

GAO

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Report to Congressional Requesters

October 1989

AIR FORCE BUDGET

Potential Reductions to Aircraft Procurement Budgets



**National Security and
International Affairs Division**

B-235884

October 5, 1989

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate

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

As requested, we reviewed the Air Force's fiscal year 1990 aircraft procurement budget and past appropriations for the AC-130U, F-16, common support equipment, MH-60G, LANTIRN, C-5B, F-15, and C-27 to identify areas for potential budget reductions. In July and August 1989, we presented the preliminary results of our analyses to your Offices. We identified potential budget reductions to all programs except the F-15 and C-27. Our final results are summarized below and discussed in detail in appendix I.

We identified \$817 million in potential reductions from the Air Force's aircraft procurement budgets: \$308.1 million in the fiscal year 1990 budget request and \$431.6 million, \$30.7 million, and \$46.6 million in appropriated funds for fiscal years 1989, 1988, and 1987, respectively. These potential reductions result from our suggestion to delay the AC-130U program funding and our calculations using current contract information as well as revised program requirements and estimates.

Air Force program officials agreed that certain funds might not be needed for the purposes for which they were originally budgeted. However, the officials do not believe that reductions should be made because the funds could be used for other purposes.

We did not obtain agency comments on this report. However, we discussed its contents with officials from the Office of the Secretary of Defense and the Department of the Air Force and incorporated their comments where appropriate. Our objectives, scope, and methodology are described in appendix II.

We are sending copies of this report 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 Harry R. Finley, Director, Air Force Issues. Other major contributors are listed in appendix III.

A handwritten signature in black ink that reads "Frank C. Conahan". The signature is written in a cursive style with a large initial 'F' and 'C'.

Frank C. Conahan
Assistant Comptroller General

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Abbreviations

GAO	General Accounting Office
LANTIRN	Low Altitude Navigation and Targeting Infrared System for Night

Potential Reductions to Air Force Aircraft Procurement Budgets

We identified a potential budget reduction of \$817 million from the Air Force's procurement budgets: \$308.1 million in the fiscal year 1990 budget request and \$431.6 million, \$30.7 million, and \$46.6 million in appropriated funds for fiscal years 1989, 1988, and 1987, respectively. Table I.1 shows these potential reductions by program.

Table I.1: Summary of Potential Reductions to Air Force Aircraft Procurement Budgets

Dollars in millions					
Program	Fiscal year				Total
	1990	1989	1988	1987	
AC-130U	\$269.5	\$295.2	\$1.8	\$0	\$566.5
F-16	38.6	59.7	0	0	98.3
Common support equipment	0	75.4	0	0	75.4
MH-60G	0	1.3	0	0	1.3
LANTIRN ^a	0	0	28.9	23.6	52.5
C-5B	0	0	0	23.0	23.0
Total	\$308.1	\$431.6	\$30.7	\$46.6	\$817.0

^aLow Altitude Navigation and Targeting Infrared System for Night.

AC-130U Gunship

The AC-130U gunship is a C-130H aircraft modified to perform the full range of Special Operation Forces gunship missions. The AC-130U is to be capable of operating at low levels at night or in adverse weather. The Air Force intends to acquire 12 AC-130U gunships, including 1 for development and testing.

The AC-130U development program involves efforts by Rockwell International to design, develop, integrate, and test avionics and armament to convert one C-130H to the AC-130U gunship configuration. The C-130H was bought by the Air Force and furnished to Rockwell for the development effort. The Rockwell development effort includes integration and test of new visual/electronic countermeasures, warning systems, weapons, aerial refueling, armor, a fire control system, navigation systems, and communications equipment.

Fiscal Year 1990 Budget Request and Fiscal Years 1989 and 1988 Appropriations

The Congress should consider reducing AC-130U funding by \$566.5 million—\$269.5 million in the fiscal year 1990 budget request and \$295.2 million and \$1.8 million in appropriated funds from fiscal years 1989 and 1988, respectively—until the results of testing show that the AC-130U is ready for production.

The AC-130U is being developed at the same time that 11 additional C-130Hs are being procured from Lockheed and that modification kits for those aircraft are being produced and installed by Rockwell. The Air Force has separate contracts with Rockwell and Lockheed, which include procurement options.

The Air Force plans to exercise the first option in its contract with Rockwell between mid-September and December 1, 1989, even though testing of the development aircraft is not scheduled to begin until April 1990 and be completed until April 1992. If testing reveals design deficiencies after production of the AC-130U has begun, then costly redesign, retest, and retrofit could be required to meet contract specifications and user requirements.

In fiscal year 1988 budget action, the Congress delayed the AC-130U program to reduce the degree of concurrency between development and production. The Air Force, in response to questions of the Senate Committee on Appropriations, said that AC-130U production would be delayed until development and operational testing are completed. However, the AC-130U program schedule continues to show highly concurrent development and production.

Air Force program office reviews have identified serious problems with Rockwell's efforts to integrate the modification kits into the aircraft. The program office reported that the contractor underestimated the complexity of the development program and therefore could incur costs \$80 million higher than the contract target cost of \$155 million. It also reported that the contractor's efforts to reduce the cost of development have caused significant design instability. As of August 2, 1989, several known deficiencies, such as problems with software and electronic warfare design, have not been resolved.

The Air Force contract with Rockwell includes firm fixed-price production options as well as warranty provisions that make Rockwell responsible for correcting any deficiencies found during testing. However, Rockwell notified the Air Force that its cost overrun is of such magnitude that program termination was possible if they did not get relief on several contract requirements. Further, Rockwell is seeking legal ways to reduce its contractual requirements on the basis that the contract may fail to properly specify all the work necessary to develop the gunship. Considering the magnitude of the projected overrun and Rockwell's search for ways to relax the contract requirements, we are concerned as to whether the warranty provisions will prove to be enforceable.

**Appendix I
Potential Reductions to Air Force Aircraft
Procurement Budgets**

If the Congress decides to delay the AC-130U program (and the procurement of the C-130Hs from Lockheed and the modification kits from Rockwell) until testing demonstrates it is ready for production, \$566.5 million could be funded in fiscal year 1991 or later. At that time, test results could be available to demonstrate the effectiveness of the AC-130U. The \$566.5 million consists of funds appropriated, but not yet obligated, plus funds requested for fiscal year 1990, as shown in table I.2.

**Table I.2: AC-130U Fiscal Year 1990
Budget Request and Fiscal Years 1989
and 1988 Unobligated Funds as of
June 12, 1989**

	Fiscal year			Total
	1990	1989	1988	
Dollars in millions				
Advanced procurement	\$0	\$29.5	\$18.2	\$47.7
Amount obligated	0	-28.8	-16.4	-45.2
Procurement	239.0	285.8	0	524.8
Amount obligated	0	-0.2	0	-0.2
Spares				
Initial	30.1	8.9 ^a	0	39.0
Replenishment	0.4	0	0	0.4
Total	\$269.5	\$295.2	\$1.8	\$566.5

^a\$7.6 million of these funds were transferred to another program (see p. 9).

Note: A total of 11 AC-130Us are planned to be purchased: 6 in fiscal year 1989 and 5 in fiscal year 1990. AC-130U program office officials stated that if the program is deferred until testing is completed, the production contract will have to be renegotiated. The officials believe this will increase costs.

If the program is not delayed, a potential reduction of \$20.2 million still exists—\$10.1 million from the fiscal year 1990 budget request and \$8.3 million and \$1.8 million in appropriated funds from fiscal years 1989 and 1988, respectively—because initial spares are overstated and contract options were exercised for less than appropriated.

**Fiscal Year 1990 Budget
Request**

The fiscal year 1990 budget for initial spares includes a request for \$30.1 million for the AC-130U. Our review showed that the actual requirement is \$20 million, or \$10.1 million less than requested. An Air Force official said that the requirement was miscalculated. Air Force Logistics Command officials said that the Air Force plans to use the excess funding to buy initial spares for other programs.

Fiscal Years 1989 and 1988 Appropriations

The Air Force requested \$8.9 million in fiscal year 1989 funds for initial spares for the AC-130U. Our review of the Air Force Logistics Command requirements documentation showed that the actual requirement was \$1.3 million, or \$7.6 million less than appropriated. Air Force officials said these excess funds were needed for the MC-130H program. An Air Force official said that, as of October 2, 1989, \$3.7 million of the \$7.6 million has been obligated and that the remainder is expected to be obligated shortly.

In addition, contract options for advanced procurement were also exercised for \$2.5 million less than the funds appropriated for this purpose. Of this amount, \$0.7 million and \$1.8 million apply to fiscal years 1989 and 1988 appropriated funds, respectively. Air Force officials said these excess funds are needed to buy initial spares for other programs.

F-16 Aircraft

The F-16 is a single-seat, fixed-wing, high-performance fighter aircraft powered by a single engine. It is capable of performing a broad range of tactical air warfare missions.

For fiscal year 1990, the Air Force requested \$2,507 million to buy 150 F-16s. In fiscal year 1989, the Congress appropriated \$3,031.7 million for 180 F-16s. The \$2,507 million and \$3,031.7 million include funding to acquire Fire Control Radar sets and Advanced Radar Warning Receivers.

Our review showed a potential reduction of \$98.3 million: \$38.6 million from the fiscal year 1990 budget request and \$59.7 million from fiscal year 1989 appropriated funds.

Fiscal Year 1990 Budget Request

The fiscal year 1990 budget includes a request for \$76.1 million to exercise the first production option in the Advanced Radar Warning Receiver contract and for other related costs. However, our review showed that the fiscal year 1990 production option plus the other related costs is \$43.4 million, or \$32.7 million less than requested in the fiscal year 1990 budget.

The fiscal year 1990 budget request also includes \$31.2 million for the Advanced Radar Warning Receiver advanced procurement. We found

that, according to the contract, only \$25.3 million is needed, or \$5.9 million less than budgeted. A program office official agreed that \$5.9 million of the fiscal year 1990 advanced procurement request could be deferred until fiscal year 1991.

The \$5.9 million in excess funds is valid only if the existing contract remains in force. The losing bidder in the Advanced Radar Warning Receiver competition protested the contract award. GAO upheld the protest in a May 12, 1989, decision (B-234060), recommending that the contract be terminated. If it is terminated, the amount of excess funds, if any, would not be known until the Air Force develops an alternative approach for acquiring an Advanced Radar Warning Receiver. On May 30, 1989, the Air Force asked GAO to reconsider its decision. On September 12, 1989, GAO affirmed its decision and recommendation.

Program office officials agreed that the dollar amounts presented above are factually correct. However, they believe that it would be premature to reduce the fiscal year 1990 budget request because the future of the program is uncertain.

Fiscal Year 1989 Appropriations

The fiscal year 1989 appropriation for the F-16 aircraft could be reduced by \$59.7 million. Of this amount, \$22.6 million could be reduced because proposals show that costs for the F-16 Fire Control Radar will be less than the amount budgeted. The remainder, or \$37.1 million, could be reduced because the Air Force awarded a production contract for the fiscal year 1989 Advanced Radar Warning Receiver buy for less than the amount budgeted.

The F-16 program office budgeted \$219.6 million for the F-16 Fire Control Radar in fiscal year 1989. Our review showed that, based on proposed prices, \$197 million will be required in fiscal year 1989 for the radar, or \$22.6 million less than budgeted. More than \$22.6 million will be available for reduction if the negotiated contract prices are lower than those proposed.

A program office financial manager agreed that the proposed prices are about \$22.6 million less than budgeted, but he said the \$22.6 million is needed to cover other shortfalls. For example, F-16 engine costs increased an estimated \$52.0 million primarily due to nickel and titanium price increases, and \$15.6 million was needed in addition to the amount budgeted for the Airborne Self-Protection Jammer.

In addition to the F-16 Fire Control Radar, a potential reduction of \$37.1 million exists because the Air Force awarded a production contract for the fiscal year 1989 Advanced Radar Warning Receiver buy for less than the amount budgeted. Of the funds appropriated in fiscal year 1989 for the F-16, the program office budgeted \$67.9 million for the system. The contract price for the fiscal year 1989 buy, plus funds needed for other related costs and engineering change proposals, is \$30.8 million, or \$37.1 million less than budgeted.

Of the \$37.1 million, \$35 million was released to the Air Force Systems Command to support a reprogramming requirement, which was subsequently canceled. On August 17, 1989, an official from the Command said that Air Force Headquarters wants to use about \$20 million of the \$35 million to help fund Special Operations Forces, foreign currency fluctuations, and a facility for interoperability testing. The other \$15 million is planned to be returned to the F-16 program office to help fund the increase in F-16 engine costs. The remaining \$2.1 million is controlled by the F-16 program office, which said that the funds are needed for management reserve.

Common Support Equipment

The Air Force acquires common support equipment, such as avionics test stations, munitions handling equipment, and jet engine test stands to support out-of-production aircraft, new aircraft entering the inventory, and aircraft being modified. For fiscal year 1990, the Air Force requested \$109.2 million, and for fiscal year 1989, the Congress appropriated \$221.2 million for common support equipment. Two of the major items planned to be acquired with these funds are the Corsair Avionics System Tester and the Ground Power Generator System.

A potential reduction to the fiscal year 1989 appropriation of \$75.4 million exists because the contract for acquiring the Corsair Avionics System Tester was \$16.2 million less than budgeted, and the fiscal year 1989 requirement for the Ground Power Generator System was deleted after Congress appropriated \$59.2 million for it in fiscal year 1989.

A contract was awarded to acquire the Corsair Avionics System Tester for less than the amount provided in the fiscal year 1989 appropriation for common support equipment. Although appropriations for common support equipment are not specifically designated for particular items, we determined that \$30.8 million for 12 tester units was included in the amount appropriated for fiscal year 1989. In November 1988 the Air

Force bought 12 units for \$14.6 million, or \$16.2 million less than the amount appropriated.

In addition, the fiscal year 1989 requirement for the Ground Power Generator System was deleted after the Congress appropriated \$59.2 million to buy 134 of these systems in fiscal year 1989. A delay in awarding the production contract caused the Air Force to reschedule the procurement to fiscal years 1990 through 1993. Consequently, the \$59.2 million is available for reduction. The Air Force is requesting \$71.6 million to buy 166 Ground Power Generator Systems in fiscal year 1990.

Air Force Logistics Command officials stated no excess funds exist because funds for common support equipment are appropriated as lump sum amounts without specific item identification and the Command has unfunded common support equipment requirements.

MH-60G Aircraft

The MH-60G PAVE HAWK is a modified UH-60A Black Hawk helicopter designed for Air Force combat and peacetime operations, including support for Special Operations Forces. The MH-60G is planned to have extended range, precision low-level tactical navigation, and improved communication and weapon systems.

A potential reduction of \$1.3 million to the fiscal year 1989 appropriation exists because a contract was awarded for the MH-60G rescue hoist for less than budgeted. The program office budgeted \$1.8 million for rescue hoists for the MH-60G. On June 5, 1989, a contract for the rescue hoist was awarded for about \$0.5 million, or about \$1.3 million less than budgeted.

The MH-60G financial manager told us the program office has no plans to obligate the \$1.3 million. Program office officials told us the funds were offered to the Warner Robins Air Logistics Center, which supports the MH-60G, on June 21, 1989. As of August 2, 1989, the MH-60G program office had not obligated or transferred the funds.

LANTIRN

The Low Altitude Navigation and Targeting Infrared System for Night (LANTIRN) is a system to enhance the capability of tactical aircraft to perform close air support and battlefield interdiction missions during night and adverse weather. The program was initiated in 1979, and the system can be carried by F-16 and F-15E aircraft.

Our review showed a potential reduction of \$52.5 million: \$28.9 million and \$23.6 million from appropriations from fiscal years 1988 and 1987, respectively.

**Fiscal Year 1988
Appropriations**

The economic price adjustment clause¹ in the LANTIRN production contract was exercised, which reduced the contract price and eliminated the need for \$28.9 million of fiscal year 1988 appropriated funds. The contract was modified on June 27, 1989, to reflect the economic price adjustment. The economic price adjustment period covered by the contract is October 1, 1987, through December 31, 1991.

**Fiscal Year 1987
Appropriations**

The economic price adjustment clause in the LANTIRN production contract was exercised, which reduced the contract price and eliminated the need for \$23.6 million of fiscal year 1987 appropriated funds. The contract was modified on June 27, 1989, to reflect the economic price adjustment. The economic price adjustment period covered by the contract is October 1, 1986, through September 30, 1990.

C-5B Aircraft

The C-5B, like the C-5A, is a multiengine turboprop aircraft designed to airlift oversized combat cargo and equipment, such as attack helicopters, fighting vehicles, large trucks, and tanks, over intercontinental ranges. C-5Bs are being acquired under a fixed-price contract awarded in December 1982. Our review showed a potential reduction of \$23 million in fiscal year 1987 appropriated funds.

The economic price adjustment clause in the C-5B production contract was exercised, which reduced the contract price and eliminated the need for \$23 million of fiscal year 1987 appropriated funds. The contract was modified on June 2, 1989, and June 27, 1989. The economic price adjustment period covered by the contract is July 1987 through December 1988. Program officials said that the \$23 million is not currently available for withdrawal because expenditures and obligations must be reconciled by the accounting and paying stations. These funds are expected to be available for withdrawal by August 31, 1989.

¹This clause states that neither the government nor a contractor is to realize any benefit or loss due to inflation. It provides the means to adjust contract prices using actual inflation rates as determined by the Bureau of Labor Statistics.

Objectives, Scope, and Methodology

Our objectives were to review the fiscal year 1990 Air Force aircraft procurement budget to identify opportunities to reduce the budget request and examine selected aspects of prior year appropriations to determine whether unused and unexpired funds could be reduced. We examined selected aspects of the budget justifications for the AC-130U, F-16, common support equipment, MH-60G, LANTIRN, C-5B, F-15, and C-27. Our review identified potential reductions to the budgets for all programs except the F-15 and C-27.

In our evaluation of the fiscal year 1990 budget requests and prior year appropriations, we (1) reviewed development progress and production plans to determine if planned production is warranted, (2) evaluated unobligated balances and the plans to obligate these balances to determine if they are needed, (3) examined how program budget estimates were made to ensure that budgets are adequately justified, and (4) reviewed those events (i.e., proposals received, contracts awarded, tests completed) that occurred since the budgets were presented to the Congress to determine if assumptions used remain valid.

We performed our work at the Air Force Logistics Command and the Aeronautical Systems Division, Air Force Systems Command, Wright-Patterson Air Force Base, Ohio, from January to August 1989 in accordance with generally accepted government auditing standards.

Major Contributors to This Report

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

Paul L. Jones, Associate Director, Air Force Issues, (202) 275-4265
Charles W. Thompson, Assistant Director
Pathelia L. Batchelor, Project Advisor

**Cincinnati Regional
Office**

Robert Murphy, Issue Area Manager
Daniel Hauser, Evaluator-In-Charge
Wallace Dillow, Evaluator
James Gabriel, Evaluator
Wenona Johnson, Evaluator
Edward Joseph, Evaluator
Barbara Tudor, Evaluator
Myra Watts, Evaluator

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