick down the door" for them. It may be useful to know whether the Navy and Marine Corps, are prepared for a potential challenge in this area without F/A-22 support.

2. Senator MCCAIN. Major General Gorenc, in previous testimony, Air Force Lieutenant General Ronald Keys stated, "We view the F/A-22 as our kick-down-the-door force." He said the plane would be uniquely able to reach a threat quickly and neutralize it. In an article published in "USAF F/A-22, Air Dominance for the 21st Century", Walter Boyne states that "The combined capability of the Raptor, Nighthawk, and Spirit [B-2] is startling. Small diameter precision munitions and a force of only four B-2s and 48 F/A-22s, flying one sortie each, will be able to smash 380 targets . . . without ever being detected." First of all, the Air Force does not have enough low density/high demand aircraft such as F-117s, joint surveillance target attack radar system, and U-2s for every air expeditionary force (AEF). These aircraft support the AEF based on the requirements of the theater and contingency. The capability of the F/A-22 and its cost make it a prime candidate for the same AEF supporting function. Wouldn't a smaller force of 178 aircraft provide the Air Force with the number of F/A-22s to "kick down the door"?

General GORENC. An F/A-22 force of 179 aircraft increases operational risk, attrition, and time to gain joint air dominance, which jeopardizes the Joint Forces Commander's (JFC) ability to "seize the initiative" and gain access to the battle space. Previous analysis determined the requirement for at least 381 F/A-22s—based on capability, business case, and sufficiency needed to meet the national defense strategy with moderate risk. The Air Force is advocating for more Raptors during the Department's ongoing Quadrennial Defense Review (QDR) tactical air (TACAIR) analysis of joint air dominance capability requirements.

JOINT STAND-OFF WEAPON

3. Senator MCCAIN. Major General Gorenc, the Air Force backed out of the Navy led joint stand-off weapon (JSOW) program with the intention of procuring the extended-range version of the wind corrected munitions dispenser (WCMD-ER). Now that WCMD-ER is no longer funded in the budget request, will the Air Force reconsider its decision to withdraw from the JSOW program?

General GORENC. The Air Force does not intend to re-enter the JSOW program. Capabilities, costs, and risk assessments in area-attack munitions were all considered when the Air Force and Navy jointly terminated/deferred their participation in JSOW-B as a standoff delivery method for Sensor Fuzed Weapon (SFW). SFW provides unique and proven capabilities, and the Air Force is pursuing the continuation

of WCMD-ER to provide only enough kits to match programmed SFW production. Similar analytical considerations support the Air Force's decision to terminate JSOW-A. All fiscal and capabilities-based analyses continue to support WCMD-ER for the delivery of SFW submunitions over the JSOW-B. WCMD-ER continues to be the Air Force's preferred program to provide standoff delivery of area-attack munitions.

C-130

4. Senator MCCAIN. Mr. Bolkcom, costs for center wing box repairs of C-130E/H models could be accomplished for \$6 million to \$9 million per aircraft compared to \$100 million for a new C-130J. Based on your significant experience and writings on aging aircraft issues, would you agree that replacing the center wing box on C-130E/H aircraft is an appropriate strategy to recapitalize the C-130 fleet compared to the more expensive strategy to continue acquiring C-130s?

Mr. BOLKCOM. Repairing or replacing the center wing sections of C-130E/H aircraft appears to be a mandatory step to maintain the current fleet.

The Air Force has not requested funding for this modification in its \$185.6 million fiscal year 2006 budget submission. The center wing box has long been recognized as an essential, yet vulnerable part of the aircraft in terms of wear and tear. The Air Force encountered similar problems with the C-130 center wing box in the late 1960s and early 1970s. Increased wear and tear on the C-130 fleet due to recent operational demands might have also been anticipated. In 2001, the Navy grounded 51 EA-6B Prowler aircraft. These aircraft exhibited high degrees of center wing section stress due to extensive combat flying in Kosovo, Afghanistan, and Iraq. The Navy grounded 24 more Prowlers in 2003, when continued high Operations Tempo (OPTEMPO) further stressed the fleet's center wing sections.

As for recapitalizing the fleet, it is not currently clear that recapitalization is a necessary step. The first reason that the need to recapitalize is unclear, is that current and future airlift requirements have not been determined. The QDR and the Air Force's Mobility Capabilities Study (MCS) will both contribute to a collective understanding of future mobility needs. As DOD reshapes itself to better combat non-state as well as state actors, the type and number of intra-theater airlift aircraft required could change considerably. Until these studies are completed, decisions on the number and type of new aircraft to be procured, if any, appear premature.

The need to recapitalize the C-130 fleet is also unclear because it has not yet been demonstrated that newer aircraft will perform this mission more cost-effectively than the current fleet. As its aircraft age, Air Force leaders have stated that operations and maintenance (O&M) costs are increasing. Retiring old aircraft (such as the C-130E) and purchasing new aircraft (such as the C-130J) is a better use of scarce budget resources, they argue, than continuing to spend money on aging aircraft.

Studies by the Congressional Budget Office (CBO) and the Government Accountability Office (GAO) have found, however, that the effects of age on aircraft O&M costs are not well known, and that the data supporting the Air Force's position were anecdotal. A 1998 RAND report on aging aircraft found that there were no effective models to measure and estimate the cost impacts of aging factors such as corrosion or engine fatigue. Also, using historic cost estimating relationships to estimate future costs may not be valid.

In many cases, it may be more cost effective to maintain an older fleet rather than to purchase a new aircraft. The O&M costs of the UH-60 Black Hawk and the AH-64 Apache helicopters, for example, have stayed relatively constant as the aircraft have aged. The U.S. Navy and the CBO estimate that annual O&M costs for military aircraft increase by only 1-3 percent for each additional year of age, adjusting for inflation. So, if a 10-year old C-130 aircraft costs, for example \$100,000 to operate and maintain in fiscal year 2006, an 11-year old C-130 might cost \$103,000 to operate and maintain in the same year.

JOINT STRIKE FIGHTER

5. Senator MCCAIN. Secretary Young and Major General Gorenc, the Joint Strike Fighter (JSF) program is the largest weapons buying program ever. As such, it requires extreme caution as DOD commits taxpayer funds each year. The program involves three of our Services and at least eight foreign countries. We have already expended billions of dollars on development costs, yet still do not have a flying aircraft. I'm sure I don't have to remind you, a lot of your future force rides on getting this program right. One area that is beginning to concern me is the potential cost

growth simply due to the large difference developing between all variants of the aircraft. It seems to me that the original goal was to build three variants composed principally of a common airframe. So every time I read statements from the Pentagon's top weapons tester that say efforts to shed several thousand pounds from the short-takeoff-and-landing (STOVL) version have resulted in a loss of commonality between the three F-35 variants, I get concerned that costs will continue to rise as we begin to build three different aircraft, rather than one aircraft with three variants. The STOVL version for the Marine Corps and possibly for the Air Force looks like it will carry a smaller weapons load out. It may also have different air refueling systems if it follows the conventional tanking systems of today. The conventional takeoff version, one for the Air Force and another for the Navy, will each have a different wing and landing gear. Yet reports I hear tell me the Navy version, with its larger wing, should have better performance. I also suspect the software to run all the systems will be very different in each variant. What we have here really begins to look like the development of several very different aircraft. I believe serious consideration should be given to reduce the development to two variants: one STOVL for both the Marine Corps and Air Force, and one conventional version capable of carrier and land field operations. They should also all use the same air refueling system to enable greater flexibility and commonality with our allies. What are your thoughts on moving the JSF program toward just two variants?

Mr. YOUNG and General GORENC. The current acquisition strategy, for three JSF variants, remains the best solution to meet the Services' approved operational requirements and need dates. This approach is executable and more affordable than revising designs at this advanced stage of development. Manufacture and assembly of the first flight test article (CTOL variant) is underway and going well. The STOVL and CTOL production designs are nearing completion, and manufacture of the first STOVL flight test article begins late this year. Carrier version design is underway.

The warfighters' approved operational requirements cannot be met with only two variants because Service mission profiles are too diverse. Performance differences across variants result from optimizing a given variant for the specific Service mission. For example, the Air Force Conventional Takeoff and Landing variant is designed to meet higher 'g' limits, faster acceleration, and internal gun requirements. The Navy's carrier variant needs a larger wing and more rugged landing structure to accommodate carrier landing constraints and stresses.

Commonality across JSF variants remains significant. Avionics, mission system software, and the propulsion turbo machinery core are the same across all variants, and there's high commonality across many of the high cost structural components. All the variants will be built on the same production line using flexible manufacturing technology. While recent weight-related STOVL design changes somewhat lessened commonality, associated increases to projected Unit Recurring Flyaway costs are less than 1 percent.

AIR FORCE TANKER PROGRAM

6. Senator McCAIN. Secretary Young, whichever future Air Force tanker is bought, we all understand it will have to have boom capability. The boom system is required to refuel all of our large transport and bomber aircraft. We also know that the Navy will always require probe and drogue systems. Under the previously proposed 767 tanker lease program, emails among the Air Force leadership revealed a plan to build the first 100 tankers without drogue systems. Were you aware of this, and would you expect any future tanker program to require drogue systems on all tanker aircraft?

Mr. YOUNG. I consider it a tremendous joint force multiplier and a Navy requirement to ensure any future Air Force tanker program retain the capability to perform boom and probe/drogue refueling on the same sortie ("Dual" capability). During discussions involving development of tanker requirements supporting the tanker lease program, Navy leadership supported the requirement for the next Air Force tanker to be "dual" capable. As we now move beyond the lease program, we are confident that we have communicated our requirements clearly.

The Joint Requirements Oversight Council-validated Air Refueling (AR) Initial Capabilities Document includes language identifying probe/drogue, and boom AR on the same sortie as a primary mission. Additionally, the Navy and Air Force agree that "dual" capability (probe/drogue and boom on the same sortie) will be a Key Performance Parameter in the KC-135 Replacement Capability Development Document. The Navy will closely follow the progress of the Air Force tanker program and

remain fully engaged in the working groups and document reviews this summer and fall.

[Whereupon, at 4:33 p.m., the subcommittee adjourned.]

**DEPARTMENT OF DEFENSE AUTHORIZATION
FOR APPROPRIATIONS FOR FISCAL YEAR
2006**

THURSDAY, APRIL 14, 2005

U.S. SENATE,
SUBCOMMITTEE ON AIRLAND,
COMMITTEE ON ARMED SERVICES,
Washington, DC.

AIR FORCE ACQUISITION OVERSIGHT

The subcommittee met, pursuant to notice, at 2:35 p.m., in room SR-232A, Russell Senate Office Building, Senator John McCain (chairman of the subcommittee) presiding.

Committee members present: Senators McCain, Warner, Chambliss, and Lieberman.

Committee staff member present: Judith A. Ansley, staff director.

Majority staff members present: Regina A. Dubey, research assistant; William C. Greenwalt, professional staff member; Ambrose R. Hock, professional staff member; and Stanley R. O'Connor, Jr., professional staff member.

Minority staff members present: Creighton Greene, professional staff member; and Peter K. Levine, minority counsel.

Staff assistants present: Alison E. Brill and Andrew W. Florell.

Committee members' assistants present: Christopher J. Paul, assistant to Senator McCain; John A. Bonsell, assistant to Senator Inhofe; Clyde A. Taylor IV, assistant to Senator Chambliss; and Frederick M. Downey, assistant to Senator Lieberman.

OPENING STATEMENT OF SENATOR JOHN MCCAIN, CHAIRMAN

Senator MCCAIN. Today the committee meets to examine the management and oversight of Air Force acquisition programs. I want to welcome our witnesses: the Honorable Paul McNulty, United States Attorney for the Eastern District of Virginia; the Honorable Joseph Schmitz, Inspector General for the Department of Defense; the Honorable Michael Dominguez, Acting Secretary of the Air Force; Daniel Gordon, Managing General Counsel for Procurement Law at the Government Accountability Office (GAO); and Sallie Flavin, Deputy Director, Defense Contract Management Agency. We greatly appreciate all of you giving your time for this very important hearing.

Defending our Nation against its enemies is the first and fundamental commitment of the Federal Government and Congress must have an eye toward the faithful and efficient expenditure of every

taxpayer dollar. Over the last 3 years we have seen the most egregious abuse of power from an acquisition official that I have seen. Darleen Druyun's actions not only disgraced herself and resulted in her conviction on public corruption charges, but also disgraced the Air Force, the Department of Defense (DOD), and the entire defense establishment.

I continue to believe that she is not singly responsible for this failure and fervently hope that both Congress and the Department can work together to remove any possibility for future corruption through major acquisition reform.

Ms. Druyun also admitted that she had similarly harmed the United States on behalf of Boeing on several other major defense programs, to include the North Atlantic Treaty Organization (NATO), Airborne Warning and Control System (AWACS), C-130 aircraft modernization program (AMP), and the C-17. How much taxpayers have been fleeced remains to be seen.

I appreciate all the work that you and your staff have done in working to correct these past problems and I look forward to the day it is all behind us. Although I appreciate the tenor of the Air Force witness statements, what is missing is the Air Force's acceptance of any responsibility for wrongdoing, and the public denials by senior Air Force officials that anyone should be held accountable beyond Ms. Druyun.

The body of evidence suggests otherwise. We will hear testimony today regarding contracting officials who acted improperly and possibly unethically and illegally. There is a record of e-mails on personal attacks on me, my staff, and others who opposed the Boeing 767 deal, Air Force lobbying against the Senate Commerce Committee and the Armed Services Committee, exaggeration of the extent of corrosion in the KC-135 tanker fleet, end runs on the authorizing committees, obfuscation, delay, and withholding of tanker acquisition documents.

What is apparent is that the Air Force pulled out all the stops to get the Boeing tanker deal done and looked the other way when things were done wrongly, improperly. Similarly, this was done in the C-130J contract. The Air Force contracting officials and their leadership should never have acquired the C-130J using a commercial item acquisition strategy. They did it and it was done for 10 years.

But this is not just an Air Force problem. The defense acquisition anomalies go beyond the Boeing 767 tanker scandal and the C-130J program. Recently, the Army Secretary indicated that he would convert the "other transaction authority," (OTA) agreement, to a Federal Acquisition Regulation (FAR)-based contract with provisions typically used to protect taxpayers' interests and help prevent fraud, waste, and abuse. For whatever reason, these provisions were not included in the original OTA.

We need true acquisition reform and recent contract conversions in the Army and the Air Force are only treating the symptoms.

I do have some good news on this note. On April 6, 2005, the Airland Subcommittee of the Senate Armed Services Committee heard testimony which confirmed that the Air Force acquired the C-130J heavy lift aircraft as a "commercial item." In so doing, the Air Force bargained away its ability to get cost and pricing infor-

mation that would have assured that it was acquiring this aircraft at a fair and reasonable price. As a result, the Air Force obtained an aircraft that failed to meet contract specifications and was incapable of performing its intended mission, at a dramatically higher than expected cost. I am happy that Acting Secretary Dominguez and Chief of Staff of the Air Force Jumper indicated they shared these concerns and they informed me that the Air Force would convert the C-130J "commercial item" procurement contract to a traditional military item procurement contract. I am very pleased that the Air Force is going to take this action.

I would also point out that the Army's agreement to change from OTA to the regular procurement procedures is also laudatory.

We need to examine the whole procurement process as it works today in the DOD and the recent Air Force scandal is a glaring example of management and oversight failure, perhaps oversight failure on the part of Congress. Today's hearing will help us understand the depth and breadth of the problem and demonstrate the need for reform.

Senator Lieberman.

STATEMENT OF SENATOR JOSEPH I. LIEBERMAN

Senator LIEBERMAN. Thanks, Mr. Chairman. Thanks for not only calling this hearing today, but for the decisive role that you played in bringing to light this series of financial, management, ethical, and ultimately legal failures associated with the Air Force tanker lease proposal and other recent acquisitions. Your tenacity on this issue may have surprised some in the Air Force, but those of us who have worked closely with you on other matters know that it was not surprising, but it is typical of the dedication that you have shown on matters of national interest, and I congratulate you for what you uncovered here.

Today we are going to hear from some of the people who are directly involved or represent the Service directly involved. Details of the contracts particularly at issue continue to be the subject of review. I want to focus here on another question, maybe a broader question, which is what we learned from this, as you have said in your opening statement, and what went wrong in the Air Force acquisition process that made it possible for these abuses to occur.

In this regard, I think it is important to note not only that Ms. Druyun has been found guilty of illegal behavior, corrupt practices, but also that she was not solely or even primarily responsible for many of the significant problems with the Air Force tanker lease proposal. For example, it was not Ms. Druyun who reversed the findings of the Air Force's 2001 tanker economic service life study without obtaining new information or undertaking a new review. It was not Ms. Druyun who resisted conducting a formal analysis of alternatives, as the DOD does with other major programs, to determine the best approach to meeting the Department's tanker needs.

It was not Ms. Druyun who failed to develop required system engineering documents and testing plans and insisted that requirements documents be tailored to the aircraft available from a specific contractor. It was not Ms. Druyun who insisted on pursuing a leasing approach even when multiple independent reviews deter-

mined that leasing the aircraft would be between \$2 billion to \$6 billion more expensive than purchasing them.

These questionable acquisition decisions were all made higher up within the Air Force. What I find most troubling is that none of these questionable decisions appear to have met with any resistance at all from anywhere in the Air Force acquisition organization. We have an alphabet soup of independent organizations—Office of Management and Budget (OMB), Congressional Budget Office (CBO), GAO, Congressional Research Service (CRS), Institute for Defense Analyses (IDA), National Defense University (NDU), DOD, Inspector General (IG), Program Assessment and Evaluation (PA&E)—all of which found major problems with the tanker lease proposal. Yet, after reviewing thousands of Air Force e-mails, our staffs have yet to find a single criticism or concern raised from inside the Air Force itself. That raises a profound systemic question, which is, what has happened to the acquisition organization of the Department of the Air Force? Why is it that this acquisition organization failed to raise a single criticism or concern about a proposed tanker lease that every independent review found to be seriously flawed, and why did that same acquisition organization acquiesce in Ms. Druyun's decisions to alter specifications and revise contractor evaluations in a manner that tainted at least two other major procurements? Has the Air Force acquisition organization lost the capacity to exercise independent judgment and raise concerns about questionable acquisition decisions? I know these are serious questions, but the facts in these matters demand that those questions be asked.

Mr. Chairman, we have cut the DOD acquisition workforce by half over the last 15 years. These cuts continued even after the procurement holiday of the early 1990s came to an end and even after the global war on terrorism brought record levels of procurement expenditures. We have made these cuts, I am afraid, in a haphazard way, without giving consideration to the recruitment, training, and career-building needed to ensure the ongoing vitality of our acquisition organizations.

As a result, I am concerned that we may have stopped building the kind of strong, experienced senior leaders that we need to interact with industry and their own leadership when necessary to protect the interests of the DOD and the taxpayers of the United States.

This is not a problem that will be easy to address. It obviously could take some period of time to rebuild the acquisition expertise for which the Air Force was known a decade ago. It will take a commitment to human capital planning, both in the Air Force and perhaps in other Services as well. Getting it right may require us to re-structure Air Force organizations and career paths, but we must get it right if we are going to avoid future abuses and ensure that the taxpayers' dollars are well spent as we fulfil our constitutional responsibility to provide for the common defense.

I look forward to the testimony of our witnesses and again, Mr. Chairman, I thank you for your leadership.

Senator McCAIN. Thank you.

Senator Chambliss.

Senator CHAMBLISS. No opening statement, Mr. Chairman. Thank you.

Senator MCCAIN. Thank you.

I want to thank the witnesses for appearing here today. Mr. McNulty, it is a little unusual to have a witness such as you before this committee and I thank you for taking the time from your busy schedule to be here. I felt that it would be of interest to the committee to know about your activities in addressing this issue.

We have Senator Warner here, the distinguished chairman. I am sorry I did not see him. Would you care to make a statement?

Senator WARNER. I would just simply say, Mr. Chairman, I want to associate myself with your opening statement and that of the ranking member. I think back to a reprogramming action that was working its way through Congress. Three committees out of the four approved it and it landed on my desk, and I consulted with my colleague Senator McCain and we made a joint decision that this committee would not go along with that reprogramming. As a consequence, the events that took place with regard to this contract we all know well and we are here today.

Mr. Chairman, I also draw to the attention of the committee a letter that you and others sent to the Secretary of Defense in November asking for a review by the Inspector General of all these matters. I would hope today that perhaps he could comment on the timing of that work that we requested.

I join in welcoming my friend Mr. McNulty, the United States Attorney for the Eastern District of Virginia—a Warner appointee, I might add. But he and I have been discussing the work that he is doing independently of Congress and it is a very valuable inquiry into the overall procurement process.

I thank the chairman.

Senator MCCAIN. Your testimony is already tainted, Mr. McNulty. [Laughter.]

Thank you for appearing with us and thank you for the effort that you are making in helping us address these situations that have arisen. Please proceed.

**STATEMENT OF HON. PAUL J. McNULTY, UNITED STATES
ATTORNEY FOR THE EASTERN DISTRICT OF VIRGINIA**

Mr. McNULTY. Thank you, Senator. I appreciate this honor to be here today to describe what is going on in Eastern Virginia. It is especially nice to be here with my home State Senator and someone who has been very influential in my opportunity in the Eastern District of Virginia.

I would be remiss if I did not thank this committee for its work with regard to procurement fraud and government contract fraud and waste. For those of us in law enforcement, you have set a standard that has helped us a great deal. It has brought issues to the attention of investigators. It has raised the bar and kept it high. That kind of atmosphere makes it much easier for us in law enforcement to pursue these cases. So thank you for the efforts and again for the honor to be here.

I want to describe very briefly the Eastern District of Virginia's Procurement Fraud Working Group. The Procurement Fraud Working Group is the result of two realities that have come into

sharper focus in recent months. The first reality is that at this critical time in the life of our country our national defense and homeland security resources are especially precious, and criminals who cheat must be identified, stopped, and punished. Frankly, more procurement means more opportunity for fraud. We must ensure that our fighting men and women are getting well-made weapons and equipment and that the taxpayers are getting their money's worth when government buys goods and services. Our recent prosecution of former Air Force official Darleen Druyun and former Boeing Chief Financial Officer Michael Sears indicated to me, as well as many others, how strongly the public feels about this issue.

The second reality is that Eastern Virginia is home to an ever-increasing number of government contractors providing highly beneficial goods and services to the Federal Government. In addition, many of the government's national security assets and contracting offices and agencies are located in Eastern Virginia. We are the home of the Pentagon and the Central Intelligence Agency (CIA) and the extensive naval interests down in the Tidewater region.

The law enforcement community in this region must do all it can to strengthen the integrity of the procurement system. An energized and well-coordinated law enforcement effort that includes a broad group of investigative agencies is critical.

For these reasons, we established an initiative to promote the early detection, prosecution, and prevention of procurement fraud. In partnership with various law enforcement agencies and inspector general offices, I have formed the Procurement Fraud Working Group. This working group will concentrate on Federal law enforcement efforts to combat procurement fraud.

Now, the focus, Mr. Chairman, is on investigating and prosecuting, and by doing that, achieving deterrence. I was talking to a friend the other day who is a government contractor and he said to me, "Congratulations on this recent prosecution; we have all taken notice of it and have reviewed what we are doing." This is an area where deterrence really does make a difference.

Procurement fraud is a broad term. It is a broad concept and it includes product substitution, defective pricing or other irregularities in the pricing and formation of contracts, misuse of classified or other sensitive information, labor mischarging, accounting fraud, fraud involving foreign military sales, bribery, kickbacks, and ethical violations.

Now, briefly on the Procurement Fraud Working Group. Some of the principal players on the working group are the Defense Criminal Investigative Service (DCIS), Naval Criminal Investigative Service (NCIS), National Reconnaissance Office IG, Department of Homeland Security (DHS) IG, Department of State and Department of Transportation IGs, and other agencies I have listed in my written testimony.

The working group provides a novel and much needed mechanism to encourage and facilitate the sharing of strategic information or strategies to prevent and detect procurement fraud. Some of the strategies the investigative agencies are using, are listed in my testimony as well. I wanted to mention two examples.

NCIS, they are placing investigators, criminal investigators, in their contracting offices. They are embedding these agents in the

contracting offices in order to help contracting officials identify fraud more quickly and also to train them to do a better job themselves, but to also alert investigators to those signs so the investigations can begin more quickly. That is a good practice and it is the kind of practice that our working group has been able to facilitate spreading to other agencies.

Another strategy is something that the Defense Criminal Investigative Service is doing: the enforcement efforts to detect ethical violations of conflict of interest by current and former agency officials. They call this their Senior Official Project and it grew out of the Darleen Druyun circumstance. They are looking at those who have held significant positions involving contracting and what kind of recusals and contracts they handled and where they went after they left. That practice is something that other agencies I know have already modeled or repeated because they were impressed with the proactive nature of that investigative tactic.

Now, also, this working group is assisting in coordinating investigations. Some of the members of the working group historically have operated independently and without any formal means of sharing information relevant to procurement fraud enforcement. It is not unusual, for example, for two agencies to be pursuing the same target of a procurement fraud investigation without each other's knowledge. The working group will encourage both the concentration of law enforcement resources and, in appropriate cases, the adoption of a task force approach to investigate the criminal or civil cases.

We recently had our first working group meeting. At that meeting a number of ongoing investigations were identified and agencies that had a similar case spoke up and said, "Well, let us get together and work on that, let us see if we can combine our resources, let us compare notes."

The working group will meet periodically to facilitate this exchange of information and coordination. We will continue to expand our membership to maximize the impact we can have on the procurement process. As I said, we have already had our first meeting. That first meeting went very well. There was an enthusiastic response from the agencies and it was very well attended. So I am encouraged by the response I received to this new initiative.

So in conclusion, let me say, Mr. Chairman and members of this subcommittee, it is our hope that with the increased communication among the participating agencies there will be greater collaboration in investigating this type of crime and there will be increased prosecutions of procurement fraud in the Eastern District of Virginia. An energetic and substantial attack on this criminal activity will send a strong message of deterrence to government officials and the private sector.

Thank you, Mr. Chairman.

[The prepared statement of Mr. McNulty follows:]

PREPARED STATEMENT BY PAUL J. McNULTY

Mr. Chairman and members of the subcommittee: As the United States Attorney for the Eastern District of Virginia, it is my privilege to appear before you today to discuss the initiative that my office has undertaken to increase the prevention and prosecution of fraud in the Federal procurement process. This is obviously an

extremely important topic, and I commend you, Mr. Chairman, for holding this hearing.

I. INTRODUCTION

At this critical time in the life of our country, our national defense and homeland security resources are especially precious, and criminals who cheat the Government must be identified, stopped and punished. It is imperative that we take action to detect, prosecute and deter those unscrupulous government contractors and corrupt government officials whose theft of critically needed resources threaten America's safety and defense. We must ensure that our fighting men and women are getting well-made weapons and equipment and that the taxpayers are getting their money's worth when the Government buys goods and services.

Eastern Virginia is home to a large number of government contractors providing highly beneficial goods and services to the Federal Government. In addition, many of government's national security assets and contracting offices and agencies are located in Eastern Virginia. The law enforcement community in this region must do all it can to strengthen the integrity of the procurement system. An energized and well coordinated law enforcement effort that includes a broad group of investigative agencies is critical, especially because the Federal Bureau of Investigation (FBI), which traditionally has played a significant role in combating procurement fraud, has shifted its resources away from this type of white collar crime since the events of September 11, 2001.

For these reasons, I have established a procurement fraud initiative to promote the early detection, prosecution, and prevention of procurement fraud. In partnership with various Federal law enforcement agencies and Inspector General (IG) offices, I have formed the Procurement Fraud Working Group. This working group will concentrate on Federal law enforcement efforts to combat procurement fraud. Through collaboration and exchange of ideas, the working group will make law enforcement more effective in defeating, prosecuting and deterring procurement fraud.

II. BACKGROUND

The Challenge

Part of the cost of keeping America safe from terror and combating threats at home and abroad is increased procurement. Many of the Government's contracts are negotiated, signed or processed in Eastern Virginia because it is home to large procurement offices, including, among others, the Pentagon and Norfolk Naval Base, the largest navy base in the world. Moreover, many defense contractors and sub-contractors are located in Eastern Virginia or have offices here. In addition to increasing DOD contracts, these businesses are expanding operations to acquire and service contracts from the State Department, Department of Homeland Security (DHS), and other Federal agencies. For example, the President and Chief Operating Officer of one of DHS's top 10 contractors recently announced the company's intent to grow 15 percent each year. With increased procurement, including a rise in the outsourcing of particular services, there is also the potential for an increase in procurement fraud, which includes product substitution, defective pricing or other irregularities in the pricing and formation of contracts, misuse of classified or other sensitive information, labor mischarging, accounting fraud, fraud involving foreign military sales, bribery, kickbacks and ethical violations.

As the potential for procurement fraud has increased, however, the agencies responsible for investigating this crime remain relatively small. Defense Department investigative agencies, Inspectors General, and the Postal Inspectors are assigned enforcement responsibility for large geographical areas but have a limited number of agents. As I mentioned earlier, the FBI's comparatively large resources are now principally devoted to counter-terrorism efforts. This circumstance places a greater burden on the United States Attorney's offices to provide leadership and encourage greater law enforcement cooperation.

The Eastern District of Virginia Track Record

The Eastern District of Virginia (EDVA) has a proven track record of fighting contract fraud.

Last year alone, our office obtained at least 15 convictions in cases involving procurement fraud. Dating back almost 20 years, our office played a pivotal role in "Operation Ill Wind," which uncovered a major procurement fraud scandal. "Operation Ill Wind" resulted in about 70 convictions, including the convictions of half a dozen major defense contractors, some smaller defense contractors, employees, consultants and approximately a dozen Government officials. Most were given sentences of incarceration. The highest-ranking Government officials were an Assistant Secretary

of the Navy, a Deputy Assistant Secretary of the Navy and a Deputy Assistant Secretary of the Air Force. The defendants paid significant fines, restitution and civil settlements. Since “Operation Ill Wind,” EDVA has continued to prosecute major DOD fraud and corruption cases, including:

- Darleen Druyun: She was a senior Air Force official, who obtained jobs with Boeing for her daughter, her daughter’s fiancé, and herself while negotiating contracts with Boeing on behalf of the Air Force. Druyun claims to have given Boeing a “parting gift” by agreeing to a higher price than she believed appropriate for Boeing’s tanker aircraft. Boeing’s former Chief Financial Officer, Michael Sears, also pleaded guilty for his role in this scandal.
- Robert Lee Neal, Jr., and Francis Delano Jones, Jr., were convicted of extortion, bribery, money laundering and other crimes in 2003. Neal and Jones were senior DOD officials who used their official positions to obtain bribes, extortion payments and gratuities.
- Kevin Hawkins: He accepted over \$47,000 in bribes for his participation in a scheme to use DOD International Merchant Purchase Authority Card (IMPAC) credit cards to make over \$200,000 in fictitious purchases for the Pentagon.
- Bobby Gilchrist: He received over \$200,000 in bribes for his participation in a credit card scheme, resulting in \$400,000 in Government losses.
- The Ebersole dog case, focused on fraudulent procurements involving untrained bomb detection dogs used by the Internal Revenue Service (IRS), State, Federal Reserve, and Federal Emergency Management Agency (FEMA).
- The case against Jeffrey Bochesa, and several others, involved \$300,000 in gratuities and a \$1.33 million fraud committed by Bochesa and his company in connection with a National Reconnaissance Office subcontract.
- The Dutta case involved more than \$800,000 in overcharging on United States Agency for International Development (USAID) contracts.
- The Photogrammetrics case involved more than \$500,000 of overcharges on major Department of Transportation (DOT) road projects in Northern Virginia.
- Northrop Grumman paid \$60 million in connection with defective pricing on a major DOD contract in Norfolk.

III. Description of the Initiative

In an effort to address the problem of procurement fraud, the United States Attorney Office (USAO) in EDVA, in partnership with a large segment of the Federal law enforcement community, has formed the Procurement Fraud Working Group. Some of the principal players on the Working Group are the Defense Criminal Investigative Service, Naval Criminal Investigative Service, National Reconnaissance Office-IG, DHS-IG, Department of State-IG and Department of Transportation-IG.¹ This working group will provide a novel and much needed mechanism to encourage and facilitate the sharing of strategies to prevent and detect procurement fraud and information associated with targets of procurement fraud investigations. Some members of the working group historically have operated independently and without any formal means of sharing information relevant to procurement fraud enforcement. Indeed, it is not unusual, for example, for two agencies to be pursuing the same target of a procurement fraud investigation, without the other agency’s knowledge. The working group will encourage both the concentration of law enforcement resources, and, in appropriate cases, the adoption of a “task force” approach to investigating criminal and civil cases.

In addition, the working group will assist participant agencies in developing new strategies to combat procurement fraud. Some of the working group participants already have adopted strategies that we believe must be shared. Examples of these strategies include the following:

- Collaboration between special agents and prosecutors at early stages of procurement fraud investigations to assure successful prosecutions and civil recoveries.

¹Notwithstanding its shift in priorities towards counter-terrorism, the FBI will participate on the task force in a limited capacity. Other agencies that will participate on the working group include the National Science Foundation-OIG, Department of Treasury-OIG, Coalition Provisional Authority-OIG, IRS, Air Force Office of Special Investigations, NASA-OIG, Department of Education-OIG, Department of Interior-OIG, General Services Administration-OIG, Army-CID, Department of Commerce-OIG, CIA-OIG, and Department of Veterans Affairs-OIG, among others.

- Education of Government contracting officers, program managers and other agency personnel on issues relating to the detection and prevention of procurement fraud.
- Placement of agency investigators at major procurement offices to work with agency employees who are directly involved in the negotiation of Government contracts.
- Use of computer data-mining and other programs to uncover and detect procurement fraud.
- Enhanced efforts to detect ethics violations and conflicts of interest by current and former agency officials.
- Improved training of special agents and auditors to assist them in conducting investigations of procurement fraud, bribery and conflicts of interest.

The working group will meet periodically to facilitate exchange of information and ideas. The working group also will continue to expand its membership to maximize positive impact on the procurement process.

IV. CONCLUSION

In short, it is our hope that with increased communication among the participant agencies, there will be greater collaboration in investigative efforts and increased prosecutions of procurement fraud in the Eastern District of Virginia. An energetic and substantial attack on this criminal activity will send a strong message of deterrence to Government officials and the private sector.

Again, Mr. Chairman, we appreciate your support in this endeavor. I would be pleased to answer any questions you may have. Thank you.

Senator MCCAIN. Thank you very much.

Mr. Schmitz, welcome back.

STATEMENT OF HON. JOSEPH E. SCHMITZ, INSPECTOR GENERAL, DEPARTMENT OF DEFENSE

Mr. SCHMITZ. Thank you, Mr. Chairman, Senator Lieberman, Chairman Warner, Senator Chambliss. Thanks for another opportunity within a week to testify before the subcommittee and to address your questions regarding Air Force acquisition oversight. I will also discuss briefly today our related work on commercial contracting practices for defense system procurement, which I understand is of concern to the subcommittee as well. I would ask that my complete statement be introduced.

Senator MCCAIN. Without objection.

Mr. SCHMITZ. On March 29, 2004, we issued a report on the acquisition of the Boeing KC-767 Alpha tanker aircraft, in which we concluded, among other findings, that at the time, the proposed tanker contract, as negotiated, was not a good deal for the DOD or for the American taxpayers. It was our judgment that the Air Force used a procurement strategy that demonstrated neither best business practices nor prudent acquisition procedures to provide accountability for the expenditure of \$23.5 billion for the KC-767 tanker program. Therefore, we recommended that the Under Secretary of Defense for Acquisition, Technology, and Logistics not proceed with the program until he resolved the issues pertaining to the procurement strategy, acquisition procedures, and statutory requirements.

The criminal investigative component of the Office of Inspector General, known as the Defense Criminal Investigative Service (DCIS), has led the investigations of Darleen Druyun, the former Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management, and Michael Sears, the former Boeing Chief

Financial Officer, together with the Federal Bureau of Investigations (FBI) and the U.S. Attorney.

Both of these officials have since pled guilty to various Federal crimes associated with conflicts of interest. Ms. Druyun's admissions implicated several other Air Force contracts and we continue to assist the U.S. Attorney for the Eastern District of Virginia, to my right, and Department of Justice with the criminal and civil litigation aspects of this ongoing matter.

On November 19, 2004, Senate Armed Services Committee Chairman Warner, Ranking Member Levin, and Senator McCain requested that my office conduct an accountability review of the KC-767 Alpha Tanker Program to determine "what happened, who was accountable, and what actions must be taken to prevent this situation from happening again."

To determine what happened, when, and what individuals were in key positions, we developed a time line with an accompanying narrative that shows significant events for the tanker lease proposal before and after Ms. Druyun ended her employment with the Air Force in November 2002. To determine who made or should have made decisions on the Tanker Program, we are reviewing program documentation, including e-mails, from the Office of Secretary of Defense, Department of the Air Force, Office of Management and Budget, Congressional Budget Office, and the Boeing Company.

In addition, we have conducted 93 interviews with military and civilian officials involved with the Tanker Program. We plan to report out by the end of this month. At that time, we will include our recommendations.

In the February 11, 2005, memorandum, Michael Wynne, at the time the acting Under Secretary of Defense for Acquisition, Technology, and Logistics, referred to us for further review eight Air Force contracts which had involved Ms. Druyun. We identified two additional contracts for review and, in addition, we are reviewing two classified contracts previously referred to us by the acting Under Secretary.

In July 2004 we reported that the Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. This was the subject of my testimony last week. As a result of our initial report, the government fielded C-130J aircraft that could not perform the intended mission. That was our finding. This was the subject, as I said in my testimony last Wednesday and I will not belabor it any further today.

In April 2004, we reported that Ms. Druyun and other senior Air Force managers did not use appropriate contracting procedures, as specified in the Federal Acquisition Regulations, to determine price reasonableness when they negotiated a \$1.3 billion NATO AWACS contract with Boeing in September of 2002.

A January 1993 DOD Inspector General report titled "Government Actions Concerning McDonnell Douglas Corporation During 1990," identified five Air Force officials, including Ms. Druyun, as culpable for improper progress payments to McDonnell Douglas on the C-17 program. Resulting "improper contracting actions reduced financial risk on the C-17 program by \$1.6 billion and created the

false appearance of program success.” The Air Force subsequently disciplined all of the officials identified in my predecessor’s report except for Ms. Druyun.

We began an audit of the Air Force source selection process for the small diameter bomb in June 2004 in response to a referral from our investigators. On November 10, 2004, Lockheed Martin filed a protest with the GAO relating to the small diameter bomb development and demonstration contract award to Boeing, and in a decision issued on February 18, 2005, GAO sustained the Lockheed Martin protest. That contract will now be recompeted.

We have two related ongoing audits of Air Force procurement practices. However, both audits have been suspended because of ongoing base realignment and closure support work and other operational priorities. The first audit, when we resume it, will evaluate the adequacy of management oversight exercised by each Service Acquisition Executive over major acquisition programs. The second audit will evaluate commercial contracting practices for procuring defense systems and will determine whether or not procurement officials have been complying with Federal Acquisition Regulations when procuring defense systems or other subcomponents.

This concludes my oral statement. I will be happy to answer any questions you may have.

[The prepared statement of Mr. Schmitz follows:]

PREPARED STATEMENT BY HON. JOSEPH E. SCHMITZ

Mr. Chairman and members of the Airland Subcommittee: Thank you for the opportunity to appear before the committee today and to address your questions regarding Air Force acquisition oversight. I will also discuss related work on commercial contracting practices for major Defense system procurements which I understand is of concern to the committee.

AUDIT OF THE ACQUISITION OF THE BOEING KC-767A TANKER AIRCRAFT

We conducted an audit of the Air Force’s planned acquisition of Boeing KC-767A Tanker Aircraft, and—based on the audit findings I am about to explain—recommended that the Under Secretary of Defense for Acquisition, Technology, and Logistics, either:

- proceed with the sole-source acquisition of 100 or fewer tanker aircraft, but only after implementing audit recommendations to resolve contracting and acquisition issues;
- initiate a new major defense acquisition program based on the results of the ongoing analysis of alternatives for military tanker aircraft; or
- implement a mix of the first two options.

Section 8159 of the Department of Defense Appropriations Act for Fiscal Year 2002, authorized the Air Force to make payments under a multiyear pilot program to lease general purpose Boeing 767 aircraft in commercial configuration. Because of concerns over the cost to lease 100 tanker aircraft, Congress then authorized the Air Force in Section 135 of the National Defense Authorization Act for Fiscal Year 2004 to lease no more than 20 tanker aircraft and purchase no more than 80 tanker aircraft.

Using the congressional authority, the Air Force finalized negotiations with Boeing in December 2003 to lease 20 KC-767A tanker aircraft and procure 80 tanker aircraft using noncompetitive fixed-price commercial contracts. Because of revelations by The Boeing Company (Boeing) in November 2003 concerning apparent improprieties by two of the company’s executives, the Deputy Secretary of Defense placed the Boeing KC-767A Tanker Program on hold until our review and two other studies were completed. On March 29, 2004, we issued Inspector General Report No. D-2004-064, “Acquisition of the Boeing KC-767A Tanker Aircraft,” in which we concluded, among other findings, that at the time, the proposed Boeing KC-767A tanker contracts as negotiated and the acquisition strategy were not a good deal for the Department of Defense (DOD), or for the taxpayers.

Commercial Item Procurement Strategy

Strongly encouraged by Air Force management including Ms. Druyun, the Air Force contracting officer decided to use a commercial item procurement strategy for the sole-source Boeing KC-767A Tanker Program with Boeing. However, contrary to the Air Force interpretation, we found that a military tanker aircraft is not a commercial item as defined in section 403 of title 41, United States Code. The Air Force contracting officer, in making the commercial item determination, inappropriately determined that modifications of the Boeing 767 aircraft were of a minor type not customarily available in the commercial marketplace. The modifications made to develop the Boeing 767A tanker aircraft were not minor, were for unique military-specific purposes, and cost 65.8 percent of the base commercial aircraft price. In addition, the modifications significantly changed the aircraft's primary purpose and function from that of transporting people and cargo in a civil context to that of a military tanker. Furthermore, 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 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 (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 stewardship and oversight of congressionally appropriated DOD funds.

The Air Force stated that Federal Acquisition Regulation (FAR) Part 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.

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.

Acquisition Strategy

The Air Force used Section 8159 of the Department of Defense Appropriations Act for Fiscal Year 2002 as its acquisition strategy for the Boeing KC-767A tanker aircraft. The focus and goal of using this informal acquisition strategy was to expeditiously lease 100 Boeing KC-767A tanker aircraft. By not treating the acquisition of the Boeing KC-767A tanker aircraft as an acquisition program, the Air Force disregarded best business practices, prudent acquisition procedures, and compliance with statutory provisions for testing. Without a disciplined acquisition strategy, the Air Force cannot assure the warfighter that Boeing will deliver KC-767A tanker aircraft that will satisfy operational requirements.

Specifically, the operational requirements document (ORD) for the tanker did not require that the first 100 Boeing KC-767A tanker aircraft acquired meet requirements in the Mission Needs Statement for "Future Air Refueling Aircraft." Instead, the Air Force planned to address the requirements through an evolutionary acquisition strategy in three spirals. In doing so, the negotiated contract for the first 100 tanker aircraft did not include the key performance parameter for interoperability. By not including the interoperability key performance parameter in the negotiated contract, the Air Force may not achieve the objectives of the remaining key performance parameters because of their dependency on interoperability requirements. In addition to not meeting tanker aircraft interoperability requirements, the first 100 tanker aircraft would not have met warfighter requirements for:

- refueling multiple aircraft simultaneously;

- conducting secondary missions, such as combined cargo/passenger transportation and aeromedical evacuation;
- self-protective measures (including armor protection); and
- electromagnetic pulse protection.

Also, systems engineering requirements were not fully developed. Among the systems engineering requirements not fully developed were:

- a performance metric for verifying the satisfaction of the 40-year service life requirement while operating 750 hours per year;
- inclusion of corrosion prevention and control requirements in the system specification; and
- inclusion of ORD requirements for interoperability, combat identification, and secure communications in the system specification.

Further, Air Force plans for conducting operational and survivability testing of the Boeing KC-767A tanker aircraft did not comply with statutory requirements in sections 2366 and 2399 of title 10, United States Code. The statutes require that systems under development may not proceed beyond low-rate initial production, normally 10 percent of the total production quantity, before operational tests determine the effectiveness and suitability of the system (section 2399 of title 10) and survivability testing of the system (section 2366 of title 10) are completed. As planned, the dedicated operational and survivability testing of the Boeing 767A tanker aircraft would not occur until 3 years after the award of the contracts for the lease of 20 tanker aircraft and the procurement of 80 tanker aircraft. The Director, Operational Test and Evaluation has also taken the position that the required testing should be accomplished before the Air Force proceeds with the full-rate production decision for the 80 tanker aircraft.

BOEING KC-767A TANKER LEASE CRIMINAL INVESTIGATION

The criminal investigative component of the Office of Inspector General, known as the Defense Criminal Investigative Service (DCIS), has led the investigations of Darleen Druyun, the former Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management and Michael Sears, the former Boeing Chief Financial Officer, both of whom have since pled guilty to Federal crimes associated with conflicts of interest. As the result of interviews conducted with Ms. Druyun during the course of the investigation, Ms. Druyun also admitted to improperly influencing other contracts and stated she was not objective while negotiating several Department of Defense programs. These admissions implicated the C-17 Multi-Year Procurement, a North Atlantic Treaty Organization (NATO) Airborne Warning and Control System (AWACS) equitable adjustment, the Small Diameter Bomb contract, the C-130 Avionics Modernization Program, and the proposed KC-767 tanker lease. Several of these admissions were incorporated into Ms. Druyun's supplemental statement of facts and resulted in an increase of her sentence guidelines range. We continue to assist the U.S. Attorney for the Eastern District of Virginia and Department of Justice with the criminal and civil litigation aspects of this investigation.

DOD Office of the Inspector General (OIG) has also led and continues to participate in the investigation of the theft of Lockheed Martin Corporation proprietary documents relating to the evolved expendable launch vehicle (EELV) program by persons who later went to work for Boeing and delivered the documents to Boeing managers. Three Boeing divisions were suspended from Government contracting for a period of time by the Air Force as a result of our EELV investigation.

KC-767A TANKER PROGRAM ACCOUNTABILITY REVIEW

Request from the Senate Armed Services Committee

On November 19, 2004, Senate Armed Services Committee Chairman Warner; Ranking Member Levin; and Senator McCain sent a letter to the Secretary of Defense requesting that the DOD IG conduct an accountability review of all members of the DOD and the Department of the Air Force, both military and civilian, who participated in structuring and negotiating the proposed lease contract for the KC-767A tanker aircraft program, including the then-Secretary of the Air Force and the then-Assistant Secretary of the Air Force (Acquisition). Specifically, the accountability review should determine "what happened, who was accountable, and what actions must be taken to prevent this situation from happening again."

We plan to issue our report by April 30, 2005. At that time, we will include recommendations.

DOD OIG REVIEW OF CONTRACTS REFERRED BY ACTING UNDER SECRETARY OF DEFENSE
FOR ACQUISITION, TECHNOLOGY, AND LOGISTICS

In a February 11, 2005, memorandum, Michael Wynne, Acting Under Secretary of Defense for Acquisition, Technology and Logistics, referred eight Air Force contracts involving actions of Darleen Druyun to DOD OIG for review. Mr. Wynne had previously referred to us two unidentified classified contracts for review. All of these contracts are Air Force contracts that were identified during the course of an internal study commissioned by the acting Under Secretary in November 2004. A selected team led by Sallie Flavin, Deputy Director, Defense Contract Management Agency conducted the internal study. This team reviewed specific acquisition actions involving Ms. Druyun over the course of the time that she was Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management. The acquisition actions identified for review were source selection decisions, Acquisition Strategy Panel (ASP) decisions, revisions to Acquisition Strategy Reports during or after ASP approvals, award fee determinations, equitable adjustments, actions involving contested payments to contractors, contract restructures, contract extensions, and contract litigation. Excluded from the study were acquisition actions already under review by another Government body.

Specifically, 407 acquisition actions were reviewed that Ms. Druyun had been involved with from 1993 through 2002. These actions included approvals of Justification and Approvals for other than full and open competition, source selection decisions, negotiation decisions, and award fee determinations. As a result of this review, eight actions were identified as requiring additional scrutiny. Specifically, these eight actions are:

- National Polar-orbiting Operational Environmental Satellite System—Conical Microwave Imager Sensor (Contract F04701-01-C-0502);
- C-5 Avionics Modernization Program—(Contract F33657-98-C-007/006);
- Financial Information Resource System (FIRST)—(Contract FA877-01-C0-0020);
- C-22 Replacement Program (C-40)—(Contract F33657-00-C-0056);
- 60 K Tunner Program;
- KC-135 Programmed Depot Maintenance (Contract F42620-98-D-0054);
- F-16 Mission Training Center (Contract F33657-99-D-2025); and
- C-40 Lease & Purchase Program (Contract F33657-02-C-0017).

We have identified an additional procurement action on the Joint Primary Aircraft Trainer System (J-PATS) program. We are in the process of reviewing the detailed documentation obtained by the study team on each of the contracts identified. Our auditors are currently coordinating with our investigators on the eight contracts because of the nature of the issues involved and will be assigning internal responsibility for addressing those issues. We are also reviewing additional items associated with the C-130J program.

C-130J AIRCRAFT

In July 2004, we reported that the Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements. As a result, the Government fielded C-130J aircraft that could not perform the intended mission.

The Air Force initially contracted for two C-130J aircraft in 1995 through a modification to a 1990 contract for C-130H aircraft. The Air Force undertook to buy the C-130J as a commercial item, which limited cost oversight by the Government. Further, FAR Part 12.208 “Contract quality assurance” requires that contracts for commercial items shall rely on contractors’ existing quality assurance systems as a substitute for Government inspection and testing before tender for acceptance. As of the time of our audit, the contractor had been unable to deliver a specification compliant aircraft.

The Air Force’s commercial justification included, in part, that there was a 95 percent commonality between the C-130J and the civilian commercial version of the plane and that modifications from the commercial version would be minor. The Air Force could not provide evidence supporting its claims. In fact, the Air Force acknowledged that the C-130J included features not customarily available in the commercial marketplace including aerial delivery (cargo and paratroop), defensive systems, secure voice communication, night vision imaging, and satellite communication. The Air Force also acknowledged at the time of the audit that no commercial version (L-100J) of the C-130J currently existed and no sales of the L-100J had been made to the public. A web site cited by the Air Force in its comments to a

draft of our report showed that the L-100 J “would be a commercial derivative” of the C-130J.

NATO AWACS MID-TERM MODERNIZATION PROGRAM “GLOBAL SOLUTION”

In April 2004, we reported that senior level Air Force managers did not use appropriate contracting procedures as specified in the Federal Acquisition Regulation when they negotiated the NATO AWACS Global Solution with the Chief Executive Officer of Boeing Integrated Defense Systems in September 2002. The report identified those senior level managers as Darleen Druyun, who at the time was Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management; the Chairman of the NATO Airborne Early Warning and Control Program Management Agency Board of Directors; and the NATO Airborne Early Warning and Control Program Management Agency General Manager. Specifically, Ms. Druyun and other managers did not determine whether the \$1.32 billion NATO AWACS negotiated price was fair and reasonable because they did not use an independent Government cost estimate, did not use: (1) an integrated product team to analyze the Boeing proposed statement of work, including a technical evaluation of labor hours and labor mixes; (2) audit assistance to review direct and indirect labor rates; and (3) weighted guidelines to establish reasonable profit and share ratios.

DRUYUN ACTIONS ON THE C-17 PROGRAM

A January 1993 DOD OIG report, “Government Actions Concerning McDonnell Douglas Corporation During 1990,” identified five Air Force officials, including Ms. Druyun, as culpable for improper progress payments to McDonnell Douglas on the C-17 program. The report recommended that the Secretary of the Air Force take appropriate disciplinary action against Ms. Druyun and the others relating to actions to implement an Air Force “plan of action to provide financial assistance to [McDonnell Douglas Corporation (MDC)] during August through December 1990.” Resulting “improper contracting actions reduced [MDC] financial risk on the C-17 program by \$1.6 billion and created the false appearance of [program] success. . . .”

The Air Force subsequently disciplined four of those officials, but exonerated Ms. Druyun. Further review by the Secretary and Deputy Secretary of Defense “concluded that punishment of Mrs. Druyun was not appropriate.” A 1993 letter from Senator Grassley to then Secretary of Defense Aspin objected to the purported Air Force exoneration and promotion of Druyun “1 month after the [DOD] Inspector General recommended that she be disciplined for improper or illegal behavior,” in response to which then Under Secretary of Defense Deutch responded to Senator Grassley, “You may be assured that we would not retain Mrs. Druyun in her present position if we felt it would jeopardize the integrity of defense acquisition.”

SMALL DIAMETER BOMB

We began an audit of the Air Force source selection process for the small diameter bomb (SDB) (Project No. D2004CH-0164) in June 2004 in response to a DOD OIG investigative referral.

On November 10, 2004, Lockheed Martin filed a protest with the Government Accountability Office (GAO) relating to the SDB System Development and Demonstration (SDD) contract award to Boeing (RFP No. F08635-03-R-0038).

In regard to that procurement, Lockheed Martin protests: (i) the Air Force’s evident intention to reinstate a particular scope of work (known as Phase II) to a Boeing contract where the scope was removed from the SDB SDD competition under [the former Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management’s corrupt direction], as well as; (ii) the underlying award of the SDB contract because it now appears that the work scope for the SDD competition was defined not by the Agency’s legitimate needs but through [the former Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management’s] corrupt dealings with Boeing.

In a decision issued on February 18, 2005, GAO sustained Lockheed Martin’s protest because:

the record showed that Darleen Druyun was involved in the decision-making process that culminated in changes made to evaluation factors—including deletion of specific technical requirements. The record further showed that the Air Force currently intends to amend Boeing’s contract on a sole-source basis to add those previously deleted requirements. GAO recommended that, rather than making this sole-source addition to Boeing’s contract, the Air Force conduct a competition for those requirements.

RELATED ONGOING AUDITS

Audit of Service Acquisition Executives Management Oversight and Procurement Authority for Acquisition Programs

The audit objective will be to determine the adequacy of each Service Acquisition Executive's management oversight procurement authority over major acquisition programs. Specifically, the audit will evaluate the program management and procurement decision process used by the Service Acquisition Executives and the Program Executive Officers.

Audit of Commercial Contracting Practices for Procuring Defense Systems

The overall audit objective will be to determine whether procurement officials are complying with Federal Acquisition Regulation Part 12, "Acquisition of Commercial Items," and Part 15, "Contracting by Negotiation," when procuring defense systems or their subcomponents. Specifically, we will evaluate the justifications used to determine whether major systems or subsystems meet commercial item criteria and evaluate the adequacy of the basis for establishing price reasonableness.

Both audits have been suspended because of audit support for Base Relocation and Closure and other operational priorities.

Senator MCCAIN. Thank you very much.

Secretary Dominguez, thank you for performing the tasks that you do, including the additional tasks as Secretary of the Air Force. We thank you for your dedicated service. Thank you for appearing today.

**STATEMENT OF HON. MICHAEL L. DOMINGUEZ, ACTING
SECRETARY OF THE AIR FORCE**

Mr. DOMINGUEZ. Thank you, sir. Mr. Chairman, Senator Lieberman, and distinguished members of the committee: Thank you for this opportunity to discuss Air Force acquisition and ethics.

I take any breach of integrity and trust seriously. I am deeply concerned that Air Force leaders and our acquisition officials have lost the confidence of the members of this committee. I intend to address these issues forthrightly. Unethical behavior by any member of our team is an affront to the honest, hard-working members of the Air Force and a breach of trust with the American people. We must take all necessary steps to avoid abuses of trust, such as those committed by Darleen Druyun.

We are working closely with Michael Wynne, the Under Secretary of Defense for Acquisition, Technology, and Logistics, to pursue what he called "aggressive action to understand what may have contributed to this situation and how to protect against such problems in the future."

Air Force leaders are now cooperating fully with 48 different investigations by 8 different agencies. I welcome independent assessments of our acquisition processes and procedures and will take quick and appropriate action on their recommendations.

We have not waited for all those to be completed before taking corrective measures. We are improving our acquisition oversight to guard against this type of abuse. We are restructuring decision-making authority so that no one person exercises consolidated authority without effective oversight.

In addition, we have adjusted procedures to ensure critical acquisition decisions are made in a more collaborative environment and every acquisition professional is required to complete new ethics training specifically geared to issues raised in Ms. Druyun's case. The Air Force has a unique values-based ethics program that transcends mere compliance. Our training emphasizes our Air Force

core values. The conduct of our airmen must be consistent with those values whether there is an applicable rule or not. Our approach goes beyond the consequences of not following the rules and emphasizes the broader approach to effective decisionmaking. We want our airmen to commit to ethical behavior out of a strong understanding of how their conduct relates not only to the law, but also to the Air Force culture and the Air Force mission.

The men and women of our Air Force Acquisition Corps, indeed of our entire Air Force, are outstanding professionals, committed to the Air Force's core values of integrity, service, and excellence. It is sad that Ms. Druyun deviated from this path and put personal gain over the needs of the Air Force and our country.

Mr. Chairman, Senator Lieberman, and distinguished members of the committee, thank you again for the opportunity to discuss Air Force acquisition and our responses to recent events. I am committed to restoring the bond of trust and confidence we have enjoyed in the past and I look forward to your questions.

[The prepared statement of Mr. Dominguez follows:]

PREPARED STATEMENT BY HON. MICHAEL L. DOMINGUEZ

Mr. Chairman, members of the subcommittee, I appreciate this opportunity to discuss the status of Air Force acquisition oversight. In the wake of Ms. Darleen Druyun's illegal activities, which were an affront to the entire Air Force community, it is important for you to know that the Air Force takes this breach of integrity very seriously.

We are working closely with Michael W. Wynne, the Under Secretary of Defense for Acquisition, Technology, and Logistics, to pursue what he described as "aggressive action to understand what may have contributed to this situation and how to protect against such problems in the future." Air Force leaders are currently cooperating fully with 48 different investigations—many of which we asked for—by 8 different agencies. I welcome independent assessments of our acquisition processes and procedures and will take quick and appropriate action on their recommendations.

INTERNAL AND EXTERNAL REVIEWS

In December 2003, as the Department of Defense Inspector General (DOD IG) investigation of Ms. Druyun was ramping up, the Air Force initiated internal investigations on all major contract actions awarded to The Boeing Company in which Ms. Druyun participated during the 2 years leading up to her retirement. We realized it had been a mistake for a single person to determine the acquisition strategy, wield the source selection authority for major contracts, and conduct the management and oversight of contract executions. We were in the process of correcting that situation when Ms. Druyun chose to leave Federal service.

As a result of that internal review, the Secretary of the Air Force asked the DOD IG to review the contract restructuring on the North Atlantic Treaty Organization (NATO) Airborne Warning and Control System (AWACS) modernization program. In April 2004, the DOD IG concluded that the production and retrofit phase option negotiations did not follow correct business and contracting procedures. Based on this finding, in January 2005 the Air Force and The Boeing Company completed renegotiations for the price for this program.

Based on admissions in Ms. Druyun's sentencing statement, the Air Force expanded its internal review to include her nearly 10-year tenure as Principal Deputy Assistant Secretary for Acquisition and Management. A special group designated by the Commander of Air Force Materiel Command (AFMC) supervised dedicated investigative teams of program management, contracting, and legal personnel; reviewed their findings; and made final recommendations to the Air Staff. When it became clear that the investigation's scope exceeded what could reasonably be accomplished without the appearance of conflict of interest, the Air Force asked the Office of the Secretary of Defense (OSD) to accomplish an unbiased external review.

The OSD-directed team, led by the DCMA Deputy Director, Ms. Sallie Flavin, reviewed 407 contract actions at various locations, including: Los Angeles, Vandenberg, Patrick, Peterson, Kirtland, Maxwell, and Bolling Air Force Bases; the Aeronautical Systems, Electronic Systems, Space and Missile Systems, and Air Arma-

ment Centers; and Warner-Robins, Ogden, and Oklahoma City Air Logistics Centers. Air Force personnel provided materiel support and assistance to this multi-service/agency team. The team found a few anomalies: their investigation identified eight new contract actions that were subsequently referred to the DOD IG. Most of these actions occurred during the last few years of Ms. Druyun's tenure; however, one occurred in 1998. We await the final reports of the DOD IG investigations, but early indications suggest these actions did not involve any criminal activity.

ADDITIONAL REVIEWS

Air Force internal reviews were also completed for the following programs: Evolved Expendable Launch Vehicle Program Restructure; Global Positioning System Block IIF Single Prime Initiative contract modification; and the Wideband Gap Filler source selection. After discussions with OSD staff, we are preparing to refer them to the DOD IG to review the programs and the Air Force's findings. We are doing this to ensure absolute objectivity in the final reviews.

We are continuing to review contract modifications Ms. Druyun negotiated on the C-17 program and the NATO AWACS Mid-Term Engineering and Manufacturing Development (EMD) settlement. We completed a preliminary review of the negotiations on the C-17 program. With respect to NATO AWACS, the Air Force and The Boeing Company have agreed to reexamine the \$100 million settlement on the EMD contract later this year when development efforts come to closure.

The DOD IG is now investigating specific actions, identified through the above reviews, to identify serious problems or abuses. Additionally, the DOD IG is performing an audit of Service Acquisition Executives' management and oversight procurement authority for acquisition programs.

In the wake of Ms. Druyun's sentencing statement, the Air Force received several contract protests from parties that had lost source selection competitions to The Boeing Company. These competitions included the small diameter bomb (SDB), C-130 Avionics Modernization Program (AMP), and two classified programs. To ensure these investigations were completely fair and impartial, the Air Force encouraged protesting parties on the SDB and AMP source selections to protest directly to the Government Accountability Office (GAO). As has been well publicized, the protests were upheld in both cases because Ms. Druyun admitted to bias toward one bidder. The Air Force intends to comply fully with the GAO's rulings and recommendations issued thus far, which we believe strike the proper balance between providing what the warfighters need and protecting the interests of the taxpayers.

Finally, a Defense Science Board (DSB) Task Force was established to address the adequacy of management and oversight processes for acquisition organizations DOD-wide. They are evaluating the systems to ensure proper checks and balances exist and determine if acquisition simplification could improve efficiency and oversight efficacy. The task force has completed their initial investigations, and the Air Force eagerly awaits their report.

CONCLUSION

The Air Force continues to work closely with organizations reviewing and investigating acquisition actions Ms. Druyun completed while she was the Principal Deputy Assistant Secretary for Acquisition and Management. We will review their findings and take appropriate actions based on their recommendations, including renegotiating fair and reasonable prices as well as recompeting certain contracting actions.

The Air Force started to realign our program executive office reporting structure before Ms. Druyun left Federal service; that change strengthened the lines of accountability and decentralized program execution decisionmaking. Recently, we have refocused our attention on values-based ethics training: every acquisition professional is now required to complete new ethics training specifically geared to issues raised in Ms. Druyun's case.

Our acquisitions—indeed, everything we do in service to the Nation—begin with the expectation of integrity. It is unfortunate that Ms. Druyun, in the waning years of her tenure, was corrupted by the power given to her and put her own interests before those of the Air Force and the Nation. My deepest regret about this incident is how her actions stained the reputations of the over 700,000 Active Duty, Guard, Reserve, and civilian airmen who are dedicated to Excellence and who daily uphold our other two Core Values of Integrity First and Service Before Self. The men and women of the Air Force—inside and outside the acquisition corps—are outstanding professionals. I appreciate the opportunity to be here today on their behalf, and I am committed to restoring public confidence in our Air Force and its leadership.

Thank you again for giving the Air Force the opportunity to discuss these recent events.

SUPPLEMENT TO SASC TESTIMONY CONCERNING AF POSITION ON C-130 AMP AND SMALL DIAMETER BOMB PROTESTS

This submission supplements testimony provided to the Airland Subcommittee, Senate Armed Services Committee at the April 14, 2005, hearing on the fiscal year 2006 defense budget concerning the Air Force position on protests filed with the Government Accountability Office (GAO) on the C-130 Avionics Modernization Program (AMP) and Small Diameter Bomb (SDB) Program.

It is significant that the Air Force took the lead in directing the protesters to the GAO. All of the protests on these two important procurement programs were initially filed with the Air Force as agency-level protests. The Air Force declined to decide the protests, instead urging the protesters to file with the GAO. The Air Force did so because it wanted a full, open, and independent review of the potential impact of Ms. Druyun's admitted bias toward Boeing on these procurements.

The source selection decision for the SDB contract challenged in the protest was not made by Ms. Druyun, but by another senior government official, more than 9 months after Ms. Druyun left the Air Force. In addition, Air Force personnel who worked on the SDB source selection at issue testified before the GAO that Air Combat Command developed the technical requirements for the SDB, not Ms. Druyun. Although the GAO decision cites to the fact that at least one requirement (specified accuracy) changed as a result of an independent analysis Ms. Druyun directed to be performed, the key is that the analysis was independent. Ms. Druyun did not specify or pre-determine the results of that analysis. Based on these factors, the Air Force position during the protests was that Ms. Druyun, having already retired from government service over 9 months before the source selection decision, did not play a material role in the challenged source selection decision and did not improperly influence the SDB procurement. Notwithstanding the evidence presented by the Air Force, the GAO concluded that Ms. Druyun had participated materially in the SDB acquisition. Given Ms. Druyun's participation, the GAO ruled that the Air Force failed to demonstrate that the protester was not prejudiced by Druyun's admitted bias toward Boeing. The Air Force, by letter of April 15, 2005, advised the GAO that it will comply with GAO's recommendation for further competition on this program.

The Air Force position on the C-130 AMP protest was based on evidence that the underlying technical evaluations were not tainted by Ms. Druyun's bias. Ms. Druyun, as the Source Selection Authority (SSA) for the C-130 AMP procurement, clearly did play a material role in the award of that contract. As the SSA, she personally selected Boeing over other competitors for award. She also signed the source selection decision document, ostensibly setting out her reasons for her award decision. Unfortunately, as we now know from admissions made in connection with her later prosecution and conviction for ethical violations, she was biased toward Boeing.

The Air Force acknowledged that Ms. Druyun's decision to select Boeing for the wrong reason—her personal bias—was clearly improper. However, the key question posed by the protest was whether that acknowledged bias impacted only Ms. Druyun's own decision as the SSA or whether she used that bias to improperly influence the evaluations conducted by others of the competing proposals. Air Force officials serving on the evaluation teams testified that although Ms. Druyun certainly raised questions during the course of the competition that caused them to make sure their evaluations were accurate and well documented, she did not direct the results of those evaluations. Rather, the evaluators rated each proposal accurately and honestly based on their own assessments of the strengths and weaknesses of those proposals. As a result, the evaluators believed that the technical ratings of the proposals submitted to Ms. Druyun for decision were accurate and that, in the minds of the evaluators, Boeing's proposal presented the best overall value for the government. Based on this evidence, the Air Force position during the protest was that Ms. Druyun's admitted personal bias toward Boeing did not improperly taint the underlying proposal evaluations and that, on the strength of those evaluations, another, unbiased source selection authority reasonably could have selected Boeing to receive award of the C-130 AMP contract. Notwithstanding the evidence presented by the Air Force, the GAO ruled that the Air Force failed to demonstrate by compelling evidence that Druyun's bias in favor of Boeing did not influence the evaluation or selection of Boeing.

The Air Force recognizes the harm caused to these procurements by Ms. Druyun. Her illegal conduct did untold damage to the integrity of the Air Force procurement process and created literally hundreds of millions of dollars in extra costs to the American taxpayer. However, her criminal actions are an indictment of her alone. They do not reflect the values of the Air Force as a whole or the values of the thousands of Air Force procurement professionals who honestly and zealously work hard every day to buy the best products and services needed to support the Air Force mission. The Air Force remains committed to that principle and to restoring congressional faith in the integrity of our procurement system.

Senator McCAIN. Thank you very much.

Mr. Gordon, welcome.

**STATEMENT OF DANIEL I. GORDON, MANAGING ASSOCIATE
GENERAL COUNSEL FOR PROCUREMENT LAW, GOVERNMENT ACCOUNTABILITY OFFICE**

Mr. GORDON. Thank you, sir. Mr. Chairman, Senator Lieberman, Senator Chambliss: My name is Dan Gordon. I am the head of the bid protest unit at GAO. I am honored to be here at your request to testify about two bid protest decisions that GAO recently issued sustaining protests filed in connection with the admissions of bias in favor of the Boeing Company by Darleen Druyun, formerly the Air Force's Principal Deputy Assistant Secretary for Acquisition.

Mr. Chairman, I have a brief statement I would like to make orally, but I would ask that my more detailed written testimony as well as the two bid protest decisions be entered into the record.

Senator McCAIN. Without objection.

Mr. GORDON. As the members of this committee may know, GAO's bid protest function is quite different from our traditional and more common audit review. Our bid protest function hears challenges, usually filed by disappointed offerors, pursuant to the Competition in Contracting Act of 1984, a statute that this committee played a key role in developing. Acting as a quasi-judicial forum, GAO produces decisions within 100 days of when a protest is filed that address whether contracting agencies have violated procurement law and regulation in awarding contracts.

The two protest decisions at issue here involve different Air Force programs, the small diameter bomb and the C-130 avionics modernization program, but the central question presented in both cases was the same: whether Darleen Druyun's admitted bias tainted the procurement decision at issue. In both cases we concluded that it did.

There was no dispute about Druyun's bias. As part of her criminal plea in October of last year, she admitted that she had asked Boeing to arrange a job for her daughter and for her daughter's boyfriend, and she admitted that she felt indebted to Boeing for arranging those jobs. In defending against the protests, which were brought to our office by the companies that had lost the competitions to Boeing, the Air Force did not deny that Druyun was biased. Instead, the Air Force argued that Druyun had not played a material role in the decisions at issue in the protests.

After GAO reviewed the documents and convened a multi-day hearing in each protest, we found considerable evidence of Druyun's participation and influence in the decisionmaking process for both of the procurements. For example, in the C-130 avionics procurement Druyun summoned the evaluators to Washington, DC,

to discuss the status of their evaluations before they had even completed reviewing initial proposals from the competing companies. Because of her demanding and intimidating manner, one witness at the hearing before us at GAO spoke of “blood on the floor after the meeting.” That meeting was subsequently referred to by one participant as the “15 September massacre.”

As the very specific examples set out in our bid protest decision show, the record we developed demonstrated that Darleen Druyun influenced the evaluation from beginning to end.

In the small diameter bomb procurement as well, Druyun took an active part in the decisionmaking process. It is true that Dr. Marvin Sambur, who at the time was Druyun’s boss, the Assistant Secretary of the Air Force for Acquisition, was the source selection authority in name. But our review led us to conclude that it was Druyun, regardless of formal titles, who was de facto the leading acquisition official. To offer just one example, although we have a good number set out in our decision, the companies competing for the contracts made presentations to Darleen Druyun.

As required by the Competition in Contracting Act, our decision sustaining the protests recommended corrective action that we think the Air Force should take. The statute gives the Air Force 60 days to implement our recommendation or to advise us that they will not be following our recommendation and, since our decisions were issued in mid to late February, we expect to hear from the Air Force within the next 2 weeks.

Mr. Chairman, that concludes my prepared statement, but I would be honored to answer any questions that you or the members of the subcommittee may have.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT BY DANIEL I. GORDON

Mr. Chairman and members of the subcommittee: Thank you for the opportunity to be here today to discuss the bid protest decisions recently issued by the Government Accountability Office (GAO) in response to protests challenging the actions of the Air Force under two programs—the C-130 avionics modernization upgrade (AMP) program and the small diameter bomb program. The protests were based on information disclosed by Darleen Druyun, formerly the Air Force’s Principal Deputy Assistant Secretary for Acquisition, in connection with her October 2004 criminal conviction for violation of the statutory conflict of interest provisions codified at 18 U.S. C. §208(a) (2000).

The Competition in Contracting Act of 1984 (CICA) provides statutory authority for GAO’s bid protest function. GAO has issued implementing regulations establishing the procedural framework for our bid protest forum in Title 4, Part 21, of the Code of Federal Regulations. GAO provides an objective, independent, and impartial forum for the resolution of disputes concerning the awards of Federal contracts. Our procedures provide all interested parties—the protester, the awardee and the contracting agency—an opportunity to present their positions prior to GAO’s resolution of the protest.

GAO’s bid protest decisions differ from the reports GAO issues in connection with its program audits and reviews. In this regard, our protest decisions do not address broad programmatic issues such as whether or not a weapons program is being managed effectively or consistent with best practices; instead, our bid protest decisions address specific allegations raised by unsuccessful offerors challenging particular procurement actions as contrary to procurement laws and regulations. Our protest decisions are necessarily limited to the record as we developed it, largely shaped by the allegations raised by the protesters and the responses but forward by the agency and awardee.

With that background, my testimony today will summarize our two recently issued decisions concerning allegations of improper influence by Darleen Druyun. Our testimony is based on the public version of our decisions. A limited amount of

information that is proprietary to the protesters, source selection sensitive, or law enforcement sensitive has been redacted from these decisions, but none of the redacted information is critical to understanding the decisions.

THE PROTEST DECISION REGARDING THE C-130 AVIONICS MODERNIZATION PROGRAM
(AMP)

Background

As was widely publicized, in October 2004 Darleen Druyun pled guilty to violating the conflict of interest provisions of 18 U.S.C. § 208(a) based on the fact that she engaged in employment negotiations with The Boeing Company while she was negotiating on behalf of the Air Force for the lease of 100 Boeing KC 767A tanker aircraft. In addition to her employment negotiations, documents submitted by Druyun in connection with the criminal proceedings establish that, in 2000, Druyun contacted Boeing personnel to request that Boeing provide employment for both Druyun's daughter and the daughter's boyfriend (who subsequently became Druyun's son-in-law). In response to these requests, Boeing created a position for Druyun's daughter and hired both her daughter and future son-in-law in the fall of 2000. In the documents filed in the criminal proceedings, Druyun further states that her decisions in matters affecting Boeing were "influenced by her perceived indebtedness to Boeing for employing her future son-in-law and daughter," and that with regard to the contract awarded in the C-130 AMP procurement, "an objective selection authority may not have selected Boeing."

Following Druyun's disclosures in October 2004, agency-level protests were filed at the Air Force by the three offerors who unsuccessfully competed for the C-130 contract: Lockheed Martin Aeronautics Company, L-3 Communications Integrated Systems, (the successor-in-interest to Raytheon Company Aircraft Integration Systems), and BAE Systems Integrated Defense Solutions, Inc. The Assistant Secretary of the Air Force for Acquisition subsequently advised each of the protesters that "the Air Force is of the opinion that the protest is more appropriately considered by the Government Accountability Office," and that "the Air Force will not decide the protest." Each of the companies subsequently filed protests with our Office maintaining that Druyun's recently disclosed bias in favor of Boeing, along with the information previously disclosed to the protesters regarding the agency's purported bases for rejecting their proposals, demonstrated that their proposals were not evaluated in a fair and unbiased manner.

In response to the protests, the Air Force argued that notwithstanding Druyun's acknowledged bias in favor of Boeing, the award to Boeing was proper because "there is no evidence that Mrs. Druyun influenced the SSET [source selection evaluation team]" and that, overall, "the evaluation process was conducted properly and in accordance with the evaluation criteria."

The Legal Standard

The Federal Acquisition Regulation (FAR), § 3.101-1, provides that:

Government business shall be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none. Transactions relating to the expenditure of public funds require the highest degree of public trust and an impeccable standard of conduct. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest in Government-contractor relationships.

Where, as was the case here, the record establishes that a procurement official was biased in favor of one offeror, we believe that the need to maintain the integrity of the procurement process requires that we sustain the protests unless the agency demonstrates that the bias did not affect the contract award decision—in legal terms, that the bias did not prejudice the protesters.

GAO's Review of the Record

As discussed above, the documents supporting Druyun's criminal conviction establish that she was biased in favor of Boeing. In reviewing the protest allegations, GAO conducted a 3-day hearing on the record during which testimony was provided by nine government witnesses. The record developed by GAO, including the hearing testimony, established the following key points. First, Druyun functioned as the lead procurement official throughout this procurement and employed a forceful management style. In this particular procurement, she left no doubt about who was in control from the outset. Before the evaluators had even completed their initial proposal review, Druyun requested that they come to Washington, D.C. to discuss the "status" of their evaluations; this meeting was subsequently referred to as the "15 September massacre." From September 15, 2000, through the first request for final proposal revisions in February 2001, Druyun had the evaluators come to Washington

five times to brief her on the ongoing evaluations; during these briefings, Druyun expressly or implicitly directed multiple changes to the evaluators' ratings, many of which favored Boeing. In our decision, we identify specific examples of Druyun's directions regarding each of the offerors' proposals.

Also, the record shows that following the request for final proposal revisions, but before the source selection process was complete, the contracting officer sent an e-mail to a recipient list that included virtually everyone involved in the source selection process, directing that the recipients "clean up" and "delete" various portions of the evaluation record. Specifically, this e-mail directed the recipients to "delete any comments where evaluators/advisors have suggested ratings," explaining that "[i]f the rating doesn't match the suggestion, we have protest fodder." The e-mail also specifically directed the evaluators to "[d]elete any derogatory or exceedingly glowing comments."

The first round of final proposal revisions was submitted on March 2. On March 9, the contracting officer reopened discussions and requested a second round of proposal revisions. At the GAO hearing, the contracting officer unambiguously testified that discussions were reopened to permit Boeing to "take care of" a "problem" in its cost proposal, explaining that, at that point, Boeing's proposal failed to comply with instructions the agency had previously given the offerors. No substantive questions were asked of any other offeror during these discussions. Nonetheless, during the GAO hearing, agency witnesses identified specific aspects of the protesters' final proposals that should have been brought to their attention, including aspects of the protesters' proposals that appear very similar to the "problem" Boeing was permitted to "take care of."

The second round of final proposal revisions was submitted on March 19. Thereafter, the source selection evaluation team briefed Druyun on the evaluations of final proposals. During this briefing the cost team was directed to review their analysis to "assure its accuracy." Upon receiving that direction, the cost team reduced Boeing's evaluated price and increased Lockheed's evaluated price. Additionally, in a subsequent meeting with Druyun, the source selection evaluation team described a specific approach to performance that Boeing had proposed as one "which tends to induce problems." Druyun directed that this description be crossed out of the evaluation record and replaced with the words: "Boeing will work out details post award."

Based on the record discussed above, we rejected the Air Force's assertion that there was no evidence that Mrs. Druyun influenced the source selection evaluation team. Similarly, in light of the failure to treat offerors fairly regarding discussions, we rejected the Air Force's assertion that the evaluation process had been conducted properly. Finally, because the contracting officer directed the evaluators to destroy various portions of the evaluation record and the agency failed to conduct meaningful discussions with all of the offerors, along with the evidence of Druyun's influence throughout the source selection process, we could not reasonably determine which of the four proposals should have been selected for award. We concluded that the record failed to establish that any one of the protesters was not prejudiced by the various procurement flaws. Accordingly, we sustained the protests.

Recommendation

Ordinarily, where our Office finds fundamental flaws in an agency procurement, we will recommend that the agency reopen negotiations with all competitive range offerors, conduct meaningful discussions, request final revised proposals, and evaluate those proposals in a fair and unbiased manner. Here, however, the contract was awarded more than 3 years ago, and performance has been ongoing since that time. In the course of developing the protest record, the Air Force reported that while recompetition of the installation phase of the contract is feasible, recompetition of the entire contract would not be in the best interests of the taxpayer or consistent with national security concerns.

Based on the Air Force's acknowledgment that recompetition of the installation phase of the contract was feasible, we recommended that the agency recompetete those requirements. In light of the broader concerns raised by the Air Force, we were reluctant to recommend recompetition of the entire contract effort. Nonetheless, we had some concern that the Air Force's position regarding recompetition of the entire effort was forged in the heat of litigation, and may not reflect a completely objective review. Accordingly, we recommended that the agency conduct and document a thorough analysis of the competing concerns and provide that analysis to our Office. In the event the agency ultimately determines that the broader concerns preclude recompetition of the entire contract effort, we recommended that each of the protesters be reimbursed the costs incurred in preparing and submitting

their proposals. We also recommended that the protesters be reimbursed for their costs of filing and pursuing the protests.

THE PROTEST DECISION REGARDING THE SMALL DIAMETER BOMB

We turn now to the Air Force's award of a contract to Boeing under the small diameter bomb program. Lockheed Martin Corporation was the only competitor for this effort, and following the October 2004 disclosure of Druyun's bias, filed a protest alleging that Druyun improperly manipulated certain program requirements and the related evaluation factors in a manner that favored Boeing.

In addition to Druyun's feeling of "indebtedness" to Boeing due to Boeing's employment of her daughter and future son-in-law, the record we developed, which included a hearing at GAO during which five government witnesses and one Lockheed Martin witness testified, established the following key points. The small diameter bomb program initially contemplated an evaluation of offerors' capabilities against both fixed and moving targets; early in the procurement process (during the first few months of 2002), Lockheed Martin was perceived as having a "strength" with regard to the moving target requirements and Boeing was considered "weak" in this area; in May 2002, most of the requirements associated with moving targets and the associated evaluation factors were deleted; thereafter, Boeing was selected for award without consideration of its capabilities regarding the deleted moving target requirements. At the time our decision was issued, the Air Force was in the process of adding the previously deleted requirements to Boeing's contract on a sole-source basis.

The Agency's Position and GAO's Conclusion

In responding to Lockheed's protest, the Air Force maintained that Druyun "did not play any significant role" in the decision to change the small diameter bomb's technical requirements and, therefore, Lockheed was not prejudiced by Druyun's acknowledged bias in favor of Boeing.

Contrary to the agency's assertion, the contemporaneous record established that Druyun was significantly involved in the decisionmaking process that culminated in the May 2002 changes to the technical requirements and deletion of the related evaluation criteria. As discussed in our decision, Druyun was the de facto lead acquisition official during the period in which the changes were made. In that capacity, she received briefings from the competing offerors, directed the source selection evaluation team to perform various activities, directed an independent technical review of Lockheed Martin's technology applicable to moving targets, was directly involved in other changes made to the requirements for fixed targets, and contacted Raytheon to request that Raytheon communicate with Boeing. Following Druyun's contact, Raytheon provided support to Boeing in its efforts to meet the small diameter bomb requirements.

On the basis of our review of the protest record, we rejected the Air Force's assertion that Druyun was not materially involved in the process culminating in the May 2002 changes to the technical requirements.

The Legal Standard and Conclusion

As discussed above, the FAR provides that procuring agencies must strictly avoid conflicts of interest or even the appearance of conflicts in Government-contractor relationships and, where, as here, the record establishes that a procurement official was biased in favor of one offeror, the need to maintain the integrity of the procurement process requires that we sustain the protest unless the agency demonstrates that the bias did not prejudice the protester. In light of Druyun's acknowledged bias in favor of Boeing and our determination that she was materially involved in the decisionmaking process culminating in deletion of the moving target requirements, along with the fact that Lockheed Martin was perceived as having a "strength" and that Boeing was "weak" regarding the deleted requirements, we concluded that the record failed to establish that Druyun's bias did not prejudice the protester. Accordingly, we sustained the protest.

Our Recommendation

At the time our decision was issued, the Air Force had not yet amended Boeing's contract to add the previously deleted requirements regarding moving targets. Accordingly, we recommended that the Air Force conduct a competitive procurement to meet those requirements. Consistent with the provisions of CICA, we also recommended that Lockheed Martin be reimbursed its costs of filing and pursuing the protest.

Finally, Lockheed requested that we recommend reimbursement of the proposal preparation costs Lockheed incurred in competing for the contract awarded to Boe-

ing. As discussed in our decision, we deferred ruling on that request, pending the Air Force's review of certain concerns regarding potential conflict of interest issues relating to a former Brigadier General who, after leaving the Air Force, was involved in Lockheed's proposal preparation efforts.

Mr. Chairman, this concludes our prepared statement. I would be happy to respond to any questions regarding our bid protest decisions that you or other members of the subcommittee may have.

GAO'S MISSION

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CONGRESSIONAL RELATIONS

Gloria Jarmon, Managing Director, JarmonG@gao.gov (202) 512-4400, U.S. Government Accountability Office, 441 G Street NW, Room 7125, Washington, DC 20548.

PUBLIC AFFAIRS

Susan Becker, Acting Manager, BeckerS@gao.gov (202) 512-4800, U.S. Government Accountability Office, 441 G Street NW, Room 7149, Washington, DC 20548.



Comptroller General
of the United States

DOCUMENT FOR PUBLIC RELEASE

The decision issued on the date below was subject to a GAO Protective Order. This redacted version has been approved for public release.

Decision

Matter of: Lockheed Martin Corporation

File: B-295402

Date: February 18, 2005

Marcia G. Madsen, Esq., David F. Dowd, Esq., Michael E. Lackey, Jr., Esq., Ilana Z. Sultan, Esq., and William L. Olsen, Esq., Mayer, Brown, Rowe & Maw, for the protester.

Rand L. Allen, Esq., Paul F. Khoury, Esq., Scott M. McCaleb, Esq., Daniel P. Graham, Esq., and Michael S. Caldwell, Esq., Wiley Rein & Fielding, for The Boeing Company, an intervenor.

Bryan R. O'Boyle, Esq., Michael J. O'Farrell, Jr., Esq., and P. Alan Luthy, Esq., Department of the Air Force, for the agency.

Glenn G. Wolcott, Esq., and Michael R. Golden, Esq., Office of the General Counsel, GAO, participated in the preparation of the decision.

DIGEST

Where the record shows that performance requirements, and associated evaluation criteria, were altered to delete a significant requirement and an evaluation factor under which the protester was viewed as having an advantage, and a senior procurement official, who was involved in discussions that culminated in the deletion of the requirement, has acknowledged bias in favor of the ultimate awardee, the protest is sustained on the basis that the agency has failed to demonstrate that the senior official's acknowledged bias did not prejudice the protester and that the integrity of the procurement process was not compromised.

DECISION

Lockheed Martin Corporation protests various procurement actions taken by the Department of the Air Force in connection with the small diameter bomb (SDB) program under request for proposals (RFP) No. F08635-03-R-0038.¹ Specifically,

¹ At the time of inception, the SDB program contemplated development of a "miniature munition" weapon system to provide fighter and bomber aircraft with air-to-surface capabilities to attack "fixed and mobile/relocatable targets." Agency Report, Tab 82, Draft Operational Requirements Document, at 1. Consistent with the (continued...)

Lockheed Martin maintains that Darleen Druyun, in her capacity as the Air Force's Principal Deputy Assistant Secretary for Acquisition, improperly manipulated certain program requirements and the related evaluation factors in a manner that favored The Boeing Company and that, as a result, Boeing won the competition to perform system design and development (SDD) work under the SDB program.

We sustain the protest.

BACKGROUND

Lockheed Martin's protest relates, generally, to activities that took place between September 2001 (when Boeing and Lockheed Martin were each awarded component advanced development contracts under the SDB program) and August 2003 (when Boeing was selected for award of the SDD contract). However, the primary focus of the protest relates to activities that took place during the first few months of 2002 and culminated in the Air Force's decision to make significant changes to the SDB requirements and associated evaluation criteria—specifically, the deletion of phase II requirements for capabilities against moving targets.²

As a procedural matter, our Office's timeliness rules generally preclude consideration of protests challenging agency actions, such as these, that occurred in the relatively distant past. *See* Bid Protest Regulations, 4 C.F.R. § 21.2 (2004). Here, however, Lockheed Martin's protest is based on information it first obtained in October 2004 due to the public disclosure at that time of documents relating to Darleen Druyun's criminal conviction and sentencing for violation of the conflict of interest provisions codified at 18 U.S.C. § 208(a) (2000).³ Since Lockheed Martin had

(...continued)

initial intent to use the SDB against both fixed and moving targets, the agency's initial source selection plan contemplated a two-phase effort, stating: "The Phase 1 variant will provide a capability against fixed targets, while the Phase 2 variant will provide a capability against mobile/relocatable targets." Agency Report, Tab 12, Source Selection Plan (Nov. 5, 2001), at 1.

² Lockheed Martin maintains that it agreed to participate in the SDB competition only after being assured that the program would include a moving target variant. Lockheed Martin's Comments on Agency Report, exh. 2, [deleted].

³ In April 2004, Druyun initially pled guilty in the United States District Court for the Eastern District of Virginia to violating the provisions of 18 U.S.C. § 208(a), which prohibit an officer or employee of the United States Government from "participat[ing] personally and substantially as a Government officer or employee . . . in a . . . contract . . . in which, to his knowledge . . . [an] organization with whom he is negotiating or has any arrangement concerning prospective employment, has a financial interest." Agency Report, Tabs 67-70. In connection with that April 2004

(continued...)

no reason to previously know of the information disclosed in those documents, we view the protest as timely.

Druyun's Bias in Favor of Boeing

The record establishes that, in 2000, Druyun contacted personnel at Boeing to request that Boeing employ her daughter and future son-in-law. Agency Report, Tab 69, Statement of Facts, at 3-4; Agency Report, Tab 71, Supplemental Statement of Facts, at 2-4. The record is also clear that, in response to Druyun's requests, Boeing created a position for Druyun's daughter and hired both the daughter and future son-in-law in the fall of 2000. In her supplemental statement of facts, signed by both Druyun and her attorney, and submitted to the Court in connection with her October 2004 criminal plea, Druyun stated:

Defendant acknowledges that Boeing's employment of her future son-in-law and her daughter in 2000, at the defendant's request, along with the defendant's desire to be employed by Boeing, influenced her government decisions in matters affecting Boeing.

Agency Report, Tab 71, Supplemental Statement of Facts, at 2.

In a footnote referenced at the end of the preceding quotation, that document further states:

(...continued)

plea agreement, Druyun submitted a statement of facts disclosing that, in October 2002, Druyun met with a Boeing executive to negotiate Druyun's subsequent employment by Boeing. (Druyun retired from the Air Force in November 2002 and began employment with Boeing in January 2003.) At the time of the October 2002 secret meeting, Druyun was also negotiating with Boeing on behalf of the Air Force for the lease of 100 Boeing KC 767A tanker aircraft. Agency Report, Tab 70, at 30. In submitting her April 2004 plea, Druyun's position, as subsequently described by the Court, was that her actions constituted "more or less a technical violation [of the law]" in that she had always acted in the best interests of the United States. Agency Report, Tab 72, Sentencing Hearing Transcript (Oct. 1, 2004), at 13. Nonetheless, as part of her April 2004 plea agreement, Druyun agreed to take a polygraph examination. Following that examination, Druyun's position regarding the nature of her actions changed dramatically, as discussed in more detail below. On October 1, 2004, Druyun again submitted a plea agreement in connection with her violation of 18 U.S.C. § 208(a); with that plea, she submitted a supplemental statement of facts. Agency Report, Tabs 71-72. Various documents associated with the October 2004 criminal proceedings, including the supplemental statement of facts, were released to the public on October 1 or shortly thereafter.

The defendant also acknowledges contacting a senior official of Boeing in 2002 concerning the continued employment of her daughter by Boeing. The defendant had been told by her daughter that she feared termination by Boeing for employment performance issues. The defendant contacted a senior official of Boeing, with whom she was negotiating the KC 767A tanker lease, to prevent any adverse action by Boeing against her daughter. The daughter was not terminated and instead was transferred to a new position. This same senior Boeing official routinely updated the defendant concerning the daughter's employment with Boeing, for example advising the defendant of pay increases received by the daughter.^[4]

Changes to the SDB Performance Requirements and Related Evaluation Criteria

As discussed above, the agency awarded component advanced development (CAD) contracts under the SDB program to Boeing and Lockheed Martin in September 2001.⁵ The contractors were advised that, during the 24-month performance period of the CAD contracts, the agency intended to conduct a "rolling downselect evaluation" during which Boeing and Lockheed Martin would compete, on the basis of their performance under the CAD contracts, for award of the SDD contract. Agency Report, Tab 12, Source Selection Plan (Nov. 5, 2001), at 1. Boeing and Lockheed Martin were advised of the criteria on which the SDD selection would be made; these criteria included, among others, a factor focusing on the evaluation of the contractor's capabilities with regard to the phase I fixed target requirements

⁴ In addition to the statements quoted above, documents associated with the October 2004 criminal proceeding reflect Druyun's statements that, in negotiating the lease agreement for the Boeing KC 767A tanker aircraft, Druyun "agreed to a higher price for the aircraft than she believed was appropriate," Agency Report, Tab 71, Supplemental Statement of Facts, at 2-3; that as "chairperson for the NATO Airborne Early Warning and Control Program Management Board of Directors," Druyun "negotiated a payment of 100 million dollars to Boeing" although "she believed a lower amount to be an appropriate settlement," explaining that Druyun's agreement to the \$100 million settlement payment "was influenced by her daughter's and son-in-law's relationship with Boeing," *id.* at 3; that in selecting Boeing for award of a contract to upgrade the avionics of the C-130 aircraft, Druyun was "influenced by her perceived indebtedness to Boeing for employing her future son-in-law and daughter," *id.*; and that Druyun's agreement to pay approximately \$412 million in connection with a settlement with Boeing concerning "the C-17 H22 contract clause . . . was influenced by Boeing's assistance to [Druyun]." *Id.* at 3-4.

⁵ Award of the CAD contracts to Boeing and Lockheed Martin resulted from a procurement conducted as a full and open competition.

and a factor focusing on the evaluation of the contractor's capabilities with regard to the phase II moving target requirements. *Id.* at 20-21.

At the hearing conducted by our Office in connection with this protest,⁶ Judy Stokley, who initially served as the source selection advisory council (SSAC) chair and was designated as the source selection authority (SSA) in June 2002, testified that, at least initially, the agency "envisioned" the use of [deleted] to perform the phase II moving target requirements. Hearing Transcript (Tr.) at 396-98; Agency Report, Tab 31, at 2.⁷ The record indicates that early in 2002, Lockheed Martin was viewed as having an advantage over Boeing with regard to [deleted].⁸ Further, early in the procurement process, this advantage was interpreted as a "strength in Phase II" for Lockheed Martin. Specifically, in a document titled "SDB Program Office Comments," dated January 25, 2002, that was produced by the Air Force less than 3 weeks before GAO's statutory deadline for resolution of the protest,⁹ the following statements appear:

⁶ In resolving this protest, our Office conducted a hearing, on the record, at GAO headquarters in Washington, DC on January 11 and 12, 2005. At the hearing, five government witnesses and one Lockheed Martin witness provided testimony.

⁷ Stokley explained that a [deleted].

⁸ In this regard, the SDB program manager testified that "Lockheed would have more inherent knowledge of [deleted]. Tr. at 707. In addition to Lockheed Martin's "more inherent knowledge" regarding [deleted], the record indicates that Lockheed Martin possessed alternative technology, referred to as [deleted].

⁹ This document is one of several the agency failed to produce in a timely manner. The protest was filed on November 10, 2004 and, consistent with GAO's Bid Protest Regulations, all of the agency's documents relevant to the protest issues were required to be submitted by December 13. Competition in Contracting Act of 1984, 31 U.S.C. § 3553(b)(2)(A) (2000); 4 C.F.R. § 21.3(c). Although this document was in the possession of the SDB program manager, who testified at the hearing, this particular document, along with a significant number of additional documents, was not produced to GAO and to counsel for the protester until January 31, 2005—nearly 2 weeks after the conclusion of the GAO hearing. The result was that counsel for the protester was unable to meaningfully question the agency witnesses regarding this and many other late-produced documents.

ISSUES

- Users (XOR [Commander, Operational Requirements] Included, Maybe not CSAF [Air Force Chief of Staff]) See Phase II as Key . . . Phase I Stepping Stone
- Lockheed Bid After Seeing 2 Year CAD
 - Catch Up on Phase I
 - Strength is Phase II
- Boeing Weak on Phase II
 - [deleted]
 - [deleted]

Agency Report, Jan. 31, 2005 Document Production, at 6.¹⁰

Similarly, in briefing documents prepared by the SDB program manager in connection with briefings given to the Air Force Chief of Staff and the Secretary of the Air Force on March 12 and March 18, respectively, there are separate columns for Boeing and Lockheed Martin under the heading “Relative Contractor Strength (Today).” These documents contain check marks in Lockheed Martin’s column, indicating relative strengths, beside the terms “[deleted] (Spiral II)” and “[deleted] (Spiral II).” Agency Report, Tab 23, at 2; Agency Report, Tab 24, at 2.¹¹

In May 2002, following several months of meetings, briefings, and discussions within the Air Force, the Secretary of the Air Force approved various recommended changes to the SDB program—including the deletion of phase II requirements regarding moving targets. Agency Report, Tabs 31, 33.¹² Thereafter, the evaluation

¹⁰ Notwithstanding the clear statement that Lockheed Martin’s “Strength is Phase II” and that “Boeing [is] Weak on Phase II,” the agency now maintains that neither offeror was ever perceived as having an advantage with regard to the phase II requirements. See, e.g., Tr. at 755-56. Based on our review of the entire record, we give greater weight to this and other contemporaneous documents discussed here than to the agency’s post-protest position.

¹¹ There is no dispute that the term “spiral II” refers to the phase II requirements of the SDB program. See, e.g., Tr. at 705-08.

¹² The September 11, 2001 terrorist attacks precipitated various changes to the Department of Defense’s (DOD) prioritization of various programs. At the direction of DOD, following the terrorist attacks, the Air Force scrutinized various programs, including the SDB program, in anticipation of reduced available funding. The agency states that the May 2002 changes to the SDB program reflected a \$385 million projected funding shortfall, due to the DOD-directed reprioritization. Agency Report, Tabs 75-76, 79. At the time the phase II requirements were deleted, the Air Force also changed the carriage system from a six-place rack to a four-place rack, (continued...)

criteria applicable to the selection of an SDD contractor were similarly revised to eliminate consideration of the deleted requirements. Agency Report, Tabs 36(a), 36(b), 41, 43, 111.¹³

In August 2003, Boeing was selected for award of the SDD contract. Agency Report, Tabs 58-59. Also in August 2003, the Air Force discovered that "surplus funding may exist" that would facilitate reinstatement of the phase II requirements related to moving targets. In a Memorandum to the SDB program office, the Air Force's Director of Requirements stated:

As you are aware, ACC [Air Combat Command] had to defer execution of the SDB phase II program due to funding constraints within the FY [fiscal year] 04 POM [program objective memorandum]. Our position was to pursue the baseline program to address fixed and stationary targets and defer mobile, time sensitive targets to the FY 06 POM. My staff has informed me that surplus funding may exist in the SDB program. My position is to apply this surplus funding towards the next spiral of SDB, which could incorporate a terminal seeker, Weapons Data Link (WDL), or both to engage moving targets.

Agency Report, Tab 55.

In November 2003, the Air Force executed a justification and approval (J&A) providing for the addition, on a sole-source basis, of the phase II moving target requirements to Boeing's SDD contract. Agency Report, Tab 62, at 2.¹⁴

As discussed above, Druyun's admissions regarding her bias in favor of Boeing were released to the public on or about October 1, 2004. On October 12, 2004, Lockheed Martin filed various agency-level protests with the Air Force, challenging the agency's actions in this and other procurements on the basis that "Druyun acted to favor Boeing . . . in return for benefits improperly conferred by Boeing at her specific request." Agency Report, Tab 3(a), at 3. By letter dated November 9, the Assistant Secretary of the Air Force for Acquisition advised Lockheed Martin that "[t]he Air Force is of the opinion that the protests . . . are more appropriately considered by the

(...continued)

deleted the B-1 bomber from the program, and imposed a phase I accuracy requirement. Agency Report, Tab 33, E-mail from SDB Program Manager.

¹³ The revised evaluation criteria considered the offerors' provision of a path to a moving target attack capability on a pass/fail basis. Agency Report, Tab 41.

¹⁴ In June 2003, the agency had executed a "class J&A," that provided for the sole-source award of "future spiral development activities," but did not refer to moving targets. Agency Report, Tab 50.

Government Accountability Office (GAO)" and that "the Air Force will not decide the protests." Agency Report, Tab 3(c). Lockheed Martin then filed this protest with our Office on November 10.¹⁵

DISCUSSION

In light of the information first learned by Lockheed Martin in October 2004, the firm protests that Druyun "directed or contributed to the deletion of Phase II with the specific intention of benefiting Boeing," and adds that the Air Force's pending action to add phase II to Boeing's SDD contract on a sole-source basis exacerbates the harm to Lockheed Martin. Protest at 4.

The Air Force responds that "Druyun did not play any significant role in the May 2002 decision by [the] Secretary [of the Air Force] to change the SDB technical requirements." Agency Report, Legal Memorandum, at 3. In our view, as discussed below, the record fails to establish that Druyun had no significant involvement in the decisionmaking process that culminated in the changes to the SDB requirements.

The Federal Acquisition Regulation (FAR) provides as follows:

Government business shall be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none. Transactions relating to the expenditure of public funds require the highest degree of public trust and an impeccable standard of conduct. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest in Government-contractor relationships.

FAR § 3.101-1.

In addressing organizational conflicts of interest, our Office has held that, where the record establishes that a conflict exists, we will presume that the protester was prejudiced, unless the record establishes the absence of prejudice. See The Jones/Hill Joint Venture, B-286194.4 et al., Dec. 5, 2001, 2001 CPD ¶ 194; TDF Corp., B-288392, B-288392.2, Oct. 23, 2001, 2001 CPD ¶ 178. Similarly, where, as here, the record establishes that a procurement official was biased in favor of one offeror, and was a significant participant in agency activities that culminated in the decisions forming the basis for protest, we believe that the need to maintain the integrity of the procurement process requires that we sustain the protest unless there is compelling evidence that the protester was not prejudiced. See Department of the Air Force—

¹⁵ On November 10, Lockheed Martin also submitted a protest challenging various actions regarding the Air Force procurement to upgrade the avionics of the C-130 aircraft. We are addressing the issues raised in that protest in a separate decision.

Request for Recon., B-234060, B-234060.2, Sept. 12, 1989, 89-2 CPD ¶ 228. As discussed below, the agency has failed to provide compelling evidence that Druyun's bias in favor of Boeing did not influence the various decisions leading to the award of the SDD contract to Boeing.

In an effort to establish that Druyun was not materially involved in the changes made to the SDB requirements, Dr. Marvin Sambur, former Assistant Secretary of the Air Force for Acquisition and Druyun's immediate supervisor during the period in which the changes were made, submitted a declaration to our Office, stating: "To the best of my knowledge, Mrs. Druyun had nothing to do with the changes to the SDB requirements." Agency Report, Tab 79, Sambur Declaration, at 2. Various other procurement officials submitted similar declarations and, along with the Assistant Secretary, provided testimony at the GAO hearing.¹⁶ In our view, the record contradicts the agency's assertion that Druyun was not materially involved in the process that culminated in the May 2002 changes; to the contrary, the contemporaneous record shows significant involvement by her in that process.

In addressing the issue of Druyun's involvement, we first consider the formal matter of who was functioning as SSA—that is, the lead procurement official for this procurement—during the period leading up to the changes at issue. Until February 2002, Druyun was designated as the SSA for this procurement. Agency Report, Tab 12, Draft Source Selection Plan (Nov. 5, 2001).¹⁷ At the GAO hearing, Sambur, the former Assistant Secretary, testified that in February 2002, he removed Druyun as the SSA, designating himself as the SSA in her place. Tr. at 37; Agency Report, Tab 79 at 1. Sambur further testified that, in June 2002, he appointed Stokley, previously the SSAC chair, to be the SSA. Tr. at 38; Agency Report, Tab 79, at 2. Notwithstanding his own designation as the SSA, Sambur acknowledged during the GAO hearing that: "I never acted as an SSA, never made any decisions in that

¹⁶ In contrast to the clear recollection that agency witnesses fairly uniformly had that Druyun had no significant input to, or material involvement in, the decisionmaking process that culminated in the changes at issue here, those witnesses frequently were unable, when confronted with documentary evidence indicating Druyun's apparent input or involvement, to recall specific details surrounding various meetings, briefings or other communications. See, e.g., Tr. at 73, 83, 86-87, 89, 111, 297-98, 301, 303, 317, 324, 325-26, 341, 353, 627, 702, 710, 716-17, 728, 746. The witnesses' limited ability to recall specific information regarding the ultimate conclusions they assert leads our Office to place correspondingly limited weight on their unsupported conclusory assertions. Our decision primarily relies on the contemporaneous records that have been produced to date, including e-mails, notes, and memoranda, which indicate Druyun was materially involved in the decisionmaking process.

¹⁷ Druyun had been the SSA for the preceding CAD procurement.

part.” Tr. at 55. Rather, Sambur maintained that Stokley was actually functioning as the SSA after February 2002.¹⁸ However, Stokley’s testimony regarding her activities prior to June 2002 conflicts with Sambur’s. Specifically, Stokley testified that she functioned as the SSAC chair from February through June 2002, that Sambur was the SSA, and that she was “very surprised” when Sambur advised her, during a meeting in June, that he did not want to be the SSA. She further testified that she considered her appointment to the SSA position in June to be a “major change”¹⁹ and that, as a result of that appointment, she “had a much different level of responsibility.” Tr. at 266-71.

In short, the record shows that Sambur believed Stokley was performing the SSA duties from February through June 2002, while Stokley believed Sambur was performing those duties during this period.²⁰ In reality, the contemporaneous record suggests that, in the absence of either Sambur or Stokley stepping into the SSA’s role and performing the functions of the lead acquisition official during that period,

¹⁸ In this regard, Sambur testified as follows:

Sambur: I actually did nothing with making any decision in terms of who was selected in any shape or form.

GAO: Okay. But other than the final source selection decision, an SSA is involved in the procurement prior to that time.

Sambur: But Judy Stokley was basically—Judy Stokley was doing all of the SSA work.

....

GAO: So it’s your testimony that from February 2002 on, Judy Stokley was, in effect, the SSA?

Sambur: In effect, she held the meetings, and she reported to me if she felt there was anything unusual.

GAO: And you did not—again, just to summarize your testimony, you did not perform any SSA functions during that period?

Sambur: No.

Tr. at 55-56.

¹⁹ She elaborated, “I was sitting there with my brain spinning.” Tr. at 270.

²⁰ Druyun was Stokley’s immediate supervisor during this period. Tr. at 276.

Druyun continued to perform those functions—in much the same manner as she had before February 2002.²¹

Specifically, the record demonstrates multiple examples of Druyun's significant involvement in activities during the period leading up to the May 2002 SDB changes. For example, in late January 2002, Druyun received a briefing from Boeing regarding the potential to accelerate the SDB performance requirements. Agency Report, Tab 14, Boeing Briefing Slides.²² Following that meeting, Druyun issued a "tasker" to the source selection evaluation team chair to "put together an accelerated program for SDB to present to [the Air Force Chief of Staff] by the end of [February]." Agency Report, Tab 19.²³ The SDB program office subsequently complied with Druyun's "tasker" without further checking with Sambur. Tr. at 699-700.

Notwithstanding her formal removal as the SSA in February, Druyun met with Lockheed Martin personnel in early March to discuss their capabilities to accelerate the SDB program. Agency Report, Tab 21, Lockheed Martin Briefing Slides. Despite the fact that program acceleration was a "massive priority," Sambur was unaware of the meeting between Druyun and Lockheed Martin. Tr. at 83. The record further shows that Druyun reviewed an advance version of the acceleration briefing provided by the SDB Program Director to the Air Force Chief of Staff, before it was presented to Sambur and, again, that Sambur was unaware that Druyun had been so briefed. Agency Report, Tab 112; Tr. at 109-10.

The record further shows that, on April 24, the ACC's representative for the SDB program provided separate briefings to Druyun and Sambur regarding the pending changes to the SDB requirements. Druyun was briefed first, early in the morning; Sambur received the same briefing later in the day. Agency Report, Tab 124, at 51; Tr. at 583-84. Among other things, those briefings stated that Lockheed Martin's [deleted]; one of the slides from this briefing states: [deleted]. Agency Report, Tab 127, at 14, Air Force Briefing Slides.²⁴

²¹ It is clear that Druyun was not reluctant to assert herself. Sambur testified that Druyun performed her duties in a "very unique" manner, elaborating that she had a "dictatorial management style" and "was not the [kind of] person who usually said ['I'mother, may I?']" Tr. at 76, 169.

²² Lockheed Martin was subsequently given a similar opportunity.

²³ The contracting officer describes this action, stating that Druyun "directed" the SDB program office to "determine if both Lockheed Martin and Boeing had acceleration strategies." Agency Report, Contracting Officer's Statement, at 7.

²⁴ In an e-mail dated April 25, sent by Stokley to a recipient list that began with Druyun, Stokley attached a proposed memorandum to be sent to the Secretary of the Air Force and his Chief of Staff summarizing the then-potential changes to the SDB
(continued...)

As noted above, an independent technical review of the [deleted] was conducted; despite the fact that Druyun no longer had any formal responsibility with regard to this procurement, she initiated that review. Agency Report, Contracting Officer's Statement, at 8; Agency Report, Tab 126, at 4; Tr. at 310, 674, 719.²⁵ Although the specific results of that evaluation are "highly classified," Tr. at 740, and were not reviewed in the context of our Office's bid protest proceedings, at the hearing Stokley testified that the independent review concluded that Lockheed Martin's technology [deleted],²⁶ and that the [deleted] was communicated to Druyun prior to the time the changes were made to the SDB requirements. Tr. at 311, 313.

The record further indicates that the Druyun-directed technical evaluation was the basis for imposing an accuracy requirement of "4 meters or better" into the evaluation criteria, and that this requirement was imposed over the objections of ACC officials, that is, the user community. Tr. at 619-20.²⁷ Specifically, in a

(...continued)

requirements and asking the e-mail recipients to "Please let me know if I have missed any key points." Among other things, the draft memorandum to the Secretary and the Chief of Staff stated: "[W]e also conducted an independent review of the [deleted] that [deleted] Lockheed currently has Our review determined that [deleted]. Agency Report, Tab 120, at 39. On April 26, the memorandum was sent to the Secretary of the Air Force summarizing the proposed changes; however, the above-quoted portion of the draft memorandum was changed to read as follows: "[W]e also conducted an independent review of the [deleted] that [deleted] Lockheed currently has Our review determined that [deleted]. Agency Report, Tab 120, at 6-7. At the GAO hearing, none of the witnesses could recall who was responsible for this change.

²⁵ At the GAO hearing, the SDB program manager testified that [deleted] . . . after the contractors departed . . . she [Druyun] had us stick around, and she directed that we hire a guy named [deleted] to go do an independent [evaluation]. That is my recollection." Tr. at 720. At the hearing, Stokley testified that independent technical reviews are "quite typical," maintaining "we have lots of independent reviews and independent assessments." Tr. at 315. Stokley was, however, unable to identify any other independent technical review that had been conducted during the SDB procurement. Tr. at 316.

²⁶ Similarly, the ACC representative for the SDB program testified that the independent technical review concluded that [deleted]. Tr. at 618.

²⁷ At the GAO hearing, the ACC representative testified that there was a "disagreement" over the imposition of the 4-meter CEP requirement and that this "has been a touchy subject for some time." Tr. at 619, 622. The user community believed that an alternative measure for accuracy, referred to as "weapons effectiveness," should have been used. *Id.*

Memorandum for the Record created by the SDB program manager summarizing the final decision regarding the changes to the requirements, the program manager states:

Several changes were directed:

....

Bring more accuracy to Phase I Pursuant to a previous independent tech[nical] eval[uation] by [deleted] (Ex DARPA consultant) and Mrs. Darleen Druyun, based on risk, this number was decided to be 4 meters or better Total Weapon System Delivery Accuracy.

Agency Report, Tab 126, at 4.²⁸

Finally, the record indicates that Druyun contacted Raytheon and requested that Raytheon communicate with Boeing, and that subsequently Boeing proposed to include Raytheon in its efforts to meet the SDB requirements.²⁹ The record indicates that, in fact, Raytheon provided support to Boeing in proposing to meet the SDB

²⁸ In the context of maintaining that Druyun was not materially involved or influential with regard to the SDB program changes, the Air Force has argued that the user community, that is, the ACC, was solely responsible for determining the SDB requirements, and since Druyun was not part of the ACC, she could not have influenced the requirements. Tr. at 31-35. While it may be true that the user community generally determines requirements, it appears this principle was not strictly followed with regard to the SDB requirements. The above discussion regarding the imposition of the 4-meter accuracy requirement “[p]ursuant to” the Druyun-directed technical evaluation—over the disagreement of the ACC user community—demonstrates the inaccuracy of the agency’s assertion that Druyun could not have affected the requirements because she was not part of the ACC user community.

²⁹ At the GAO hearing, the SDB program manager testified as follows:

Counsel: Do you have any knowledge of a contact by Mrs. Druyun to Raytheon regarding an accuracy approach for Boeing for SDB?

Program Manager: I have—I received a phone call from the Boeing program manager asking why would Druyun be calling them—or asking Raytheon to come talk to Boeing. . . .

Tr. at 745.

requirements. A Boeing presentation to the Air Force, made in September 2002, included the following statements:

- Raytheon Involvement
 - Independent Confirmation of our Trades
 - Additional Resources and Expertise will be Brought to the SDB Program

Agency Report, Tab 91(c), at 2.

Based on the record discussed above, we reject the agency's assertion that Druyun was not materially involved or influential in the process leading up to the SDB program changes made in May 2002.³⁰

CONCLUSION

We briefly summarize here the key points that the record establishes in this protest: Druyun felt "indebted" to Boeing; the SDB program initially contemplated an evaluation of the offerors' capabilities against moving targets; early in the process, Lockheed Martin was perceived as having a "strength" and Boeing was considered "weak" with regard to the moving target requirements; most of the requirements associated with moving targets and the associated evaluation factors were subsequently deleted; Druyun had significant involvement in the decisionmaking process that culminated in the deletion of the moving target requirements; Boeing was selected for award without consideration of its capabilities regarding the deleted requirements; and the agency is in the process of adding the previously-deleted requirements to Boeing's contract on a sole-source basis.

As noted above, where, as here, the record establishes that a procurement official was biased in favor of one offeror, our Office believes that the need to preserve the integrity of the procurement process requires that the agency demonstrate that the protester was not prejudiced by the procurement official's bias in order for our Office to deny the protest. Here, in defending against Lockheed Martin's protest, the agency has maintained that Druyun had no significant involvement or influence in the agency's decisionmaking process leading up to the May 2002 changes and, further, that only the ACC, the user community—not the acquisition community of which Druyun was a part—was in a position to make determinations regarding the

³⁰ The record includes an additional document suggesting that Druyun was involved in the SDB procurement. In responding to Lockheed Martin's protest to our Office, the Air Force forwarded to us a letter [deleted].

contract requirements. As discussed above, the record in this case does not provide persuasive support for either position.³¹

On this record, the agency has failed to demonstrate that Lockheed Martin was not prejudiced by Druyun's acknowledged bias. The protest is sustained.

RECOMMENDATION

The record indicates that, although the agency intends to add the phase II requirements on a sole-source basis to Boeing's SDD contract, the contract has not yet been so amended. Tr. at 235. In the context of all of the facts discussed above, along with the fact that contract performance of the phase II requirements has not yet begun, we recommend that the agency conduct a competitive procurement to meet the previously deferred phase II requirements.³²

With regard to the phase I requirements, Lockheed Martin notes that a substantial portion of the contract has already been performed; accordingly, Lockheed Martin requests that we recommend that Lockheed Martin be reimbursed for the proposal preparation costs it expended in competing for the SDD contract.³³ As explained below, we decline to recommend recovery of Lockheed Martin's proposal preparation costs at this time.

In reviewing the record submitted by the agency in response to Lockheed Martin's protest, counsel for Boeing expressed concern regarding potential conflict of interest issues relating to a Lockheed Martin employee, former Air Force Brigadier General [deleted]. Until [deleted] 2001, [deleted] was the [deleted], for the user community for the SDB program. In [deleted] 2001, [deleted] retired from the

³¹ We agree that the record does not establish that, but for Druyun's involvement, the May 2002 changes would not have been made or that, absent the changes, Lockheed Martin would have won the competition.

³² In light of the passage of time, it may be that offerors other than Lockheed Martin and Boeing have capabilities to meaningfully compete for these requirements; accordingly, our recommendation does not reflect any position on whether the competition should be limited to Lockheed Martin and Boeing. Rather, at this point, we defer to the agency's reasonable discretion to determine whether inclusion of other potential competitors is feasible and otherwise appropriate.

³³ We note that, because the source selection decision regarding the SDD contract was based on Boeing's and Lockheed Martin's performance under their respective CAD contracts, and that Lockheed Martin has already been compensated for its CAD performance, there is some question as to what additional costs, if any, would be properly recoverable.

Air Force and immediately thereafter began employment with Lockheed Martin. In [deleted] 2002, [deleted] was appointed [deleted] for Lockheed Martin's [deleted], where he was responsible for supervising Lockheed Martin's efforts to [deleted] and "regularly attended briefings and meetings with Air Force officials regarding the SDB program." Tr. at 537; Lockheed Martin's Comments on Agency Report, exh. 7, Declaration of [deleted], at ¶ 2. In light of his SDB-related responsibilities prior to retiring from the Air Force in [deleted] 2001, and his SDB-related role on behalf of Lockheed Martin after [deleted] 2002, GAO requested that he appear and testify at the hearing conducted in connection with this protest.

At the hearing before our Office, [deleted] testified that, before retiring from the Air Force, he requested and received what is referred to as a "30-day letter" regarding post-employment restrictions from the Air Force Staff Judge Advocate (SJA).³⁴ In that letter the SJA provided certain opinions and advice regarding the statutory provisions of 41 U.S.C. § 423 (2000) and 18 U.S.C. § 207(c), (f) (2000).³⁵ In addition, following the SJA's discussion of those statutes, the "30-day letter" stated:

Restrictions under other laws that have not been addressed in this opinion may apply to you (Attachment).³⁶ In particular, the facts contained in your letter suggest that the post-government employment restrictions of Title 18, United States Code, Section 207(a)(1) and/or Section 207(a)(2) may apply to you with respect to your employment with any company.³⁷ If you have any questions regarding conflict of

³⁴ In [deleted] letter to the SJA, requesting the "30-day letter," [deleted] stated: "In no case in the last year have I personally been involved with a source selection nor has anyone who reports to me directly been involved with a source selection." Letter from [deleted] to Air Force ([deleted] 2001) at 2.

³⁵ There does not appear to be any issue regarding [deleted] compliance with the requirements of 41 U.S.C. § 423 and 18 U.S.C. § 207(c), (f), which impose 1-year restrictions on certain activities.

³⁶ At the bottom of the letter, the following notation appeared: "Attachment: Pre- and Post-Employment Restrictions." At the GAO hearing, [deleted] testified "I do not recall getting an attachment [with the letter]." Tr. at 496.

³⁷ The provisions of 18 U.S.C. § 207(a)(1) impose a permanent restriction with regard to an officer or employee of the United States who, after termination of his or her employment with the United States, makes any communication intended to influence a United States government employee in connection with "a particular matter" in which the former officer or employee "participated personally and substantially as such officer or employee" and "which involved a specific party or specific parties at the time of such participation." Similarly, the provisions of 18 U.S.C. § 207(a)(2) impose a 2-year restriction with regard to an officer or employee of the United

(continued...)

interest or post-retirement provisions, you may contact us or your nearest installation staff judge advocate for assistance.

Letter from Air Force SJA to [deleted] ([deleted] 2001).

At the GAO hearing, [deleted] testified that, notwithstanding the above-quoted advice within the “30-day letter” that “Restrictions under other laws that have not been addressed in this opinion may apply to you” and that notwithstanding the specific reference to the restrictions of 18 U.S.C. § 207(a)(1), (a)(2), he was subsequently advised, orally, by the SJA “not to worry about it,” and that these provisions were only put into the letter to “Cover their butt.” Tr. at 495.³⁸

(...continued)

States who makes a communication intended to influence a United States government employee in connection with a “particular matter” which the former officer or employee “knows or reasonably should know was actually pending under his or her official responsibility as such officer or employee within a period of 1 year before the termination of his or her service or employment with the United States,” and “which involved a specific party or specific parties at the time it was so pending.”

³⁸ In this regard, [deleted] testified as follows:

GAO: Then the next paragraph says “Restrictions under other laws that have not been addressed in this opinion may apply to you (attachment).” What did you think that sentence meant?

[deleted]: When I asked [the SJA] about that, my recollection of the conversation was that is a paragraph that we have to put in there to cover their—I don’t know how to put this politely.

GAO: You’re thinking the word “butt”?

[deleted]: Cover their butt because of the breadth of this code. He told me—I was advised not to worry about it.

GAO: So your interpretation was that this sentence had no application to you?

[deleted]: That’s correct, that once I got through the one year [restrictions imposed by 41 U.S.C. § 423 and 18 U.S.C. § 207(c) (f)], there were no other known restrictions.

Tr. at 494-95.

[deleted] also testified that, to his recollection, Lockheed Martin never requested that he identify the particular matters in which he was personally and substantially involved, or which were under his official responsibility during the period preceding his retirement from the Air Force, nor did Lockheed Martin raise the issue of his compliance with the requirements of 18 U.S.C. § 207(a)(1) and (a)(2) in any way. Tr. at 497-98.

Subsequently, at the GAO hearing, counsel for Boeing questioned [deleted] regarding attendance at an Acquisition Strategy Planning (ASP) meeting for the SDB program that was conducted by Druyun on April 10, 2001. [deleted] testified that he was not sure whether he attended this meeting, but he did recall attending a meeting with Druyun in which the small diameter bomb was discussed. With regard to that meeting, [deleted] testified, "I did not participate in that discussion." Tr. at 500.

Following the GAO hearing, the agency produced a document titled "Acquisition Strategy Panel (ASP) Minutes[, Small Diameter Bomb (SDB)[, 10 April 2001, SAF/AQ Conference Room." Agency's Jan. 31, 2005 Document Production, at 1-3. Under the heading, "Major Discussion Items," this document states: "The purpose of the ASP was to review the acquisition strategy for the Small Diameter Bomb program. These minutes will follow the sequence of the slides as presented, but will only address those slides where significant discussion occurred, or where action items were assigned." ASP Minutes at 1. Following this statement, the following entries appear:

Slide 7: General [deleted] discussed the possibility of identifying weapon effectiveness as a Key Performance Parameter (KPP), in addition to loadout and interoperability. Given the stage of the program, however, it was determined that staying with just the two KPPs would be the best strategy.

....

Slide 25: ... Gen [deleted] indicated that the Navy will not have internal carriage capabilities for several years and if the Navy determines that there is a need to integrate SDB on the F-14 or F-18, the external integration would not be significantly different than that of the F-15 or F-16.

....

Slide 28: Gen [deleted] reiterated that weapon effectiveness will remain a requirement, but will not be designated as a KPP.

....

Slide 31: Gen [deleted] expressed an interest in moving the Phase I schedule to the end of FY05, but realizes the funding and production ramp-rate are limiting an earlier production date.

....

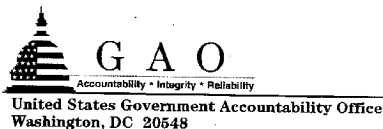
Slide 38: Gen [deleted] indicated that a combined DT and OT for SDB will be moved to Eglin, and that there will be no duplication in OT of tests completed in DT.

ASP Minutes at 1-2.

Whether or not [deleted] violated the post-employment restrictions of 18 U.S.C. § 207 is not within the purview of our bid protest regulations, because 18 U.S.C. § 207 is a criminal statute and its interpretation and enforcement, and the interpretation and enforcement of related regulations, are matters for the procuring agency and the Department of Justice. Technology Concepts and Design, Inc., B-241727, Feb. 6, 1991, 91-1 CPD ¶ 132 at 4. Based on all of the above, however, we have concerns regarding the propriety of [deleted] involvement in Lockheed Martin's efforts to win the SDD contract; his allegation that the Air Force SJA told him "not to worry" about the post-employment restrictions imposed by 18 U.S.C. § 207(a)(1), (a)(2); and his statement that Lockheed Martin failed to discuss post-employment restriction issues with [deleted].

Accordingly, we recommend that the Air Force perform a thorough review of this matter and report its findings back to this Office. Pending our receipt of that review, we decline to recommend reimbursement of Lockheed Martin's proposal preparation costs. We will entertain a renewed request from Lockheed Martin regarding payment of such costs following our receipt of the Air Force review of this matter. However, we do recommend that Lockheed Martin be reimbursed its costs of filing and pursuing this protest, including reasonable attorneys' fees. Lockheed Martin should submit its certified claim for costs, detailing the time expended and costs incurred, directly to the contracting agency within 60 days after the receipt of this decision. Bid Protest Regulations, 4 C.F.R. § 21.8(f)(1).

Anthony H. Gamboa
General Counsel



Comptroller General
of the United States

DOCUMENT FOR PUBLIC RELEASE

The decision issued on the date below was subject to a GAO Protective Order. This redacted version has been approved for public release.

Decision

Matter of: Lockheed Martin Aeronautics Company; L-3 Communications Integrated Systems L.P.; BAE Systems Integrated Defense Solutions, Inc.

File: B-295401, B-293401.2, B-295401.3, B-295401.4, B-295401.5, B-295401.6, B-295401.7, B-295401.8

Date: February 24, 2005

Marcia G. Madsen, Esq., Michael E. Lackey, Jr., Esq., David F. Dowd, Esq., Michael J. Farley, Esq., Monica A. Aquino, Esq., Patricia H. Becker, Esq., Mayer, Brown, Rowe & Maw, for Lockheed Martin Aeronautics Company; Paul W. Searles, Esq., and Sharon N. Freytag, Esq., Haynes and Boone, for L-3 Communications Integrated Systems L.P.; Drew A. Harker, Esq., Michael E. Ginsberg, Esq., Elizabeth Leise, Esq., Joseph M. Catoe, Esq., Arnold & Porter, and John S. Pachter, Esq., Jonathan D. Shaffer, Esq., and Sophia R. Zetterlund, Esq., Smith Pachter McWhorter & Allen, for BAE Systems Integrated Defense Solutions Inc., the protesters. Richard B. Clifford, Jr., Esq., Lee P. Curtis, Esq., Kelly A. Cameron, Esq., Suzette W. Derrevere, Esq., and Emily C.C. Poulin, Esq., Perkins Coie, for The Boeing Company, an intervenor. Bryan R. O'Boyle, Esq., Lt. Col. David Bell, Maj. Rebecca Vernon, Peter M. Ditalia, Esq., Bridget E. Lyons, Esq., and Maj. Tishlyn Taylor, Department of the Air Force, for the agency. Glenn G. Wolcott, Esq., and Michael R. Golden, Esq., Office of the General Counsel, GAO, participated in the preparation of the decision.

DIGEST

1. Where a senior procurement official who functioned as the source selection authority has acknowledged bias in favor of the awardee, and was materially involved in the evaluation of proposals, indicating during the evaluation process that she believed the awardee's technical ratings should be raised in various areas and that the protesters' technical ratings should be lowered in various areas, the protests are sustained based on the agency's failure to demonstrate that the senior official's acknowledged bias did not prejudice the protesters and that the integrity of the procurement process was not compromised.

2. Protests are sustained where, following submission of final proposal revisions, the agency reopened discussions in order to permit the ultimate awardee to address an aspect of its proposal that was contrary to instructions previously given by the agency during discussions, but failed to identify similar concerns with the proposals of the protesters.

DECISION

Lockheed Martin Aeronautics Company, L-3 Communications Integrated Systems, L.P., and BAE Systems Integrated Defense Solutions, Inc. protest the Department of the Air Force's award of a contract to The Boeing Company pursuant to request for proposals (RFP) No. F33657-99-R-0033 to perform various activities related to the avionics modernization upgrade program (AMP) for C-130 aircraft. The protesters maintain that Darleen Druyun, in her capacity as the Air Force's Principal Deputy Assistant Secretary for Acquisition, improperly manipulated the evaluation and source selection process in favor of Boeing.

We sustain the protests.

BACKGROUND

The protests challenge an evaluation and source selection process that took place between June 2000 and June 2001. As a procedural matter, our Office's timeliness rules generally preclude consideration of protests challenging agency actions, such as these, that took place in the relatively distant past. See Bid Protest Regulations, 4 C.F.R. § 21.2 (2004). Here, however, the protests are based on information first obtained by the protesters in October 2004 due to the public disclosure at that time of documents relating to Darleen Druyun's criminal conviction and sentencing for violation of the conflict of interest provisions codified at 18 U.S.C. § 208(a) (2000).¹

¹ In April 2004, Druyun initially pled guilty in the United States District Court for the Eastern District of Virginia to violating the provisions of 18 U.S.C. § 208(a), which prohibit an officer or employee of the United States government from "participat[ing] personally and substantially as a Government officer or employee . . . in a . . . contract . . . in which, to his knowledge . . . [an] organization with whom he is negotiating or has any arrangement concerning prospective employment, has a financial interest." Agency Report, Tabs 10-12. In connection with that April 2004 plea agreement, Druyun submitted a statement of facts disclosing that, in October 2002, Druyun met with a Boeing executive to negotiate Druyun's subsequent employment by Boeing. (Druyun retired from the Air Force in November 2002 and began employment with Boeing in January 2003.) At the time of the October 2002 secret meeting, Druyun was also negotiating with Boeing on behalf of the Air Force for the lease of 100 Boeing KC 767A tanker aircraft. Agency Report, Tab 12, at 30. In

(continued...)

Since the protesters had no reason to know of the information disclosed in those documents, we view the protests as timely.

Druyun's Bias in Favor of Boeing

The record establishes that, in 2000, Druyun contacted personnel at Boeing to request that Boeing employ her daughter and future son-in-law. Agency Report, Tab 10, Statement of Facts, at 3-4. The record is also clear that, in response to Druyun's requests, Boeing created a position for Druyun's daughter and hired both the daughter and future son-in-law in the fall of 2000. *Id.* In her supplemental statement of facts, signed by both herself and her personal attorney, and submitted to the Court in connection with her October 2004 criminal plea, Druyun stated:

Defendant acknowledges that Boeing's employment of her future son-in-law and her daughter in 2000, at the defendant's request, along with the defendant's desire to be employed by Boeing, influenced her government decisions in matters affecting Boeing.

Agency Report, Tab 13, Supplemental Statement of Facts, at 2.

More specifically, with regard to the C-130 avionics upgrade procurement, Druyun stated:

The defendant was the selection authority in 2001 for the C 130 AMP which was an Air Force procurement of more than four billion dollars to upgrade the avionics of C-130 aircraft. The defendant selected Boeing from four competitors, and now acknowledges that she was

(...continued)

submitting her April 2004 plea, Druyun's position, as subsequently described by the Court, was that her actions constituted "more or less a technical violation [of the law]" in that she had always acted in the best interests of the United States. Agency Report, Tab 14, Sentencing Hearing Transcript (Oct. 1, 2004), at 13. Nonetheless, as part of her April 2004 plea agreement, Druyun agreed to take a polygraph examination. Following that examination, Druyun's position regarding the nature of her actions changed dramatically, as discussed in more detail below. On October 1, 2004, Druyun again submitted a plea agreement in connection with her violation of 18 U.S.C. § 208(a); with that plea, she submitted a supplemental statement of facts. Agency Report, Tabs 13-14. Various documents associated with the October 2004 criminal proceedings, including the supplemental statement of facts, were released to the public on October 1 or shortly thereafter.

influenced by her perceived indebtedness to Boeing for employing her future son-in-law and daughter. The defendant believes that an objective selection authority may not have selected Boeing.

Id. at 3.²

The C-130 Procurement

In April 2000, the agency issued RFP No. F33657-99-R-0033, seeking proposals to perform various activities associated with the C-130 AMP.³ Pursuant to the agency's source selection plan, offerors were advised that proposals would be evaluated on the basis of the following equally-weighted factors: mission capability, past performance,⁴ cost/price,⁵ and proposal risk. With regard to mission capability, the

² In addition to the statements quoted above, documents associated with the October 2004 criminal proceedings reflect Druyun's statements that, during 2000, Druyun negotiated a settlement with Boeing concerning "the C-17 H22 contract clause," which occurred at the time Druyun was seeking employment at Boeing for her daughter's boyfriend, and that Druyun's "decision to agree to a payment of approximately 412 million dollars to Boeing in connection with the C-17 H22 clause was influenced by Boeing's assistance to the defendant." Id. at 3-4.

³ The C-130 AMP is intended to modernize the C-130 avionics in approximately 500 aircraft "to meet the latest standards for performance and safety and to lower the total cost of ownership." Agency Report, Tab 16, Source Selection Plan, at 4. Specifically, the program will "increase survivability of the U.S. military's C-130 fleet, while complying with Global Air Traffic Management (GATM) requirements and the Air Force Navigation and Safety (Nav/Safety) Master plan." Id. Additional equipment needed to meet night vision imaging system requirements and to improve the C-130's precision approach and landing capability will also be installed, as well as interfaces necessary to integrate "Real Time Information in the Cockpit." Id. Finally, the program will lower the overall ownership cost of the C-130 fleet by generating a reduction of cockpit crew manning, and "by implementing a cost effective and open architecture to increase Reliability, Maintainability, and Sustainability (RM&S) of the avionics suite." Id.

⁴ Possible past performance ratings were "high confidence" (exceptional), "significant confidence" (very good), "confidence" (satisfactory), "unknown confidence" (neutral), "little confidence" (marginal), and "no confidence" (unsatisfactory). Agency Report, Tab 6, at 108.

⁵ With regard to cost/price, offerors were advised that the agency would calculate a most probable total ownership cost (MPTOC) for each proposal that incorporated various projected costs, including those associated with engineering manufacturing development, production, and installation. Agency Report, Tab 16, at 32.

following subfactors were listed in descending order of importance: management, system development, software, production and installation, and small business subcontracting. Offerors were advised by the RFP that, in evaluating the mission capability subfactors, the agency would assign a color rating and risk assessment for each subfactor.⁶ In conjunction with the color ratings and risk assessments, the agency employed what it referred to as a "star convention" (not disclosed in the RFP), whereby the agency assigned varying numbers of "stars" to evaluated strengths and weaknesses in order to establish the relative significance of those strengths and weaknesses. Agency Report, Tab 8, at 1.⁷

Initial proposals were submitted during the summer of 2000 by Lockheed, Raytheon,⁸ BAE, and McDonnell Douglas Corporation, a wholly-owned subsidiary of Boeing.⁹ Upon receipt, the source selection evaluation team (SSET) began its evaluation of the proposals and, thereafter conducted discussions by preparing and providing "evaluation notices" to the offerors concerning various aspects of their proposals.

After the evaluations had begun, there were a series of meetings between Druyun and the SSET to discuss the ongoing evaluation. Specifically, during the period leading up to submission of final proposal revisions (FPR), Druyun met with some or all of the evaluators on September 15, October 16, December 5, December 21, and January 23. Agency Report, Box 28, Notebooks 1-4.

On February 13, 2001, the contracting officer requested submission of FPRs, which all four offerors submitted on March 2. On March 9, the contracting officer reopened discussions and a second round of FPRs was requested; the second FPRs were submitted on March 19. On April 9, the SSET briefed Druyun regarding its evaluation

⁶ Possible color ratings were "blue" (exceptional), "green" (acceptable), "yellow" (marginal), and "red" (unacceptable); possible risk assessments were "low," "moderate," and "high." Agency Report, Tab 6, at 15.

⁷ This concept augmented the color ratings and risk assessments assigned for each subfactor. In the context of such ratings, the evaluators assigned three stars to an "exceptional" strength, two stars to an "outstanding" strength, and one star to a "significant" strength. Similarly, the evaluators assigned three stars to a weakness that could create "significant disruption," two stars to a weakness with "some risk potential," and one star to a weakness with "little risk potential." Agency Report, Tab 8, at 1-2.

⁸ This proposal was submitted by Raytheon Company Aircraft Integration Systems. L-3 Communications has submitted uncontested documentation indicating that it is the complete successor-in-interest to this business entity. L-3 Communications Protest, Nov. 12, 2004, attach. 1.

⁹ Technical proposals addressing the mission capability factors were submitted on June 27; cost proposals were submitted on August 28. Agency Report, Tab 8, at 2.

of the final FPRs. During the April 9 meeting, Druyun expressed various concerns regarding the evaluation; following that meeting, changes were made to the evaluations. On April 23, the SSET again briefed Druyun on its evaluation of FPRs. On June 4, Druyun selected Boeing for award. Agency Report, Contracting Officer's Statement at 3.¹⁰

As discussed above, Druyun's admissions regarding her bias in favor of Boeing were released to the public on or about October 1, 2004. Thereafter, the three protesters filed various agency-level protests with the Air Force, challenging the agency's actions on this and other procurements on the basis of the information disclosed by Druyun in connection with her criminal proceedings.¹¹ By letter to each protester dated November 9, the Assistant Secretary of the Air Force for Acquisition advised the protesters that "The Air Force is of the opinion that the protest is more appropriately considered by the Government Accountability Office (GAO)" and that "the Air Force will not decide the protest." Agency Report, Tab 3. The protests were filed with our Office on or about November 10.¹²

DISCUSSION

The protesters maintain that Druyun's recently disclosed bias in favor of Boeing and her specific identification of the C-130 procurement as one in which "an objective selection authority may not have selected Boeing," along with the information previously disclosed to the protesters regarding the agency's purported bases for rejecting their proposals, demonstrates that their proposals were not evaluated in a fair and unbiased manner.

¹⁰ On July 30, two contracts were awarded to Boeing. One contract was for engineering and manufacturing development (EMD) with a value of \$453 million and included production/installation price commitments for years 2004-2016, with a "potential total value of \$1.873 billion." Agency Report, Contracting Officer's Statement at 3. Concurrent with award of the EMD contract, an indefinite-delivery/indefinite-quantity (ID/IQ) contract was awarded to Boeing as a vehicle to acquire separately-funded C-130 aircraft modifications and services. The ceiling for the ID/IQ contract is \$1 billion. *Id.*

¹¹ The agency-level protests were filed within 10 days of the time the protesters reasonably obtained complete disclosure of the information contained in the documents associated with Druyun's criminal conviction.

¹² Lockheed's protest was filed on November 10; L-3 Communication's protest was filed on November 12; BAE's protest was filed on November 15. By notice dated November 15, our Office advised the parties that we were consolidating the protests. Thereafter, in response to the agency's ongoing production of documents, which extended through December 31, various supplemental protests were filed.

The agency responds that, notwithstanding Druyun's acknowledged bias in favor of Boeing, the award to Boeing was proper because "there is no evidence that Mrs. Druyun influenced the SSET." Agency Report, Legal Memorandum, at 11. Overall, the agency maintains that "the evaluation process was conducted properly and in accordance with the evaluation criteria." *Id.* As discussed below, the record does not support the agency's assertions.

The Federal Acquisition Regulation (FAR) provides as follows:

Government business shall be conducted in a manner above reproach and, except as authorized by statute or regulation, with complete impartiality and with preferential treatment for none. Transactions relating to the expenditure of public funds require the highest degree of public trust and an impeccable standard of conduct. The general rule is to avoid strictly any conflict of interest or even the appearance of a conflict of interest in Government-contractor relationships.

FAR § 3.101-1.

In addressing organizational conflicts of interest, our Office has held that, where the record establishes that a conflict exists, we will presume that the protester was prejudiced, unless the record establishes the absence of prejudice. *See The Jones/Hill Joint Venture*, B-286194.4 *et al.*, Dec. 5, 2001, 2001 CPD ¶ 194; *TDF Corp.*, B-288392, B-288392.2, Oct. 23, 2001, 2001 CPD ¶ 178. Similarly, where, as here, the record establishes that a procurement official was biased in favor of one offeror, and was a significant participant in agency activities that culminated in the decisions forming the basis for protest, we believe that the need to maintain the integrity of the procurement process requires that we sustain the protest unless there is compelling evidence that the protester was not prejudiced. *See The Department of the Air Force—Request for Recon.*, B-234060.2, Sept. 12, 1989, 89-2 CPD ¶ 228. As discussed below, the agency has failed to provide compelling evidence that Druyun's bias in favor of Boeing did not influence the evaluation and selection of Boeing.

There can be no dispute that Druyun employed a forceful management style; at the hearing conducted by GAO in connection with this protest,¹³ there was significant testimony to this effect.¹⁴ Specifically, in the C-130 AMP procurement, Druyun left no

¹³ In resolving this protest, our Office conducted a hearing, on the record, at GAO headquarters in Washington, D.C. on January 25-27, 2005. During the hearing, testimony was provided by nine government witnesses. Citations to the separate transcripts provided for each of the 3 days are "Tr1. at ____," "Tr2. at ____", and "Tr3. at ____," respectively.

¹⁴ She was "demanding" and "intimidating," Tr2. at 297, 299; she communicated "forcefully" and "made . . . sarcastic remarks," Tr3. at 25; she "came across as angry a (continued...)

doubt as to who was in control from the outset. Before the evaluators had even completed their initial review of proposals, Druyun requested that they come to Washington, D.C. to discuss the “status” of their evaluations. Tr1. at 51-52. This meeting was subsequently referred to as the “15 September massacre.” Agency Report, Compact Disc 24 of 24, [deleted] E-mail. At the GAO hearing, the SSET chair elaborated on this characterization, stating: “Some of these folks had never worked with [Druyun] before. They didn’t expect blood on the floor after the meeting. I kind of did.” Tr1. at 207.

In this context, we reviewed the contemporaneous record documenting Druyun’s involvement in the evaluation process. Contrary to the agency’s assertion that “there is no evidence that Mrs. Druyun influenced the SSET,” the record is replete with documentation regarding her influence. More specifically, the contemporaneous notes and documents regarding the various meetings between Druyun and members of the various evaluation teams leading up to submission of FPRs reflect Druyun’s repeated questioning of the evaluators’ ratings, and expressions of her belief that various aspects of Boeing’s proposal should be rated more favorably and that various aspects of the protesters’ proposals should be rated less favorably.

For example, with regard to the evaluation of Boeing’s proposal under the [deleted] subfactor, the record shows that, prior to a December 5 meeting with Druyun, the SSET had rated Boeing’s proposal as “green,” based on Boeing’s reliance on a system referred to as [deleted].¹⁵ At the December 5 briefing, the record shows that Druyun asked the evaluators “What did you give to Lockheed [in this area?];”¹⁶ Druyun then stated, “Not convinced this [Boeing’s proposal] isn’t a Blue.” Agency Report, Book 28, Notebook 1, Briefing to Druyun, Dec. 5, 2000, at 12; Tr2. at 315-17. Boeing’s proposal rating was subsequently raised to blue in this area. Tr2. at 317. Similarly, at the December 21 briefing to Druyun, the evaluators had assessed Boeing’s proposal with regard to [deleted] as a “one-star” strength. Agency Report, Book 28, Notebook 1, Briefing to Druyun, Dec. 21, 2000, at 51. The record shows that Druyun expressed the opinion that “[the] user [will] see as a 2[-star] strength.” Agency Report, Book 28, Briefing to Druyun, Jan. 23, 2001, at 25; Tr2. at 176-77, 217. Subsequently, this aspect

(...continued)

large percentage of the time,” Tr1. at 75; “[i]f you showed any weakness . . . she went after it,” she “questioned everything,” and “[s]he didn’t trust [that] you did your job.” Tr1. at 206.

¹⁵ The portion of Boeing’s proposal referred to as [deleted] related to an [deleted]. The lead evaluator for the [deleted] explained that [deleted].

¹⁶ The evaluators had rated Lockheed’s proposal “blue” and “low” risk in this area, based on its reliance on an approach referred to as [deleted]. Agency Report, Book 28, Briefing to Druyun, Dec. 5, 2000, at 8.

of Boeing's proposal was rated as a "two-star" strength, although the language describing the strength did not change. Agency Report, Tab 18D, at 14.

The record similarly contains documentation of Druyun's involvement in the evaluators' assessments of Lockheed's proposal with regard to its approach to [deleted]. Specifically, during the SSET briefing to Druyun on December 21, the SSET described Lockheed's proposal of its [deleted] as an "exceptional approach" that reflected a "superb understanding of AF [Air Force] requirements," identifying four separate strengths. Agency Report, Box 28, Notebook 1, Briefing to Druyun, Dec. 21, 2000, at 40.¹⁷ The record shows that Druyun directed that the four separate strengths be combined into a single strength. *Id.*¹⁸ Again, with regard to the evaluation of Lockheed's proposal under the [deleted] subfactor, the SSET had initially rated the proposal "blue" with "low" risk. Druyun questioned this rating, asking "Are we sure this is low [risk]?" Agency Report, Box 28, Notebook 2, Briefing to Druyun, Sept. 15, 2000, at 33; Tr2. at 141. At the next briefing to Druyun a month later, Lockheed's proposal was rated "moderate" risk, even though the charts contained the same strengths and weaknesses as at the prior briefing. Agency Report, Box 28, Notebook 2, Briefing to Druyun, Oct. 16, 2000, at 72. Again, with regard to the evaluation of past performance, the performance risk assessment group (PRAG) initially assigned a rating of [deleted] to Lockheed's proposal. Agency Report, Compact Disc 1 of 24, Dec. 5 Update Brief Folder, at slide 216.¹⁹ The lead evaluator for the past performance factor testified that, during the December 5 meeting with Druyun, "literally the only sentence spoken to [me] the entire time I was at her table," was a directive that he review Lockheed's performance on two specific contracts—identified as [deleted] and [deleted]. Tr3. at 182-83.²⁰ Thereafter, Lockheed's past performance rating was lowered to [deleted]. Agency Report, Tab 8, at 88.

With regard to Raytheon's proposal, the record shows that its proposal of [deleted] under the [deleted] subfactor was initially evaluated by the SSET as "blue" with "low" risk, and assigned a "three-star" strength. Agency Report, Box 28, Notebook 1, Druyun Briefing, Dec. 21, 2000, at 1, 80. During the SSET briefing to Druyun on December 21, Druyun stated she was "not convinced it's a blue." *Id.* Similarly, Druyun recommended that various aspects of Raytheon's proposal that had been

¹⁷ Specifically, the SSET briefing identified one "three-star" strength, two "two-star" strengths, and one "one-star" strength. *Id.*

¹⁸ The contracting officer's contemporaneous notes reflect Druyun's comment that they should "make [the lower three strengths] a subset not separate stars." *Id.*

¹⁹ The contemporaneous documentation elaborates: [deleted].

²⁰ The lead evaluator for the PRAG testified that Lockheed's performance was [deleted] rated with regard to these two contracts. Tr. at 170-71, 183-84.

identified as “two-star” weaknesses should be changed to “three-star” weaknesses, and that one of its risk ratings should be increased from “moderate” to “high.” Agency Report, Box 28, Notebook 2, Briefing to Druyun, Oct. 16, 2000, at 1, 44; Power Point Slides, at slides 51, 87.

With regard to BAE’s proposal under the [deleted] subfactor, the SSET initially evaluated BAE’s proposal as “blue” with “low” risk. At the September 15, 2000 briefing, Druyun expressed disagreement, stating she “wouldn’t give them [a] blue [rating]—maybe green.” Agency Report, Box 28, Notebook 2, Briefing to Druyun, Sept. 15, 2000, at 34. Similarly, under the [deleted] subfactor, Druyun suggested during the December 21 briefing that the evaluation record “list as a weakness” an aspect of BAE’s proposal related to [deleted]. Agency Report, Box 28, Notebook 1, Briefing to Druyun, Dec. 21, 2000, at 28. Finally, the record reflects that Druyun summarily rejected a BAE [deleted] proposal as a “non-starter.” Agency Report, Box 28, Notebook 1, Briefing to Druyun, January 23, 2001, at 20.²¹ Nonetheless, Druyun had no objection to what appears to be a similar [deleted] aspect of Boeing’s proposal to provide [deleted]. Agency Report, Box 28, Notebook 1, Briefing to Druyun, Dec. 21, 2000, at slide 20.

On February 13, 2001, following completion of the agency’s discussions with the offerors, the contracting officer requested that FPRs be submitted by March 2. On February 23, while the evaluation was still ongoing, the contracting officer sent the evaluators an e-mail, carrying the subject heading “Database Cleanup/Organization,” directing the evaluators to “clean up” and “delete” various portions of the evaluation record. Specifically, the e-mail stated:

1. Purge EZSource [source selection database] E-Mail[.]
2. Start populating EZSource Lessons Learned file.
3. Clean up the comments section of all the forms. For example, delete any comments where evaluators/advisors have suggested ratings (color or risk) on the analysis worksheets or other forms. If the rating doesn’t

²¹ BAE’s proposal stated that it “aims to [deleted]” and “is prepared to [deleted],” offering to [deleted]. Id.

match the suggestion, we have protest fodder. Delete any derogatory or exceedingly glowing comments.^[22]

Agency Report, Compact Disc 23 of 24, [deleted] E-mail.

The record contains nothing to suggest that the evaluators failed to follow the contracting officer's direction with regard to deletion of the evaluation record.

On March 2, the offerors submitted their FPRs. On March 9, the contracting officer reopened discussions and requested a second round of FPRs. At the GAO hearing, the contracting officer unambiguously testified that discussions were reopened to permit Boeing to address a portion of its cost proposal that failed to comply with instructions the agency had previously given the offerors.²³ No other substantive questions were asked of any other offeror during these discussions. However, during the GAO hearing, agency witnesses identified specific aspects of the protesters' final proposals that should have been brought to their attention. For example, in its March 2 FPR, Lockheed increased the number of labor hours it proposed to provide under the [deleted] subfactor. In evaluating this aspect of Lockheed's FPR, the agency assessed a weakness due to Lockheed's [deleted]. Agency Report, Compact Disc 22 of 24, EZSource Database, at 22; Tr1. at 91, 96-97. The lead evaluator for the [deleted] subfactor testified: "We did not have an

²² At the GAO hearing, the contracting officer testified that she meant for the evaluators to delete only "inaccurate" comments, but could not recall ever clarifying her instructions in this regard. Tr2. at 115-16. Even if we were to accept the contracting officer's post-protest explanation regarding her purported intent, we fail to understand why the directions she gave were provided while the evaluation was still ongoing and, presumably, no source selection decision had been made.

²³ Specifically, the contracting officer testified:

Q. Did you have occasion to reopen discussion[s] on the C-130 AMP source selection?

A. I did have occasion to reopen discussions on March the 9th.

Q. Why did you reopen them?

A. I reopened discussions because the proposal submitted by Boeing, included a [deleted]. That was contrary to instructions that we had given all the offerors during discussions. And so I reopened in order to take care of that problem.

Tr2. at 96-97.

opportunity to issue an evaluation notice. I believe discussions were terminated. Had I had that available, I would have done that obviously." Tr1. at 91-92.²⁴

Similarly, the costs proposed by BAE and Lockheed in their FPRs reflected [deleted] that appear very similar to Boeing's proposed [deleted]—a "problem" for which the agency reopened discussions to permit Boeing to address. The record shows that the cost evaluation team increased Lockheed's evaluated price by [deleted] and BAE's by [deleted], without giving these offerors an opportunity to discuss the matter. Agency Report, Box 28, Notebook 3, Briefing to Druyun, Apr. 23, 2001, at 19-20; Tr3. at 88-89.

Following the second submission of FPRs on March 19, the FPRs were again evaluated and, on April 9, the SSET briefed Druyun regarding the evaluation. At that briefing, Druyun gave various directions that resulted in changes to the final evaluation record. Specifically, the proposal analysis report (PAR) states: "During the final [April 9] briefing to the SSA the cost team was directed to review their analysis to assure its accuracy." Agency Report, Tab 8, at 106. After receiving that direction, the cost team determined that certain Lockheed costs "should have been added back into the MPTOC," and "found an overcharge in the Boeing estimate [of a cost item] that should have been subtracted." *Id.* at 106-07. Overall, following the directions given at the April 9 SSA briefing, Boeing's MPTOC was basically reduced from [deleted] to [deleted], and Lockheed's was increased from [deleted] to [deleted].²⁵ *Id.* at 107. After these changes, the PAR described the difference between the offerors' respective MPTOCs as [deleted]. *Id.*

On April 23, the SSET provided a final briefing to Druyun, referred to as an "Action Item Closeout" meeting. Agency Report, Box 28, Notebook 3, SSA Decision Brief, Apr. 23, 2001. In addition to the revisions to the offerors' MPTOCs, discussed above, an item discussed during this "Closeout" meeting was the offerors' approaches to [deleted]. The SSET had summarized Boeing's approach as "[deleted] which tends to induce problems [deleted]" and further stated, "[deleted]." *Id.* at 5. The contracting officer testified that, at Druyun's direction, the above-quoted language was crossed out of the evaluation documentation and replaced with the following words: "Boeing will work out details post award." *Id.*; Tr2. at 200-01.²⁶ It is clear that no changes

²⁴ This evaluator also maintained that he was not aware that discussions had been reopened following the initial submission of FPRs on March 2. Tr1. at 94.

²⁵ As noted above, MPTOC included contractor costs associated with engineering manufacturing development, production, and installation. Additionally, the MPTOC reflected other ownership costs that will be incurred by the government, including "20 years steady state" operation and support, along with government furnished property, information, supplies and services. Agency Report, Tab 16, at 32.

²⁶ In evaluating this aspect of Raytheon's proposal, the SSET stated that Raytheon's proposed approach "does improve [deleted]." Agency Report, Box 28, Notebook 3, (continued...)

had been made to Boeing's proposal between the time the evaluators determined that Boeing's approach "tends to induce problems," and the time Druyun directed the record to read, "Boeing will work out details post award," and the record contains no further explanation regarding the basis for this change. Further, at the time this change was directed, presumably, no awardee had been selected. Tr. at 201. On June 4, 2001, Druyun formally selected Boeing for award.

Based on the record discussed above, we reject the agency's assertion that "there is no evidence that Mrs. Druyun influenced the SSET." The record establishes that Druyun specifically directed various changes to the evaluation record and repeatedly questioned the evaluators' ratings in a manner that reasonably suggested Boeing's technical ratings should be higher and the protesters' technical ratings lower. Similarly, following Druyun's direction that the cost evaluators review their analysis, Boeing's MPTOC was decreased and Lockheed's MPTOC was increased.

We similarly reject the agency's assertion that "the evaluation process was conducted properly." As discussed above, the agency clearly failed to treat offerors fairly with regard to discussions. In this regard, the FAR provides that, in conducting discussions, agency personnel "shall not engage in conduct that . . . favors one offeror over another. FAR § 15.306(e)(1); see also *Martin Elecs., Inc.*, B-290846.3, B-290846.4, Dec. 23, 2003, 2003 CPD ¶ 6; *Chemonics Int'l., Inc.*, B-282555, July 23, 1999, 99-2 CPD ¶ 61. Here, the agency expressly acknowledged that it reopened discussions after FPRs were submitted in order to permit Boeing to "take care of [a] problem"—yet failed to discuss similar problems with the protesters.

As discussed above, where, as here, the record establishes that a procurement official was biased in favor of one offeror, our Office believes that the need to preserve the integrity of the procurement process requires that the agency demonstrate that the protester was not prejudiced by the procurement official's bias in order for our Office to deny the protest. Here, in defending against all three protests, the agency first maintains that the record supports the agency's selection of Boeing and, accordingly, that the protesters were not prejudiced by Druyun's acknowledged bias. Alternatively, the agency asserts that, if our Office concludes that the record fails to support award to Boeing, we should conclude from the record provided that Lockheed was the appropriate awardee;²⁷ thus, the agency maintains that BAE and L-3 Communications were not prejudiced by Druyun's acknowledged bias.

(...continued)

Briefing to Druyun (Apr. 23, 2001). Similarly, with respect to this aspect of BAE's proposal, the SSET stated that it "does the most for aircraft [deleted] and it is least likely to induce problems [deleted]." *Id.*

²⁷ The record does not reflect any contemporaneous ranking of the offerors.

As discussed above, the contracting officer expressly directed the evaluators to destroy various portions of the evaluation record while the selection process was ongoing; accordingly, there is no certainty that GAO has received the complete contemporaneous evaluation record. Nonetheless, the existing record we received provides multiple examples of Druyun's pervasive influence throughout the source selection process, including specific instances where she either expressly or implicitly directed that the ratings of all three protesters, along with that of the awardee, be revised. Further, the agency failed to conduct meaningful discussions with all of the offerors; we will not speculate on the impact meaningful discussions would have had on the relative standing of the offerors. Given what may well be an incomplete evaluation record, evidence of Druyun's influence throughout the source selection process, and the flawed discussions, we have no basis to determine which of the four proposals should have been selected for award. The agency simply has failed to establish that any one of the protesters was not prejudiced.

The protests are sustained.

RECOMMENDATION

In situations where, as here, we find fundamental procurement flaws, including the failure to conduct meaningful discussions, our Office ordinarily recommends that the agency reopen negotiations with all competitive range offerors, conduct meaningful discussions, request final revised proposals, and evaluate those final submissions in a fair and unbiased manner. See, e.g., *Martin Elecs.*, *supra*. Here, however, the contract was awarded more than 3 years ago, and performance has been ongoing since that time.

The agency asserts that, because it has already obligated \$500 million of the program's approximately \$1 billion value and Boeing has been performing the contract for more than 3 years, the agency is "committed to [Boeing's] solutions to the avionics modernization." Agency's Post-Hearing Comments at 25. The agency also states that it does not have sufficient technical data rights under the Boeing contract to conduct a reprocurement of the entire contract. Tr3. at 232-34, 237-41.²⁸ Additionally, the agency maintains that termination of Boeing's contract would cost approximately \$150 million, that the complete reprocurement of the program would delay implementation significantly, and that this significant delay would negatively impact the C-130's ability to fly in certain portions of worldwide airspace, including Europe, Southwest Asia, Iraq, and Afghanistan. Tr3. at 232; Agency's Post-Hearing Brief at 25.

²⁸ The agency acknowledges that competition would be feasible for the installation phase of the contract. Tr3. at 239.

In response, the protesters maintain that preserving the integrity of the procurement process requires reopening of the competition, and further maintain that performance of the contract to date is behind schedule. In this regard, the record shows that, although contract performance has been ongoing for more than 3 years, the contract performance period is currently scheduled to extend through fiscal year 2011. Tr3. at 234.

As noted above, the agency has acknowledged that recompetition of the installation requirements currently within Boeing's contract is feasible. Accordingly, we recommend, that the agency conduct a recompetition of those requirements. In the event an offeror other than Boeing is selected to perform the recompetited requirements, Boeing's contract should be appropriately modified.

In light of the facts presented, and taking into consideration the best interests of the taxpayer, as well as national security concerns, we are reluctant to recommend recompetition of the entire contract effort. We do, however, have some concern that the Air Force's position regarding recompetition of the entire contract was forged in the heat of litigation, and may not reflect a completely objective review. Accordingly, we recommend that the agency conduct, and document, a thorough analysis of the competing concerns with regard to recompetition of the entire contract, and that this analysis specifically include consideration of the quality of Boeing's performance to date, and the costs associated with reimbursement of the protesters' proposal preparation costs.²⁹ The agency's documentation of its analysis should be provided to our Office. In the event the agency determines that the competing factors preclude recompetition of the entire contract effort, or has failed to reach any determination on this issue within 60 days after receipt of this decision, we recommend that each of the protesters be reimbursed the costs incurred in preparing and submitting their proposals.

Finally, we recommend that the protesters be reimbursed their costs of filing and pursuing this protest, including reasonable attorneys' fees. The protesters should submit their certified claim for costs, detailing the time expended and costs incurred, directly to the contracting agency within 60 days after the receipt of this decision. 4 C.F.R. § 21.8(f)(1).

Anthony H. Gamboa
General Counsel

²⁹ In performing its analysis, the agency should obtain information regarding the protesters' proposal preparation costs to facilitate as accurate an analysis as possible.

Senator McCain. Thank you very much.
Ms. Flavin, welcome.

**STATEMENT OF SALLIE H. FLAVIN, DEPUTY DIRECTOR,
DEFENSE CONTRACT MANAGEMENT AGENCY**

Ms. FLAVIN. Thank you. Mr. Chairman, members of the Airland Subcommittee: I am Sallie Flavin, Deputy Director of the Defense Contract Management Agency (DCMA). Thank you for the oppor-

tunity to appear before you today to talk about the recent study chartered by the acting Under Secretary of Defense for Acquisition, Technology, and Logistics.

During the week of November 8, 2004, Michael Wynne, Acting Under Secretary of Defense for Acquisition, Technology, and Logistics, chartered a multi-service agency team, which he asked me to lead, to conduct a review of the Air Force acquisition actions involving Ms. Darleen Druyun. This team reviewed specific acquisition actions executed during the tenure of Ms. Druyun, 1993 to 2002, as the Principal Deputy Assistant Secretary of the Air Force for Acquisition and Management.

The objective of the study was to determine if the decisions Ms. Druyun executed or influenced were consistent with DOD standards of integrity and sound business practices. The acquisition actions identified for review were source selection decisions, acquisition strategy panel decisions, revisions to acquisition strategy panel reports, award fee determinations, equitable adjustments, actions involving contested payments to contractors, contract restructures, contract extensions, and contract litigations.

The team reviewed 407 actions and approximately 8,000 documents between 6 December 2004 and 28 January 2005. As a result, eight actions were identified where the acquisition process appeared irregular or abnormal and where the results may not have been in the best interests of the government. We called these actions "anomalies." The Acting Under Secretary of Defense, Acquisition, Technology, and Logistics, has referred these eight actions to the DOD Inspector General for further review.

The ground rules for the Druyun study included the following considerations. At the time Mr. Wynne chartered the study, some of Ms. Druyun's actions had already been identified as problematic. Any such actions already identified and under review by other government bodies were excluded from the study. The study was to be concluded by late January, early February 2005. The study was strictly limited in scope to identifying actions requiring further review. Accordingly, the results are qualified to the extent that they must be reviewed by an investigative agency in detail to determine whether an action is in fact a problem or whether it is a reasonable action in light of further details.

The study team consisted of 40 people in disciplines of contracts, technical, audit, legal counsel, and staff support. Representatives from the Navy, the Army, the Defense Contract Management Agency, the Defense Contract Audit Agency, the General Services Administration were sought for the team. Expert level representatives in Grades 13 to 15 were requested to ensure that members would be capable of making informed judgments based on a relatively small amount of information combined with discussions with knowledgeable individuals.

In order to expedite the study, I decided to send the study team members to the Air Force locations where pertinent documents were maintained rather than to have the documents forwarded to one location. Analysis of the Air Force structure indicated there were four primary contracting locations where the bulk of the documents would be located. These four locations were Wright-Paterson

Air Force Base, Los Angeles Air Force Base, Warner Robins Air Force Base, and Hanscom Air Force Base.

The field activities soon revealed some acquisition documentation was located at sites other than the four previously noted. To capture the entire list of actions provided by the Air Force, visits were also made to Vandenberg Air Force Base, Hill, Peterson, Kirtland, Tinker, Eglin, Patrick, Maxwell, Bolling, and the Department of Commerce in Maryland.

The Druyun study team identified eight acquisition actions over and above those already under review by other government bodies that Ms. Druyun was involved in during the period 1993 to 2002 where the acquisition process appeared irregular or abnormal and where the results may not have been in the best interests of the government.

A list of the anomalies we found are attached to my statement. Would you like me to repeat them at this time, sir, or do you have that list?

Senator MCCAIN. I have that, thank you.

Ms. FLAVIN. Thank you.

Although the study results are not conclusive as to wrongdoing, there is sufficient concern in each case to warrant a recommendation that the anomalies be reviewed further.

In closing, thank you for the opportunity to appear before this committee.

[The prepared statement of Ms. Flavin follows:]

PREPARED STATEMENT BY SALLIE H. FLAVIN

INTRODUCTION

Mr. Chairman, members of the committee, thank you for the opportunity to appear before you today to talk about the recent study chartered by the acting Under Secretary of Defense for Acquisition, Technology, and Logistics. During the week of November 8, 2004, Michael Wynne, Acting Under Secretary of Defense for Acquisition, Technology, and Logistics, chartered a multi-service/agency team, which he asked me to lead and to conduct a review of the Air Force acquisition actions involving Ms. Darleen Druyun. This team reviewed specific acquisition actions executed during the tenure (1993–2002) of Ms. Druyun as the Principal Deputy Assistant Secretary of the Air Force for Acquisitions and Management. The objective of the study was to determine if decisions Ms. Druyun executed or influenced were consistent with the Department of Defense (DOD) standards of integrity and sound business practices. The acquisition actions identified for review were source selection decisions, Acquisition Strategy Panel (ASP) decisions, revisions to Acquisition Strategy Reports during or after ASP approvals, award fee determinations, equitable adjustments, actions involving contested payments to contractors, contract restructures, contract extensions, and contract litigations. The team reviewed 407 actions and approximately 8,000 documents between December 6, 2004 and January 28, 2005. As a result, eight actions were identified where the acquisition process appeared irregular or abnormal and where the results may not have been in the best interest of the Government. We called these actions anomalies. The Acting Under Secretary of Defense (Acquisition, Technology, and Logistics) has referred these eight actions to the DOD Inspector General for further review and or investigation.

METHODOLOGY

The ground rules for the Druyun Study included the following considerations:

- (1) At the time Mr. Wynne chartered the study, some of Ms. Druyun's actions had already been identified as problematic. Any such actions already identified and under review by other Government bodies were excluded from this study.

(2) The study was to be concluded by late January/early February 2005, although additional time could be requested if needed in the interest of quality of information.

(3) The study was strictly limited in scope to identify actions requiring further review. Given the time constraints for this initial review, it specifically was not intended as a definitive review of an issue or specific contract action. Accordingly, the results are qualified to the extent they must be reviewed by an investigative agency in detail to determine whether an action is, in fact, a true problem or whether it is a reasonable action in light of further details.

To assess the magnitude of the study, I worked with the Air Force and the Director of Defense Procurement and Acquisition Policy to develop a data call of all acquisition actions that Ms. Druyun played a significant role in during the 1993–2002 timeframe. As the data was being collected and based on preliminary information from the Air Force showing a field of about 250 actions, the study team was established. It consisted of 40 people in the disciplines of contracts, technical, audit, legal counsel and staff support. Representatives from the Navy, the Army, the Defense Contract Audit Agency (DCAA), the General Service Administration (GSA), and the Defense Contract Management Agency (DCMA) were sought for the team. Expert-level representatives in grades 13–15 were requested to ensure members would be capable of making informed judgments based on a relatively small amount of data, combined with discussions with knowledgeable individuals. The final team composition included 40 individuals, 23 from DCMA, 7 from the Navy, 4 from the Army, 5 from DCAA and 1 from GSA.

In order to expedite the study, I decided to send study team Members to the Air Force locations where pertinent documents were maintained, rather than have the documents forwarded to one location. Analysis of the Air Force structure indicated there were four primary contracting locations where the bulk of the documents would be located. Those four locations were: Wright-Patterson Air Force Base (AFB), Los Angeles AFB, Robins AFB, and Hanscom AFB. Study team members were divided into five units, one for each primary Air Force location and one headquarters unit to provide support to the other four. Each primary location had a definite product focus (Wright-Patterson—Aircraft, Los Angeles—Space and Missiles, Warner Robins—Air Logistics, and Hanscom—Electronics). Therefore, unit assignments were made as much as possible on the basis of comparable product experience, as outlined in the resumes received from team members. Some level of product knowledge of the units was expected to make the document analysis more efficient and effective.

Assembling the study team and issuing the data call required approximately 1 month. Following that, the week of December 6–10, 2004, was used as a general orientation for all team members. Initial information briefings were provided, team and sub-team introductions were made, and detailed work planning at the sub-team level began. One day was devoted to briefings by the Air Force on the Air Force acquisition organization. Time was also spent discussing how the Air Force conducts source selections in order to acquaint team members with any differences between their parent organizations' procedures and those of the Air Force. During this week, the team members contacted Air Force points of contact at each location to schedule entrance briefs, to request applicable documents, and to schedule interviews with involved acquisition personnel. The field activities soon revealed some acquisition documentation was located at sites other than the four previously noted. To capture the entire list of actions provided by the Air Force, visits were also made to Vandenberg AFB, Hill AFB, Peterson AFB, Kirtland AFB, Tinker AFB, Eglin AFB, Patrick AFB, Maxwell AFB, Bolling AFB, and the Department of Commerce in Maryland.

Upon completion of data collection in the field, each sub-team completed documentation of any anomalies. Anomaly summaries from each team were reviewed in a plenary session of all sub-teams to ensure overall study team concurrence with the subject and content of the anomaly. Senior Air Force acquisition officials were advised of the anomalies and were offered an opportunity to comment on them. Finally, the anomalies were presented to a Blue Ribbon Panel of General Officer and Senior Executive Service acquisition officials from the Navy, the Army and the DCAA for a final confirmation that they warranted further review.

ACTIONS NEEDING FURTHER REVIEW

The Druyun Study Team identified eight acquisition actions (over and above those already under review by other Government bodies) that Ms. Druyun was involved in during the period 1993–2002 where the acquisition process appeared irregular or abnormal and where the results may not have been in the best interest of the Gov-

ernment. It is important to note the qualifiers in the previous sentence—the process “appeared” irregular and the results “may” not have been in the best interest of the Government. These qualifiers are in keeping with the charter of this study, which was to review a broad segment of data and to identify actions in that field of data which warrant further review. This study did not conduct a detailed review of anomalies found. For that reason, after a detailed review is conducted, some or all of the anomalies reported may subsequently be found to be both reasonable and in the Government’s best interest. A list of the anomalies identified during the study is provided at Enclosure 1.

CONCLUSION

The Druyun Study Team identified eight new acquisition actions that Ms. Druyun was involved in during the period 1993–2002, where the acquisition process appeared irregular or abnormal and where the results may not have been in the best interest of the Government. In closing, thank you for the opportunity to appear before this committee. Although the study results are not conclusive as to wrongdoing, there is sufficient concern in each case to warrant a recommendation that the anomalies be reviewed further.

The Acting Under Secretary of Defense for Acquisition, Technology, and Logistics referred eight anomalies to the Department of Defense Inspector General’s office for further detailed review and analysis on February 8, 2005.

Contracts Referred to the DoD Inspector General

Program	Contractor	Program Value	Status	Year
National Polar-orbiting Operational Environmental Satellite System – Conical Microwave Imager Sensor (NPOESS-CMIS)	Boeing F04701-01-C-0502	335-400 Million Now purchased as a subcontract under Northrop Grumman's Space Technology (NGST)	Inactive	2001
C-5 Avionics Modernization Program	Lockheed Martin F33657-98-C-0007/0006	561 Million	Active	1998-99
Financial Information Resource System (FIRST)	Andersen Consulting FA8770-01-C-0020	82.5 Million	Active	2001
C-22 Replacement Program (C-40)	Boeing F33657-00-C-0056	62 Million	Inactive	1999-2000
60K Turner Program Contractor Logistics	Systems & Electronics, Inc (SEI) (Action Reviewed was pre-contract award – F09603-99-D-0078)	158 Million	Active	2002
KC-135 Programmed Depot Maintenance	Boeing/Pemco F42620-98-D-0054	1.5 Billion	Active	2000-2001
F-16 Mission Training Center	Lockheed Martin F33657-99-D-2025	42 Million	Active	2001
C-40 Lease & Purchase Program	Boeing F33657-02-C-0017	244 Million (est)	Active	2000 - 2002

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Enclosure 1

Senator McCain. Thank you very much.
[Additional information inserted for the record by Senator McCain follows:]

Project On Government Oversight
Exposing Corruption, Exploring Solutions

Written Testimony of
Danielle Brian
Executive Director
Project On Government Oversight
before the
Senate Armed Services Committee, Airland
Subcommittee on
DoD's Use of "Commercial" Acquisitions and
"Other Transaction Authority"

March 15 and 16, 2005

666 11th Street, NW, Suite 500 • Washington, DC 20001-4542 • (202) 347-1122
Fax: (202) 347-1116 • E-mail: pogo@pogo.org • www.pogo.org
POGO is a 501(c)3 organization

I would like to thank Chairman McCain and all the members of the Subcommittee for this opportunity to provide written testimony for the record. POGO commends the Subcommittee for holding hearings on contract reforms that have subjected taxpayer dollars to potential waste, fraud, and abuse. Undoubtably, the Druryun/Boeing tanker fiasco has created a real ground-swell in Washington circles to review conflict of interest and procurement integrity issues. As a result we have heard of unprecedented investigations by the Defense Criminal Investigative Service of senior procurement officials who have gone to work for defense contractors, as well as the creation of the "Procurement Fraud Working Group" by U.S. Attorney Paul McNulty.

I am the Executive Director of the Project On Government Oversight (POGO) which investigates, exposes, and seeks to remedy systemic abuses of power, mismanagement, and subservience by the federal government to powerful special interests. Founded in 1981, POGO is a politically-independent nonprofit watchdog that strives to promote a government that is accountable to the citizenry. In the beginning, POGO (which was then known as Project on Military Procurement) worked to expose outrageously overpriced military spending such as the \$7,600 coffee maker and the \$436 hammer. After many successes reforming the military, POGO expanded its mandate to investigate systemic waste, fraud, and abuse in all federal agencies.

This testimony combines our unique position in the defense and contract oversight program areas. In the recent past POGO has exposed problems with Department of Defense (DoD) weapons systems, problems with the revolving door between the federal government and its top contractors, and numerous problems by so-called procurement or acquisition "reforms," including lack of competition, reduced oversight, and the elimination of transparency. I would specifically like to highlight two reforms that are very problematic: "commercial item" acquisitions and "other transaction authority" (OTA) – two contracting vehicles that are highly favored by government contractors.

POGO is 100% behind the concept of the government buying truly "commercial" goods and services. The commercial marketplace provides genuine checks-and-balances and therefore provides competition and lower prices. The problem arises in instances when the government is stretching the definition of "commercial" to include non-commercial items. In such cases, checks-and-balances are missing, as well as the contracting controls that provide the government with the ability to protect taxpayer dollars.

With regard to OTA, POGO concludes that their creation was based on a fallacy. Congress was lead to believe that hordes of "non-traditional" contractors who were afraid of government red-tape were clamoring to bring the government innovative good or services. OTA was created to welcome these new businesses into the government contracting fold. Well, the hordes never came. Instead, we are left with a system without contracting controls, and billions of dollars being awarded to "traditional" contractors who were already selling goods or services to the government. Although government statistics show that a few "non-traditional" contractors have stepped forward, those same reviews indicate that as much as 97% of OTA funds are going to traditional contractors.

“Commercial Items”

Federal Acquisition Regulation (FAR) Part 12 governs the “Acquisition of Commercial Items” – items that are believed to be subject to competitive market forces. The purpose of such acquisitions is to reduce acquisition time, rather than paying contractors to develop unique items for the government’s use. “For example, contracting officials may reduce the time needed to solicit bids and award contracts by combining certain steps in the solicitation process, using streamlined evaluation techniques, and eliminating certain administrative requirements.”¹ The use of the “commercial item” contract vehicle is based on the premise that there is a “commercial” market for the desired goods or services.² Unfortunately, DoD has stretched the definition of “commercial item” and even went as far as to permit the purchase of items that do “not meet the definition of “commercial item.”³

Problems with “commercial item” purchases, however, date back many years. A March 1983 GAO report stated that “commercial item descriptions” (CIDs) were expected to maximize “the reliance on commercial packaging, packing, and marketing,”⁴ thereby increasing “competition and, as a result, decreas[ing] costs.”⁵ GAO noted, however, that CID purchases require “established commercial market acceptability, using recognized industry standards, instead of Federal specifications or standards, when ever possible, and requiring manufacturers to certify that the products they are selling to the government are the same as those in the commercial market place.”⁶

To encourage such deregulation contractors argued that a “commercial” market ensures reasonable pricing. In practice, however, there are many inherent problems created when the government purchases goods or services using the “commercial item” contract vehicle. Through

¹ GAO, *Federal Procurement: Federal Procurement Spending and Workforce Trends*, GAO/NSIAD-99-90, August 2003, at p. 17.

² 41 U.S.C. § 403(12) (defining “commercial item”). See 10 U.S.C. § 2376 (defining “commercial item”); FAR 2.101(b) (defining “commercial item”), FAR 12.101(a) (“Conduct market research to determine whether commercial items or nondevelopmental items are available that could meet the agency’s requirements.”), and FAR 12.201 (“Public Law 103-355 establishes special requirements for the acquisition of commercial items intended to more closely resemble those customarily used in the commercial marketplace.”).

³ DFARS 212.7002-1 (allowing “commercial item” contracts to be used for follow-on contracts after use of other transaction authority).

⁴ GAO, *Assessment of the General Services Administration’s Use of Commercial Item Descriptions*, GAO/PLRD-83-43, March 3, 1983, at p. 2.

⁵ *Id.* at p. 1.

⁶ *Id.* at p. 3.

the Federal Acquisition Streamlining Act (FASA)⁷ and the Clinger-Cohen Act,⁸ “commercially” available items are exempted from much procurement oversight, such as the Truth in Negotiations Act (TINA) regulations, Cost Accounting Standards (CAS), cost or pricing data requirements, and audit access for examination of contractor records by the GAO or defense auditing agencies.⁹ That problem is compounded by the government’s loose definition of “commercial,” permitting “non-commercial items” to be labeled as “commercial items.” Similarly, items under the loose definition can be merely “**of a type**” sold to the public, rather than a product that actually is sold to the public.¹⁰

The DoD Inspector General (DoD IG) noted that the loose definition of commercial items “qualifies most items that DoD procures as commercial items,” with the result that: “This opens up a major loophole for sole-source vendors to charge prices that cannot readily be evaluated for reasonableness. This concern will continue to grow as more companies merge and the aerospace industry becomes more of a sole-source environment.”¹¹

For instance, the C-130J military transport aircraft has been sold to the government as a “commercial item.” While not a single sale was ever made to civilians, oversight was loosened. The DoD IG has stated: “The Air Force conditionally accepted 50 C-130J aircraft at a cost of \$2.6 billion even though none of the aircraft met commercial contract specifications or operational requirements.”¹² The IG’s report also said:

The commercial acquisition strategy was unjustified, the Air Force did not properly manage the program, and the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics did not provide effective oversight. The Air Force bought the C-130J as a commercial item needing minor modification, but in the 8 years since the Air Force began contracting for the C-130J, Lockheed Martin has been unable to design, develop, or produce a C-130J aircraft that meets contract specifications. In addition, the Air Force did not determine whether the commercial

⁷ P.L. 103-355, sections 8104 and 8203, October 13, 1994.

⁸ Clinger-Cohen Act of 1996 (formerly called Information Technology Management Reform Act (ITMRA), Division E, National Defense Authorization Act for FY 1996 (P.L. 104-106, February 10, 1996).

⁹ See FAR 12.102(f)(2) and 15.403-1. There is a debate over whether government audits can be conducted. A problem exists, however, because contractors supplying “commercial items” do not supply the government with cost or pricing data and therefore the auditors do not have data to verify.

¹⁰ FAR 12.101 and DoD Directive 5000.2-R 3.3.1.1 (“Commercial and Non-Developmental Items”).

¹¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 14-15.

¹² DoD IG, *Acquisition – Contracting for and Performance of the C-130J Aircraft (D-2004-102)*, July 23, 2004, at p. i.

version of the C-130J met the operational requirements before procuring the aircraft.¹³

This “commercial” designation on the C-130J prompted Senator Tom Harkin (D-IA) in 1997 to fire off a letter of protest to Secretary of Defense William Cohen:

How can Atlas rockets and C-130J aircraft be considered “commercial” items? Obviously, these are not items found in the commercial sector. More importantly, they are not items that are priced due to the forces of supply and demand. Items bought solely or primarily by the federal government should not fall under the “commercial” definition.

With oversight regulations waived, the cost of wiring harnesses on the C-130J increased by five times their original price after the aircraft was designated “commercial,” going from \$91 to \$453. The GAO offered this spare part price-hike as a real-world example of the difficulty involved in making the transition from pricing goods and services based on costs incurred to an ineffective commercial model in which factors other than cost are the principal means used to establish prices.¹⁴

Similar government attempts were made to classify the C-17 cargo plane as a “commercial item.” While at the U.S. Air Force, Darleen Druyun was a staunch supporter of the December 2000 proposal to acquire additional C-17 cargo aircraft while sidestepping financial oversight for Boeing. While the acquisition proposal would have been a financial bonanza for Boeing, it would have ultimately put billions of taxpayer dollars at risk. By categorizing such an item as “commercial,” the government would have bypassed important pricing oversight controls that are only intended to be lifted for items that are truly “commercial” and whose prices are set by free market forces. A \$232 million outsize cargo carrier with 173,300 lbs. capacity is clearly not a mass-market item that is sufficiently affected by the free market. Many other “commercial items” are purchased by the public, but with such low frequency that prices are by no means determined by the free market.

Generally, auditors are prevented from obtaining cost or pricing data on “commercial items.” In a memorandum obtain by POGO, the extent to which contractors want to avoid showing cost data to government auditors is laid bare. In preparation for an Air Force visit, a Lockheed Martin official wrote:

Attached is our proposed agenda for the C-130J.

* * *

¹³ *Id.* at ii.

¹⁴ Statement for the Record, Henry L. Hinton, Jr., Assistant Comptroller General, National Security and International Affairs Division, General Accounting Office, before the House Committee on Government Reform, Subcommittee on Government Management, Information, and Technology, *Federal Acquisition: Trends, Reforms, and Challenges*, GAO/T-OCG-00-7, March 16, 2000, at p. 10.

The cost information which we will agree to provide with the limited participation discussed last Friday is planned for the start of the second day.

The limited attendance cost discussion will include you, Major Stockman, and Mr. Clark from your team. As discussed, our intent is to provide information needed for you to complete your assignment, with the agreement that it will only be used for this assignment, it will not be provided to DCMC or DCAA [Defense Contract Management Command or Defense Contract Audit Agency], and you will control the information and only provide it to others with our concurrence.

As I am sure you understand, we are not trying to hide anything, merely attempting to preserve the commerciality of the program.¹⁵ (Emphasis added.)

One DoD auditor-turned-whistleblower who worked at the C-130J plant in Marietta, Georgia, spent months researching the cost of the “J” model, but was frustrated by his attempts to determine an actual, and fair, price for the aircraft. The auditor, Ken Pedeleose, said in a report to Congress that in June 1995 when the government designated the C-130J a “Regulatory Pilot Program,” it “lost all insight into the C-130 operations.”

In 2001, the DOD IG released a report that criticized the use of “commercial item” purchases, concluding:

The Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics and the Defense Advanced Research Projects Agency have made different attempts over the last 3 years to inappropriately use FAR Part 12 contracts to acquire applied research. The lack of a commercial market and established catalog and market prices for applied research, and difficulties in determining fair and reasonable prices for services that do not exist in the marketplace makes the use of commercial item contracts for applied research inappropriate.¹⁶

In 2000, Donald Mancuso, the DoD Deputy Inspector General, testified before Congress regarding the problem with “commercial item” purchases, stating:

In early 1998, we began issuing a series of audit reports on prices paid for aviation spare parts and equipment. As you may recall from your hearings at the time and intermittent publicity since, we found that prices paid under new, commercial type contracting arrangements were considerably higher than was the case when the same

¹⁵ Gene Elmore, Lockheed Martin, Memorandum to Col. Steve Busch, SAF/AQD, October 21, 1998, at p. 1.

¹⁶ DoD IG Report, *Use of Federal Acquisition Regulation Part 12 Contracts for Applied Research*, Report No. D-2001-051, February 15, 2001, at p. I.

items were procured previously under "traditional" Defense contracts or ordering agreements.¹⁷

Before the curtain completely fell on access to "commercial" purchase data, the government was able to compare spare parts prices under the new "commercial item" designation to early data that had been supplied to the government. In its 1999 report, the DOD IG found that AlliedSignal had overcharged the government for spare parts by as much as 618%.¹⁸ The irony is that these parts were bought under the new, much-touted "commercial" price system promoted by the Clinton Administration and Congress. The only way that the outrageous overcharging came to light was because the government still had pre-FASA and pre-Clinger-Cohen Act data to compare the old prices with the new "commercial" prices. POGO suspects that the same overcharges would be revealed in current "commercial items" if government auditors have access to cost or pricing data.

According to the January 1999 investigation by the DoD IG:¹⁹

- The government "paid Allied prices that were higher than fair and reasonable in FYs [Fiscal Years] 1996 and 1997 when compared to the noncommercial prices paid to Allied in previous years." The parts included items such as gearshafts, wheels, nuts, bearings, seals, filters, and valves.
- The Defense Department "paid a 54.5 percent premium for commercial parts from Allied" - in other words, were overcharged by more than 50%.
- For parts that AlliedSignal did not even make itself, but merely bought from original manufacturers or dealers and then sold to the government, some items were variously marked up by as much as 294%, 325%, and 618%.
- The Defense Department paid an even higher average markup in Fiscal Year (FY) 1997 (60.1%) than it did in FY 1996 (45.8%). It appears that in this case an Acquisition Reform "learning curve" is not being realized.
- Defenders of the acquisition system argue that the government paid higher prices because the prices included more stocking services - but the Defense Department failed to use the services.

The DOD IG report blacks out the names of specific spare parts that were grossly overpriced. Although contractors routinely claim such information is "proprietary," the real effect is that the

¹⁷ Donald Mancuso, Deputy Inspector General Department of Defense, Statement made before the Subcommittee on Readiness and Management Support of the Senate Committee on Armed Services on Defense Acquisition, April 26, 2000, at p. 9. Hereinafter Mancuso Statement.

¹⁸ DoD IG, *Commercial Spare Parts Purchased on a Corporate Contract*, Report No. 99-026, January 13, 1999, p. 12.

¹⁹ *Id.* at p. I-10.

public cannot easily find out how much they are overpaying for items they might recognize.

The IG report on AlliedSignal followed 1998 IG reports of overcharging under "commercial" contracts with Boeing and Sundstrand corporations. The earlier reports (see "Acquisition Deform: A Study in Hasty Deregulation," Project On Government Oversight Alert, October 1997) found that:

- Prices were inflated by more than 1,000 percent on a variety of spare parts. For example, the Boeing price for a commercially-available \$24.72 "spoiler actuator sleeve" was \$403.39 - a markup of 1,532 percent.²⁰
- Sundstrand billed the government \$6.1 million for parts that were worth only \$1.6 million.²¹
- Boeing charged \$5 million for parts that were worth \$3.2 million in the competitive market.²²
- A contractor charged \$76 for 57¢ screws.²³
- Another contractor charged \$714 for an electric bell worth \$46.68.²⁴

The IG's 1998 report found that higher prices were paid for "commercial" items than had been paid earlier because:²⁵

- Although Acquisition Reform allowed the Sundstrand items to be purchased under loose "commercial" item rules, in fact "there was no competitive commercial market to ensure the reasonableness of the prices";

²⁰ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17-18.

²¹ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, February 6, 1998, at p. 12.

²² DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 8.

²³ Department of Defense Authorization Act for Fiscal Year 1999 Report on Authorizing Appropriations, Senate Armed Services Committee, Rpt. 105-189, and "U.S. Senate Panel Tells Pentagon to Stop Parts 'Pricing Abuses,'" Tony Capaccio, Bloomberg Business News, May 29, 1999.

²⁴ *Id.*

²⁵ DoD IG, *Commercial and Noncommercial Sole-Source Items Procured on Contract N000383-93-G-M111*, Report No. 98-064, June 24, 1998, at p. 8.

- Sundstrand "refused to provide DLA [Defense Logistics Agency] contracting officers with 'uncertified' cost or pricing data for commercial catalog items";
- Items were defined as commercial as long as they were merely "offered for sale, lease, or license to the general public" (emphasis added); and
- In the Boeing case,

"contracting officers accepted Boeing commercial catalog prices as fair and reasonable without adequate support for price reasonableness, even when DoD was the 'primary' customer procuring significantly larger quantities than other commercial customers and there was no competitive commercial market to ensure the price integrity. The contracting officers made no attempt to exert the leverage that a major customer ought to be able to exert to negotiate significant discounts, as is common commercial practice."²⁶

The purchase of "commercial items" under FAR Part 12 is on the rise. Since FY 2000, contract award dollars and actions have been on the rise. According to GSA's FY 2004 report, the government conducted 367,654 "commercial item" purchases totaling more than \$50 billion.²⁷ In addition, "commercial item" purchases have increased in all categories. The chart below illustrates the increases in both government-wide and "commercial item" purchases.

Fiscal Year	All Contracts ²⁸		"Commercial Items" ²⁹		
	Dollars in Billions	Actions	Dollars in Billions	Actions	% of All Contracts
2004	\$310	1,661,506	\$50	367,654	16 %
2003	\$290	1,006,919	\$62	443,273	22 %
2002	\$234	672,171	\$47	255,480	20 %
2001	\$215	563,014	\$40	185,315	19 %
2000	\$203	519,780	\$31	135,836	15 %

²⁶ DoD IG, *Sole-Source Prices for Commercial Catalog and Noncommercial Spare Parts*, Report No. 98-088, October 13, 1998, at p. 17.

²⁷ GSA, Federal Procurement Data System, Total Federal Snapshot Report, Actions Reported From October 1, 2003 to September 30, 2004, date generated January 17, 2005.

²⁸ GSA, Federal Procurement Data System, Total Federal Snapshot Reports FY 2000 through FY 2004.

²⁹ *Id.*

Not only is the increased use of the “commercial item” contracting vehicle troublesome, but the Acquisition Reform Working Group (ARWG), largely made up of defense contractors, stated in its 2005 Legislative Agenda that it must continue to “push the envelop” regarding the government’s use of “commercial items” purchases. As may be expected, ARWG’s legislative agenda is complete with pro-contractor provisions that severely reduce or eliminate taxpayer protections – protections that allow agencies to oversee and audit government contracts. POGO’s preference is that the “commercial item” designation is only used for goods and services whose price is set by the genuine “commercial” marketplace.

Other Transactions

“Other transaction authority” is a term commonly used to refer to the DoD’s authority to enter into transactions (OT agreements) other than contracts, grants or cooperative agreements.³⁰ DoD has temporary authority to award such agreements in certain circumstances for basic, applied, and advanced research projects.³¹ Its authority was expanded to allow the Director, Defense Advanced Research Projects Agency (DARPA), to enter into OT agreements to carry out prototype projects that are directly relevant to and weapons or weapon systems proposed to be acquired or developed by DoD.³² OTA is a customized agreement rather than contracts that can be specifically tailored based on the government’s needs.³³ The inherent problem, however, is that rather than the government controlling what it needs, the OTA contractors are placed in the powerful position of saying “here’s what we will do for you.”

“Other Transactions” acquisitions generally are not subject to the federal laws and regulations governing procurement contracts. Therefore, OTA is exempt from the usual contracting controls and oversight mechanisms set forth in contracting statutes, the FAR (in particular Truth in Negotiations Act (TINA) regulations and Cost Accounting Standards (CAS), DFARS, audit access for examination of contractor records by the GAO or defense auditing agencies, and Small Business Act requirements for small business participation.³⁴ Mirroring the intended reasons behind “commercial items,” OTA was created to lure non-traditional defense contractors to bring innovative

³⁰ 10 U.S.C. § 2371(a).

³¹ *DoD Annual Report on Cooperative Agreements and Other Transactions Entered into During FY2002 Under 10 USC 2371*, no date provided, at p. 1.

³² Mancuso Statement, at p. 15.

³³ Congress has granted the Department of Homeland Security, NASA, and the Department of Transportation with OTA.

³⁴ Statement of Eleanor Hill, Inspector General Department of Defense, For the Subcommittee on Readiness and Management Support Senate Committee on Armed Services On Acquisition Reform in the Department of Defense, March 17, 1999, at p. 16. Hereinafter Hill Statement.

ideas to the government.³⁵ The numbers do not support the government intent, however, with 72% of the research and 97% of the prototype OTA funding going to traditional DoD contractors in the late-1990s.³⁶ Now we are hearing a new explanation for OTA – that the primary benefit to contractors is that they can fully protect their intellectual property rights. In addition to the elimination of contracting controls, the companies that enter into OT agreements retain their ability to make a dollar from programs that were funded by Uncle Sam.

Soon after DoD started using OTA, the DOD IG began documenting problems with those acquisitions. In 1998, the DOD IG reported on problems for 28 OT agreements awarded by DARPA.³⁷ One recommendation was for better monitoring of the actual costs against the funds paid and inconsistencies with audit provisions.³⁸ One year later, the IG reiterated concerns with OTA, stating:

DoD officials did not receive adequate expenditure reporting needed to monitor “Other Transaction” efforts, did not adjust milestone payments when needed, forfeited interest, and did not receive final research reports. The underlying causes were the lack of management guidance, and a lack of quantifiable performance measures to assess costs and benefits. The Department has issued additional guidance, but establishing the performance measures has been difficult for the Department.

* * *

Given the inapplicability of traditional controls to “Other Transactions,” we believe that if this authority is extended to billion dollar production runs of equipment, additional scrutiny of pricing for sole-source items will be needed to protect DoD and taxpayer interests. In these cases, the Department should require access to cost or pricing data, plus audit access for the Defense Contract Audit Agency, in order to ensure fair prices.³⁹

In 2000, the DoD Deputy IG Donald Mancuso pleaded with Congress to reign in OTA, testifying that “Congress may consider legislative proposals for other transactions this year. Given the inapplicability of traditional controls to other transactions, any expansion of the authority for

³⁵ Under Secretary of Defense for Acquisition, Technology, and Logistics, “*Other Transactions*” (OT) *Guide for Prototype Projects*, January 2001, at p. 11.

³⁶ Mancuso Statement, at p. 15.

³⁷ Hill Statement at p. 17.

³⁸ *Id.* at p. 16-17.

³⁹ *Id.* at p. 18-19.

other transactions should provide the needed protections both for the Department and the American taxpayers.”⁴⁰

Two major DOD acquisitions have come under OTA status: missile defense and Future Combat Systems (FCS) programs. As stated above, these programs are shielded from normal contract oversight mechanisms and proceed virtually unregulated. The real issue is what are we getting for our dollar.

On January 2, 2002, Secretary of Defense Rumsfeld issued a memorandum regarding the direction of the missile defense program. That memorandum included a directive stating that “to encourage flexibility acquisition practices, I delegate to the Director, MDA, authority to use transactions other than contracts grants, and cooperative agreements to carry out basic, applied, and advanced research.”⁴¹

In 2002, DARPA started awarding “other transactions” for development work for the Future Combat Systems (FCS) program. Although only \$20 billion awarded, the total value of the FCS program is believed to run as high as \$120 billion. That makes the FCS program the largest OTA purchase to date. Army officials have countered by claiming that FAR provisions apply to the FCS program. That statement is misleading in the sense that OTA is not subject to the FAR. Last year, however, DoD finalized FAR-like regulations for “other transactions” for prototype projects, although none of those regulations offered oversight controls that protect federal funds (*i.e.*, TINA and CAS).

POGO is concerned that both the missile defense and FCS programs are ripe for abuse and the use of OTA truly eliminates protections of hundreds of billions of taxpayer dollars. The OTA mechanism waives many of the financial oversight requirements of typical contracts for goods or services with the aim of attracting so-called non-traditional defense contractors. “Other transactions” allow contractors to avoid taxpayer protections and transparency requirements in the contract statutes and regulations, which provide protections to ensure fair and reasonable procurement prices. OTA, however, is exempt from those protections and can exempt a defense contractor from undergoing government audits or providing the federal contracting agency and government auditors with access to the contractor's pertinent records.

RECOMMENDATIONS

“*Commercial Items*”:

1. Restore the definition of “commercial items” to those actually sold to the general public in significant quantities, rather than the current loosened definition: an item not necessarily sold to the public, but merely “offered for sale,” or “of a type” offered

⁴⁰ Mancuso Statement, at p. 16-17.

⁴¹ Secretary of Defense Donald Rumsfeld, Memorandum for Deputy Secretary of Defense Secretaries of the Military Departments *et al.*, *Missile Defense Program Direction*, January 2, 2002, attachment at p. 2.

for sale. Today, some "commercial items" never actually experience sales to the public, allowing the defense contractors that produce them to charge exorbitant amounts while pretending that a competitive commercial market is keeping prices in line. Such items should not be exempt from the usual oversight (TINA and CAS); and

2. Stop the proposed rule on use of Time and Material and Labor Hour (T&M and LH) contracts using so-called "commercial item" FAR Part 12 provisions. This attempt is just another way of reliving contractors from oversight on flexibly-priced contracts. T&M and LH contracts could still be used, but they would have to include traditional oversight clauses, which FAR Part 12 prohibits.

Other Transactions:

1. Restore the original intent to bring innovations to the public from non-traditional government contractors, rather than throwing billions of dollars with no oversight controls to the government's top vendors (*i.e.*, prohibit any contractor who has accepted a FAR contract from being eligible to receive an OTA); and
2. Renegotiate such agreements under contracting vehicles that provide taxpayer protections (*i.e.*, FAR Part 15).

General Contract Reforms:

1. Increase competition -- especially for Indefinite Delivery/Indefinite Quantity (ID/IQ) contracts (*e.g.*, GSA schedules, Governmentwide Acquisition Contracts (GWACs), and other multi-agency contracts);
2. Increase oversight for flexibly-priced contracts (*e.g.*, cost-reimbursement contracts, incentive-type contracts, and T&M and LH contracts); and
3. Increase transparency -- by requiring all opportunities (unless there is a security exception), and regardless of how phrased (*e.g.*, contracts, orders, Blanket Purchase Agreement (BPAs), task or delivery orders under schedules GWACs, etc.) to be posted to Fed Biz Ops.

Senator McCAIN. Mr. Gordon, I am struck by one of the conclusions in your report. It says: "The contracting officer directed the evaluators to destroy portions of the evaluation record." This is concerning the C-130J, right?

Mr. GORDON. The C-130 avionics modernization program, sir.¹

Senator McCAIN. Could you elaborate on the circumstances of that?

Mr. GORDON. We had the contracting officer as a witness in the hearing before us. We learned that she had sent written instructions to the evaluators to "clean up" the evaluation record, to use the phrase she used, but it involved essentially deleting and destroying part of the evaluation record, in particular things that would be inconsistent with the final ratings. We were very troubled by that instruction.

Senator McCAIN. Who was that contracting officer?

Mr. GORDON. I do not have her name, sir. We could get that for you.

Senator McCAIN. This was a civilian employee?

Mr. GORDON. She reported to Darleen Druyun.

Senator McCAIN. Mr. McNulty, from what you have been able to gather in the course of your involvement in these issues, do you think that there is a systemic problem here or this is just an isolated incident? Or do you not have an opinion?

Mr. McNULTY. Are you referring more specifically to the Air Force matters associated with Darleen Druyun or generally in procurement fraud? More broadly on procurement fraud?

Senator McCAIN. Not confined to one person.

Mr. McNULTY. It is hard to have a sense of whether or not the problem is increasing. We are seeing, on an anecdotal basis, a wide range of procurement fraud activity, the ethical issues that are being described here today, as well as just the good old-fashioned false billing and so forth.

I would also say that the criminal agencies we are working with in the working group are reporting a sense of increased concern and they are expanding their resources and they are doing things to gear up to be more aggressive. That is not very precise, but that is my best read on the scope of the problem; that there is pressure as well on speed or efficiency in procurement because of the circumstances we are in. Some special procedures are being followed and that also might make us more vulnerable to certain fraud.

Senator McCAIN. Mr. Gordon, the 15 September massacre as you have described in your statement, that Ms. Druyun called the evaluators and made some changes, directed them to make changes in their evaluations, and you identified some specific examples. Did others in the Air Force know this was going on?

Mr. GORDON. Yes, Mr. Chairman. In fact, those matters were coming up in conversations and in e-mails back and forth between her and others. One of the examples I thought might be worth mentioning in that regard is at one point the contracting officer testified at our hearing that at Darleen Druyun's direction there was language crossed out that had described Boeing's approach to

¹As was made clear later in the hearing, the contracting officer's direction referred to the evaluation record in the avionics modernization program.

a particular technical matter as something that “tends to induce problems,” and at Darleen Druyun’s direction the contracting officer had those words crossed out and replaced with the words “Boeing will work out details post-award.” Clearly that was a matter known to someone beyond Darleen Druyun. She was directing others to do it.

Senator MCCAIN. In your prepared statement when you said “The Air Force asserted that Ms. Druyun did not influence the source selection evaluation team,” is that statement credible?

Mr. GORDON. The record did not support the Air Force’s position.

Senator MCCAIN. Is that your conclusion, Mr. Schmitz?

Mr. SCHMITZ. Sir, that was—I do not have any reason to dispute it, sir.

Senator MCCAIN. Mr. Schmitz, Mr. Dominguez states in his testimony: “Early indications suggest in the accountability review in your investigation of the program referred by the Defense Contract Management Agency (DCMA) as well as others you are looking into suggest that no criminal activity occurred in these procurement actions by any Air Force individuals.” What indication did you give Mr. Dominguez or the Air Force that no criminal activity occurred in these procurement activities by any Air Force individuals?

Mr. SCHMITZ. I think what you are asking is how do we prove a negative.

Senator MCCAIN. Yes.

Mr. SCHMITZ. We do not typically try to prove a negative, Mr. Chairman. I think that what my staff probably conveyed was that we did not see any immediate need to open up a criminal investigation. We are in fact taking a look at those matters right now and we at any point could open up a criminal investigation.

Senator MCCAIN. Mr. Dominguez, in 1995 the price for the basic C-130 was \$33 million. In 1998, the price had risen to \$50 million. The 2004 contract price for the C-130J stretch aircraft is \$67 million, and certain warfighter-specific mission aircraft are pushing the price near \$100 million.

Now, at least up until yesterday, it was a commercial item acquisition strategy. So we really have no way of getting at the cost data of the C-130J, do we, because it is a commercial contract and the Lockheed Martin has the right to keep that information private? Is that right?

Mr. DOMINGUEZ. For the commercial aspects of the aircraft. For any specific mods that are done under the Federal Acquisition Regulation Part 15—there are some pieces of it—we do have cost and pricing data. But for the core aircraft which you are talking about, Senator, you are exactly right.

Senator MCCAIN. So I guess my question is, how are we supposed to examine how this rather dramatic cost increase has taken place?

Mr. DOMINGUEZ. Senator, I think I have concluded, as General Jumper has concluded, that we are not able to appropriately defend the taxpayers’ interests here in this particular contract structure and so we are going to try and change it.

Senator MCCAIN. Do you think that this committee should have that cost and pricing information?

Mr. DOMINGUEZ. Sir, I guess I am not in a position to—

Senator MCCAIN. That is not a fair question and I apologize. But it just is a bit frustrating when we see this dramatic cost increase and because of the way the contract was, the specifications of the contract, unless we subpoena that information, which I guess we will have to have discussions with Senator Warner and other members of the committee about, we will not know.

So I think we ought to look at that.

Mr. DOMINGUEZ. Senator, if I might.

Senator MCCAIN. Yes, go ahead.

Mr. DOMINGUEZ. A minor point. The substance of your concern is absolutely on target and I share that concern. It is important to note that the J-model aircraft is a much different airplane and a much more capable aircraft than the predecessors. I think that baseline price is probably the C-130H. So there is some escalation associated with its capability.

But again, we cannot dissect that for you and explain that to the American people. So the substance of your point is right on target.

Senator MCCAIN. I thank you for making that point. For all I know, there may be very legitimate reasons for these additional costs, but it is hard for us to exercise our oversight responsibilities if we do not have access to the information.

Mr. Gordon, during your investigation on the small diameter bomb you interviewed a Lockheed Martin employee and former Air Force Brigadier General Bigum, who testified before he retired from the Air Force he received a letter regarding post-employment restrictions from the Air Force Staff Judge Advocate. In the General's testimony he states he was subsequently advised by the Staff Judge Advocate, "not to worry about it;" post-employment restrictions were only put into the letter to "cover their butt;" and he was advised that these provisions on post-employment had no application to him.

Did you find that interesting?

Mr. GORDON. We did, sir. It was because we were troubled by what we heard that one of our recommendations was that the Air Force review that matter and report back to us. We are awaiting, as I said, their report in that matter.

Senator MCCAIN. I guess I would like to ask Mr. Schmitz, Mr. Gordon, and Ms. Flavin the same question. Do you think that this is, from what you have seen, that this is an individual problem of one rogue elephant that got a tremendous amount of authority, or do you think that there are some systemic problems here that need to be addressed? Mr. Schmitz?

Mr. SCHMITZ. Sir, there is a March 20, 2005, article in the Washington Post by a reporter by the name of Carrie Johnson. The title of the article was "Fraud's Many Helpers." I think Ms. Johnson hits the nail on the head. In these types of situations where you have one individual who is very charismatic and very powerful and that person is then held accountable, usually what we find out is that charisma sort of permeates the entire organization and it in fact does not happen by itself. When you take on the one individual and you hold that charismatic individual accountable, you end up finding that there were a lot of other people that helped along the way.

Senator MCCAIN. Mr. Gordon, Mr. Sambur alleged that he asserted his authority. He had seen that she had too much power and he had reasserted his authority and responsibilities over her as far as acquisition is concerned. Have you seen any evidence of that?

Mr. GORDON. Mr. Chairman, what we saw, as we explained in the decision, was that he held authority as source selection authority on paper, but that in practice during the very specific period we were investigating in early 2002, I believe, from February 2002 to May 2002, he was technically on paper the source selection authority; Darleen Druyun continued to play an important role, sometimes without Dr. Sambur's knowledge.

Senator MCCAIN. Ms. Flavin, have you in your course of your examination seen a systemic problem here?

Ms. FLAVIN. What we found when we went out and talked with the community, because we did a lot of interviews when we were conducting our review, there was virtually no one who did not think that Darleen Druyun when she was operating was doing the right thing. She had a way about her and she had built a persona that represented the best that was for the Air Force.

I think what that tells us is, even when you see something like that, you have to be prepared to apply certain oversight milestones, schedules, something, to every once in a while check back in, even when you have someone with the reputation of a Darleen Druyun, just to make sure what is going on there.

Nobody expected, thought, or had any idea that she was doing the kinds of things that she apparently was doing.

Senator MCCAIN. But there are like 500 inspectors or auditors over there, right?

Ms. FLAVIN. Yes, sir.

Senator MCCAIN. She fooled all 500 of them?

Mr. McNulty, please.

Mr. McNULTY. Mr. Chairman, this relates to another issue we are confronting, that Mr. Schmitz's investigators at the Defense Criminal Investigative Services (DCIS) have talked to us about. That is, in looking at these conflicts of interest and post-employment cases, they have to go back to ethics adviser's records because obviously one of the defenses will be: I sought advice, I got advice, I was told I could work on this contract. We have to have good records to use if we are going to actually enforce the law in this area.

We have found, at least the investigators are finding, these records are not the quality that they should be. They are not documenting these discussions adequately, and therefore it is a point of frustration in trying to nail down whether or not someone has acted properly and has followed the rules of the game.

Senator MCCAIN. Well, I do not know if it is your charter. I do not know if this is Mr. Schmitz's or Mr. Gordon's or maybe this committee's charter. But in the tanker saga, odyssey, every time we turned around we saw basically some kind of a conflict of interest. Somebody who had worked for the corporation was back in the DOD or vice versa, or sometimes two or three times had bounced back. They were going to have Rand do a study on the tanker issue. We find out that the Air Force is paying Rand \$25 million a year or something like that. Then we had members of the De-

fense Advisory Board, one of whom had a financial relationship with Boeing.

Every time we turned around, we had great difficulty in finding, with the exception, very honestly, of the Inspector General and the GAO an objective evaluator of the situation that went on. One of the reasons why I think it took us as long as it did was because I think we have a problem perhaps that President Eisenhower warned us about in his farewell address, because there are so many internecine connections here that it is hard to get objective and honest evaluations.

The operational requirements document (ORD) was clearly skewed in favor of Boeing, supposedly by objective evaluators. We all know that now, particularly as far as refueling capability, etcetera.

So it seems to me that what this committee needs to do is look at the whole procurement issue and see if there are sufficient safeguards. This C-130J contract has been out there for what, 10 years? Ten years ago they decided to let a contract to a major defense contractor on the basis that it would be a commercial enterprise. I wonder how long it took to figure out there was nobody, no airline, that was going to buy a C-130 to fly passengers around in. Yet for now more than 10 years, until yesterday, we have been operating under a commercial contract.

The OTA was—and I quoted. I do not have the exact language here, but at the last hearing I quoted exactly what the intended purpose of an OTA was, and that was for a small, outside, independent contractor that was not familiar with the labyrinth of the Pentagon to get a small and specific contract. The Future Combat System (FCS) was let for \$113 billion cost, and what was the effect of it was a lack of accountability for the cost and pricing.

So to conclude my questions, I would, since all witnesses have had some experience with this, I would like to hear a response, beginning with you, Mr. McNulty.

Mr. McNULTY. Well, I think that you raise very good concerns about how we are going to try to more systematically get at this. I mentioned in my opening statement about the DCIS Senior Official Project, and I think that is certainly one good start and it probably will send a good message to those who are on the government side of this business, not the contractors but on the government side, as to just how there is increased scrutiny and with that more attention being paid to who is doing what.

Our case has looked at all the evidence we have to date with regard to the Darleen Druyun matter and I think we have put out in the public record what we have in terms of criminal information. But we are always waiting for or available to work with the investigators on anything further. I think we are probably making progress in this area because of the attention this is getting.

Senator MCCAIN. Mr. Schmitz.

Mr. SCHMITZ. With regard to your comments about conflicts of interest, sir, I would just—I share your concerns. What we typically have in the Pentagon, in the industrial complex, is a lot of potential conflicts and what we try to do is to set up firewalls or safeguards, checks and balances, to prevent the potential conflicts from becoming actual conflicts.

What we have proposed—it is not our responsibility as the independent IG to set up those safeguards. In fact, we really cannot do that ourselves because then we will not be able to investigate or audit them. That is a fundamental rule of audit independence. But we have been encouraged by the receptivity of the Air Force and the DOD to review the safeguards that are in place to help prevent the potential conflicts from becoming actual conflicts and leading to these type of sagas.

But no matter how good the structure is, of course, it all comes down to individuals having to live within those structures. So it is equally important that we work with U.S. Attorneys and other folks and when we find people that have obviously screwed up we hold them accountable, and we will continue to do that as well, sir.

Senator MCCAIN. Secretary Dominguez. Again, I want to thank you for the decision that you and the Chief of Staff of the Air Force made yesterday.

Mr. DOMINGUEZ. Thank you, Senator.

I think we ought not to discount the expertise that we do get when we bring accomplished people from industry into the government to help us understand. There is some real benefit that we get out of that as a Nation.

Mr. Schmitz is exactly correct in saying that the trick is to try and create structures and firewalls that protect the government's interests from the potential for conflict of interests which is then inherent in that. Clearly there are things we can do better. I am excited at the prospect of taking the recommendations from these people that are sitting here and working with Under Secretary Wynne in trying to do better.

My personal opinion is that a system with a lot more openness, with a requirement to put and document all of the different views, when you bring people together to talk about decisions to document and record those, record dissenting opinions and forward them up, so a much more open process that is available to checks and balances, and it is clear about why decisions were made is one I think where we can balance these two interests, protect ourselves and accomplish what we need to do.

Senator MCCAIN. Thank you very much.

Mr. Gordon.

Mr. GORDON. Mr. Chairman, the phenomenon of the revolving door can sometimes have benefits for both sides. But it is clear from what we saw in this case that there can also be risks to the government and to the public interest associated with it.

I would also say that the phenomenon of organizational conflicts of interest is a growing one. We have seen it in our bid protest work over the last 2 years, in particular associated with the consolidation in the defense and information technology (IT) industries. It is an issue that needs to be faced.

I do think that the transparency that we are able to get through the bid protest process, as well obviously as other processes, that transparency is extremely important for preserving and protecting the public interest in procurement.

Senator MCCAIN. Ms. Flavin?

Ms. FLAVIN. There were a couple of things the team and I came up with when we looked at the situation, not official DOD positions

by any stretch, but a couple of ideas that we thought could help this kind of situation. One of them was to limit the tenure within key civilian positions, not necessarily the political ones because they already move in and out pretty quickly, but your career civilian positions, key positions. To stay in one position for 10 years, as Darleen did, can be quite dangerous.

In her case there were a number of instances when Darleen moved in and out of various other positions as other people left. She would take over as a Project Executive Officer (PEO) when they were between PEOs, this kind of thing. That takes away from the checks and balances that are currently built into the system, and I think a hard look needs to be made at how do we keep that from happening, how do we maintain those checks and balances even as people come and go from positions?

Senator McCAIN. Thank you. I thank the witnesses.

Senator Lieberman.

Senator LIEBERMAN. Thanks, Mr. Chairman. Thanks to all the witnesses, too.

Mr. Gordon, I thought parts of your report were actually shocking and I suppose from our point of view as representatives of the public, infuriating. The general picture of Ms. Druyun that one gets from all we have heard is that she was a very powerful person, by some accounts, including yours, too powerful. Yet, in the C-130 matter you rejected an Air Force assertion that there was no evidence that Ms. Druyun influenced the source selection evaluation team.

In the case of the small diameter bomb protest, the position of the Air Force—and I am reading from your conclusion, your report—was that “the protester was not prejudiced by Ms. Druyun’s acknowledged bias in favor of Boeing because “she”—and I quote from the Air Force here—“did not play a significant role in the decision to change technical requirements.”

You rejected both of those assertions by the Air Force, finding in the latter case, the small diameter bomb case, that the record showed that Ms. Druyun was significantly involved in the decision-making process that culminated in changes to technical requirements and the deletion of related evaluation criteria.

You have seen these protests come along. How do you explain the position that the Air Force took in defense of these decisions?

Mr. GORDON. Senator Lieberman, I cannot explain why the Air Force took the position that it took. You would have to ask the Air Force that. I will tell you that our protest process, because we do have this quasi-judicial function, was an opportunity for us to hear every side. Where we need to hold a hearing, as we did here in both of these matters, we hold a hearing. Each hearing lasted 2 full days. We were able to hear from a good number of Air Force witnesses.

Their argument certainly got a hearing.

Senator LIEBERMAN. Right.

Mr. GORDON. But we concluded that it was simply not consistent with the record.

Senator LIEBERMAN. Were those assertions on behalf of the relative lack of involvement by Ms. Druyun made before you by superiors or subordinates of hers?

Mr. GORDON. Both, Senator Lieberman. That is to say, Dr. Sambur, for example, told us in the small diameter bomb matter that Darleen Druyun was not involved in the change to the requirements at issue there, and of course her subordinates as well.

We noted in a footnote—I think it is in that decision, the small diameter bomb decision, Senator Lieberman—that we found it an inconsistency between the Air Force witnesses telling us as a general matter that they were quite sure Darleen Druyun was not involved, but then when during the hearing we showed them documents—e-mail messages, memoranda—that were from that time period, showing that she was involved, they had no recollection.

Senator LIEBERMAN. Well, it obviously raises a lot of questions about the testimony, including by Dr. Sambur as her immediate superior. It is a sad and really unseemly story.

I want to go to you, Secretary Dominguez, and I want to say clearly that this is the first hearing our subcommittee has held on Air Force acquisition since the departure of Secretary Roche and Assistant Secretary Sambur. You are now the top-ranking official in the Air Force, but I understand that you played no role at all in this controversial tanker lease proposal; is that correct?

Mr. DOMINGUEZ. That is correct, Senator. I was and still am the Assistant Secretary for Manpower and Reserve Affairs.

Senator LIEBERMAN. Right. That you were not involved in the other two matters that Mr. Gordon ruled on?

Mr. DOMINGUEZ. No, Senator, I did not do anything connected to acquisition.

Senator LIEBERMAN. Right. I wanted to say that just to clarify your role and to say, nonetheless, that because you are here as the Acting Secretary I want to ask you some questions more generally. It is whether you would say at this point that the leadership of the Air Force is prepared to acknowledge that the problems with the tanker lease acquisition and indeed the other two went beyond the role that Darleen Druyun may have played in the pricing of the acquisition?

Mr. DOMINGUEZ. Senator, I have to acknowledge the work that Mr. Schmitz did on it and that we have accepted the findings and recommendations of the Inspector General, and I have to say that this was not an episode in which we covered ourselves with glory and I really hope there are many lessons for us to learn and I intend to learn them and to lead the Air Force beyond them, and hopefully with your assistance.

Senator LIEBERMAN. Let me try to clarify a little bit what my question was by going back to a nomination hearing last fall, when General Gregory S. Martin was asked several questions about the Air Force acquisition organization and the oversight that it provides. General Martin testified that in the 1990s “not only did we go through a very serious restructuring of our forces in drawdown, but we also went through a major acquisition reform that took much of the oversight, too much of the checks and balances out.”

General Martin then testified that “we may have gone too far in the pendulum.” He also testified that, although he had served as top uniformed acquisition official in the Air Force, he was “not an expert in contracting” and “did not get into the business of understanding” what Darleen Druyun was doing.

So, Secretary Dominguez, I want to ask whether you agree with General Martin on the general point that when the Air Force downsized its acquisition organization and took out much of the oversight it may have gone too far?

Mr. DOMINGUEZ. Senator, I think we clearly did. I would like to point out that this was a government-wide endeavor. Commercial business practices were much in vogue, so experiments to try to streamline and speed acquisition and just do things faster, there were many things going on. So it was not us alone.

A lot of the structure, the rigor, the discipline, the checks and balances, did in my view come out of the Department, and it looks pretty clearly like we did go too far.

Senator LIEBERMAN. Ms. Flavin, I understand that your career has largely been in acquisitions.

Ms. FLAVIN. Yes, sir.

Senator LIEBERMAN. I wonder, therefore having some history of service in the government in that regard, what your reaction is to the statements that General Martin made. Did we go too far and are we lacking the oversight necessary now in the acquisition process?

Ms. FLAVIN. Yes, sir, in my opinion we have gone a little too far. We have removed some of the checks and balances that I think are important. I recall in earlier days there used to be some fairly stringent boards we would have to go through for different kinds of major acquisition actions. You do not see those very often any more and I think they served a very useful purpose.

I would not want to go, return to the good old days of yesteryear entirely because it can get carried to an extreme as well.

Senator LIEBERMAN. Right.

Ms. FLAVIN. I think we need to find the right balance. But I do believe it has probably gone outside the balance area now.

Senator LIEBERMAN. Would it be your personal conclusion that the problem is a lack of an adequate number of personnel in acquisition? Is it inadequate training of the personnel?

Ms. FLAVIN. That is a really good question, sir. I do believe that for a very long time we have not been hiring people. It is a different issue than adequate number of people, but we have not been hiring people, and what you have is a cadre of individuals, fairly small, getting to a small cadre of very knowledgeable people, and we are bringing in now some very young people who do not have the kind of experience you would like to see.

So there is a dearth of experience up and down the acquisition workforce at this stage, yes, sir.

Senator LIEBERMAN. Well, that is a serious statement.

Mr. Schmitz, in your work as Inspector General have you seen enough to draw any conclusions about whether there are systemic deficiencies in the acquisition process that go beyond the crimes that Darleen Druyun committed?

Mr. SCHMITZ. Sir, I tried to address that question in my earlier statement about our reviews and our working with the Department to take a look at the internal controls, the checks and balances that exist now to avoid potential conflicts becoming conflicts. It is a very serious challenge that has been exacerbated, frankly, over the last decade or so by the shrinkage of the number of defense contractors,

major defense contractors out there. It has exacerbated a system that has been there all along and I think that in the post-Enron era it would behoove the Department to focus very, very closely on these internal controls that are designed to provide these checks and balances that appear to have been lost.

Senator LIEBERMAN. Both internal checks and balances and the ability to effectively negotiate and contract and interact with what I presume are fairly sophisticated people working for the defense contractors?

Mr. SCHMITZ. Yes, sir.

Senator LIEBERMAN. Secretary Dominguez, will you commit the Air Force to work with us to restore the strength of your acquisition organization and ensure that you have the kinds of checks and balances that you need for future acquisitions?

Mr. DOMINGUEZ. Absolutely, Senator.

Senator LIEBERMAN. I appreciate it. Let me ask you this question. I noted in my opening statement that the Air Force long resisted conducting a formal analysis of alternatives, as the DOD does with other major programs, to determine the best approach to meeting the Department's tanker needs. Last summer the Air Force finally agreed to perform this analysis of alternatives.

It was originally due in November, then December, then January. The Air Force has now announced that the initial analysis of alternatives was inadequate and it needs another 6 months to complete the job.

Is the difficulty that the Air Force has had in conducting this analysis of alternatives an indication of the complexity of this issue and an indication that the Air Force would have been well advised to conduct this analysis of alternatives 3 years ago, before it started down the road on the tanker lease arrangement?

Mr. DOMINGUEZ. Sir, I can say that it is a complex issue and it does require some careful thought. The analysis that we did was subjected to some scrutiny by the independent reviewing agencies in the Department, found wanting, so they sent us back to go work at it some more, which we are happy to do.

With respect to what should have gone before, I am really not the right one to give you an assessment of that. I can say that I am happy we are doing one now. I am confident we will do one that stands up to the tests and guides us toward the right decision.

Senator LIEBERMAN. I appreciate that, Secretary Dominguez. Then I would ask this question: Would you agree as a matter of general policy that in the future the Air Force should conduct an analysis of alternatives before initiating an acquisition of this complexity, even if it is not required by a strict reading of the regulations?

Mr. DOMINGUEZ. Well, I would like to leave ourselves some wiggle room to respond to specific situations, because the acquisition policies and practices do allow it to be waived. But that is a kind of decision that ought to be made carefully and in consultation with lots of affected parties.

Senator LIEBERMAN. Let me try to make it easier for you. Would you agree that, based on what you have learned in this case, that the burden of proof ought to be on the Air Force if it decides to not go ahead with an analysis of alternatives (AOA)?

Mr. DOMINGUEZ. Absolutely, absolutely, Senator.

Senator LIEBERMAN. Thanks.

Mr. Schmitz, I was troubled by something you said at the very end of your statement. You mentioned the ongoing audits and you are at some state of development of these two audits, which look like they go to me as I read them to some of the systemic problems with the acquisition process that we have been talking about today, that come out of the lessons learned from the tanker lease Druyun case. But then at the bottom, as you well know, you say "Both audits have been suspended because of audit support for Base Relocation and Closure (BRAC) and other operational priorities."

Mr. SCHMITZ. There are statutory requirements and so, as much as we would like to do, we have to satisfy the statutory requirements under BRAC.

Senator LIEBERMAN. So you are statutorily required to provide audit staff to the BRAC process?

Mr. SCHMITZ. Well, I am not sure if it says that my office has to provide it. The Department has to do the work that leads up to the Base Realignment and Closure Commission recommendations and I have approximately half of my 600 auditors that are working with the Department to make sure that the data going into that process is in fact accurate to allow for intelligent decisions.

Senator LIEBERMAN. It is a real shame that you had to suspend these two audits because they are critically important. How soon do you think you will be able to get back to them?

Mr. SCHMITZ. I think we are planning to restart them this summer. Let me see if my deputy has a better—that is when we plan to redevote the energy to them. So it is just a temporary delay, but we definitely plan on continuing these audits.

Senator LIEBERMAN. Because there are a lot of members of Congress with bases in their districts who would like you not to supply adequate staff to the BRAC process. [Laughter.]

Mr. McNulty, you had an unusual sort of third party opportunity to look in on this system and to the extent that you are comfortable and appropriate for you to say so. I wonder if you drew any conclusions from what you saw beyond the specific case about the acquisition process and how it was conducted in the Air Force?

Mr. McNULTY. Well, certainly things have been said so far about Darleen Druyun and the way in which she operated that we saw pretty clearly during our investigation. The level, the amount of her independence and influence, the nature of the process where you have a career person who stays there with that kind of authority and yet other people are coming and going over time because they are political appointees or whatever and therefore there is an institutional knowledge that exists in one person that others do not have. We saw all that certainly in the facts that were gathered for the investigation.

We were looking at it from a rather narrow perspective of a conflict of interest investigation and therefore, while we saw things, they were not particularly relevant to what we were doing. I would say overall, Senator, as well in terms of the system, ferreting out the fraud and the criminal activity is hard work and it takes a lot of time, a lot of paperwork. Some of the criminal investigative

agencies that are in the center of the game here do not always have the auditing capacity.

So for example, NCIS has to rely upon other auditors to come in and work with them. They have some of their own capacity, but they have to rely upon auditors from other resources within the DOD.

I think that both personnel and also some technology that allows them to do certain things with the information they do have or to track information better would make them more effective. I know that money is tight everywhere, but certainly our investigations in many cases wait while the investigators have to get the resources to plow through these documents, just as I am sure you see when you conduct congressional investigations.

Senator LIEBERMAN. Just one final question. In your pursuit of this case, did you find any shortcomings in the law that Congress should look at, in other words with regard to the conflict of interest laws particularly?

Mr. McNULTY. Well, on a different kind of ethical issue, that is more of the quid pro quo question—has someone taken action in exchange for some benefit? The bar is pretty high in the law and that goes back to a Supreme Court decision on how you enforce that or how you interpret the current gratuities type of laws on the books. That is a pretty complicated subject.

Conflict of interest law, that is easier to use. The penalties are not very high. So in the case of Darleen Druyun, she received a longer sentence because of some false statements she made. In the course of her work with the government she was debriefed and as a result of her lack of cooperation the judge gave her an enhancement, so she got 9 months in prison and then 9 months of home confinement.

But Michael Sears got 4 months, which we were actually pleased with, given the fact that the maximum sentence under the law is 6 months, that is under the sentencing guidelines. So I think that we have to keep an eye on the question of adequacy of penalty to make sure that deterrence is sufficient.

Senator LIEBERMAN. I appreciate that answer. Perhaps we in Congress should take a look at that as well.

I thank you all very much. Thanks, Mr. Chairman.

Senator MCCAIN. Secretary Dominguez, we have been told the President's budget came over canceling the C-130J and apparently that decision is being reviewed somewhere within the Pentagon. Senator Chambliss has been involved in that issue more than I am. But I was startled to hear that if the C-130J was canceled that would therefore drive up the cost of the F-22. Is that true?

Mr. DOMINGUEZ. There are lies, damn lies, and statistics, Senator. I think that that is likely to be true, the way the system works now, that there is overhead costs that are shared across all the products of the manufacturer of these aircraft and then when they lose one of their product lines the overhead does not shrink proportionately, so that there is a marginal effect in the other product lines of this shared overhead.

It is a cost accounting issue and a distribution issue. I have no knowledge about what that price effect is likely to be, and it would be negotiable in any case.

Senator MCCAIN. Lockheed Martin people tell us it could be about \$383 million would be the termination costs. I am asking these questions and I need the answers because we need to mark up our legislation and it matters as to what the termination costs and what the effect on the F-22.

Mr. DOMINGUEZ. Sure.

Senator MCCAIN. It seems to me it is just bizarre that if we cancel one program therefore it drives up the cost of another. If we are negotiating contracts that allow such a thing, then we had better go back and look at procurement again. This means that we could really never make financial sense out of canceling any program, if it is going to drive up the costs of other programs, or only give one contract to each corporation, which obviously, since we do not have that many—but there is something fundamentally wrong that if we cancel one program that it drives up the cost of a cargo aircraft and the other is a fighter aircraft, and how those two should be connected is beyond me.

I very much want, before we start our markup, which is in about 3 weeks, the exact cost penalties associated with cancellation of the C-130J and the cost effects that it would have on the F-22. I think we need that in the decisionmaking process that we are required to do as we mark up our subcommittees bill.

So would you get that for me?

Mr. DOMINGUEZ. Yes, sir. If I could, I have talked to Mr. Krieg, who is the Director of Program Analysis and Evaluation, and he is doing that assessment right now for the Secretary of Defense about the C-130J contract. So he understands very clearly that he, through Secretary Rumsfeld, owes you that information before you go to markup.

Senator MCCAIN. Thank you very much, Mr. Secretary.

Senator Chambliss.

Senator CHAMBLISS. Thank you, Mr. Chairman. You and I have talked about this previously, and it is one of the more frustrating parts of dealing with procurement acquisition at the DOD. I do not know what the answer to this is, but again you and I have talked about once we get through this that we need to do some significant oversight into that issue, not necessarily the weapons systems themselves, but in the procurement and acquisition issue, because there has to be a better way to do it. I think it is fairly safe to say that we are spending way too much tax money on things that we ought not to be spending it on.

I appreciate your leadership and I concur with Senator Lieberman: Were you not as strong, positive, and I could use a lot of adjectives in describing your antics.

Senator LIEBERMAN. Many people have.

Senator CHAMBLISS. But again, you have had a very positive result and I appreciate it.

I can tell you the answer to that question. The costs of the F-22 are going to go up, and it all has to do with that industrial base that is located at that one plant where these two weapon systems are manufactured. I do not know what the cost would be, but I just know it has to be there because of the overhead, as the Secretary has said.

I am sorry that Chairman Warner is not here. It is true he nominated Mr. McNulty over there, but I have known him for many years and was part of the Judiciary Committee that confirmed him last year. I wanted to take some of the credit because he has done an outstanding job. If you had not done as good a job as you have done, Paul, I might let Warner take all the credit.

I do not want to beat a dead horse relative to this commercial contract issue, Mr. Chairman, and I appreciate the fact that the Air Force has come in and we are now operating in a different atmosphere relative to that. But some statements have been made, particularly in testimony last week by Mr. Schmitz, that I think need correcting in the record.

Mr. Schmitz, you stated in your testimony before this committee last week that the predecessor to the C-130J, the C-130H, was never used for commercial purposes, is that correct?

Mr. SCHMITZ. I do not recall exactly what I said last week, but if you are reading from my testimony I will—

Senator CHAMBLISS. If you do not remember, let me refresh your memory, then, and this is from your written statement: "The Air Force contracting officer's statement that the aircraft evolved from a series of Lockheed Martin Development-produced commercial aircraft configurations is contradicted by the fact that the prior version of the aircraft, the C-130H, was only used for government purposes."

Now, Mr. Schmitz, have you ever heard of the L-100H aircraft?

Mr. SCHMITZ. No, sir.

Senator CHAMBLISS. The L-100H aircraft is in fact a commercial version of the C-130H which was sold to numerous commercial transport companies who have been operating them since the 1970s. Southern Air Transport operated 21 L-100H's worldwide for decades as a commercial version of the C-130H. Linden Air Cargo in Alaska still flies these aircraft today.

Mr. Schmitz, are you familiar with the fact that in the early 1990s that Congress encouraged DOD to pursue commercial contracting?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. In fact this committee, the Senate Armed Services Committee, helped pass legislation in 1994 which is known as the Federal Acquisition Streamlining Act, which expanded government procurement authority for acquisition of commercial items. Are you familiar with that?

Mr. SCHMITZ. Yes, sir.

Senator CHAMBLISS. Mr. Schmitz, are you familiar with the fact that former Under Secretary for Acquisition and Logistics, Paul Kaminski, approved the C-130J program as a "regulatory pilot program" to explore the use of commercial contracting in a September 1995 memorandum?

Mr. SCHMITZ. I am not familiar with that exact memorandum, sir, but I will take it as true.

Senator CHAMBLISS. I have a copy of the memorandum here, Mr. Chairman, which I would like inserted in the record.

Senator MCCAIN. Without objection.

[The information referred to follows:]



THE UNDER SECRETARY OF DEFENSE
3010 DEFENSE PENTAGON
WASHINGTON, D.C. 20301-3010



SEP 19 1995

MEMORANDUM FOR SECRETARY OF THE AIR FORCE
ATTN: AIR FORCE ACQUISITION EXECUTIVE

SUBJECT: C-130J Regulatory Pilot Program Designation

I hereby designate the C-130J program as a regulatory pilot program in response to the package of C-130J waiver requests submitted by the Deputy Assistant Secretary of the Air Force (Acquisition). The Contracting Officer determination that the C-130J is a commercial item allows you to use the terms and conditions in Federal Acquisition Circular (FAC) 90-22, once the FAC becomes effective. Accordingly, you do not need the specific FAR/DFARS deviations that you requested.

As a regulatory pilot program, the C-130J will demonstrate the application of commercial practices. I intend to use the pilot program experience as a basis for further acquisition reform. Therefore, I request that the C-130J Program Manager, in consultation with the consulting group established by the Deputy Under Secretary of Defense (Acquisition Reform), develop meaningful quantitative goals and metrics. I further request that you provide to the Deputy Under Secretary of Defense (Acquisition Reform) reports on the success of your use of commercial practices utilizing the metrics that your Program Manager developed.

I do not approve waiver of the requirements in FAR 48.306-5 and 48.307-3 to insert into the solicitation and contract the clauses at FAR 52.245-17 (required when the Government will either provide special tooling under the contract or acquire fda to special tooling purchased or fabricated under the contract) and 52.245-18 (allows the contractor to fabricate or obtain special test equipment with the prior approval of the contracting officer). The special tooling and test equipment clauses must be included into the solicitation and contract to cover the government-owned special tooling and test equipment common to both the C-130H and C-130J contracts. In the event this tooling or test equipment is used to support additional sales outside the Government, the contracting officer should seek consideration.

I encourage you to exercise your authority, to the maximum extent possible, to waive provisions that are at your discretion. Questions concerning this action should be directed to the Director, Acquisition Program Strategies Improvement, Mr. Ric Sylvester, at (703) 597-5355.

Paul G. Kaminski
Paul G. Kaminski



Lockheed Martin Proprietary Information/Competition Sensitive

15 March 2005

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Senator CHAMBLISS. Mr. Schmitz, are you aware that this memo stated, "As a regulatory pilot program, the C-130J will demonstrate the application of commercial practices"?

Mr. SCHMITZ. I was not aware, but I will take it as record.

Senator CHAMBLISS. Mr. Schmitz, are you aware that the Air Force's determination and finding regarding the approval of the C-130J program as a commercial item was reviewed for legal sufficiency and approved by the Air Force Contract Law Center, which

is not subordinate to the Secretary of the Air Force-Acquisition (SAFAQ) or to Ms. Druyun?

Mr. SCHMITZ. I was not familiar, but I will take it as the record.

Senator CHAMBLISS. Well, Mr. Schmitz, my point in making this argument is that there was in fact justification for approaching the C-130J program as a commercial product based on Congressional and DOD direction, previous commercial sales of the C-130H, and market research showing a commercial market for the C-130J. As I have stated earlier, and I think you and the chairman and I are all in agreement on this, we can and should ask the question today of whether or not a commercial contract was and is appropriate. However, the fact remains that the decision at the time was not made on a whim nor was it a unilateral push by Lockheed Martin. It was made for some good reasons which even this committee endorsed at the time.

Now, I think it is significant that the DOD announced yesterday that they will begin the process of transitioning this contract from a commercial to a traditional acquisition project, and I think that is the right approach. I think it confirms the fact that there are some inherent challenges with commercial contracts and that they are probably not the best vehicle for large-scale procurements like the C-130J.

However, the point is that we have learned that through this process. Again, were it not for the leadership of the chairman that simply would not have happened. As far as I know, there has been no malfeasance or illegal behavior regarding this program and I would be very surprised if we found any. So I think we need to draw a line between saying "Yes, there is a better way to do this and we have learned that during this process;" and saying, "This is a case of a contractor cheating the government or the government being irresponsible," because there is absolutely no evidence that that is the case.

Now, Mr. Schmitz, you stated in your testimony before this committee that you understood based on hearsay that C-130Js may currently have an operational role and that there may be some operational C-130Js now. You later went on to say that you understood that the C-130J had extremely limited operational use in theater thus far. Again, is that still your understanding of the fact?

Mr. SCHMITZ. That is my understanding.

Senator CHAMBLISS. Well, let me ask you to consider this, and this is based on testimony which followed yours last week and I assume was available to you had you asked for it. To date, C-130Js in Iraq have flown over 400 missions with a mission capable rate of 93 percent and have performed all assigned missions successfully. C-130Js have transported over 5,000 passengers, 1,600 tons of material, and flown 1,329 hours. KC-130Js have flown 789 hours in Iraq with mission capable rates in excess of 95 percent. In total, KC-130Js have flown 11,000 hours and, according to the Marine Corps, the KC-130J performance is superior to the legacy fleet of the KC-130s. In addition to the U.S. planes, there are seven C-130Js in U.S. Central Command (CENTCOM) being operated by our coalition partners.

Now, I am not sure what your definition of “extremely limited” is, but very honestly I think that is more than an extremely limited use of a weapon system.

If you have any comment, I want to give you a fair opportunity to say anything you wish to about that.

Mr. SCHMITZ. If I misspoke in my testimony about the commercial use of the C-130H, I will correct the record forthwith, and I will retract my use of the adjective “extremely.”

Senator CHAMBLISS. That is all I have. Thank you.

Senator MCCAIN. Thank you, Senator Chambliss, and I thank you for your involvement in this issue, and I know how important it is to you and your constituents. I would just point out that the GAO testified the following: “GAO rejected the Air Force’s assertion that the evaluation process had been conducted properly because: one, the contracting officer directed the evaluators to destroy portions of the evaluation record; two, the agency failed to have meaningful discussions with all of the offerors; and three, the evidence showed Druyun’s biased influence throughout the source selection process,” which is why the GAO recommended that the Air Force recomplete the installation phase of the C-130 contract and recommended that the Air Force conduct a thorough analysis of the possibility of recompeting the entire contract effort.

So there is evidence that, including destruction of records concerning the C-130J, that is very serious allegations made by Mr. Gordon.

Senator CHAMBLISS. Mr. Chairman.

Senator MCCAIN. Yes.

Senator CHAMBLISS. Let me correct something there now. What you have reference to is not the contract for the procurement of the C-130J airplane. What you have reference to is to the contract for the—was it avionics?

Mr. GORDON. Avionics modernization program.

Senator CHAMBLISS. Avionics modernization package for the C-130, that actually Lockheed Martin was not involved in. Boeing was the winner of that contract, and that is what you have reference to, not what we were talking about in my questions to Mr. Schmitz.

Senator MCCAIN. Okay, maybe we are talking about different things.

I want to thank the witnesses and I appreciate their time and effort, and this has been a very helpful hearing for the committee. Thank you very much.

[Questions for the record with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR JOHN MCCAIN

BOEING TANKER LEASE

1. Senator MCCAIN. Mr. McNulty, as you of course know, I’ve been actively investigating the Boeing tanker lease proposal for more than 2 years. During the course of our investigation, the Department of Defense’s (DOD) production of documents responsive to congressional requests has been marked by disruption, prevarication, and delay. Despite that we finally have the tanker replacement program on the right track and have, consequently, saved taxpayers at least \$6 billion, the DOD’s production of documents has been unacceptable. I conveyed my concerns directly to White House Counsel Harriet Miers just last week. Have you been comfortable with the degree to which the Pentagon has been producing documents to you in your investigation?

Mr. McNULTY. Our office has conducted the investigation with the assistance of the Defense Criminal Investigative Service (DCIS). All of our requests for information and documents from DOD have been directed through DCIS, and we have been completely satisfied with their responses to our requests.

COSTS OF C-130J

2. Senator MCCAIN. Secretary Dominguez, in 1995, the price for the basic C-130J aircraft was \$33 million, but by 1998, the price had risen to \$50 million. The fiscal year 2004 contract price for the C-130J Stretch aircraft is \$67 million and certain warfighter specific mission aircraft are pushing the price near \$100 million. Because the Air Force is acquiring C-130Js using a Federal Acquisition Regulation, Part 12, commercial-item acquisition strategy, the Air Force has established a position that it cannot require Lockheed Martin to provide certified cost or pricing data. Without the cost and pricing data, we cannot verify or discover why the aircraft cost has increased so dramatically. Do you have any idea why the costs have risen so much?

Mr. DOMINGUEZ. Using the active C-130H production contract in 1995, Lockheed Martin introduced the first two C-130Js to the Air Force at the existing, lower, C-130H price of \$33.9 million. Several factors account for the increase in aircraft unit cost, which currently stands at \$66.5 million (fixed price for the 2003 to 2008 multi-year contract). First, the C-130Js currently on contract feature substantial performance improvements not reflected in the initial H-model price, including a 40-percent larger cargo compartment. Second, current C-130Js include enhancements like a Global Digital Map and the enhanced cargo handling system. Third, the production rate has significantly decreased—from 30 aircraft per year in 1995, to the present, in which the price is based on a production rate of 16 aircraft per year. Finally, inflation has also contributed to the price increase.

JOINT PRIMARY AIRCRAFT TRAINER SYSTEM

3. Senator MCCAIN. Mr. Schmitz, in your statement you identified potential problems with the new joint primary aircraft trainer system for the Navy and Air Force. I understand Darleen Druyun was involved in the acquisition. Do you have any information that may identify that Navy acquisition officials also acted improperly in the acquisition of this aircraft? If so, please elaborate.

Mr. SCHMITZ. The Office of the Inspector General has not performed any audit or investigative work that would indicate Navy acquisition officials acted improperly in the acquisition of Joint Primary Aircraft Trainer System (JPATS) aircraft.

QUESTIONS SUBMITTED BY SENATOR JAMES M. INHOFE

ACQUISITION TIMELINE

4. Senator INHOFE. Secretary Dominguez and Ms. Flavin, overall, I am very concerned about the length of time it takes for our country to deploy a new weapon system. Too often it takes so long for a new system to go from the cradle of development to the operational field that the world has changed dramatically. We see the challenge for which the weapon system was originally designed is no longer the threat that it was. Or the enemy's application of current technology makes the system less lethal than it would have been had the system rolled off the line sooner. I know that DOD sees this problem as well, and the Pentagon has identified processes to streamline acquisitions. To improve the process, Congress has authorized such programs as fast track, spiral development, and commercial item purchase. How do we get more fully operational weapons systems into the hands of the warfighter in a quicker and still cost effective manner, and what do we need to do to make this happen?

Mr. DOMINIGUEZ. Everything we do in the Air Force drives toward the goal of getting an operationally safe, suitable, and effective product of best value to the warfighter in the least amount of time. The Air Force has fully embraced the concept of Evolutionary Acquisition that the DOD has identified as the preferred approach to satisfying operational needs. Evolutionary Acquisition is an acquisition strategy that rapidly acquires and sustains a supportable capability for the warfighter and incrementally inserts technology or additional capability to ultimately meet the warfighter's final requirements. We have also emphasized that spiral development is the process to execute the Evolutionary Acquisition strategy. Spiral development is the preferred process to be used for acquisition programs except in those cases where it is possible to field a full capability in a very short period

of time. Spiral development processes work toward getting a “core capability” into the warfighter’s hands as quickly as possible, while continuing development during subsequent increments to add capability once the system is fielded. A critical part of the development of evolutionary acquisition strategies is the generation of approved, time-phased capability needs matched with available technology and resources. The Air Force has codified this evolutionary acquisition approach in recent updates to Air Force Policy on acquisition, requirements development, and test so as to provide the best and most current direction available to meet user requirements. Additionally, these policies address intelligence integration to ensure early, and continuous threat analysis that defines the immediate and future environment in which the system will operate.

In order to make all of this happen, we need to ensure that programs can count on the funding and requirements stability to see these evolutionary acquisition strategies through to completion. Perturbations in funding can cause the best-made plans and acquisition strategies to fail because the needed resources were not available when needed. We also need to ensure our internal requirements and acquisition processes are consistent to facilitate critical and timely decisionmaking on all our programs. With your continued support, we have great confidence that we will continue to deliver to the warfighter what they need when they need it.

Ms. FLAVIN. To get more fully operational weapons systems into the hands of the warfighter in a quicker and still cost effective manner, I recommend we examine how we have implemented spiral development. Spiral development offers significant benefits in both time and attention to cost issues, but only if it is operated in a highly-disciplined manner with full engagement by the government in the technical aspects of the effort. Discipline is needed to establish firm, interim baselines and resist the temptation to “tinker with” or “improve” the current iteration. It also requires a strong partnership between the requiring community and the acquiring community so that the requirer understands and agrees with the iterative plan. Technical involvement by the government is crucial to success. The government must have the right expertise resident in-house to understand where the optimum breakpoints are and to ensure those breakpoints are not eroded through ignorance during the process.

COMMERCIAL ITEM PURCHASE STRATEGY: C-130 PURCHASE

5. Senator INHOFE. Secretary Dominguez, Mr. Gordon, and Ms. Flavin, as a Congress, we authorized that DOD could implement a commercial item procurement strategy, which is outside the regular defense procurement process. This was the basis of the purchase of the C-130J, though the aircraft did not meet commercial contract specifications or operational requirements. Now, I believe the findings in the upcoming mobility capability study will show that there is a need for more tactical airlift. Looking at the stress on tactical airlift since September 11, and the recent groundings and restrictions of 90 C-130 Es and Hs, I am sure it will be proven that there is a need for additional tactical airlift aircraft. However, we need to ensure that DOD follows an authorized process in procuring them. Was the C-130J procured correctly? If not, what was the best way to handle the purchase of this new airlift requirement, one that I believe we need?

Mr. DOMINGUEZ. The Federal Acquisition Streamlining Act (FASA) of 1994 emphasized using commercial acquisition to deliver weapons systems faster and more cheaply. The Air Force and the Office of the Secretary of Defense (OSD) agreed that the C-130J was an appropriate candidate for a commercial acquisition. In September 1995, OSD designated the C-130J a pilot program under provisions of FASA, affording the program regulatory relief, and the first C-130J 5-year option commercial contract was signed. However, when this large, complicated system began experiencing difficulty in meeting desired performance parameters in uniquely-military missions, the limits of the commercial contract became significant. In particular, the commercial contract precludes access to the cost and pricing data essential to restoring confidence in the program and our management of it.

Mr. GORDON. The procurement of the C-130J and the question of the appropriate way to handle future procurements of tactical airlift aircraft go beyond the scope of my testimony, which was limited to addressing the decisions issued by the Government Accountability Office resolving the bid protests related to the bias of Darleen Druyun, the former Air Force Principal Deputy Assistant Secretary for Acquisition. Accordingly, I do not have a view to offer on the other matters raised in this question.

Ms. FLAVIN. I am not comfortable with continuing a commercial purchase strategy for the C130J. The earlier decision to use a commercial purchase strategy was made

during a time when the entire government was interested in exploring the limits of that approach. Subsequent information leads me to believe it is a flawed approach for the C-130J. I would recommend a normal acquisition process that allows full identification of technical issues, risks, and costs by both the government and the contractor.

C-130J PROCUREMENT RECONSIDERATION

6. Senator INHOFE. Secretary Dominguez, as I have stated, I believe we have been quite shortsighted in the cancellation of the C-130J based on my earlier comments. I think the Air Force and the DOD is being "penny-wise and pound-foolish," with regard to this program. Secretary Teets, just prior to his retirement, testified before this committee and stated that there would be a review of this cancellation. Please give us a status on DOD's review of the C-130J program. When will we have a decision and what will be the basis of that decision? If we are to re-implement this program, how will it be funded?

Mr. DOMINIGUEZ. Senator Inhofe, thank you for the opportunity to update you on the status of DOD's review of the C-130J cancellation. The Air Force is working closely with DOD to determine the best course of action; meanwhile, we are continuing to support the warfighter's requirement with the legacy fleet of combat delivery C-130Es and Hs and at least two C-130Js. The 2005 Quadrennial Defense Review will help refine combatant commanders' intra-theater airlift requirements and the Joint Staff Intra-theater Airlift Study that U.S. Transportation Command recently requested, will review contributions from current aircraft as well as future, evolving programs. If these studies indicate acquisition of more aircraft is necessary, we will make programming decisions within fiscal realities.

KC-767A TANKER CONTRACT ACCOUNTABILITY REVIEW

7. Senator INHOFE. Mr. Schmitz, in your prepared statement you very thoroughly discuss the KC-767A tanker program. I agree with the data you have presented—that the planned lease and purchase of this aircraft was not in the best interest of the American taxpayer. I believe it is important to point out that we have to find a way to recapitalize our tanker fleet. This low-density, high-demand aircraft gives our military global reach capability. However, the contract's negotiation—from leasing all 100 aircraft to a mixture of leases and purchases to using the commercial item procurement strategy—was a very bad idea. I know this committee has requested your office conduct an accountability review. From your statement, I understand that this review will be issued in a report by April 20, 2005. Specifically, we should expect this report to include: 1) what happened, 2) who was accountable, and 3) how do we prevent this situation from happening again. Looking long term, I believe the most beneficial part of this report will be the prevention of such occurrences in the future. I would gather that being 2 weeks out, you have pretty much completed your investigation and have arrived at your findings, with only the report writing still in work. Preliminarily, how can we prevent a similar situation in the future?

Mr. SCHMITZ. Our "Management Accountability Review of the Boeing KC-767A Tanker Program" was issued on May 13, 2005. Copies of the report have been provided to the Senate Armed Services Committee. Attached for the record is Part III of the report, "What Actions Must Be Taken to Prevent a Situation Like the Tanker Lease From Happening Again?"

The information follows:

Part III – What Actions Must Be Taken to Prevent a Situation Like the Tanker Lease From Happening Again?

Cultural Change

The Office of Management and Budget circulars, the Federal Acquisition Regulation, and the DoD 5000 series of guidance establish a system of management controls over the acquisition of weapon systems for the Department. The system, when properly implemented and followed, should place needed capabilities in the hands of the warfighter while appropriately mitigating the level of risk associated with properly performing the actual functions expected of the weapon system. Also, the 5000 series establishes a system of management controls to maintain proper financial control of the program to protect the interests of both the warfighter and the taxpayer when contemplating different weapons acquisition strategies to include leasing as a financing option. The system of management internal controls were either not in place or not effective because the existing acquisition procedures were not followed in the proposed lease of the Boeing KC-767A tanker aircraft. The Department of Defense must change the cultural environment in its acquisition community to ensure that the proper control environment is reestablished and followed for major weapon-system acquisitions.

In addition, as part of the cultural change, the senior leadership of the Department must not tolerate situations where senior officials use their positions to have contractors put pressure on other senior officials to have them change their stance relative to a particular situation. For example, on June 20, 2003, Mr. Kenneth J. Krieg, Director, Program Analysis and Evaluation issued a memorandum stating that

According to [redacted] in an e-mail, Dr. Roche subsequently requested, in a meeting with [redacted] on June 23, 2003, that Boeing put pressure on Mr. Wynne to have Mr. Krieg change his position on the Boeing KC-767A tanker aircraft lease.

Regulatory Options

Even though Department of Defense Instruction 5000.2, "Operation of the Defense Acquisition System," May 12, 2003, requires an analysis of alternatives at major milestone decision points for major defense acquisition programs, the Office of the Secretary of Defense and the Department of the Air Force did not comply with the requirement because of guidance from Mr. Aldridge to Dr. Sambur that the requirements of DoD Directive 5000.1 did not need to be implemented for the Boeing KC-767A tanker aircraft lease. Therefore, the Secretary should reemphasize the requirement to conduct an analysis of

alternatives for all major Defense acquisition programs and major systems before major milestone decision points.

Further, the Deputy Secretary of Defense should require the Under Secretary of Defense for Acquisition, Technology, and Logistics; the Assistant Secretary of Defense for Networks and Information Integration; and the Director, Operational Test and Evaluation to revise Department of Defense Instruction 5000.2 to specify the procedures the Under Secretary of Defense for Acquisition, Technology, and Logistics; and the Department of Defense Component Acquisition Executives must follow when leasing a major Defense acquisition program or a major system. Specifically, the guidance should emphasize that leasing is a method for financing the acquisition of a program and that the program should be treated the same as any acquisition program of like cost. Further, the guidance should require, at a minimum, that the acquiring Military Department prepare an analysis of alternatives for the lease and that the decision to enter into a contract to lease a major Defense acquisition program or a major system must be subject to the results of a Defense Acquisition Board or a System Acquisition Review Council review, as applicable.

Assessment Recommendations

The Secretary of Defense should instruct his staff to monitor implementation of the recommendations that the Defense Acquisition University made in its September 3, 2004, report in response to tasking memorandum, "Lessons Learned from the Independent Assessments of Proposed 767 Tanker Lease Buy," that the Acting Under Secretary of Defense for Acquisition, Technology, and Logistics issued on May 25, 2004.

Using the results of reviews of the Boeing KC-767A Tanker Program by the Defense Science Board, the Industrial College of the Armed Forces, and the Department of Defense Office of the Inspector General, the Defense Acquisition University concluded that policy for commercial item acquisitions and the leasing process needed clarification. Specific recommendations included several proposed policy changes in the areas of Acquisition Management and Oversight, Commercial Item Policy and Leasing Policy. The Under Secretary of Defense for Acquisition, Technology, and Logistics adopted all of the proposed recommendations and is in the process of implementation. The most significant of the proposed recommendations were that the Under Secretary of Defense for Acquisition, Technology, and Logistics:

- Follow DoD Instruction 5000.2 oversight, review, and decision processes - Cancel Leasing Review Panel;
- Change the Federal Acquisition Regulation and the Defense Federal Acquisition Regulation Supplement to clarify the authority of the contracting officer to obtain all necessary cost information needed to determine prices are fair and reasonable in commercial item acquisitions;

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- Develop specific guidance for analyzing whether a significant military unique modification effects a commercial item determination and for determining a fair and reasonable price for the modified item;
 - Rewrite the Commercial Item Handbook to incorporate recent changes resulting from legislation and best practices; and
 - Evolve the Department's existing body of knowledge for the management of major systems to include systems acquired using Federal Acquisition Regulation Part 12.

8. Senator INHOFE. Secretary Dominguez, this budget calls for drastically cutting the number of F/A-22 aircraft. After the initial operational testing and evaluation that was conducted recently, the evaluators' report stated that the aircraft was "overwhelmingly effective" and that the weapon system further "dominated all adversaries, air and surface." Because of this cut, we will now have to rely longer on the older airframes and capabilities of the F-15 and F-16, some of which are approaching 30 years, to meet our mission requirements. Even with the Joint Strike

Fighter in the pipeline, we determined that both weapons platforms were needed in sufficient numbers to meet the future threat. If we want to upgrade the F-15s and F-16s to approach the capability of the F/A-22 we will then have aircraft that cost about as much as the F/A-22 without the full capability. The next F/A-22 will cost about \$197 million, as I understand, now that the initial development costs have been paid for. Given your best judgment, please comment on whether the Air Force can guarantee air supremacy for the next 30 years without a sufficient number of F/A-22s?

Mr. DOMINGUEZ. The proliferation of modern, "double-digit" surface-to-air missiles ought to be of significant concern to us all, as they will threaten the air dominance we have enjoyed for 50 years. Without sufficient numbers of F/A-22s, the joint force will incur increased operational risk, attrition, and time to gain/maintain air and surface dominance. Additionally, the Joint Force Commander's ability to "seize the initiative" and gain access to the battlespace for joint forces will be critically jeopardized in the future. The department's ongoing Quadrennial Defense Review analysis on joint air dominance capabilities will re-assess future tactical aircraft force structure risks and requirements. I am confident we'll make the case for continuing production of F/A-22s beyond fiscal year 2008.

ACQUISITION PROCESS CORRECTIVE ACTIONS

9. Senator INHOFE. Secretary Dominguez, the various statements submitted by this panel to the committee all mention Ms. Darleen Druyun and variously discuss the severe impact of her actions on the Air Force acquisitions process. I am sure we all agree that her dearth of personal integrity and professional ethics will unfortunately cast a long and dark shadow over this process for years to come. In your statement, you say, "We realized it had been a mistake for a single person to determine the acquisition strategy, wield the source selection for major contracts, and conduct the management and oversight of contract executions." As you look to correct this situation, what actions will you be taking, and what kind of oversight will be in place to ensure that these newly enacted measures will prevent such an occurrence in the future?

Mr. DOMINGUEZ. Actions already taken include the Air Force restructuring the contracting and program management decision authority accrued to Ms. Druyun's previous position, moving key decisions appropriately up to the Service Acquisition Executive (SAE) level while at the same time disseminating execution authority out to field organizations. The Program Executive Officers (PEO) for all aircraft, weapons, and command and control program have been moved to field product centers, allowing for program oversight by the SAE (centralized control) with execution accomplished by the field organizations (decentralized execution). To facilitate oversight, PEOs submit monthly reviews on each Acquisition Category (ACAT) program depicting a number of program parameters that describe program health. There are also bi-annual reviews of key programs with the major command commanders.

In addition, we have reviewed the draft Defense Science Board's recommendations and are already implementing several of their recommendations. Completed actions include placing additional emphasis on acquisition integrity and directing ethics training of all members of the acquisition corps. We also plan to incorporate an "Ombudsman" for all acquisitions so offerors have another avenue to voice any concerns. We are revising our source selection procedures so that the Source Selection Evaluation Teams will always provide the Source Selection Authority (SSA) with a written source selection recommendation. Previously, this was an option at the discretion of the SSA. We are also removing the ability of the SSA to be the contract clearance authority and will be placing that role with an independent party separate from the source selection team. As we receive additional information from the various reviews, we will continue to analyze the recommendations and incorporate those ideas that will improve our acquisition system.

10. Senator INHOFE. Secretary Dominguez, is there any estimate of the potential costs or a cost range that the U.S. Government will incur as a result of the illegal actions of Ms. Druyun as we look at the companies that were not given a fair opportunity to compete for contracts?

Mr. DOMINGUEZ. The Air Force presently does not have an estimate of the total costs the government will incur as a result of Ms. Druyun's admitted bias.

[Whereupon, at 4:15 p.m., the subcommittee adjourned.]