

Report to the Chairman, Committee on
Armed Services
United States Senate

GAO

July 1986

SUPPORT AIRCRAFT

Air National Guard's Need for C-21A Aircraft



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

**National Security and
International Affairs Division**

B-223218

July 9, 1986

The Honorable Barry Goldwater
Chairman, Committee on Armed Services
United States Senate

Dear Mr. Chairman:

This report responds to your letter of April 3, 1986, and subsequent conversations with your office, requesting us to evaluate the Air National Guard's need to acquire C-21A aircraft.

The National Guard Bureau recently told you that the Guard would spend \$13.2 million to buy four C-21A aircraft as part of its procurement of "combat-essential and high priority shortfall items." The aircraft are to replace CT-39 aircraft, be used for operational support airlift (OSA), and be assigned to Detachment One at Andrews Air Force Base, Maryland.

A Department of Defense (DOD) directive specifies that the OSA aircraft inventory is to be based solely on wartime requirements, which heads of DOD components approve after fully considering all available resources. The directive states that such aircraft are to be assigned and managed in peacetime to ensure readiness to meet wartime requirements.

Air Force officials justify the acquisition of OSA aircraft as contributing toward fulfilling the OSA wartime requirements. The officials state that requirements, which were defined and confirmed in 1982 and 1984 studies, exceed available aircraft. However, an April 19, 1985, DOD Inspector General report stated there is no DOD-wide position that clearly showed the wartime OSA requirement and that specific requirements were not clearly defined and documented to support the number, mix, and type of aircraft. The Air Force, while disagreeing with this conclusion, did concur in the recommendation that the specific OSA role be defined and documented DOD-wide. In addition, the Senate Committee on Appropriations asked DOD to study the OSA requirement for both active and reserve components. The study is to identify the reserve components' wartime and peacetime requirements. DOD, in coordination with the services, is currently conducting such a study, which is expected to be completed in late summer 1986.

The Air Force said that the decision to buy four C-21A aircraft and assign them to Detachment One was primarily the result of congressional direction. Funds to procure the additional C-21A aircraft were not requested in the President's fiscal year 1986 budget. The conference report on the Department of Defense Appropriations Act, 1986, agreed with House report language directing transfer of leased C-21A aircraft to the Air National Guard for Detachment One, unless the aircraft are purchased for this purpose. Detachment One does not yet have a specified wartime mission for the aircraft; however, the general wartime mission would be the time-sensitive movement of cargo and personnel. Officials said that specific missions for these aircraft will be defined.

National Guard officials recognized that the acquisition of the aircraft must be justified by wartime requirements, but also expressed their need for the C-21A largely on the basis of Detachment One's peacetime operations. These operations are numerous, but of relatively low priority.

Officials noted that the unit is unique in being assigned to support the aviation transport needs of the National Guard Bureau and the Military Airlift Command (MAC). The National Guard Bureau and MAC have a Memorandum of Agreement specifying support to MAC's OSA system by Air National Guard aircraft. Detachment One has fiscal year 1986 flying hour commitments to MAC of about 50 percent of the unit's CT-39 flying hours.

With regard to peacetime missions, Guard officials identified the C-21A as the only appropriate replacement for the CT-39 aircraft, which the Air Force began to phase out in 1983. Guard officials rejected use of alternatives to the C-21A—the C-12F turboprop, use of commercial airlines, or greater reliance on MAC airlift support—as less suitable.

Conclusions

As a result of a congressional committee and the DOD Inspector General questioning OSA aircraft requirements, DOD is studying the requirements to better define and document them. We believe that procuring additional OSA aircraft before completion of the study would be premature.

Agency Comments

DOD concurred with our report and stated that procurement of OSA aircraft would be delayed until the "DOD Operational Support Airlift Wartime Requirements Study" is published. (See app. V.) DOD said that the

wartime requirement for DOD-wide OSA aircraft will be validated by the study.

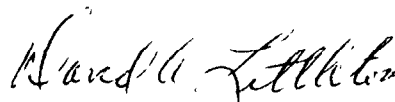
DOD also emphasized that the Air Force and Air National Guard justify the inventory of OSA aircraft based solely on wartime readiness requirements and that the OSA peacetime priority system is not relevant to justifying the need for the aircraft.

We have incorporated additional DOD suggested wording changes throughout the report, as appropriate.

Details on our work are presented in appendix I. Our objectives, scope, and methodology are described in appendix II. Examples of OSA peacetime operations are described in appendix III and pictures and specifications of the C-21A and CT-39 are in appendix IV.

We are sending copies of this report to the Chairmen, House Committee on Government Operations, Senate Committee on Governmental Affairs, House Committee on Armed Services, and House and Senate Committees on Appropriations; the Secretaries of Defense and the Air Force; and the Director, Office of Management and Budget.

Sincerely yours,



Frank C. Conahan *for*
Director

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Abbreviations

AFB	Air Force Base
DOD	Department of Defense
GAO	General Accounting Office
MAC	Military Airlift Command
OSA	operational support airlift

Air National Guard's Need for C-21A Aircraft

Introduction

The Air Force, starting in the late 1950s and early 1960s, operated about 136 CT-39 aircraft primarily to meet the service's operational support airlift (OSA) needs during peacetime and wartime. In 1982 the Air Force decided to replace most of its CT-39 aircraft with new aircraft. On September 19, 1983, the Secretary of the Air Force awarded Gates Learjet a lease for 80 turbofan Learjet 35A aircraft, designated the C-21A, and Beech Aircraft Corporation a lease for 40 Super King Air B200C turboprops, designated the C-12F.

In 1978 the Air Force gave Detachment One four T-43 (Boeing 737) aircraft. In 1981 the Air Force reassigned two of the T-43s and transferred CT-39s to the unit. The T-43s, seating 64 passengers, were used to transport personnel to major conferences, while the CT-39s, seating about 7 passengers, were used to fly staff to and from Guard units. In 1984 six CT-39s were with Detachment One at Andrews Air Force Base. Under a "rolling spare stocks" system, with no funds or manning provided, the Guard was given two CT-39s to cannibalize. However, Detachment One has had only four CT-39s since October 1985 and its last T-43s have been transferred out of the unit.

The Air Force, on November 15, 1984, notified the House Committee on Appropriations that it intended to exercise follow-on contract options with Gates Learjet and Beech to lease an additional 10 C-21A and 5 C-12F aircraft. The Chairman, Subcommittee on Defense, Senate Committee on Appropriations, told the Air Force on December 13, 1984, not to do so.

The Guard had not been included in the original replacement lease program for 80 C-21A aircraft because of its lower priority compared to active forces' needs, according to the Director, Air National Guard. Guard and Air Force officials noted that the Air Force had intended the four C-21A aircraft for Detachment One to be included in the follow-on lease.

The House Committee on Appropriations report on the Department of Defense Appropriations Act, 1986, directed the Secretary of the Air Force to assign four C-21A aircraft from the inventory of leased C-21A aircraft to the Guard as CT-39 replacements. The report stated that the Air National Guard should budget for these lease costs in fiscal year 1987 and subsequent years. In a December 5, 1985, floor statement, the Chairman, Senate Committee on Appropriations, said that the Committee had neither added nor earmarked new funding for the procurement of C-21As, but had no objection to the Guard's using Air National

Guard miscellaneous equipment funds for this purpose, if the Guard determined this procurement would enhance its ongoing mission. However, the formal report of the Committee did not address this issue. Finally, the conference report agreed with the House language directing transfer of leased C-21A aircraft to the Air National Guard for Detachment One, unless C-21A aircraft are purchased for this purpose in the Guard and Reserve Equipment appropriation.

In March 1986, the Chief, National Guard Bureau,¹ informed the Chairman, Senate Committee on Armed Services, that the Guard would buy four C-21A aircraft as part of its procurement of "combat-essential and high priority shortfall items." This \$13.2 million procurement for the aircraft is to be funded from the Air National Guard fiscal year 1986 miscellaneous equipment appropriation of \$75 million.

Wartime Requirements

The OSA system is designed to support time-sensitive missions during combat, including command and staff movement; maintenance, medical, and security personnel movements; aircrew repositioning; intelligence support; and the reposition/resupply of aircraft and non-aircraft spare parts and medical supplies.

A DOD directive specifies that the inventory of OSA aircraft is to be based solely on wartime requirements, approved by the heads of DOD components after fully considering all available resources. The directive states that OSA aircraft are to be assigned and managed in peacetime to ensure readiness to meet wartime requirements. The aircraft are to be used in peacetime to provide essential training for operational personnel, cost-effective training of pilots, and logistic support to ensure military effectiveness for national defense policies.

DOD components possessing OSA aircraft may assign them as required to maximize efficiency, cost effectiveness, and peacetime utilization. Commercial aircraft, such as the C-21A, are not to be acquired by lease, contract, charter, or any procurement technique for the purpose of providing OSA transportation except when a determination has been made that such service is essential to the accomplishment of the mission and is the most cost-effective method.

¹DOD's National Guard Bureau administers the Army and Air National Guards, which have both federal and state functions. Each state's National Guard, by contrast, is a state military under the command of the governor.

Air Force officials justify acquisition of the four C-21A aircraft for Detachment One as helping to meet overall OSA wartime requirements. The Air Force defined its OSA aircraft requirements in a 1982 study and confirmed them in an additional study conducted in 1984. Air Force officials state that these studies show that requirements exceed available aircraft.

However, questions have been raised about definition and documentation of OSA wartime mission requirements. The Senate Committee on Appropriations in December 1984 asked DOD to study the requirement for OSA in both active and reserve components. The study is to identify the reserve components' wartime and peacetime operational requirements. An April 19, 1985, DOD Inspector General report stated that there is no DOD-wide position clearly showing the OSA wartime requirements and that specific requirements were not clearly defined and documented to support the number, mix, and type of aircraft. The report also stated that it was unknown whether the services had sufficient, insufficient, or excess aircraft to meet OSA wartime requirements. The Air Force, while disagreeing with the report's findings, did concur with the recommendation that the specific OSA role be defined and documented DOD-wide.

DOD's Directorate of Program Analysis and Evaluation, in coordination with the services, has been reviewing the OSA wartime requirements. The review, an effort to better define and document OSA wartime roles, is to identify the numbers and mix of types of aircraft needed to fulfill the wartime mission. The study was originally scheduled to be completed in April 1986, but a DOD official now expects its completion in late summer of 1986.

The Air Force said that the decision to buy the C-21A aircraft and assign them to Detachment One was primarily the result of the congressional direction. The acquisition would allow Detachment One to "piggy back" the wartime mission for OSA for overseas and continental forces. Air Force officials said that although the unit does not yet have a specified wartime mission for the aircraft, specific missions will be defined. According to these officials, such missions would normally be specified when the President's budget included a request for aircraft.

Guard and Air Force officials said that based on the wartime requirements detailing available assets, MAC determines its OSA aircraft needs and deployments. Air Force officials noted that wartime requirements

are assigned available assets by theater and command and that no specific deployment plans in the War Mobilization Plan assigns resources to particular units.

The Air National Guard's C-21A wartime mission generally would be to train crews and support the active forces in time-sensitive movement of cargo and personnel. Air Force and Guard officials referred to a May 5, 1986, Guard summary of a MAC operational plan as a wartime mission statement. The summary identified pre-attack contingency requirements for Detachment One as "Support on Call," in which requirements for supporting missions must be generated from the OSA force in general. The precise requirements are not known until they surface. Although Detachment One has not been assigned any particular mission, its aircraft are considered an available resource, if needed.

Peacetime Operations

Detachment One is an OSA and mission support airlift unit. As such, it uses and maintains assigned aircraft to meet the following peacetime operational objectives:

- OSA and mission support airlift for MAC-directed missions, as determined by agreement between the National Guard Bureau and MAC.
- OSA and mission support airlift for Bureau-directed missions.
- OSA and mission support airlift for the Commanding General, District of Columbia National Guard-directed missions.
- Tactical training using T-33 aircraft for controllers.
- Appropriate military training for all assigned/attached personnel.

The National Guard Bureau and MAC have a Memorandum of Agreement that specifies the support to MAC's OSA system as provided by Air National Guard CT-39 and other aircraft. The Headquarters, District of Columbia, Air National Guard has four CT-39 and four C-22B aircraft assigned at Andrews Air Force Base. Detachment One has fiscal year 1986 flying hour commitments to MAC for the CT-39 of 330 hours per quarter, or 50 percent of planned CT-39 flying hours.

According to an Air Force regulation concerning OSA management, meeting the travel needs of the many users of the MAC service requires sound management of resources and the cooperation of users. Since needs exceed the capability, resources must be allocated by priority. National Guard Bureau officials said that they use this regulation only as guidance. The following are priorities for OSA flights:

Priority 1. Emergency airlift in direct support of operational forces or for lifesaving purposes.

Priority 2. Official business airlift of personnel or cargo with scheduling or delivery constraints that cannot be satisfied by any other mode of travel.

Priority 3. Other official business airlift of passengers or cargo that requires the carrying of classified material for mission accomplishment that cannot be accommodated by mail or the Armed Services Courier Services.

Priority 4. Official business airlift involving group or team travel that requires the conduct of official business while enroute, that maintains the integrity or cohesiveness of the group, and that cannot be reasonably satisfied by other modes of travel.

Priority 5. Any other official business airlift that can be shown to be less expensive than any other mode of travel to satisfy scheduling or delivery constraints. Requests for OSA under this priority shall be supported only when cost-effective.

A National Guard Bureau official said that Guard flights for the CT-39 aircraft are not assigned a priority based on an Air Force directive or a Guard memorandum unless scheduling conflicts arise. In those cases, only one Guard general can be assigned a priority 3. All other travelers would be assigned one of the lower priorities. Priorities 3 and 4 are the most commonly used. By comparison, MAC can assign a priority 2. The same Guard official had no estimates of what distribution of priority codes are made for approved trips. He doubts that a priority is assigned more than once every 2 months.

National Guard Bureau officials said that for the 50 percent of flights they control, they schedule and approve use of the CT-39 aircraft based on several criteria. Priorities are assigned based on rank and position of senior staff and civilians, with generals taking precedence. All those below the rank of general or its civilian equivalent must submit a reason for the intended trip. In addition, a National Guard office memorandum establishes that requests submitted for priority 5 must be cost effective. Cost effectiveness is determined by comparing OSA cost to commercial transportation cost.

Exceptions to cost-effective travel are required to be supported in writing. However, a National Guard Bureau official said that this requirement is not strictly enforced for Guard generals. In addition, the timing of flights is considered against the time constraints of generals' scheduling needs and can be outweighed by those needs. The official had no statistics to show how frequently the cost-effectiveness requirement was waived, but said that it did not happen often.

National Guard officials provided us with available CT-39 trip manifests for April 1986 to identify examples of operations. National Guard Bureau officials identified locations visited and trip purposes for Detachment One CT-39 aircraft used for both Guard and MAC missions. (See app. III.)

The Director, Air National Guard, told us several reasons that C-21As are needed. The Guard, although primarily a combat force, also provides OSA to the Air Force. Second, the Guard wants to be standardized with the Air Force. He added that National Guard Bureau officials need to travel to inform all the governors and state legislatures of Guard training activities. The Chief of the Guard Bureau is responsible for units in 50 states, Puerto Rico, and Guam. Also, many of the more than 4,000 units in about 3,000 communities are to be visited. In addition, the Air Force wants the Director to attend many meetings and National Guard Bureau officials must also attend official functions.

Guard officials said that four C-21As are needed for Detachment One because one frequently will be down for maintenance given that the planes will fly three to four sorties per day. They added that Guard commitments are growing and no flexibility will exist with only one or two planes. The officials also believe that as Guard demands continue to grow, the Guard might have to renegotiate its agreement with MAC.

Guard officials also expressed their need for four C-21A aircraft for Detachment One on the basis of extensive use and demand for the currently used CT-39 planes. They estimated that 30 percent of all Bureau staff requests are considered and some portion of these are approved. An Air Force official estimated that MAC satisfied approximately 45 percent of its requests for CT-39 flights in 1985.

Generally, Guard use of the CT-39 aircraft has about equaled the agreed to 50 percent of mission hours. Table 1 compares MAC and Guard use of the CT-39 aircraft with the number of passengers carried.

Table I.1: Military Airlift Command and Air National Guard Use of Detachment One CT-39 Aircraft

Fiscal Year	User	Total hours	Percent of total hours	Total passengers	Total sorties
1982	MAC	929	50	1,962	555
	Guard	919	50	1,361	526
1983	MAC	1,581	57	3,258	1,005
	Guard	1,171	43	1,491	637
1984	MAC	1,252	52	2,457	748
	Guard	1,179	48	1,793	683
1985	MAC	1,327	53	2,542	761
	Guard	1,183	47	2,007	683

Alternatives to the C-21A for the Air National Guard

Guard officials rejected readily identified alternatives to the C-21A aircraft as less preferable. They saw no alternatives to acquiring the C-21A because the Air Force has already selected this aircraft as part of its OSA force option.

Guard officials rejected the C-12F turboprop as an alternative because of the C-21A's relative capabilities: enhanced speed and range. They said the C-12F is intended for short-haul missions and would require more frequent refuelings than the C-21A for coast-to-coast travel or for trips between Washington, D. C., and Puerto Rico. Also, one official noted that the Air Force already had added additional C-12F aircraft to its OSA fleet, but that the C-21As for the Guard were the first additional turbojets to the fleet mix.

Commercial airlines are used where cost effective, but higher ranking officers, notably generals, do minimal amounts of commercial flying, according to Guard officials. One official observed that the Air Force would like generals to do even less commercial travel for security reasons. Also, officials said, visiting several units or locations in a short time with commercial travel is difficult because of airline schedules and availability.

Guard officials discounted the possibility of relying more on MAC support for several reasons. They said that MAC's "hub-spoke" system of using major MAC terminals rather than traveling directly to certain locations would cause delays in waiting for flight connections. The Guard relied on MAC more in the past and was not satisfied with the airlift support received. In addition, many locations visited by Guard officials are smaller, more remote units to which fewer people frequently travel.

Objective, Scope, and Methodology

Based on the request from the Chairman, Senate Committee on Armed Services, we evaluated the Air National Guard's need for the C-21A aircraft.

We interviewed officials and reviewed documents at the National Guard Bureau and Department of the Air Force at the Pentagon, and at Air National Guard Detachment One at Andrews Air Force Base, Maryland. We also reviewed documents and files relating to Air National Guard use of CT-39 aircraft, which the C-21A is scheduled to replace. Also, we discussed potential alternatives to the C-21A with officials of the 89th Military Airlift Wing at Andrews Air Force Base. However, we did not independently assess C-21A alternatives, nor did we evaluate the validity of Guard officials' explanations for rejecting alternatives.

We conducted our work in accordance with generally accepted auditing standards during April and May 1986.

Detachment One Air National Guard Use of CT-39 Aircraft During April 1986

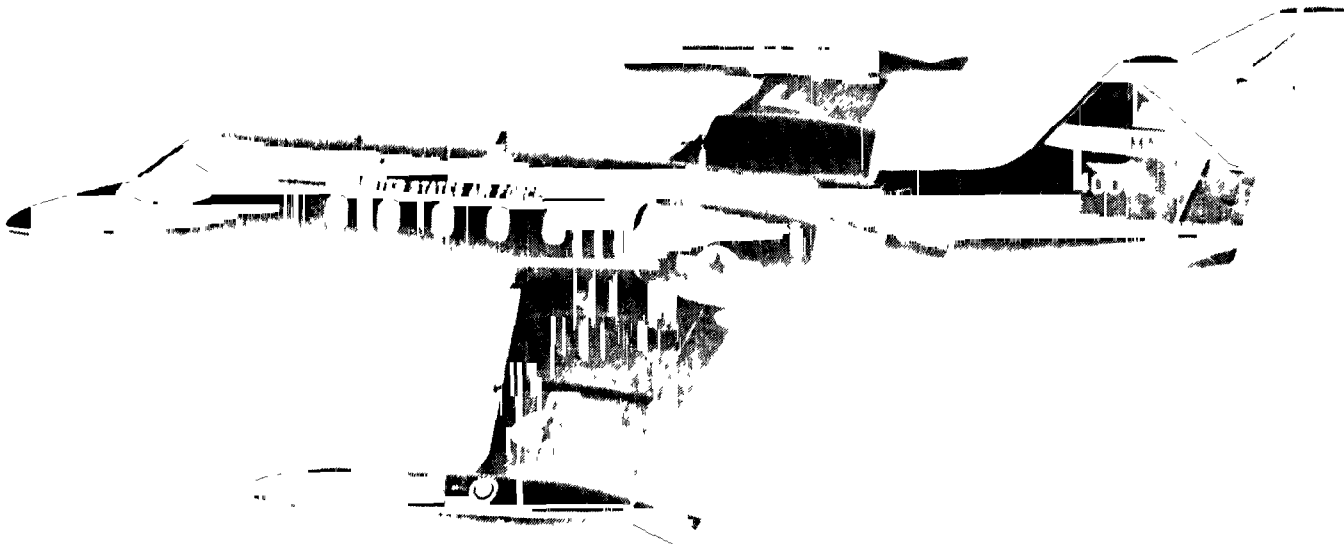
National Guard Bureau officials identified the following locations visited and trip purposes from available trip manifests for Detachment One CT-39 aircraft for April 1986. All trips were Guard missions except where noted.

Location	Purpose
Harold Field, Ark to Little Rock, Ark	Visit to Army Guard Training Center and Professional Military Education Center
Andrews AFB to McConnell AFB, Kan	Training school related to construction activities
Andrews AFB to Maxwell AFB, Ala	Speaking engagement at Air War College for Guard Reserve Day
Andrews AFB to Golden Triangle, Miss (Army field), to Hardy Anders Field, Miss	Meeting with Army National Guard
Andrews AFB to Selfridge, Mich , to Pope AFB, N C	Unit reorganization talks "Century Rodeo" C-130 competition
Andrews AFB to Gulfport, Miss	Site survey at training unit
Mobile, Ala , to Andrews AFB ^a	Major General's attendance of Reserve Forces Policy Committee meeting
Andrews AFB to McConnell AFB, Kan ^a	Briefing team for war analysis game
Andrews AFB to Savannah, Ga	Site survey at training facilities
Andrews AFB to Wright-Patterson AFB, Ohio	Special meeting held by Air Force Logistics Command
Andrews AFB to Dobbins AFB, Atlanta, Ga	Site survey and coordination with unit to transition new aircraft into unit

^aMission flown by CT-39 designated for MAC

Pictures and Specifications of Aircraft

Figure IV.1: C-21A Aircraft



Specifications

Primary Function	Passenger and cargo airlift, trainer	Cruise Speed	529 m p h
Prime Contractor	Gates-Learjet Corporation	Ceiling	41,000 feet
Power Plant/Manufacturer	Two Garrett TFE731-2-2B turbofan engines	Range	2,105 miles
Thrust	3,500 pounds each	Load	2,920 lb , up to 8 passengers
Dimensions	Wingspan over tip-tanks 39'6", length 48'8", height 12'3"	Crew	Two
		Maximum Takeoff Weight	18,300 lb
		Status	Delivery began in April 1984

Figure IV.2: CT-39 Aircraft



Specifications

Primary Function	Passenger and cargo airlift, trainer	Cruise Speed	460 m p h
Prime Contractor	Rockwell International Corp , Sabreliner Division	Ceiling	39,000 feet
Power Plant/Manufacturer	Two Pratt & Whitney J60-P-3 turbojet engines	Range	1,725 miles
Thrust	3,000 pounds each	Load	1,400 lb , up to 8 passengers
Dimensions	Wingspan over tip-tanks 44'5" , length 43'9" , height 16'0"	Crew	Two
		Maximum Takeoff Weight	18,500 lb
		Status	Retirement began in 1983 and in progress

Comments From the Principal Deputy Assistant Secretary of Defense for Reserve Affairs



OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON D C 20301

RESERVE AFFAIRS

16 June 1986

Mr. Frank C. Conahan
Director, National Security and
International Affairs Division
U.S. General Accounting Office
441 G. Street, N.W.
Washington, D.C. 20548

Dear Mr. Conahan:

This is the Department of Defense response to the General Accounting Office (GAO) draft report entitled, "SUPPORT AIRCRAFT: Air National Guard's Need for C-21A Aircraft," dated June 5, 1986 (GAO code 392233/OSD case 7024).

The DOD concurs with the GAO. The procurement of additional operational support airlift (OSA) aircraft will, therefore, be delayed until the "DOD Operational Support Airlift Wartime Requirements Study" is published. The wartime requirement for DOD-wide OSA aircraft will be validated by the study.

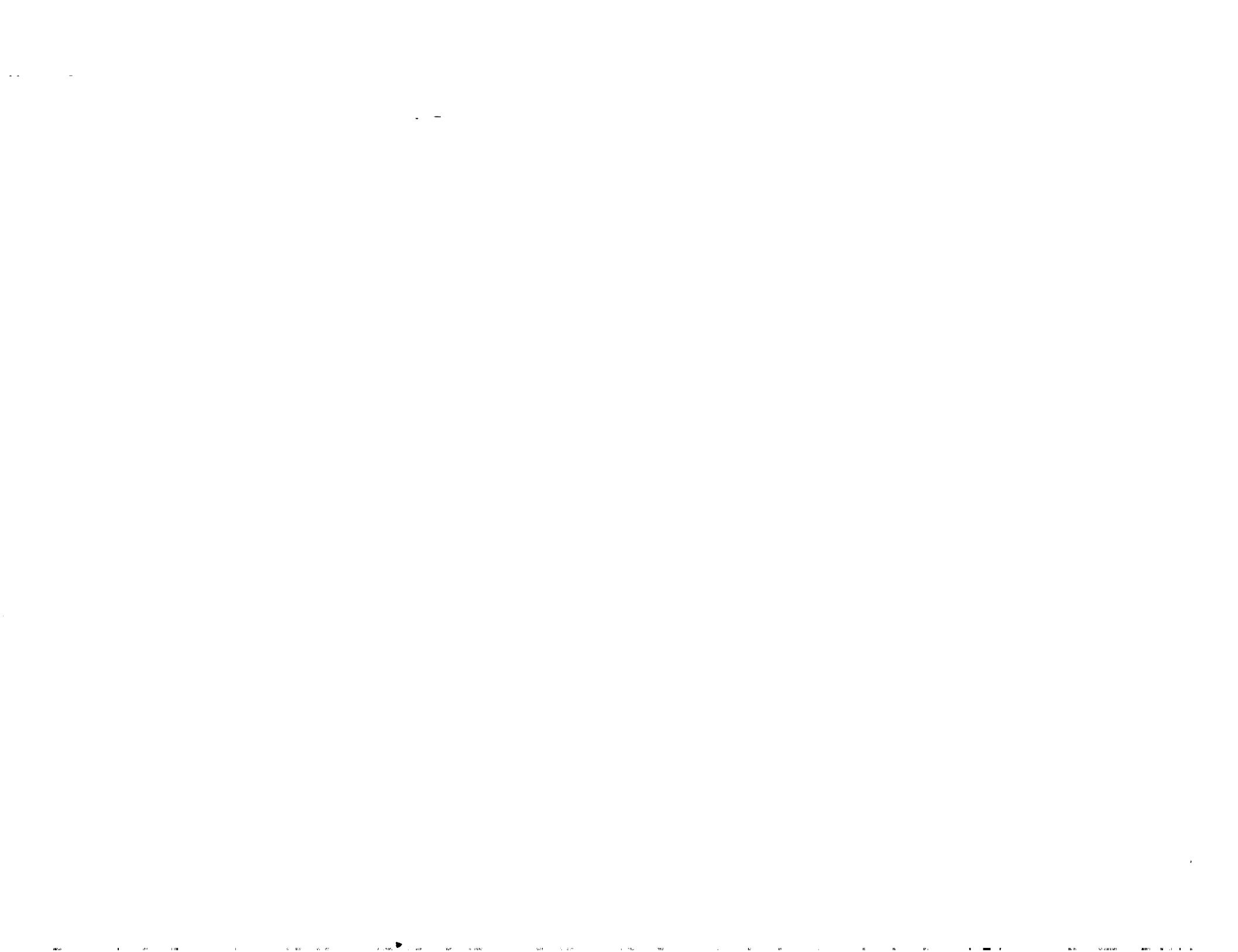
Concerning the priority system as it relates to peacetime airlift, the DOD emphasizes that the USAF/ANG justify their inventory of OSA aircraft based solely upon wartime readiness requirements. These OSA aircraft, while acquired to meet wartime requirements, are also used in peacetime to train aircrews. Peacetime airlift is provided as a cost effective by-product of this mission training. The priority system has nothing to do with the need for the aircraft which is based strictly on wartime OSA requirements.

At a June 12, 1986 meeting with your staff, an annotated copy of the draft report was also provided, indicating several corrections and general observations. Thank you for the opportunity to comment on the draft report.

Sincerely,

A handwritten signature in cursive script, reading "Dennis R. Shaw".

Dennis R. Shaw
Principal Deputy Assistant Secretary



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