



UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

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PROCUREMENT, LOGISTICS,
AND READINESS DIVISION

November 22, 1982

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REPORT OF THE GENERAL ACCOUNTING OFFICE
TO THE SENATE AND HOUSE OF REPRESENTATIVES
BY THE OFFICE OF THE GENERAL ACCOUNTING OFFICE

The Honorable Ted Stevens
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate

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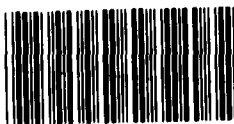
Dear Mr. Chairman:

Subject: The Air Force Has Not Compared Costs of
Alternative Ways to Replace CT-39 Aircraft
(GAO/PLRD-83-18)

Your October 1, 1982, letter requested that we verify the (1) projected cost savings associated with the lease of replacements for CT-39 aircraft, (2) cost to phase out the existing CT-39 fleet, and (3) personnel savings from converting from Air Force to contract maintenance. You also asked us to comment on the prudence of leasing replacement aircraft in lieu of purchase. Your office told us that the legality of multiyear aircraft leasing and the underlying requirements for CT-39 aircraft were also of concern.

In a September 20, 1982, letter to Senator Dole, the Secretary of the Air Force described the Air Force's proposal to lease off-the-shelf, commercially available aircraft to replace its CT-39 operational support aircraft. He stated the existing fleet of more than 115 small, business-type jet aircraft is over 20 years old and is nearing the end of its useful life. He proposed a competitive lease of replacement aircraft through a 5-year contract, with up to 3 option years and an option to buy at the end of the lease period. He anticipated manpower and operating cost savings on the order of \$100 million over the life of the contract. However, he stated that specific statutory authority would be required before the Air Force could issue a request for proposal, and requested such authority for the fiscal year 1983 appropriation.

The Air Force has not established that its CT-39 aircraft must be replaced in 1983, and Air Force data is not sufficient to conclude that its lease proposal is the least costly alternative



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to replace the CT-39's support airlift services. We agree that the Air Force does not have statutory authority to lease equipment on a multiyear basis, but available data is not sufficient for us to verify the Air Force projection of cost savings for its lease proposal. The Air Force projection compares only the cost to operate the current CT-39 operational support fleet with the cost to lease replacement aircraft; costs of other alternatives, such as purchasing aircraft, were not considered in the projection. Also, unresolved questions regarding personnel reductions and future use of the existing fleet raise the possibility of overall increased cost rather than savings.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objectives were to verify the Air Force's projection of cost savings for its lease proposal, consider the legal issues involved in the Air Force's proposal, and examine the requirements for the Air Force's CT-39 aircraft. We did not attempt to independently determine the relative cost of alternative approaches.

We worked at Air Force headquarters and Wright-Patterson Air Force Base, Ohio, from October 25 to November 19, 1982. We discussed CT-39 operations and future options with Air Force officials, including representatives of the Air Force's General Counsel; the Deputy Chief of Staff for Plans and Operations; the Deputy Chief of Staff for Research, Development and Acquisition; the Air Force Logistics Command; and the Air Force Systems Command. We examined Defense and Air Force regulations, studies, internal audit reports, and working papers. We also examined an unsolicited aircraft lease proposal that had been the basis for some of the Air Force's estimates.

Our work was performed in accordance with generally accepted government audit standards.

INSUFFICIENT DATA TO VERIFY THE AIR FORCE'S PROJECTED SAVINGS

Air Force officials told us that they computed the approximate \$100 million savings cited in the Secretary's letter by estimating fiscal year 1983 operating cost for the current CT-39 fleet and comparing it with the cost of a multiyear lease alternative; they then multiplied the estimated annual savings for the lease alternative by the duration of their proposed contract. They stated that no documents were available to support the estimate, but at our request, they prepared written estimates of the above factors.

The Air Force's estimate for the cost to operate a CT-39 fleet of 115 primary authorized aircraft in fiscal year 1983 totals \$113.1 million, or about \$1,500 an hour for the programmed 74,351 flying hours. Its estimate for the cost to operate a replacement fleet totals \$89.7 million, or about \$1,200 per hour for about the same flying hours. The cost to operate the current fleet was computed in accordance with Air Force Regulation 173-13 (Feb. 1, 1982), and other sources which set cost and planning factors. The cost to operate under a lease was computed using both an unsolicited lease proposal and the prescribed cost and planning factors. The Air Force's methodology--multiplying the estimated \$23.4 million savings for 1983 by 5 years--results in savings over \$100 million.

We do not consider the Air Force's estimate accurate because first year savings cannot be simply multiplied by a given number of years to arrive at a meaningful estimate of future savings. Each future year's savings for the alternatives being studied should be estimated and discounted to present value. Also, the estimate of first year's cost savings could not be verified because the unsolicited proposal used by the Air Force as part of its basis for the leasing costs did not break out data in sufficient detail to determine what Air Force costs should be included in arriving at a total savings.

Major categories of savings identified by the Air Force include fuel and oil and maintenance. Fuel and oil savings result from the increased efficiency of new aircraft and account for \$12.4 million--over half of the estimated \$23.4 million savings. As detailed below, we were unable to identify costs to phase out the existing fleet or the personnel savings to convert to contract maintenance.

Costs to phase out the existing fleet

The Air Force has not yet decided on whether or when to phase out the existing CT-39 aircraft, thus we do not have a basis to identify phaseout costs for a given time period. Air Force officials told us that a draft concept paper being prepared by the Military Airlift Command discusses phasing out CT-39s as replacement aircraft are received. Until the concept paper is approved, the possibility remains that the CT-39s may be retained somewhere in the Air Force because of the fleet's remaining useful life. Air Force's estimates show that the CT-39 fleet could remain at about full capability through fiscal year 1984 without modifications. After that time, the aircraft would gradually phase down to negligible capability during fiscal years 1985 to 1990.

Air Force officials said that the CT-39 could be phased out within the current budget for aircraft storage. One official said that a rough estimate of the average cost to retire another type of aircraft (B-52) to storage at Davis-Monthan Air Force Base, Arizona, is about \$2,500 an aircraft. He said that he did not know if this cost would be representative for the CT-39, and that he could not verify this estimate since headquarters data were not available and he had not been able to get better data from Davis-Monthan in the short time frame of our review.

Personnel savings to convert
to contract maintenance

Air Force data indicates that personnel payroll costs could be reduced by about \$22 million by converting from Air Force to contract maintenance, but Air Force officials told us that they had not made a decision to reduce total personnel spaces in such a conversion. Reasons given for not reducing spaces included (1) few maintenance personnel work only on CT-39s and (2) some maintenance organizations are now staffed below their total authorization, so that available personnel could be used for other maintenance duties. The \$22 million does not represent net savings to the Government, since it is offset by an unspecified portion of the lease costs which include contractor maintenance personnel.

We could not determine the net personnel savings because the Air Force's estimate for the cost of leasing CT-39 replacements did not break out data in the detail needed to isolate potential maintenance personnel savings from other potential savings, some of which could accrue even without a lease arrangement. Other savings could include items such as costs for fuel, replenishment spares, and systems support.

NO COMPARISON OF LEASE
VERSUS PURCHASE COSTS

The Air Force did not compare lease versus purchase costs for a CT-39 replacement, and did not provide other justifications for proposing to lease, rather than purchase, aircraft. Available documents and our discussions with Air Force personnel indicate that the reasons typically given by industry for leasing do not apply to the CT-39 replacement proposal.

Commercial firms' reasons for leasing include temporary need, high risk of obsolescence, and lack of a direct purchase option. Except for reasons such as these above, financially strong firms tend to view leasing as a high cost form of financing operational needs.

Air Force officials said they did not know of an official position as to why the Air Force was proposing to lease, rather than purchase, CT-39 replacements. They identified possible reasons as being that leasing was a cost-effective alternative to maintaining the current fleet, and that the Air Force has had difficulty in obtaining procurement funds for a CT-39 replacement. The officials also said that the timing of the Air Force's lease proposal was in part due to the soft market for corporate aircraft.

An Air Force study on a general category of trainer aircraft reported that leasing such aircraft was more expensive than purchasing on a 20-year life-cycle cost basis. The Air Force compared costs of various alternatives to provide about 200 aircraft to train tanker, transport, and bomber pilots. The Air Training Command reported in May 1982 that the added costs to lease rather than purchase ranged from \$46.6 million for a 5-year lease with purchase options to \$355.9 million for a 12-year lease with purchase options. Another study, for a Strategic Air Command training aircraft, found savings for leases, but only for short-term requirements of less than 12 years. We did not attempt to verify either study's data. Air Force officials stated that the studies may not be representative for CT-39 aircraft because they considered more specialized equipment which might be more difficult to lease to other users.

The Program Management Directive for the CT-39 replacement program (September 29, 1982) provides direction and guidance only for activities leading to lease of operational support aircraft, but program office officials at the Air Force Logistics Command told us that they are making some analyses of purchase options. Also, on November 19, 1982, the Air Force Assistant Vice Chief of Staff requested an analysis of the CT-39 replacement program, examining lease versus purchase options. Although no results are expected until the end of November, we believe that such additional information would be very valuable because it would enable a cost-benefit analysis of additional options.

AUTHORITY FOR MULTIYEAR EQUIPMENT LEASING

The Air Force proposes a 5-year multiyear lease agreement, with options for up to 3 additional years. The Air Force believes multiyear leases of aircraft are not permitted under current law and is seeking specific legislative approval for its proposal.

We agree that the Air Force lacks authority, under current law, to enter multiyear leases for aircraft by using funds available for obligation only in the year appropriated. Specific authority for Defense multiyear contracts is contained in title 10, United States Code, section 2306. However, its terms do not encompass the lease of aircraft and other property. Subsection (g) authorizes multiyear contracting for services, but not for property such as aircraft. Subsection (h)

authorizes purchase of equipment such as aircraft on a multi-year basis, but not leasing.

A detailed discussion of our observations on multiyear leasing is included in the enclosure.

REQUIREMENTS FOR CT-39 TYPE AIRCRAFT

Air Force officials said that the present justification for the operational support airlift role of the CT-39 is a wartime requirement--peacetime capability for training and support airlift being a by-product. Earlier justifications, as reflected in Defense testimony to the Congress, emphasized peacetime training and support missions.

Our limited examination shows that the Air Force has identified wartime missions for operational support aircraft, but that initial Air Force efforts to quantify the requirement have not yet resulted in approved data. Also, the work on operational support airlift requirements had not yet been coordinated to eliminate possible duplication with related ongoing efforts. For example, representatives of the Joint Chiefs of Staff, the Military Airlift Command, and other worldwide commands are also developing methods to determine and quantify the related category of intratheater airlift requirements in response to our July 1981 report. 1/

The wartime requirements for operational support aircraft include movements of time-sensitive personnel, intelligence, spare parts, and medical supplies. According to Air Force officials, the CT-39 as now configured is not fully satisfactory to meet these requirements because of its limited capability to use short runways and its lack of space for cargo. They believe that a fleet of one or two types of new, commercially available aircraft could better meet these requirements.

The Office of the Defense Inspector General (formerly Defense Audit Service) will begin a review of wartime and peacetime requirements for such aircraft by January 1983. In view of the tentative nature of requirements data at this time and of the planned work by the Defense Inspector General, we limited our examination of wartime requirements to the above general description.

1/"Greater Coordination Required in Defense Planning for Intratheater Airlift Needs" (PLRD-81-42, July 9, 1981).

CONCLUSIONS

We agree with the Air Force position that it does not have statutory authority to lease equipment on a multiyear basis, but believe that such authority should be provided only where such a multiyear lease is demonstrated to be the most cost-effective means to meet requirements.

The Secretary of the Air Force's estimate of \$100 million savings by leasing replacements for CT-39 aircraft was not documented and did not consider cost to modify the existing fleet or to purchase replacement aircraft. Thus, we cannot conclude that the Air Force's proposal is the least costly alternative to meet future needs for operational support airlift.

Unless a decision is made either to phase out existing CT-39 aircraft on receipt of replacements or to reduce personnel in converting to contract maintenance, it seems possible that overall costs could increase rather than decrease. While Air Force projections are not clear, it seems that what is being characterized as savings might be more appropriately termed estimates of an increased capability to meet other needs--by the CT-39 aircraft not phased out and by the maintenance personnel not released.

The available Air Force data does not clearly show an immediate need to replace the fleet since the useful life of the CT-39 fleet's full capability appears to extend through fiscal year 1984. Questions which we believe should be resolved prior to funding replacements for CT-39 aircraft include the following.

- How many aircraft are needed to meet requirements for operational support airlift and when are the aircraft needed?
- What is the least costly alternative to provide such airlift?
- What factors other than cost would justify the Air Force's lease of aircraft?
- If replacements are obtained immediately, what use will be made of the remaining useful life of the existing CT-39 fleet through fiscal year 1990?
- What disposition will be made of Government maintenance personnel in converting from Air Force to contractor maintenance?

As requested by your office, we did not obtain written Defense comments on this report. We discussed the matters in this report with Defense and Air Force officials, and have considered their comments in preparing this report. Also as agreed, we plan no further distribution of the report until 10 days from the date of this report unless the contents are publicly announced earlier. At that time, we will send copies to interested parties and make copies available to others upon request.

We trust that the information and conclusions in this report are responsive to your needs. If you wish, we can provide additional information as the Air Force progresses in its program to replace its CT-39 aircraft.

Sincerely yours,

A handwritten signature in cursive script that reads "Donald J. Horan".

Donald J. Horan
Director

Enclosure

AUTHORITY FOR MULTIYEAR EQUIPMENT LEASING

The Air Force's proposal to replace its existing fleet of CT-39 aircraft calls for a 5-year multiyear lease agreement with three 1-year options, and would include use of the aircraft, maintenance, and pilot training. The Air Force believes multi-year leases of aircraft and other supplies are not permitted under current law, however, and thus is seeking specific legislative approval of a multiyear lease for these replacement aircraft.

We agree that the Air Force lacks authority, under current law, to enter multiyear leases for aircraft, using funds available for obligation only in the year appropriated.

Specific authority for the Department of Defense to enter into multiyear contracts for certain supplies and services is contained in 10 U.S.C. § 2306(g) and 10 U.S.C. § 2306(h) (enacted under the Department of Defense Authorization Act of 1982, P. Law No. 97-86). Under these provisions, funds otherwise available for obligation only in the year they are appropriated may be used to fund multiyear contracts. Subsection (g) authorizes multiyear contracting for various types of services, including maintenance of aircraft and pilot training, but does not by its terms encompass the acquisition of aircraft and other property. Although the Air Force apparently intends to include maintenance and training in its proposed contract, the Air Force itself views the primary purpose of the contract as the acquisition of aircraft. The contract thus would appear to fall outside the authority of 2306(g).

Subsection 2306(h) authorizes the acquisition of property, but by its terms, seems to limit this authority to acquisition by purchase which, unlike the leasing of property, connotes transfer of title to the purchaser. In this regard, the authorizing language in section 2306(h)(1) states that:

"* * * the head of an agency may make multiyear contracts * * * for the purchase of property, including weapon systems * * *, whenever he finds--

* * * * *

(B) that the minimum need for the property to be purchased is expected to remain substantially unchanged during the contemplated contract period * * *." (Emphasis added.)

There is no indication in the statute or its legislative history that Congress used the term "purchase" in a broad sense, intending also to authorize multiyear leases and other methods of acquiring property. Where such broad coverage has been

intended in the past, Congress has used statutory language to make this intent clear. In 10 U.S.C. § 2304(a), for example, Congress has required that, when feasible, "purchases of and contracts for property and services" be made by formal advertising. This language clearly was intended to encompass more than acquisition by purchase. We think it is reasonably clear that by using only the term "purchase" in Subsection 2306(h), Congress intended to limit this multiyear authority to acquisitions by purchase.

The Defense Acquisition Regulation (DAR) authorizes multi-year contracting for the procurement of supplies using funds which are not limited to obligation in the year they are appropriated. See DAR §§ 1-322.2. Although we believe this provision would permit acquisition by lease (DAR § 1-201.13 includes "leasing" under its definition of "procurement"), it does not authorize what the Air Force seeks to do here since the Air Force wants to use single year appropriations for its proposed multiyear lease agreement.