

AD-A157 448

CIVIL RESERVE AIR FLEET SUPPORT PROGRAM(U) LOGISTICS
MANAGEMENT INST BETHESDA MD R E ATHAY ET AL. JUN 85
LMI-ML509 MDA903-85-C-0139

1/1

UNCLASSIFIED

F/G 15/7

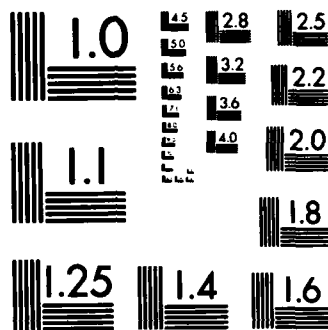
NL



END

F/G

DL



MICROCOPY RESOLUTION TEST CHART
NBS-1963-A

2

AD-A157 448

CIVIL RESERVE AIR FLEET
SUPPORT PROGRAM

LOGISTICS MANAGEMENT INSTITUTE

DTIC FILE COPY

DISTRIBUTION STATEMENT A
Approved for public release;
Distribution Unlimited

DTIC
ELECTE
JUL 19 1985
S D
G

LMI

85 7 05 050

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM	
1. REPORT NUMBER	2. GOVT ACCESSION NO.	RECIPIENT'S CATALOG NUMBER	
	A157448		
4. TITLE (and Subtitle)		5. TYPE OF REPORT & PERIOD COVERED	
Civil Reserve Air Fleet Support Program		Final Report	
		6. PERFORMING ORG. REPORT NUMBER	
		ML509	
7. AUTHOR(s)		8. CONTRACT OR GRANT NUMBER(s)	
Robert E. Athay Harrell A. Altizer		C MDA903-85-0139	
9. PERFORMING ORGANIZATION NAME AND ADDRESS		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS	
Logistics Management Institute 6400 Goldsboro Road Bethesda, MD 20817-5886			
11. CONTROLLING OFFICE NAME AND ADDRESS		12. REPORT DATE	
Assistant Secretary of Defense (Manpower, Installations, and Logistics)		June 1985	
		13. NUMBER OF PAGES	
		16	
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)	
		Unclassified	
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE	
16. DISTRIBUTION STATEMENT (of this Report)			
"A" Approval for public release; distribution unlimited.			
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)			
18. SUPPLEMENTARY NOTES			
19. KEY WORDS (Continue on reverse side if necessary and identify by block number)			
Aircraft, Air Force, Airlift, Airline, Airport, Civil Reserve Air Fleet, Civil Air Carrier, Department of Defense, Fuel, Ground Support, Host Nation, Mobile Maintenance, Military Airlift Command, Senior Lodger.			
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)			
The civil air carriers participating in the Civil Reserve Air Fleet (CRAF) program are obligated to provide aircraft, crews, fuel, spare parts and maintenance. The infrastructure that supports these carriers in their day-to-day commercial operations in peacetime is not adequate to support CRAF operations during emergencies. The senior lodger system is the key element in supporting CRAF operations. This system designates a single			

20. Abstract (Continued)

U.S. carrier to coordinate support for all CRAF operations at each of 39 stations in the United States and overseas. The civil air carrier contacted by LMI expressed doubts that senior lodgers at many overseas stations could carry out their assigned functions if CRAF were mobilized. The OSD should develop measures to strengthen the senior lodger system.

CIVIL RESERVE AIR FLEET
SUPPORT PROGRAM

June 1985

Robert E. Athay
Harrell B. Altizer

DTIC
SELECTED
JUL 19 1985
S D
G

Prepared pursuant to Department of Defense Contract MDA903-85-0139 (Task ML509). The views, opinions, and findings contained in this report are those of the author(s) and should not be construed as an official Department of Defense Position, policy, or decision, unless so designated by other official documentation. Except for use for Government purposes, permission to quote from or reproduce portions of this document must be obtained from the Logistics Management Institute.

LOGISTICS MANAGEMENT INSTITUTE
6400 Goldsboro Road
Bethesda, Maryland 20817-5886

DISTRIBUTION STATEMENT A
Approved for public release
Distribution Unlimited



Executive Summary

CIVIL RESERVE AIR FLEET SUPPORT PROGRAM

Department of Defense (DoD) plans call for the Civil Reserve Air Fleet (CRAF) to carry up to 96 percent of combat forces and 35 percent of air transportable cargoes in a major overseas deployment of U.S. Forces during war or other emergency. The civil air carriers participating in the CRAF program are contractually obligated to provide not only aircraft, but also crews, fuel, spare parts, and maintenance. The central element of existing plans to support CRAF operations is the senior lodger system. Under that system, a U.S. civil air carrier is designated as senior lodger to coordinate all support activities for CRAF aircraft at each of 39 stations in the United States and overseas.

We are concerned that senior lodgers at many overseas stations could not carry out their assigned functions if CRAF were mobilized. Senior lodgers generally lack both knowledge of the volumes of traffic they would be expected to support and assured access to the necessary manpower and materiel resources. Resource problems are especially serious at senior lodger stations that carry only light traffic volumes in peacetime. For example, the senior lodger station at Cairo, Egypt, which is the only station in the Central Command area, currently supports only two flights per day.

The DoD needs to take measures to assure adequate support of CRAF operations during emergencies. Strengthening the senior lodger system by such means as enhancing maintenance capabilities, arranging better host nation support and developing CRAF carrier support plans should be the primary objective. In addition, The DoD should seek to improve CRAF support by providing

necessary policy guidance for CRAF by means of a DoD Directive, developing plans for utilizing and supporting civil aircraft not currently included in the CRAF program, devising a mobile maintenance program, and providing better assurance of adequate fuel supplies.

Accession For	
NTI	<input checked="" type="checkbox"/>
DTIC	<input type="checkbox"/>
Un	<input type="checkbox"/>
JR	<input type="checkbox"/>
By	
Date	
BR	
A-1	



TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY	ii
 <u>CHAPTER</u>	
1. THE CIVIL RESERVE AIR FLEET PROGRAM	1- 1
2. CRAF SUPPORT PROBLEMS	2- 1
Senior Lodger System	2- 1
Responsibilities	2- 2
Resources	2- 3
Mobilization Airlift Requirements	2- 4
Maintenance Support	2- 4
Host Nation Support	2- 5
CRAF Carrier Support Plan	2- 6
Financial Incentives for CRAF Carriers	2- 6
Central Command Support	2- 7
CRAF Guidance	2- 8
Cargo Aircraft Not in CRAF	2- 8
3. CONCLUSIONS AND RECOMMENDATIONS	3- 1
Conclusions	3- 1
Recommendations	3- 1

1. THE CIVIL RESERVE AIR FLEET PROGRAM

For many years, U.S. military strategy has been based on the concept of forward deployments of forces in key overseas theaters, such as West Germany and Korea, and quick reinforcement of those forces in time of crisis. The United States has also sought to develop the capability to deploy forces rapidly to Southwest Asia and other areas in which a large peacetime presence is not maintained.

This strategy depends heavily on airlift. The Military Airlift Command (MAC) can currently meet only about one-third of the total cargo airlift requirement established by the Congressionally Mandated Mobility Study in 1981. The Civil Reserve Air Fleet (CRAF) program, under which U.S. civil air carriers have pledged aircraft for mobilization purposes, helps significantly to reduce the deficit in cargo capacity. It also is capable of carrying up to 96 percent of the Department of Defense's (DoD's) passengers, thus eliminating the deficit in passenger airlift capacity.

President Truman created CRAF in 1952 as an outgrowth of the experience gained during World War II and the Berlin blockade in the use of civil aircraft in support of military airlift. The CRAF is divided into four segments, organized in accordance with assigned missions and aircraft characteristics. The Long Range International Segment contains approximately 280 passenger and cargo aircraft. Initially, only aircraft capable of carrying productive payloads in excess of 3,500 nautical miles were assigned to this segment, but because of the shortfall in cargo capacity, the range requirement has been reduced to 2,350 nautical miles. This is, by far, the largest of the four segments. The Short Range International Segment has a smaller number of less

capable aircraft dedicated to serving off-shore locations in the Atlantic and Caribbean areas. The Domestic Segment is made up of short- and medium-range aircraft that carry cargo between Air Force and Navy depots and installations on a daily basis. The Alaskan Segment employs aircraft capable of operating in the Arctic environment to support Alaskan Air Command bases.

The CRAF can be mobilized in three stages. The Commander in Chief of MAC can call up Stage I, currently about 40 aircraft, to fill in when MAC aircraft have been diverted from their routine mission assignments in response to a contingency. These aircraft must be made available within 24 hours. The Secretary of Defense can activate Stage II during an emergency that does not require full mobilization. The airlines are currently obligated to provide approximately 100 aircraft within 24 hours for Stage II. Full mobilization of CRAF, Stage III, requires a declaration by the President or the Congress of a "national" or a "defense" emergency. A Stage III activation currently calls upon CRAF participants to allocate about 330 aircraft to MAC missions within 48 hours.

The civil air carriers would retain operational control of their aircraft after they had been mobilized under a CRAF call-up, while MAC would assign the missions to be flown. Payments to the air carriers for CRAF services would be made at rates that are negotiated each year with MAC.

The air carriers have agreed to supply not only aircraft to CRAF, but also crews, fuel, spare parts, and maintenance. The key element in current plans for civil air carriers to support CRAF operations is the senior lodger system. Under that system, one carrier serves as an executive agent for providing those support services beyond the capability of an individual carrier.

2. CRAF SUPPORT PROBLEMS

There are a number of areas in which support for CRAF aircraft could be strengthened and thus help to ensure successful airlift operations during emergency deployments. We focus on areas that appeared to be most critical if Stage III of CRAF were activated and included the total CRAF airlift capability that would be involved in a major military emergency. We concentrate on problems, which if not corrected, could jeopardize the successful execution of a particular Operational Plan (OP PLAN).

SENIOR LODGER SYSTEM

Senior lodger is the name given to a CRAF carrier that is contractually committed to support all CRAF aircraft that transit a specific airport after CRAF has been activated. The senior lodger is the coordinator for providing any support services required, supplying them either directly as an on-site carrier or through some alternative, usually indigenous, source. The services required may vary from airport to airport depending on location and workload. They can and generally will include all types of ground support required for aircraft, crews, passengers, and cargo. The provision of senior lodger services in a timely and effective manner is vital if CRAF is to function as planned.

Currently, there are 39 designated senior lodgers, 26 overseas and 13 in the United States. Each senior lodger must conduct a site survey to gather information about CRAF support, report that information on MAC Form 157, and update the survey every 2 years. The survey information includes the availability of ground support equipment, identification of local U.S. military airfields, fuel capabilities, senior lodger station management, and general

facilities available in the vicinity of the airport. The surveys present a snapshot of peacetime capabilities that may not reflect mobilization capabilities and entail no mobilization commitments on the part of the senior lodger or alternative sources.

The senior lodger system is vital to the mobilization support of CRAF. Weaknesses in that system should be corrected to ensure adequate support for CRAF operations. Our discussions with several CRAF carriers and a variety of DoD personnel involved in all aspects of strategic airlift identified several shortcomings in the senior lodger system. Those shortcomings are discussed briefly in the following sections.

Responsibilities

The responsibilities for senior lodgers are spelled out in detail in MAC Regulation 55-8 (MACR 55-8) dated December 28, 1984. Additional guidance, however, is needed in two areas: (1) aircraft maintenance, and (2) petroleum, oil, and lubricants (POL).

The regulation states that "Maintenance of CRAF aircraft is the responsibility of the operating carrier . . ." It is likely that CRAF carriers will, at some time during a Stage III activation, be directed to an overseas civil airport where they have little or no on-the-ground support infrastructure. We believe that the responsibility to assist all CRAF carriers needing emergency maintenance at enroute or turnaround airports should be assigned explicitly to the senior lodger. This assignment would fill a potentially serious void in current senior lodger responsibilities.

The regulation provides the following guidance concerning POL:

Chapter 2, Paragraph 2-7, c. Upon the activation of any stage of CRAF, CRAF carriers may purchase POL products at military and civil bases in accordance with directives identified in Chapter 7.

Chapter 7, Paragraph 7-1, d. MAC will ensure that adequate POL facilities and resupply capability are available at all planned contingency bases (both commercial and military). If fuel cannot be made available, suitable alternative airfields will be recommended.

Chapter 7, Paragraph 7-7, a. Military Bases. POL products of military specifications will be provided carriers, as required, on a reimbursable basis. Military fuels JP-4 and JP-5 are acceptable substitutes for commercial fuels.

Chapter 7, Paragraph 7-7, b. Commercial Airports. Senior lodger station managers will help arrange for all CRAF POL, using all available civil sources to obtain fuel support.

Our discussions with representatives of the Office of the Secretary of Defense (OSD), the Air Force, and MAC reveal that mobilization POL requirements for CRAF are not authorized for funding within DoD budgeting guidelines. This lack of authority may seriously impair CRAF's ability to function as intended in Stage III and possibly have an adverse effect on the operation of MAC organic aircraft as well. Furthermore, it is not practicable to expect the senior lodger to arrange for adequate fuel supplies during Stage III CRAF operations.

It is important to understand that although senior lodger responsibilities are identified in some detail in MACR 55-8, the carriers are not required to do any actual mobilization support planning in peacetime other than completing the Senior Lodger Site Survey (MAC Form 157). This weakness in the CRAF system should be remedied.

Resources

The senior lodger system, as currently constructed, is a planning system for CRAF mobilization. However, the senior lodger has no resources to perform postmobilization services other than those the parent company has on site normally. The senior lodger currently is not required to enter into agreements with indigenous organizations for additional support, or to make

arrangements to increase U.S. support for postmobilization CRAF requirements. The failure in peacetime to provide or even identify the resources needed to support CRAF after mobilization occurs raises questions about the viability of CRAF as an emergency capability; priority should be given to identifying those resources.

Mobilization Airlift Requirements

Airlift requirements generated in support of specific OP PLANs are not furnished senior lodger station managers in peacetime. Those requirements, along with the number of aircraft, by type, that can be expected to transit a particular senior lodger station, are transmitted immediately after senior lodger station activation and as soon as possible after station workload can be determined. The fact that data regarding phased mobilization requirements are not available before an emergency arises, however, makes peacetime planning virtually impossible. Part of the problem concerns the security classification of the data, and since most U.S. CRAF carrier personnel overseas are not U.S. citizens, they cannot be cleared to handle classified information. Efforts should be made to provide some type of usable mobilization planning data to senior lodger station managers.

Maintenance Support

Emergency aircraft maintenance could become a significant mobilization problem for CRAF carriers and possibly for senior lodgers. The problem is in obtaining resources, primarily trained maintenance personnel and spare parts, in sufficient quantities to meet the needs of the increased numbers of aircraft that may be transiting senior lodger stations.

Discussions with CRAF carriers indicate there are some potential solutions. One that seems to have a broad base of support in the airline industry is the idea of mobile maintenance teams. This concept is predicated

on the assumption that following the activation of Stage III, air traffic would be far more concentrated geographically than in peacetime. A significant maldistribution of maintenance personnel would result. Several carriers believe it would be practicable in peacetime to identify maintenance personnel who would be willing to become members of maintenance teams that could be moved and assigned to any senior lodger station needing additional maintenance support. The teams could be composed of personnel from different CRAF carriers and could move from location to location or remain stationary. We believe that development of such a roster would require minor if any additional peacetime funding.

A companion effort could be the development of appropriate parts kits to accompany the maintenance teams. Some airlines that engage in charter operations do this now. Kit development would involve the preselection of those parts that would most likely be needed in emergencies.

There might be a modest cost to the Government if carriers have to increase stock levels to build kits. Some carriers thought this would be necessary; some thought it would not.

The identification or development of mobile maintenance teams and parts kits in peacetime for deployment after activation of Stage III CRAF would provide the senior lodger station manager with a U.S. resource upon which he could depend. Additional study and evaluation is required, however, before such a proposal can be recommended.

Host Nation Support

Much of the support provided to CRAF aircraft and arranged for by senior lodger station managers will be provided by indigenous organizations and personnel. Although senior lodgers have peacetime arrangements with these organizations and personnel, there is little assurance that the same

arrangements will exist after mobilization. Also, the capability required to support the senior lodger carrier in peacetime may be inadequate to support the CRAF requirement during mobilization. Host Nation Support Agreements that identify specific CRAF support tasks to be provided by the host nation (in emergencies) could help alleviate this problem. Further effort in this area appears to be warranted.

CRAF Carrier Support Plan

Carriers currently participating in CRAF are not required to have a plan identifying organizational and operational changes that would occur in the event CRAF was activated. Consequently, carrier personnel generally have little or no knowledge of what to expect if a mobilization occurs. Such a plan could include, as a minimum, anticipated changes in the carrier organization, communications changes both within the organization and with MAC, information on how additional support would be provided, potential personnel realignments, and any other significant change in operations anticipated by the carrier. Discussions with CRAF carriers should be undertaken to explore the possibility of developing a basic outline for a CRAF Carrier Support Plan.

Financial Incentives for CRAF Carriers

CRAF is a contract operation with the carrier reimbursed for all expenses incurred for services rendered. In peacetime, this reimbursement covers the cost of the biennial Senior Lodger Site Survey; during mobilization it would cover the costs associated with the activation and complete operation of a senior lodger station.

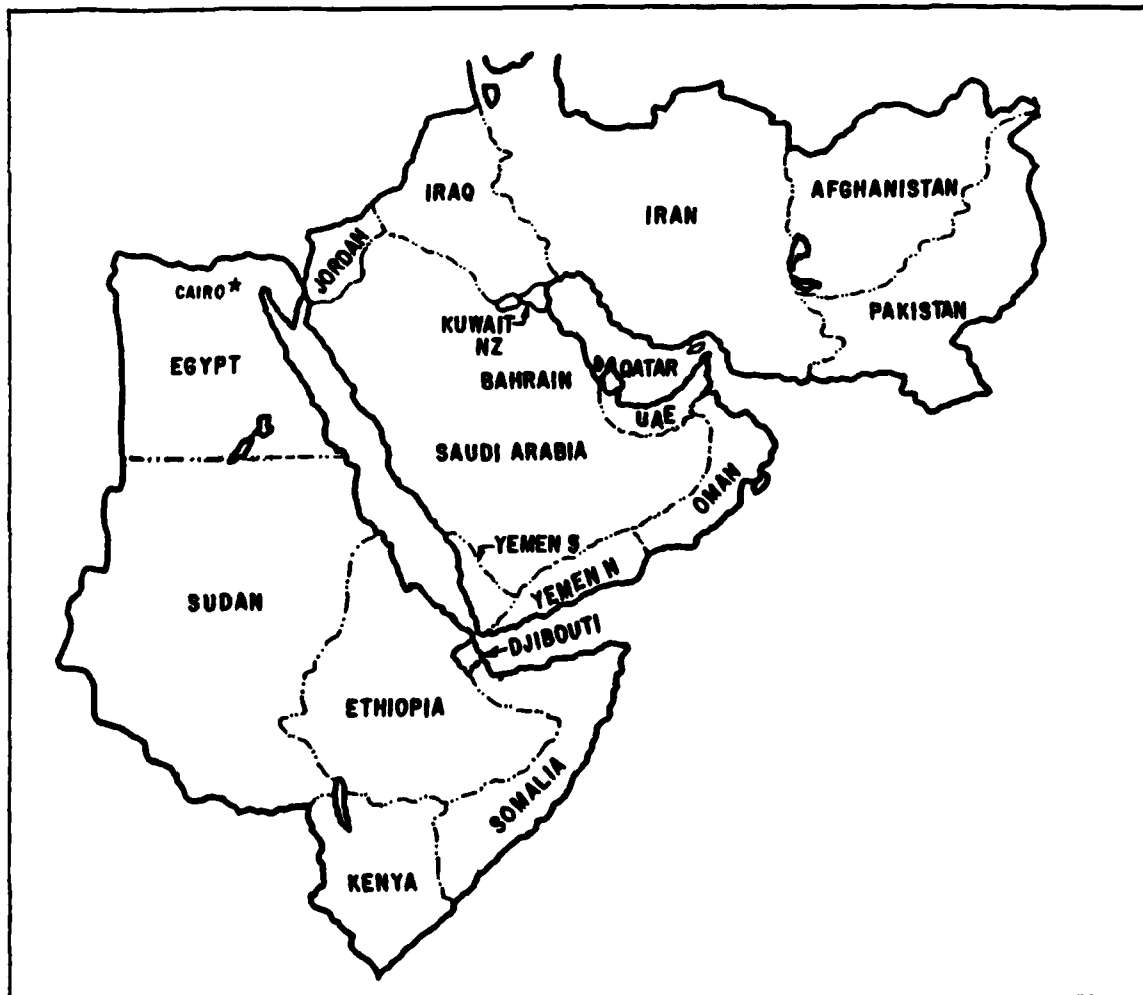
Our discussions with the DoD and carrier personnel indicate that additional actions may be necessary in peacetime to assure that CRAF will work effectively during mobilization. Such actions would require peacetime reimbursement. Further discussions with the carriers and MAC would help identify improvements that might result from increased financial considerations.

For CRAF to operate effectively during emergencies, it is vital that the senior lodger system work as envisioned. In fact, if the senior lodger system fails, CRAF could probably not perform its missions, and that in turn would jeopardize the entire strategic airlift mission. Although other areas of CRAF management may require attention, we believe the development of actions necessary to strengthen the senior lodger system should take first priority.

CENTRAL COMMAND SUPPORT

The area covered by the recently created Central Command (CENTCOM), shown in Figure 2-1, poses unique support problems for the CRAF program.

FIGURE 2-1. CENTCOM



Although CENTCOM encompasses 19 countries, with several commercial airports, only one senior lodger has been designated -- Trans World Airlines at Cairo, Egypt. Some of the questions raised concerning CENTCOM are:

- Can CRAF support CENTCOM OP PLANS only from Cairo?
- Are there other commercial airports that are senior lodger candidates in CENTCOM?
- Are there other alternatives for airlift support, both passenger and cargo, for CENTCOM?

These are serious questions that cannot be answered at present. Following completion of the general review of the senior lodger system, the ability of CRAF to support CENTCOM airlift requirements should be studied as a matter of urgency.

CRAF GUIDANCE

Since the DoD has not issued any formal policy guidance for CRAF, either in the form of a DoD Directive or a recurring guidance document, the responsibility for the development and implementation of such policy has implicitly been assigned to MAC, the CRAF operator. It is commendable that, to date, any overall CRAF policy voids have been filled by MAC. However, the CRAF program has ramifications for all of the DoD. The Assistant Secretary of Defense (Manpower, Installations and Logistics), ASD(MI&L), should evaluate the need for formal guidance to strengthen CRAF support.

CARGO AIRCRAFT NOT IN CRAF

Overnight parcel delivery services have grown rapidly in recent years, and the growth trend appears likely to continue. The cargo capacity of the additional wide-bodied aircraft expected to be acquired by those companies over the next few years would almost equal the present long-range cargo capacity of CRAF.

To date, the parcel delivery companies have committed only a small number of their aircraft to the CRAF program. The remaining aircraft operated by those companies represent a significant potential for expanding the long-range cargo capabilities of CRAF and thus reducing the deficit in total cargo air-lift capacity available to MAC. The parcel delivery companies operate primarily on domestic routes. They have not, therefore, developed capabilities comparable to those of other CRAF carriers to support overseas operations.

The DoD should assess the problems associated with bringing this additional capacity into service and assuring that adequate support for such aircraft is provided.

3. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

It is vital that CRAF operate effectively during emergencies, and to do so, the senior lodger system must perform as planned. We identified weaknesses in the senior lodger system and in other aspects of CRAF planning. We conclude that:

- The senior lodger system is a valid way to provide support to CRAF. However, it must be strengthened to reflect current concepts of operations and be given the ability to provide the full range of services needed during mobilization.
- The senior lodger arrangement in CENTCOM appears to be inadequate to support Stage III CRAF operations.
- DoD policy and guidance on CRAF support needs to be developed.
- The rapidly growing fleet of wide-bodied aircraft now being acquired by the overnight parcel delivery companies remains largely outside CRAF. The growth in this fleet is likely to continue, thereby producing a major increase in long-range cargo airlift capacity for potential use during mobilization.

RECOMMENDATIONS

LMI recommends that the ASD(MI&L) take the following steps to improve support of CRAF during mobilization.

- First Priority. Strengthen the senior lodger system. This effort should concentrate on the central region of NATO because of its strategic importance, and the results should be applied to CRAF stations and operations worldwide.
- Second Priority. The OSD should take measures to:
 - Strengthen the capability of CRAF to support CENTCOM;
 - Evaluate the need for DoD policy guidance on CRAF support; and
 - Develop plans for bringing into service and supporting the wide-bodied cargo aircraft employed by the air parcel delivery companies.

END

FILMED

9-85

DTIC