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Briefing Report to the Chairman,
Subcommittee on Defense, Committee
on Appropriations, House of
Representatives

September 1991

1992 AIR FORCE BUDGET

Potential Reductions to Aircraft Procurement Programs





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

**National Security and
International Affairs Division**

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September 25, 1991

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
House of Representatives

Dear Mr. Chairman:

As requested, we reviewed the Air Force's fiscal year 1992 aircraft procurement budget request and its prior years' appropriations for the common aircraft support equipment and for aircraft programs and modifications. These programs and modifications are for the C-17, C-130H, B-1B, B-52, F-16, KC-135, MH-60G, and F-15 aircraft. Our objective was to identify potential reductions to the fiscal year 1992 budget request and potential rescissions to prior year appropriations. We briefed your staff in May 1991 concerning these matters so that the potential reductions or rescissions could be considered in your evaluations of the fiscal year 1992 Defense Appropriations Act.

As shown in table 1, we identified \$352.0 million in potential reductions to the fiscal year 1992 budget request and \$10.2 million and \$2.7 million in potential rescissions of appropriated funds from fiscal years 1991 and 1989, respectively. We found no potential rescissions in the fiscal year 1990 funds.

Table 1: Potential Reductions and Rescissions in the Air Force's Aircraft Procurement Programs

Program	Fiscal year			Total
	1992	1991	1989a	
Common Support Equipment	\$188.0	\$0.0	\$0.0	\$188.0
C-17 Airlifter	0.0	10.2	0.0	10.2
C-130H Transport	82.6	0.0	2.7	85.3
B-1B Modifications	47.1	0.0	0.0	47.1
B-52 Modifications	25.8	0.0	0.0	25.8
F-16 Modifications	7.3	0.0	0.0	7.3
KC-135 Modifications	1.2	0.0	0.0	1.2
Total	\$352.0	\$10.2	\$2.7	\$364.9

^aThese funds are only available for obligation through September 30, 1991.

Our review did not identify potential reductions or rescissions for the F-15 and the MH-60G. Additional information on our review is discussed in appendix I.

Scope and Methodology

We interviewed budget and program officials and reviewed pertinent program documents and budget support data at the Air Force Logistics Command and Aeronautical Systems Division of the Air Force Systems Command, Wright-Patterson Air Force Base, Ohio; and the Oklahoma City Air Logistics Center, Tinker Air Force Base, Oklahoma. We performed our work from March to June 1991 in accordance with generally accepted government auditing standards.

As requested by your office, we did not obtain written agency comments on a draft of this report. However, we discussed the information in this report with officials from the Office of the Secretary of Defense (OSD) and the Department of the Air Force and incorporated their comments where appropriate.

Unless you publicly announce its contents earlier, we plan no further distribution of this report until 15 days from its issue date. At that time we will send copies to appropriate congressional committees; the Secretaries of Defense and the Air Force; the Director, Office of Management and Budget; and other interested parties.

This report was prepared under the direction of Nancy R. Kingsbury, Director, Air Force Issues, who may be reached at (202) 275-4268 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix II.

Sincerely yours,



Frank C. Conahan
Assistant Comptroller General

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Abbreviations

DOD	Department of Defense
OSD	Office of the Secretary of Defense

Potential Reductions and Rescissions in the Air Force's Aircraft Procurement Programs

We identified \$352.0 million to be considered for reduction from the Air Force's fiscal year 1992 budget request and \$10.2 million and \$2.7 million in appropriated funds from fiscal years 1991 and 1989, respectively, in potential rescissions. The following sections discuss each program and the potential for adjustment to the fiscal year 1992 budget request or to prior appropriations.

Common Support Equipment

The Air Force acquires common support equipment, such as ground power generators, noise suppressors, electronic test sets and avionics test stations, to support out-of-production aircraft, new aircraft entering the inventory, and aircraft being modified. Four of the major items it plans to acquire with fiscal year 1992 funds are the ground power generator system, noise suppressors, mobile electronic test sets, and radio frequency mobile electronic test sets. The ground power generator system is used to provide electrical power, air-conditioning, and compressed air for ground servicing tactical fighter aircraft. The noise suppressors are used to reduce the noise level during ground testing of aircraft engines. The mobile electronic test set is used to test various electronic aircraft components. The radio frequency mobile electronic test set is used to test the on-board computers and heads-up display units on the F-15, AC-130, and other aircraft.

Results of Analysis

The Air Force requested \$469.3 million for fiscal year 1992 for common support equipment. This request could be reduced \$188.0 million as shown in table I.1.

Table I.1: Potential Reductions in the Air Force's Request for Common Support Equipment

Dollars in millions	
Item	Fiscal year 1992
Ground power generator system	\$94.6
Noise suppressors	16.3
Mobile electronic test sets and radio frequency mobile electronic test sets	77.1
Total	\$188.0

Ground Power Generator System

We believe \$94.6 million of fiscal year 1992 funds requested for 325 ground power generator systems could be deferred until quality concerns and uncertainties about requirements are satisfactorily resolved. In addition, questions concerning the Air Force's ability to exercise options within contractual time frames may lead to contract renegotiations.

Although the original contract for ground power generator systems required deliveries to begin in October 1990, no generator systems had been delivered through June 1991. Deliveries of the first units are now planned for October 1991. The Air Force notified the prime contractor that it will not accept any ground power generator system units until the contractor's plantwide quality assurance program is in place and approved by the Defense Plant Representative's Office. That action will further delay deliveries.

The Air Force Audit Agency has also identified problems in the computation of the requirements for the ground power generator system. The Air Force Audit Agency indicated that the acquisition strategy and the number of units currently planned could be influenced by a new concept that envisions acquisition of multifunctional support carts. The Audit Agency recommends that procurement of additional generator systems be delayed until a decision on a possible new multifunctional support system is made.

There is also a question as to whether the Air Force can exercise, as planned, an option in the existing contract for the ground power generator system. Air Force and contractor personnel disagree as to the latest date the option may be exercised. According to Air Force personnel, the next option period ends on November 9, 1991. Their opinion is based on an interpretation that the option is available to exercise for 365 days from the exercise of the previous year's option. That option, however, was exercised in two phases—September 26, 1990, and November 9, 1990—and the contractor believes the 365-day option period began with the exercise of phase one, and not with phase two. In the contractor's opinion, the next option period ends September 26, 1991. The Air Force has asked the contractor to extend the option date to November 9, 1991. If the contractor does not extend the option date, the contract option cannot be exercised with fiscal year 1992 funds.

Air Force officials generally agreed with our findings, but they believe that the quality assurance problem will be resolved and, in the event the contractor extends the option date, they will need fiscal year 1992 funds to exercise the option. They do not believe, however, the contractor will extend the option date and thus do not object if the funds are deferred into fiscal year 1993.

Noise Suppressors

The Air Force's request for fiscal year 1992 funding for noise suppressors could be reduced by \$16.3 million since funds for all the concrete foundations on which the suppressors are installed will not be available.

Funds for the concrete foundations are provided for separately in the Military Construction Program.

The Military Construction Program request includes significantly reduced funding for noise suppressor foundations. The Air Force estimates that funding for 2 foundations for demountable noise suppressors, rather than funding for 10 foundations as previously anticipated, will probably be available in fiscal year 1992. In addition, Air Force officials believe only four of five planned large turbo fan noise suppressor foundations will be funded in fiscal year 1992. Consequently, funds requested for the noise suppressors that are not coupled with funding for approved concrete foundations may be eliminated from the fiscal year 1992 budget request. Air Force officials concurred with our conclusions about the noise suppressors.

**Mobile Electronic Test Sets and
Radio Frequency Mobile
Electronic Test Sets**

The Air Force's request for \$77.1 million to acquire mobile electronic test sets and radio frequency mobile electronic test sets could be eliminated. The Air Force intends to procure these sets on a sole-source basis. However, as of September 15, 1991, the Under Secretary of the Air Force had not approved the justification that Air Force contracting and programming officials told us is needed before the sole-source procurement can be effected. The request for funding assumes the Air Force will either (1) obtain timely approval for a sole-source procurement or (2) be able to complete actions needed to use an alternate method of procurement, such as competition, within the time available. If sole-source procurement is approved, the Air Force believes it may need to deal with litigation from a contractor who is opposed to the sole-source acquisition strategy. On the other hand, if the Air Force is directed to follow the competitive procurement process, additional time may be required to develop specifications and allow for competitive bidding.

These factors raise serious doubt that the Air Force will be able to award a contract during fiscal year 1992. Therefore, we believe that the fiscal year 1992 funds designated for the mobile electronic test sets and the radio frequency mobile electronic test sets could be deferred until these concerns are satisfactorily resolved.

Although OSD officials generally agreed it would be difficult to complete the acquisition as scheduled, they believe it may be possible to award a contract by the end of fiscal year 1992 for at least part of the equipment, if no delays or problems occur. They said that the radio frequency test set for the C-130 to be used by the Special Operations Forces had been recently announced in the Commerce Business Daily and that it

was possible that a contract award could be made using fiscal year 1992 funds. In view of the incomplete procurement strategy for this equipment, it is still uncertain whether a contract can be awarded by the end of fiscal year 1992.

C-17 Airlifter

Douglas Aircraft Company is developing the C-17 aircraft to provide the Air Force with increased long-range airlift capability. The aircraft will have four engines, a wide body, and a three-person crew. Full-scale development began in fiscal year 1985, at which time the Air Force planned to acquire a total of 210 aircraft between fiscal years 1988 and 1998. On April 26, 1990, the Secretary of Defense announced that, as a result of his review of major aircraft programs, the total number of C-17s would be reduced from 210 to 120 and the request for six aircraft in the President's fiscal year 1991 budget would be reduced to two aircraft. These reductions were expected to allow the Air Force more time for flight testing before the production rate increases. Congress approved \$400 million for two aircraft, \$60 million for advance procurement, and \$101.5 million for initial spares for fiscal year 1991. The funds (except advance procurement funds) cannot be obligated until the Secretary of Defense certifies to Congress that a C-17 aircraft has successfully completed its first flight.

Results of Analysis

We did not identify any potential reductions to the fiscal year 1992 request. However, we did identify a potential rescission of \$10.2 million in fiscal year 1991 appropriated funds. Delays in achieving contract milestones have slowed the program. The aircraft production contract authorized for fiscal year 1990 was originally scheduled to be awarded in January 1990. The Air Force awarded the contract in July 1991, about 19 months later than originally planned. The first flight of the developmental aircraft was delayed from February 1990, and finally occurred on September 15, 1991. The Air Force expects first flight of the first production aircraft to be delayed from September 1991 to early 1992.

Since the Air Force does not plan to buy any fiscal year 1991 aircraft it does not need \$101.5 million for initial spares. The Department of Defense (DOD) has submitted a reprogramming request to Congress to reprogram \$91.3 million intended for initial spares but is still holding \$10.2 million that could be rescinded.

Air Force officials said there are unfunded requirements for fiscal year 1992 that these funds could be used for, including support equipment for C-20 aircraft, and modifications to the auxiliary power units for VC-137 aircraft.

C-130H Transport

The C-130H is a four-engine, turboprop-powered, military transport. The Air Force, including its Special Operations Command, uses this aircraft for the transportation of military cargo and personnel; aerial refueling; search-and-rescue; and other special purposes.

In fiscal year 1992, the Air Force plans to begin replacing its aging C-130E fleet with C-130H aircraft. Over the next 15 years the Air Force plans to procure 177 C-130H aircraft.

Results of Analysis

For fiscal year 1992, the Air Force requested funds to buy eight C-130H aircraft at a cost of \$245.5 million and an additional \$120.4 million for advance procurement to support acquisition of 12 C-130 aircraft in fiscal year 1993. Of the amount requested for advanced procurement, \$82.6 million could be deleted. In addition, \$2.7 million could be rescinded from fiscal year 1989 funding.

Advance Procurement

Before fiscal year 1992 the Air Force did not request advance procurement funding for the C-130. For fiscal year 1992, the Secretary of the Air Force directed that procurement of C-130H aircraft be handled as a program that would include the use of advance procurement to fund long lead items. The purpose of advance procurement is to permit the Air Force and the prime contractor to begin early procurement of items whose lead times are significantly longer than other parts of the same end item. The intent is to maintain a planned production schedule.

The Air Force used a rough projection from the prime contractor to determine the amount of advance procurement funds to include in the fiscal year 1992 budget request. The prime contractor indicated a program need for \$120.4 million. The Air Force used this total for the C-130H advance procurement estimate for budget purposes and planned to use the funding for engines, government furnished equipment, and long lead aircraft components as shown in table I.2.

**Appendix I
Potential Reductions and Rescissions in the
Air Force's Aircraft Procurement Programs**

Table I.2: Distribution of Advance Procurement Funds

Dollars in millions	
Item	Amount
Engines	\$46.8
Government furnished equipment	10.8
Contractor furnished equipment and materials	62.8
Total	\$120.4

The advance procurement funds far exceeded the proportion of funding made available for other programs for advance procurement. Department of Defense Directive 7200.4, Full Funding of DOD Procurement Programs, states the cost of material budgeted for advance procurement shall be relatively low compared to the remaining portion of the cost of the end item.

Neither this directive nor the Air Force implementing regulation defines the term "relatively low." However, the advance procurement amount budgeted for the C-130H in fiscal year 1992 was 31.9 percent of the estimated fiscal year 1993 gross procurement cost. The average advance procurement funding budgeted for the C-17, E-8B, B-2, and F-16C/D aircraft was 10 percent of their gross procurement cost for fiscal year 1993. The percentage of advance procurement compared to gross procurement cost in fiscal year 1993 for those systems is shown in table I.3.

Table I.3: Comparison of C-130H Advance Procurement Funds With Other Air Force Aircraft Programs

Dollars in millions			
Aircraft program	Fiscal year 1992 advance procurement	Fiscal year 1993 gross procurement cost	Percent
C-17	\$222.4	\$3,404.0	6.5
E-8B	62.7	389.0	16.1
B-2	455.3	3,519.9	12.9
F-16C/D	78.1	912.5	8.6
Total	\$618.5	\$6,225.4	
Average advance procurement request for C-17, E-8B, B-2, and F16C/D			10.0
C-130H	\$120.4	\$377.5	31.9

Applying a 10 percent factor to the C-130H program would reduce its fiscal year 1992 advance procurement requirement to \$37.8 million, a reduction of \$82.6 million.

Air Force officials said reducing C-130 advance procurement funding to 10 percent of net C-130 cost could increase program costs, since the contractor might be given a higher profit for assuming increased investment. These officials said this action could also possibly delay delivery of aircraft and mission support equipment.

These officials, however, could not estimate the potential cost increase, tell us how much aircraft deliveries would be delayed, or tell us what mission and support equipment would be delayed. The Air Force was unable to explain the need for advanced procurement at the levels requested. We believe the advance procurement funds could be reduced to the average rate of the other programs.

Expiring Funds

We found \$2.7 million in expiring fiscal year 1989 C-130H funding that could be rescinded. Specifically, the Air Force has identified \$0.5 million in excess funding from the fiscal year 1989 C-130H Air Force Reserve appropriation and \$2.2 million in excess funding from the fiscal year 1989 C-130H Air National Guard appropriation. Air Force officials had no objection to these potential rescissions.

B-1B Modifications

B-1B multirole bombers were produced in the mid-1980s to replace aging B-52 bombers. Air Force plans call for the B-1B to replace the B-52 and to provide the capability to penetrate Soviet defenses until the B-2, a more advanced bomber, is to be deployed in the mid-1990s. The B-1B will carry cruise missiles, and it could be used as a conventional bomber. The B-1B will be modified throughout its life span to correct deficiencies, improve reliability and maintainability, and add or improve operational capability.

Results of Analysis

The Air Force requested \$68.1 million in the fiscal year 1992 budget to modify the B-1B rotary launcher with the MIL-STD 1760A electrical weapons interface. The 1760A interface is needed to accommodate future nuclear and conventional weapons. The SRAM II is the first weapon to be used on the B-1B that requires the modified launcher. Our review of the B-1B fiscal year 1992 budget submission shows a potential for reduction of at least \$47.1 million from the \$68.1 million requested for the modification to the rotary launcher.

Air Force officials said they could award a contract for long lead efforts in August 1992 and finalize the contract in fiscal year 1993 and still have the modified launcher available when the first SRAM II missiles

are scheduled to be delivered in December 1995. The long lead items for the modifications are the Ejector Stores Interface Units requiring 28 months lead time. Those units and their associated equipment are estimated to cost \$21 million. Air Force officials responsible for managing the modification said all the other components for the modification could be put on contract in fiscal year 1993, without affecting the delivery of the modified launchers.

Air Force officials said contracting for the long lead components in fiscal year 1992, and the other components in fiscal year 1993, complies with DOD policy. For example, the full funding policy for military procurement programs is directed by DOD Directive 7200.4. The objective is to provide funds at the outset for the total estimated cost of a given item so Congress can be fully aware of its cost. DOD Directive 7200.4 contains an exception to the full funding policy. The exception allows procurement of long lead time components, material, and parts in a fiscal year before that in which the related end item is to be procured.

The Air Force officials responsible for managing the modification agreed that most of the funding could be deferred until fiscal year 1993.

B-52 Modifications

The B-52 weapon system is the major piloted element of the strategic force. It is deployed in nuclear and conventional roles, including show of force, maritime interdiction, precision strikes, and defense suppression. The Department of Defense plans to restructure the Air Force aircraft inventory by curtailing several weapon systems, including the B-52. The B-52 inventory force structure projections from the President's fiscal year 1992 budget indicate the current B-52G inventory of 95 aircraft will be reduced to 41 by fiscal year 1993. The B-52H inventory currently supplements the B-52G fleet with 95 aircraft, for a total of 190 B-52 aircraft in fiscal year 1991.

Results of Analysis

The Air Force requested \$56.9 million in the fiscal year 1992 budget for 11 B-52 modifications. We reviewed the five largest modifications and identified \$25.8 million in potential reductions for two of them in the fiscal year 1992 budget. Table 1.4 shows these potential reductions for the B-52 system.

**Appendix I
Potential Reductions and Rescissions in the
Air Force's Aircraft Procurement Programs**

**Table I.4: Potential Reductions in B-52
Modification Funds**

Dollars in millions	
Program	Fiscal year 1992
Integrated Conventional Stores	
Management System	\$20.7
Harpoon missile integration	5.1
Total	\$25.8

**Integrated Conventional Stores
Management System**

The Integrated Conventional Stores Management System will be integrated into the offensive avionics system software and will enable the B-52 to carry, program, and launch new conventional weapons. The management system will be installed at the same time as the modifications for the NAVSTAR Global Positioning System and the Harpoon missile. These two modifications cannot be installed until the first quarter of fiscal year 1994. Therefore, management system components will not be needed until the first quarter of fiscal year 1994. Also, because the lead time for the management system modification is 12 months, procurement of the system can be delayed until the first quarter of fiscal year 1993. Thus, \$20.7 million could be deferred to the subsequent fiscal year's budget.

Harpoon Missile Integration

The Harpoon missile is an existing air-to-sea Navy missile that will be used by the Strategic Air Command on its B-52H aircraft. This modification provides for the integration of the hardware and software necessary to carry and launch the Harpoon missile. Since the Harpoon missile modification will not be needed until the first quarter of fiscal year 1994 and it has a lead time of 12 months, the Air Force can procure the Harpoon missile in the first quarter of fiscal year 1993. The fiscal year 1992 budget contains \$5.1 million for procuring the Harpoon missile integration modification, which could be deferred to the subsequent year's budget.

F-16 Modifications

The F-16 is a single seat, single engine, lightweight, fixed-wing, high performance aircraft that is capable of delivering both air-to-air and air-to-surface weapons. The F-16 is used by the air forces of 17 nations. The first aircraft was delivered in September 1978. Congress approved a third multiyear contract for the F-16 with funding in fiscal year 1989.

Results of Analysis

The Air Force requested \$1,073.2 million in the fiscal year 1992 budget to buy 48 F-16s plus \$78.1 million for advance procurement and

\$251 million for modifications. Its request could be reduced by \$7.3 million for modifications.

As part of the request for fiscal year 1992 funds for F-16 modifications, the Air Force requested \$23.4 million for a project called "F110 Improved Main Engine Control." The project is to reduce or eliminate the effects of eight failure modes in the main engine control, which could potentially lead to an in-flight shutdown.

The Air Force now plans to accomplish this project effort as two separate projects. The first project will provide improvements to four failure modes but will only require \$2.8 million in fiscal year 1992. The second project was postponed until fiscal year 1993, and the remaining \$20.6 million is not needed as planned. The project office said that \$13.3 million of the remaining funds will be used for five other F110 engine modifications for the F-16. The other \$7.3 million could be considered for reduction.

KC-135 Modifications

The KC-135 was designed to provide aircraft aerial refueling, cargo, passenger, and reconnaissance mission support. The first KC-135 aircraft were placed into service in 1957. These aging aircraft are being upgraded through modification programs.

Results of Analysis

The President's fiscal year 1992 budget included \$426.4 million for re-engining KC-135 aircraft. However, Air Force officials told us their current requirement is for \$425.2 million. Accordingly, after reviewing the modification programs, we believe the fiscal year 1992 request could be reduced by \$1.2 million. OSD officials agreed. In another report¹ we reported that Congress may want to consider reducing fiscal year 1992 modification funds because of premature deliveries of modification kits and engines.

¹Commercial Practices: Opportunities Exist to Reduce Aircraft Engine Support Costs (GAO/NSIAD-91-240, June 28, 1991).

Major Contributors to This Report

**National Security and
International Affairs
Division, Washington,
D.C.**

Norman Rabkin, Associate Director

**Cincinnati Regional
Office**

Robert D. Murphy, Assistant Director
Daniel V. Loesch, Evaluator-in-Charge
Daniel J. Hauser, Senior Evaluator
Robert L. Williams, Jr., Senior Evaluator
Henry W. Sudbrink II, Evaluator
Frederick J. Naas, Evaluator
Lesia Mandzia, Evaluator

**Kansas City Regional
Office**

Virgil N. Schroeder, Regional Management Representative
Debra L. Wilken, Evaluator
Steve Pruitt, Evaluator

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