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Ethics in an Acquisition Environment: C-17 Case Study

Lieutenant Colonel
Michael L. Heil
United States Air Force

Faculty Research Advisor
Lieutenant Colonel Joseph Rouge, USAF



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The Industrial College of the Armed Forces
National Defense University
Fort McNair, Washington, D.C. 20319-6000

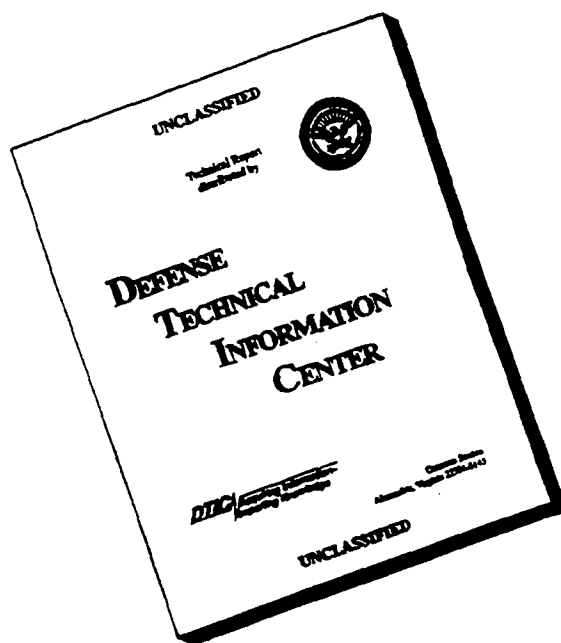
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Ethics in an Acquisition Environment:

C-17 Case Study

Lieutenant Colonel Michael L. Heil

United States Air Force

Abstract

In January 1993, the Department of Defense Inspector General (DOD IG) released a report that recommended disciplinary action against five Air Force officials for ethical misconduct and mismanagement on the C-17 cargo aircraft program in 1990. The accused officials vehemently denied the charges. This case study examines the ethical pressures on acquisition officials with an emphasis on the accusations of misconduct on the C-17 program. The study analyzes the C-17 case for "lessons learned" and examines the possible effects of proposed acquisition reforms on the ethical environment for program managers.

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CHAPTER ONE

INTRODUCTION

In January 1993, the Department of Defense Inspector General (DOD IG) released a report that recommended disciplinary action against five Air Force officials for ethical misconduct and mismanagement on the C-17 cargo aircraft program in 1990. The accused officials vehemently denied the charges. On April 29, 1993, Secretary of Defense Les Aspin ordered the former C-17 System Program Director, Major General Michael J. Butchko, Jr., relieved of duty and barred three of the four other officials from working in acquisition. In his dismissal letter, Aspin said "those charged with the responsibility for the management of billion dollar systems must perform to the highest standard."

(5)

What went wrong on the C-17? This case study examines the ethical pressures on acquisition officials with an emphasis on the accusations of misconduct on the C-17 program. I analyze these accusations for "lessons learned" and examine the possible effects of proposed acquisition reforms on the ethical environment for program managers. By studying the C-17 case, future program managers will be better prepared for the leadership challenges of the world's most complex process: acquiring our nation's major weapons systems.

CHAPTER TWO

ETHICS IN DEFENSE ACQUISITION

The government entrusts the program managers of major defense acquisition programs with awesome responsibility. The program manager is charged with developing and producing multi-billion dollar weapon systems on schedule and within budget while meeting the user's needs. The American public expects program managers to honestly and effectively manage the taxpayer's money while protecting the government's interests. (1:1) Ms June Gibbs Brown, the Department of Defense Inspector General in 1988, gave her view of the ethical standards for government officials in acquisition:

The government relies on its representatives to perform Government business properly, to protect Government interests, and to meet high standards of public service. To meet these standards, we must be familiar with current governing laws and regulations. (1:1)

These high ethical standards are essential to the acquisition process. According to Dr John Johns in his paper "The Ethical Dimensions of National Security," the federal government depends upon public confidence for its effectiveness perhaps more than any other institution. (14:470) When we lose that confidence through scandal or neglect, we damage our ability to acquire the world's best weapon systems.

Ensuring Ethical Conduct

How can the government best maintain public confidence in the defense acquisition process? Dr Johns suggests a balance of three ways in his paper "The Missing Ingredient for a True Partnership: Trust and Confidence?": (15:1)

- Mutual trust and confidence between the government and contractors
- The "invisible hand" of the free market
- Detailed laws and rules with vigorous enforcement

A proper balance of the three ways would best ensure an ethical acquisition process and the public's confidence. However, the government has largely abandoned the first two ways of ensuring ethical behavior. Procurement scandals and "\$600 hammers" have resulted in increased rules and more enforcers. We don't trust defense contractors to provide quality products at a fair price. Therefore, we unleash an army of auditors to search for waste, fraud, and abuse. In his book Small Wars, Big Defense, Mr Murray Weidenbaum estimates that 25% of defense acquisition cost is due to unnecessary oversight, auditing, and regulations. (25:151)

The "invisible hand" may work in a perfect free market of many buyers and many sellers, but defense acquisition isn't a perfect free market. Defense acquisition has one buyer (the government) and few sellers (defense contractors). Therefore, the imperfect defense market isn't self-regulating. Dr Johns believes that forcing defense acquisition to behave like a free market creates systemic forces that elicit unethical behavior. (15:2) For example, to win a large defense contract, a company may "buy in" during development with hopes of "getting well" during production. "Buying in" is bidding a contract below known costs in order to win the competition. "Getting well" is purposely inflating costs during production when you have no competition. A corporation is like a living organism- its first instinct is to

survive (avoid bankruptcy). In order to survive, the company needs cash flow to pay its debts. To get cash flow, a defense contractor must win contracts from its only customer, the government. This incentivizes companies to "buy in" to survive.

Since mutual trust and confidence between the government and contractor are largely lacking and defense acquisition does not operate in a free market, the government relies upon detailed laws and rules with vigorous enforcement to ensure ethical behavior in acquisition. Every federal employee must comply with the ten rules of the "Code of Ethics for Government Service" established by federal law. To comply with these rules, the employee must "expose corruption wherever discovered" and "uphold the Constitution, laws, and regulations of the United States."

(9) In response to the acquisition scandals of the 80's, Congress passed numerous additional procurement laws and increased the number of auditors, inspectors, and enforcers.

(25:158)

The lack of trust exists not only between the government and contractors, but also between the executive and legislative branches of government. With the increasing defense acquisition budgets and procurement scandals of the 80's, Congress held many hearings and initiated numerous General Accounting Office (GAO) investigations. Defense acquisition mismanagement became a political issue. Mr Murray Weidenbaum characterizes the resulting military procurement laws as "micromanagement."

(25:158)

Ethical Pressures on Program Managers

The program manager operates in an environment of one customer, few suppliers, and a myriad of rules and regulations. Although he (or she) is told that his career doesn't depend on the program's success, he suspects otherwise. Because defense procurement is an easy target in the discretionary federal budget, the program is constantly at risk of budget cuts. Because the dollar amounts in acquisition are so large, every major decision is scrutinized by higher headquarters, DOD, and (perhaps) the Inspector General, GAO, and investigators in Congress. If the program falls behind schedule, over budget, or has technical problems, it may be cancelled.

In order to survive and remain on schedule, the contractor lobbies for government funds and puts a "rosy scenario" on all program reports. The contractor may be lobbying the user, Congress and the Pentagon for program support. Competing contractors may be lobbying these organizations to cancel the program and buy their system. These pressures may motivate the government program manager to put a "rosy scenario" and favorable interpretation on all reports to higher management in order to protect the program's budget. The program manager spends 50% to 70% of his time "selling" or "defending" the program to higher management, thus reducing the time available to work program issues. (25:164) The interactions of all of these factors are illustrated in the case of alleged mismanagement and unethical behavior by the C-17 program manager.

CHAPTER THREE**ALLEGATIONS OF DISHONESTY AND MISMANAGEMENT IN ACQUISITION:****THE C-17****C-17 Program Background**

President Carter's creation of the Rapid Deployment Force in 1979 highlighted the need for a long range, wide-bodied airlifter capable of directly delivering modern ground combat equipment to austere, short airfields near the point of need. The airlifters in service at that time (the C-130, C-141, and C-5A) were incapable of performing this mission. The C-130 and C-141 couldn't carry large ground force equipment such as tanks, large trucks, and helicopters. (3:8) The C-5A could carry such equipment, but lacked the ability to operate from short, austere airfields. In the spring of 1980, the Air Force requested proposals from industry to develop the new airlifter- the C-X. In January 1981, Boeing, Douglas, and Lockheed submitted proposals. In August 1981, the Secretary of Defense announced that the Douglas Aircraft Company (DAC) of McDonnell Douglas Corporation won the competition. The winning design was designated the C-17. The Air Force planned to buy 215 C-17's for about \$42 billion.

Budget limitations due to the Air Force's acquisition of KC-10 and C-5B aircraft slowed the program at the beginning. On July 23, 1982, the Air Force awarded DAC a \$31 million contract for a modestly paced initial engineering development. On December 31, 1985, the Air Force increased the contract to \$3.387B for full scale engineering development and initial production of six

aircraft. The C-17 used technologies that had been proven on other aircraft and the Air Force considered the development program to be low risk. (22:30) The fixed-price incentive fee contract, F33657-81-1-2108, had DAC absorb 20% of costs above the target price and 100% of costs above the ceiling price. The contract was funded with both development and production appropriations and had a single ceiling price.

During development, the C-17 suffered budget cuts and cost, schedule, and performance problems, straining the relationship between the C-17 program office and the contractor. However, by January 1989, the program received Defense Acquisition Board (DAB) and Deputy Secretary of Defense approval to enter low rate initial production. Following further schedule slips in 1989, the DAB directed the Air Force to revise (stretch) the program schedule. (2:5) In April 1990, the Secretary of Defense decided to cut the C-17 buy from 210 to 120 aircraft. This case study focuses on the response of the C-17 program manager to the challenges of 1990 and the ensuing accusations of misconduct from the DOD IG.

By early 1990, the troubled C-17 program had attracted increased Congressional interest. Congressman Dingell, Chairman of the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, expressed his concern with Air Force management of the C-17 program in a letter to Congressman Les Aspin, Chairman of the Committee on Armed Service, dated January 8, 1990. This letter chastises the Air Force for its "dismal

record of financial and technical management of major acquisition" and "the lack of timely full disclosure, management integrity, and independent watchdog authority." (11) In the summer of 1991, Congressman John Conyers, Jr., Chairman of the Legislation and National Security Subcommittee of the House Committee on Government Operations, held hearings on Air Force management of the C-17 program in 1990. These hearings led to Congressman Conyers' request on February 21, 1992 for a DOD IG investigation of government actions concerning McDonnell Douglas Corporation's financial condition during 1990. This request alleged that senior Department of Defense officials "apparently devised and executed a plan involving hundreds of millions of dollars to benefit a single corporation without the knowledge or consent of the Congress." (13:105) The ensuing DOD IG report was released on January 14, 1993. (13)

This report accused the former C-17 System Program Director, Maj Gen Michael J. Butchko, Jr., and four other Air Force acquisition officials of unethical behavior. The accusation centers on an alleged scheme by the officials "to provide financial assistance to the Douglas Aircraft Company (DAC), a part of MDC, during August through December 1990 to ensure the contractor continued performance on the C-17 program." (13:i) To support this scheme, the report accuses Maj Gen Butchko of providing "unsubstantiated and misleading information to senior acquisition officials." (13:iii)

Maj Gen Butchko and the other Air Force officials vigorously

denied the DOD IG charges. On February 19, 1993, Secretary of Defense Aspin instructed the Air Force to respond to the DOD IG accusations. The ensuing AF report dated April 21, 1993 found no criminal misconduct by any AF official. The report stated that Maj Gen Butchko's actions may have been "questionable" (given "20/20 hindsight"), but were "clearly within a range of acceptable managerial discretion" and required no disciplinary or administrative action. (2:4) The Air Force criticized the DOD IG for questioning Maj Gen Butchko's integrity and warned of the report's "chilling and adverse impact" on other program managers. (2:2)

The DOD IG report identified three categories of misconduct:

- Position abuse to cause improper government payments to the contractor
- Improper charging of development costs to procurement appropriations after development funds were exhausted
- Premature acceptance of a contract milestone, "T-1 Assembly Complete", to provide funds to the contractor

I examine each category of alleged misconduct below.

Improper Payments

As a contractor incurs allowable costs on a fixed price government contract, the government pays a percentage of the cost as a progress payment. The C-17 contract called for monthly progress payments at a 99 percent of cost rate (progress payment rate). Progress payments provide needed cash flow to the contractor as work progresses, reducing the need for private financing (loans). The administration of progress payments is the responsibility of the Administrative Contracting Officer

(ACO), an employee of the C-17 Defense Plant Representative office (DPRO) in the DAC plant at Long Beach CA. The ACO worked for the Air Force Contract Management Division (AFCMD) through June 1990. In July 1990, the AFCMD was absorbed by the Defense Contract Management Command (DCMC), which reported to the Office of the Secretary of Defense (OSD) and not the Air Force. The ACO supported, but did not report to, the C-17 System Program Office (SPO) and Maj Gen Butchko.

The government will pay no more than the ceiling price on a fixed price incentive contract (C-17 contract). A contract's estimate at completion (EAC) is defined as the total incurred costs plus the estimated additional costs to complete the contract. The Armed Services Procurement Regulation (ASPR) requires the ACO to reduce progress payments to the contractor by a loss ratio when the EAC exceeds the ceiling price. The loss ratio is defined as the ratio of the ceiling price to the EAC. Therefore, an above ceiling EAC reduces progress payments and cash flow to a contractor. The contractor calculates an EAC based on its cost accounting and cost estimating system and submits progress payment requests (PPR) to the ACO. If the ACO does not agree with the contractor's EAC, the ASPR requires the ACO to prepare an independent estimate for progress payment calculation purposes. (13:14)

The ceiling price on contract 2108 was \$6.568 billion. In May 1990, the contractor (DAC) EAC was \$5.942 billion. On May 24, 1990, the ACO determined that the DAC EAC was understated and

requested DAC to prepare a revised EAC. DAC submitted a revised EAC of \$6.414 billion on June 7, 1990 to support progress payment number 95. The ACO accepted this EAC on an interim basis to make progress payment 95. (2:15)

DAC submitted PPR 96 for \$231.6 million to the ACO on July 10, 1990. The ACO approved this request. However, the paying office refused to honor this request because only about \$218 million in FY90 development funds remained in the C-17 account. The ACO approved PPR 96 for \$218 million on July 19, 1990. (13:17-18)

On August 14, 1990, the ACO determined that the revised DAC EAC was unsupportable. The DPRO estimated that the true EAC would be above ceiling, requiring a loss ratio and lower progress payments. The ACO suspended all progress payments until DAC submitted a fully supportable EAC. DAC claimed that this action would have a severe detrimental effect upon the company's financial condition and impose an additional interest expense on the program of \$815,000 a month. (13:27) DAC agreed to submit a revised and supportable EAC at least 7 days ahead of the September 1990 progress payment request. The progress payment suspension initiated a complex series of actions by the contractor, SPO, DPRO, Air Force, and OSD to resolve the C-17 program financial crisis.

The Air Force made no progress payments to DAC in August. On September 6, 1990, DAC wrote a letter to the C-17 SPO and threatened to slow down or stop work on the C-17 program if progress payments weren't quickly resumed. (13:28) The SPO

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responded with a threat to terminate the contract if DAC slowed or stopped work. (13:37) On September 19, 1990, the ACO rejected PPR 97 due to the lack of a supportable EAC.

Due to financial difficulties on the C-17, A-12, and T-45 programs in 1990, McDonnell Douglas had a severe need for cash flow to meet expenses. Of these programs, the C-17 represented the largest progress payment shortfall to MDC. (13:29) The MDC Chairman and Chief Executive Officer, Mr John McDonnell, met with a number of senior DOD officials in August and September 1990 to explain the company's financial difficulties and lobby for help in increasing progress payments from all three programs. The DOD IG quotes Mr McDonnell as stating to the Deputy Secretary of Defense on August 30, 1990:

In all three programs, we believe that DOD has the ability to provide us with progress payments if they are willing to overrule some of their specialists. (13:30)

On September 13, 1990, Mr McDonnell met with the Assistant Secretary of the Air Force for Acquisition (SAF/AQ) to discuss the C-17 financial crisis. Mr McDonnell concluded that the Air Force was working hard to resume progress payments on the C-17 program. (13:29)

The C-17 SPO reported DAC's deteriorating cost and schedule performance to the Under Secretary of Defense for Acquisition (USD(A)) in the August 30, 1990 Defense Acquisition Executive Summary (DAES) report. In response to this report, USD(A) directed the Air Force to conduct a C-17 cost performance review. On September 4, 1990, SAF/AQ directed Brig Gen Nauseef to lead

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the C-17 cost performance review team. Brig Gen Nauseef was the Deputy Chief of Staff Comptroller for Air Force Systems Command (AFSC). Also on the team was Ms Darleen Druyun, Principal Assistant to the Deputy Chief of Staff, Contracting, AFSC. On September 18, 1990, this team's charter was expanded to include review of DAC's financial condition. (2:16)

The Nauseef cost team traveled to MDC headquarters in St Louis on September 28, 1990 and met with the MDC Chief Financial Officer (CFO). The CFO told the team that he would recommend stopping work on the C-17 program to the MDC Board of Directors at their next meeting on October 3, 1990 unless progress payments were resumed. (13:32)

The Nauseef team proceeded to the DAC plant in Long Beach on September 29 (a Saturday) to review the DAC EAC and determine if progress payments could be resumed. Ms Druyun, Maj Gen Butchko, the C-17 Deputy Director of Contracting, the DAC DPRO Commander, and the DPRO Principal Administrative Contracting Officer (PACO) attended this EAC review meeting. The ACO didn't attend the meeting. DAC provided the team with the latest cost performance reports to support the DAC EAC of \$6.566 billion (below ceiling).

The DOD IG accused Maj Gen Butchko, Brig Gen Nauseef, and Ms Druyun of misusing their positions and intimidating DPRO officials into agreeing to make progress payments before the DPRO completed a proper review of the DAC EAC. The joint DPRO/SPO EAC review was scheduled to be complete by October 3. According to the DPRO Commander, "the focus of the meeting changed from the

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EAC review to one of...we need to put money into Douglas Aircraft Company, because they have a financial problem." (13:33) As a result of the pressure from the three senior Air Force officials, the DPRO Commander and the PACO agreed on September 29 to proceed with progress payment 97. (13:35) The PACO authorized release of this payment "in light of the urgent and pressing financial need of the McDonnell Douglas Corporation and the potential adverse impact to the C-17 Program." (13:38) The DOD IG feels that the payment should have been delayed until the government completed analysis of the DAC EAC. (13:39)

On October 2, 1990, Brig Gen Nauseef briefed USD(A) on the C-17 and McDonnell Douglas Corporation financial status. Also present at the meeting were Maj Gen Butchko, the DPRO Commander, and the DCMC Commander. Brig Gen Nauseef discussed the approval of progress payment 97 to DAC with no objection from any meeting attendees. Following this meeting, the DCMC Commander authorized release of progress payment 97 to DAC. (2:18) USD(A) discussed the results of this meeting with the MDC Chairman and Brig Gen Nauseef repeated the briefing to MDC executives by videoteleconference. As a result of these interactions, the MDC Board of Directors met on October 3 and agreed to continue work on the C-17 program through October. (13:49)

The SPO/DPRO EAC review team concluded on October 3 that the C-17 EAC should be in the range of \$7.244 to \$7.337 billion (as compared to the DAC EAC of \$6.566 billion). The DOD IG accused Maj Gen Butchko of putting improper pressure on the DPRO and the

team to reduce the EAC so as to increase progress payments to DAC. (13:50)

On October 10, DAC proposed a solution to the EAC dispute to Brig Gen Nauseef:

- Use the DAC EAC (below ceiling) to make progress payments through January 10, 1991
- Adjust the DAC EAC on January 10 based on a government evaluation of DAC's cost and schedule performance
- Use current performance (rather than historical) to make the adjustment. This was called the "Monthly Estimate to Complete" (METC) process

Brig Gen Nauseef approved this proposal with one change. If the METC indicated that DAC was "on plan" to achieve the DAC EAC, the progress payment would be based on the DAC EAC. If DAC's performance was "off plan", an alternate EAC would be used to calculate the progress payment. Brig Gen Nauseef calculated the alternate EAC to be \$7.1 billion, the average of the government and contractor EAC's using contractor performance through September 2, 1990. (13:60) Brig Gen Nauseef briefed this proposal without objection to USD(A) on October 16, 1990.

DPRO officials and the DPRO Commander didn't agree with the METC process and insisted on a fully supportable contractor EAC. The DOD IG accuses Generals Butchko and Nauseef of using "intimidation" to force the DPRO to accept the METC process. On October 29, 1990, the DPRO rejected the latest DAC EAC for progress payment 98 and used the alternate EAC of \$7.1 billion, which they considered to be approved by USD(A). Generals Butchko and Nauseef believed the EAC to be smaller than \$7.1 billion and

unsuccessfully attempted to convince the DPRO Commander to lower the EAC. (13:64) The ACO used the alternate EAC of \$7.1 billion to make progress payments 99 (November 20) and 100 (December 13).

Misuse of Procurement Funds for Development Efforts

The C-17 development contract (2108) was funded by both development and aircraft procurement funds with a single ceiling price. Federal law (31 USC 1301) forbids using procurement funds to pay for development tasks. (13:77) Contract 2108 required DAC to segregate costs for development and production efforts on all payment requests. However, the contract didn't specify a way to distinguish development from production efforts.

This distinction became important as the C-17 program began running out of development funds in 1990. Progress payment 96 (July 1990) expended the last FY90 C-17 development funds. By October 1, the government had received progress payment requests for over \$235 million in development efforts that couldn't be paid due to lack of development funds. (13:76) The FY90 C-17 budget had sufficient procurement funds to pay these costs if the "color of money" issue could be resolved.

On July 25 and 26, the C-17 SPO met with DAC to discuss whether any costs charged to development could more properly be allocated to procurement. The issue involved engineering charges, which are classified as nonrecurring (development) or sustaining (procurement). AFSC Pamphlet 800-15 states that the transition between nonrecurring and sustaining engineering occurs when a system design is "frozen" by a formal government inspection. If

no such inspection occurs, the pamphlet states that the point at which 90% of design engineering drawings are released may be used as the transition. The C-17 SPO estimated the 90% design transition point to be in November 1988. (2:45)

On September 25, DAC proposed using the 90% design point as the transition between nonrecurring and sustaining engineering and adjusting previous costs from development to procurement accordingly. The C-17 SPO forwarded this proposal to the Defense Contract Audit Agency (DCAA) for review and approval. DCAA is responsible for ensuring that contract costs are properly allocated and billed in accordance with applicable laws and regulations. (2:44) On October 25, the C-17 SPO sent a letter to DCAA indicating that November 1988 was the estimated 90% design transition point. On October 31, the DCAA took "no exception" to the proposed reallocation of engineering costs from development to procurement funding. The C-17 SPO sent letters to DAC and the DPRO agreeing with the reallocation if the proposed methodology passed the scrutiny of the DPRO and DCAA. (2:46) In October 1990, DAC implemented a December 1, 1988 transition point from nonrecurring to sustaining engineering. This decision allowed previous development charges to be switched to procurement, freeing development funds to pay delinquent FY90 progress payments.

The DOD IG criticized the reallocation as an improper attempt by Maj Gen Butchko to "reduce contractor losses on the development program and provide near term financial relief to the

contractor." (13:79) The Air Force Review Team rejected this accusation, but criticized the C-17 SPO for inadequately evaluating the effects of the contractor's reallocation proposal. The DOD IG and the Air Force found that the use of November 1988 as the point when all nonrecurring engineering ends and all sustaining engineering begins was improper. The Air Force Review Team concluded that "these business calls on the government side were made in good faith but were still errors meriting a degree of accountability." (2:55)

Premature Acceptance of "T-1 Assembly Complete"

In November 1988, the Air Force modified contract 2108 to make the award of production lot III (four aircraft) contingent upon completing assembly of the flight test aircraft (T-1). In June 1990, the SPO, DPRO, and DAC signed a Memorandum of Understanding (MOU) defining the conditions for the "T-1 Assembly Complete" contract milestone. This milestone was to be certified by the Procuring Contracting Officer (PCO), a C-17 SPO employee. In September 1990, the Air Force modified the contract to make "T-1 Assembly Complete" a separate contract line item with a billing price of \$1.65 billion.

In early December 1990, the DPRO attempted to convince the C-17 SPO that DAC was far from meeting the "T-1 Assembly Complete" requirements. The DOD IG accuses the SPO of ignoring this input. (13:89) On December 21, 1990, DAC certified "T-1 Assembly Complete" in accordance with the MOU requirements. The PCO accepted this certification on December 22. In a memo

to SAF/AO on December 24, Maj Gen Butchko stated that DAC had achieved "T-1 Assembly Complete" and had satisfied the conditions for award of the lot III production contract.

DOD IG considered this statement to be false and motivated by an attempt to provide DAC with financial relief. The AF paid DAC \$1.65 billion upon "T-1 Assembly Complete" (\$16.5 million in cash, \$1.6335 billion by liquidating previously paid progress payments). DOD IG accused Maj Gen Butchko of withholding information from OSD and stonewalling OSD attempts to oversee certification of "T-1 Assembly Complete." (13:88) The Air Force Review Team rejects these accusations, but criticized the lack of coordination between the SPO and DPRO on the important T-1 assembly complete milestone. In January 1991, an OSD team reviewed the "T-1 Assembly Complete" decision and found it to be within the intent of the MOU. (2:65)

Secretary of Defense Disciplinary Actions

On April 29, 1993, Secretary Aspin relieved Maj Gen Butchko of his duties and barred three other senior Air Force officials from working in acquisition. Secretary Aspin found the C-17 program activities in 1990 to reflect "an unwillingness on the part of some high-ranking acquisition professionals to acknowledge program difficulties and to take decisive action." (5) Maj Gen Butchko feels that his integrity is intact as he did nothing unethical. (6:28) Regardless of any possible ethical violations, the C-17 case produced another defense acquisition scandal and several ruined careers. What are the lessons to be learned?

CHAPTER FOUR**ANALYSIS**

The C-17 program was in crisis in 1990- over budget, behind schedule, and experiencing technical difficulties. Officials in the Air Force, OSD, and Congress were fed up with DAC's dismal performance and ready to cancel the program. Boeing and Lockheed were ready with alternatives should the C-17 fail. C-17 development funds were running low and the contractor was threatening to stop work on the program because of financial losses. What could the C-17 program director have done during this period to successfully manage the program and avoid the DOD IG's charges of misconduct? With the benefit of hindsight, I suggest improvements in three areas: communications, cooperation, and pro-active leadership.

Communications

The C-17 program's severe problems in 1990 strained the relationship between the C-17 SPO and its acquisition partners: the DPRO, contractor, OSD, and Congress. In such an environment, communications can suffer out of fear that bad news will be used by adversaries against the program. One of the most serious charges made by the DOD IG against Maj Gen Butchko was that he "failed to acknowledge timely, report accurately, or respond properly to the deteriorating cost and schedule performance on the C-17 program." (13:ii) The DOD IG accuses Maj Gen Butchko of knowing that the C-17 EAC was over the contract ceiling in April 1990, but failing to report this knowledge to OSD until October 1990. (13:19)

This accusation would have been precluded by better communication between the Air Force and OSD. Bad news doesn't improve with age. As the Air Force became aware of the magnitude of problems on the program, they should have asked for help from OSD and reported the situation to Congress. A senior official (such as the Program Executive Officer) should be stationed in Washington DC to handle these communications. An environment of free and open communication would avoid accusations of stonewalling, coverups, and lying.

Cooperation

According to the Defense Science Board Task Force that evaluated the C-17 program, an "extremely negative management environment between the contractor and the U.S. Government... has created gridlock and.. seriously impeded progress." (19:i) This environment stifled communications and severed trust between the C-17 SPO, DPRO, and contractor. Each organization worked its own priority in 1990: the contractor attempted to minimize financial losses, the SPO attempted to keep aircraft deliveries to the user on schedule, and the DPRO attempted to enforce the contract. This conflict in priorities led to serious disputes between the SPO and DPRO on such issues as the EAC, T-1 Assembly Complete, and sustaining versus development engineering charges. These disputes lie at the heart of the DOD IG charges of ethical misconduct on the C-17 program.

What could have been done in 1990 to alleviate these disputes? Teamwork is the answer. In order for the C-17 program to

succeed, the SPO, DPRO, and contractor must all succeed as a team. The adversarial relationship and conflicting priorities of these organizations should have been replaced by cooperation and a common goal of program success. The Defense Science Board Task Force came to the same conclusion in 1993: in order for the C-17 program to succeed, the government must "create a new program environment that Fosters Trust, Teamwork, Empowerment, and Accountability." (19:11) Teamwork and leadership by consensus would have eliminated many of the SPO/DPRO disputes documented by the DOD IG. In response to these problems, the Air Force is implementing Integrated Product Teams in its program offices. These teams include all acquisition stakeholders as full participants- the SPO, DPRO, contractor, and user.

Proactive Leadership

The C-17 SPO was fighting for program survival in 1990. However, several of the problems leading to a crisis atmosphere had been brewing over several years. Proactive leadership to eliminate or mitigate the problems would have alleviated or eliminated the crisis in 1990.

The Air Force made a mistake in choosing a fixed-price contract for C-17 development. As DAC encountered development problems, costs increased and approached the contract ceiling. The contractor loses money when costs exceed the contract ceiling. Therefore, contractors hold down spending to cut their losses, slowing program progress. A cost-plus contract would have helped keep the program on schedule and eliminate progress payment disputes.

The C-17 SPO should have anticipated a possible over ceiling condition on the 2108 development contract and asked for budget help early on. The C-17 SPO decided to hold DAC to the contract and not ask for more money. Instead, the SPO could have worked with the AF and OSD to identify needed funds and raise the contract ceiling (or change to a cost type contract). If successful, this strategy would have eliminated the EAC and progress payment dispute.

The C-17 SPO should have anticipated the shortfall of FY90 development funds and taken action before the funds ran out. Possible actions include asking for more money or restructuring the program (reducing costs by eliminating contract tasks).

The 2108 contract included development and procurement efforts with no direction on how to distinguish development from sustaining engineering. This distinction became critical in 1990 as development funds ran out. The DOD IG severely criticized the contractor's proposal (accepted by the Air Force) of using November 1988 as the date development engineering stopped and sustaining engineering started. The Air Force could have avoided the issue if all parties (SPO, DPRO, contractor, DCAA, and DCMC) had anticipated the problem and reached a consensus solution before 1990.

The controversy over the "T-1 Assembly Complete" milestone could have been alleviated by proactive leadership. The SPO and DPRO signed a MOU defining this milestone. However, the DOD IG

accuses Maj Gen Butchko of ignoring DPRO objections when he accepted "T-1 Assembly Complete" on December 22, 1990. By proactively involving the DPRO in the decision, Maj Gen Butchko could have avoided this criticism.

The C-17 case led to serious charges of misconduct and vigorous denials. Would proposed acquisition reforms have prevented this from happening?

CHAPTER FIVE**ETHICS AND ACQUISITION REFORM**

In recent years, we have relied upon an increased number of rules, regulations, and auditors to help prevent ethical violations and scandals. This contributes to distrust and an adversarial relationship between the government and contractor. The reformers propose another approach: commercial market practices and mutual trust to ensure quality products at fair prices. President Clinton wants to "forge a closer working partnership between industry and government" and give priority to commercial practices. (8:1)

Commercial Market Practices

According to the Defense Science Board, the single largest problem with today's acquisition system is cost-based contracting. This system "creates an immense regime of contention between the government and its suppliers around which large numbers of government auditors, accountants, and other overseers scrimmage with an equally large number of supplier personnel." (20:4,13) Reformers prefer the commercial model of value-based contracting. In value-based contracting, the contractor is paid for the value delivered, not costs incurred. Therefore, the government doesn't need to audit contractor costs. Market forces or market surveys can help ensure a fair price. (20:13) This should help reduce questionable payments to contractors.

Value-based contracting would be difficult to apply to a unique

development effort like the C-17. On such efforts, fixed price contracts can lead to problems. Clearly the fixed price nature of the C-17 development contract contributed to the problems of 1990. As the contract costs approached the ceiling price, DAC was forced to use company funds to continue C-17 development. It's difficult to motivate a contractor to expend effort on a contract when this effort increases the company's financial losses. A cost plus type contract would prevent the contractor from taking a loss on the effort. Therefore, cost plus contracts are more appropriate for large, risky development efforts.

Reformers encourage the increased use of commercial practices, specifications, and suppliers in defense acquisition. The Defense Science Board found that the use of military specifications may add from 20% to 50% to the cost of a product compared to best commercial practices. (20:6) Any cost savings from commercial practices would have reduced the C-17 EAC and alleviated the ensuing progress payment disputes.

Mutual Trust and Confidence

Acquisition reformers want the government and contractors to be partners and not adversaries. Mutual trust and confidence are required in a partnership. An ethical lapse or scandal will destroy this trust. Therefore, lawbreakers must be punished and past ethical performance should be a factor in all source selections. Severe ethical violators should be barred from government contracts to deter future ethics violations. To foster an environment of trust and confidence, ethical training

programs should be established for the government and contractors. (15:4)

The lack of mutual trust and confidence between the C-17 SPO and DAC in 1990 wasn't caused by a lack of ethical training. The erosion of trust was a result of DAC's deteriorating program performance and budgetary pressures. Trust and confidence would have been enhanced by a cooperative program management style (using Integrated Product Teams) and greater funding stability.

Workforce Improvements

The acquisition reform movement emphasizes the importance of small, highly trained, high quality government staffs. The program manager must be given the authority and tools to effectively manage his program. He must stay on the job long enough to be effective. With these tools, he will be less prone to seek "short cuts" to get the job done. Contractors will find it difficult to take advantage of experienced, high quality government program managers. Lines of authority should be clear and short to eliminate excessive reporting and give the program manager more time to run the program.

Perhaps the most important workforce improvement is a culture change. The program manager's career must be divorced from program success or failure. We must create an environment that rewards the program manager for candor, honesty, and effective management. The program manager should be removed from the role of program advocate and budget defender. These roles put pressure on the manager to "sell" the program and exaggerate

successes while minimizing problems. To reduce these pressures, the weapon system user should assume the advocacy role. This culture change would have reduced the pressure on Maj Gen Butchko to be a program advocate and "save" the C-17 in 1990.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

The C-17 program was on a death watch in 1990- over cost, behind schedule, and threatened by a prime contractor who was ready to quit. In response to this crisis, several Air Force officials took actions that were later criticized as improper and unethical by the DOD IG. As a result, four promising acquisition careers were destroyed. What do I conclude from the C-17 case?

- Communicate problems and issues early and don't be afraid to ask for help. Bad news doesn't improve with age.
- Teamwork and cooperation are essential. The SPO, DPRO, and contractor must be on the same Integrated Product Team and work by consensus.
- Acquisition officials must be proactive leaders. Identify problems early and reach a consensus solution.
- Fixed-price contracts are inappropriate for large, risky development efforts.

Proposed acquisition reforms could help prevent future acquisition scandals. In order to reduce unethical pressures on program managers and restore the public's trust in the defense acquisition process, the reformers recommend that the Department of Defense should:

- Increase the use of commercial practices, specifications, and suppliers. This should reduce costs and eliminate "\$600 hammers."
- Encourage government/contractor partnership, instead of adversity. This can be done with Integrated Product Teams.
- Use contractor ethical past performance in source selection decisions
- Vigorously prosecute and punish ethics violators
- Disbar contractors for grievous ethics violations

- Initiate government/contractor ethics training programs
- Assign high quality, professional program managers for adequate tenures
- Reward program managers for their performance, not the program's
- Reward program managers for candor and truth
- Make the system user the program advocate, not the program manager

These conclusions and recommendations will help restore the balance of trust, rules, and the free market in ensuring an ethical and effective defense acquisition process. Without that balance, we face more scandals, more rules and auditors, and a loss of public confidence.

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