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Report to the Chairman, Subcommittee on Projection Forces and Regional Defense, Committee on Armed Services U.S. Senate

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MILITARY AIRLIFT

Changes Underway to Ensure Continued Success of Civil Reserve Air Fleet

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National Security and
International Affairs Division

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The Honorable Edward M. Kennedy
Chairman, Subcommittee on Projection Forces
and Regional Defense
Committee on Armed Services
United States Senate

Dear Mr. Chairman:

This report responds to your request that we evaluate the Civil Reserve Air Fleet (CRAF) program.[1] The CRAF program was designed to provide the Department of Defense (DOD) with access to commercial aircraft to augment military airlift during emergencies. CRAF aircraft performed a vital role in Operation Desert Shield/Storm by transporting nearly two-thirds of the soldiers and one-quarter of their associated airlifted cargo to the Middle East. Specifically, we reviewed (1) the lessons learned from the first-ever activation of CRAF from both the government's and commercial carriers' perspectives and (2) the changes to the CRAF program being considered to reflect DOD's force restructuring in response to a new world political climate.

Results in Brief

CRAF is an important, yet relatively inexpensive, component of the Air Force's airlift capability. If used fully, the CRAF program can provide over 30 percent of the Air Force's cargo airlift capability and over 90 percent of its passenger airlift capability. Because of the program, the government does not incur the large costs of acquiring and supporting a larger fleet of Air Force aircraft during peacetime. DOD pays for the airlift as it is used and at predetermined compensation rates.

CRAF played a major role in Operation Desert Shield/Storm and is expected to be a major part of DOD's airlift capability for the foreseeable future. While the CRAF's involvement in the Operation was an operational success, the carriers have identified a number of problems with the program since the activation, and some have suggested they may reduce future participation unless changes are made. The Air Force and the carriers are working to resolve many of those concerns in negotiations for the next series of CRAF contracts. The carriers believe that future CRAF activations are more likely because of the success of the first activation. Also, while

[1]We last reported on the program in Emergency Airlift: Responsiveness of the Civil Reserve Air Fleet Can Be Improved (GAO/NSIAD-86-47, Mar. 24, 1986).

the carriers are more aware of both the direct and indirect costs associated with activations, the traditional incentive for program participation—peacetime DOD business—is decreasing.

Background

The CRAF program is managed by the Air Mobility Command (AMC), formerly known as the Military Airlift Command, located at Scott Air Force Base, Illinois. AMC is a component of the U.S. Transportation Command, which has recently gained additional oversight responsibility for AMC peacetime operations, including the CRAF program.

Established in 1952, the CRAF program was designed to provide DOD with access to commercial aircraft to augment military airlift during emergencies. CRAF is composed of U.S. civil air carriers that voluntarily commit cargo and passenger aircraft—at predetermined compensation rates based on negotiations with the carriers—to support airlift requirements that exceed the capabilities of Air Force aircraft. The rewards for CRAF participation—shares of DOD's peacetime business for cargo and passenger aircraft services—are detailed in contracts with each carrier. The contracts also set the terms under which carriers commit aircraft to the program. CRAF contracts have traditionally been issued on an annual basis. Starting on January 1, 1990, however, AMC and the carriers began their first 3-year contracts. The current contract runs through December 1992.

The U.S. National Airlift Policy, dated June 24, 1987, is designed to strengthen and improve the airlift capability of DOD and, where appropriate, enhance the mobilization base of the U.S. commercial air carrier industry. Under the policy, the majority of DOD's peacetime passenger requirements and a significant portion of its cargo requirements are satisfied by procuring airlift from commercial air carriers participating in the CRAF program. DOD establishes appropriate levels for peacetime cargo airlift in order to promote the effectiveness of CRAF and provide training within the military airlift system.

AMC compensates the CRAF carriers for peacetime airlift using uniform passenger and cargo rates. These uniform rates are based on a weighted average of carrier costs plus return on investment and are updated annually based on carrier costs during the preceding year. The same rates are used to compensate carriers during an activation.

The carriers pledge aircraft to one or more of three stages. Stage I—committed expansion—is used to perform airlift services when AMC's aircraft fleet cannot meet both deployment and other traffic requirements simultaneously. Stage II—defense airlift emergency—is the airlift expansion identified for an airlift emergency not warranting national mobilization. Stage III—national emergency—is total CRAF airlift capability made available for major military emergencies.

With Secretary of Defense approval, the Commander in Chief of the U.S. Transportation Command can activate CRAF.[2] CRAF can be activated incrementally, with entire stages or portions of stages being activated, depending on the need. Carriers are obligated to provide up to four full aircrews for each aircraft committed to the program. Once activated, AMC assumes mission control, but the carriers continue to operate and support the aircraft, including the provision of fuel, spare parts, and maintenance.

The participating carriers have committed a total of 515 aircraft to 5 program segments.

- Long-range international. A total of 406 aircraft are committed to this segment, which supports AMC's global operations such as Operation Desert Shield/Storm and requires aircraft capable of extended overwater operations. This segment is considered the most crucial of the program and is the only segment covered in detail in this report. Appendix I lists the passenger and cargo carriers participating in this segment of the program as of October 1991 and the number of aircraft committed.
- Short-range international. A total of 33 aircraft are committed to this segment, which supports short-haul operations to near offshore locations, such as Central America.
- Domestic. A total of 35[3] aircraft are committed to this segment, which supports continental U.S. supply distribution systems of the Air Force and the Navy.
- Alaskan. A total of eight aircraft are committed to this segment, which supports intra-Alaskan airlift requirements.
- Aeromedical evacuation. A total of 33 aircraft are committed to this segment, which is designed for aeromedical evacuation from the various theaters.

[2]This procedure was established in February 1992. The previous procedure allowed the Commander of AMC to call up CRAF stage I.

[3]The number of aircraft in this segment was reduced to seven as of October 1, 1992, because of an Air Force Secretary decision to discontinue the Air Force airlift supply distribution system.

If all three stages of the program were activated, the long-range international segment would provide more than 50 percent of the Air Force's strategic lift capability—32 percent of the cargo capability and 93 percent of the passenger capability. As of October 1991, the participating carriers had committed 406 aircraft[4] —150 cargo and 256 passenger—for that segment. In most scenarios, however, only stages I and II are expected to be activated for a total of 114 aircraft—41 cargo and 73 passenger. Table 1 provides a breakdown of the carriers' commitment of aircraft by CRAF stage and type of aircraft.

Table 1: Long-Range International Aircraft Committed to the CRAF Program by Stage and Type of Aircraft as of October 1991

	Cargo	Passenger	Total
Stage I	23	18	**41**
Stage II	18	55	**73**
Stage III	109	183	**292**
Total[a]	150	256	**406**
Used in Operation Desert Shield/Storm[b]	31	21	**52**

[a]Aircraft in stages I and II are also included in stage III. The table above shows only the additional aircraft available at each stage.

[b]Aircraft used were based on the average number of CRAF aircraft used on a daily basis during the first 8 months of Operation Desert Shield/Storm.

The Air Force's comparable long-range airlift fleet consists of 447 aircraft, including training and backup aircraft, in its active and reserve forces—125 C-5s, 263 C-141s, and 59 KC-10s.

CRAF Experience and Lessons Learned in Operation Desert Shield/Storm

The CRAF program was activated for the first time on August 17, 1990, to provide additional airlift during Operation Desert Shield/Storm. During stage I, the carriers provided 18 passenger and 23 cargo aircraft as required by their contracts, and many carriers volunteered more aircraft than required. According to Air Force officials, some carriers simply wanted additional business. Others hoped that, by volunteering more aircraft, they could avoid activation of stage II. Nevertheless, as the need for airlift increased, stage II was activated on January 17, 1991, for cargo aircraft only. In March 1991, about half of the stage II passenger aircraft were activated to meet the increased needs for bringing the troops home

[4]As of April 1992, the total number of aircraft committed to the long-range international segment had decreased to 382, primarily due to the demise of Pan American Airlines.

from the Persian Gulf. Stage II was deactivated on May 17, 1991, and stage I was deactivated on May 24, 1991.[5]

The number of CRAF aircraft actually in use varied according to the need for airlift. During December 1990, for example, an average of 24 cargo and 12 passenger aircraft were operating on a daily basis. By February 15, 1991, stage II had been activated and 71 cargo and 33 passenger aircraft were operating daily. An average of 31 CRAF cargo and 21 CRAF passenger aircraft per day were in use during the first 8 months of the deployment. During the same period, the average number of airlift aircraft (civilian and military) used per day was 233, of which CRAF provided about 22 percent.

During the activation period, CRAF aircraft transported nearly 700,000 passengers and over 120,000 tons of cargo. According to the Air Force, CRAF aircraft transported over 64 percent of the total passengers and 25 percent of the air cargo needed for the operation. During the first 8 months of deployment, CRAF aircraft flew 22 percent of the total Operation Desert Shield/Storm airlift missions. Table 2 shows the number of missions flown by the CRAF carriers for each month of Operation Desert Shield/Storm.

Table 2: CRAF Missions in Operation Desert Shield/Storm by Month

Month	Passenger missions	Cargo missions	Combined missions	Total missions
August 1990	116	120	0	236
September	135	195	0	330
October	152	101	18	271
November	51	184	18	253
December	340	275	15	630
January 1991	274	473	18	765
February	117	645	17	779
March	316	459	18	793
April	470	314	18	802
May	368	85	18	471
June	104	1	0	105
Total	**2,443**	**2,852**	**140**	**5,435**

These statistics indicate that the carriers made major contributions to the Operation Desert Shield/Storm airlift. Both DOD officials and those in the

[5]Even though the formal CRAF program was deactivated shortly after Operation Desert Storm came to a close, some of the CRAF carriers continued to perform cargo and passenger missions to the Middle East until late 1991.

air carrier industry regarded the CRAF activation as a success. Air Force officials stated that the carriers responded promptly to the activation and played a key role in moving units, equipment, and resupply material to the Middle East, as well as bringing troops and material home after the Operation concluded. All carriers interviewed told us that the CRAF activation was generally well managed by AMC and that the program accomplished its mission with few problems. Many of the problems cited by the carriers, such as changing military requirements, overcrowded en route airports, and slow unloading of cargo, were the same as those affecting military aircraft.[6]

Costs and Benefits of the CRAF Program to the Government

The CRAF program provides the government with several important benefits. CRAF provides up to half of the nation's strategic airlift capability without the government having to purchase additional aircraft, pay personnel costs, or fly and maintain the aircraft during peacetime. The only direct outlay of funds for the program since its inception has been for the CRAF Enhancement Program. Under this program, the Air Force paid carriers for modifying passenger aircraft to make them capable of carrying military cargo. As discussed in appendix II, the Air Force has spent about $600 million on the CRAF Enhancement Program.

The only recurring cost to the government is for the peacetime DOD business—paid for at negotiated rates of compensation based on weighted-average carrier costs—awarded to the carriers as incentives for their participation in the program.[7] Excluding the amounts paid for the Operation Desert Shield/Storm airlift, the amount of annual contracts to the carriers has averaged about $508 million from fiscal years 1986 through 1992. (See table 3.)

[6]Such problems were discussed in detail in our report entitled Desert Shield/Storm: U.S. Transportation Command's Support of Operation (GAO/NSIAD-92-54, Jan. 9, 1992).

[7]According to AMC, the peacetime contracts to the carriers are normal government business, which would be awarded with or without the CRAF program. We did not review the appropriateness of the peacetime business awards.

Table 3: AMC Peacetime and Operation Desert Shield/Storm Contract Awards to CRAF Carriers

Dollars in millions

Fiscal year	Peacetime contracts	Operation Desert Shield/Storm contracts	Total contracts
1986	$425.4	$0	$425.4
1987	490.5	0	490.5
1988	524.4	0	524.4
1989	488.0	0	488.0
1990	525.2	140.1	665.3
1991	628.1	1,303.1[a]	1,931.2
1992	477.6[b]	61.3[b]	538.9[b]

[a]Amounts for equitable adjustment claims, settled or unsettled, are not included.

[b]Estimated amounts only.

The CRAF program not only ensures the availability of these cargo and passenger aircraft to DOD, but establishes the rates of compensation for their usage in advance. The use of CRAF aircraft during an activation is not free—DOD pays rates based on weighted average carrier costs—but the cost is minimal in comparison to the costs of acquiring and supporting aircraft, paying and training aircrews, and other expenses of maintaining a standby military airlift capability. AMC paid the carriers about $1.5 billion for using their aircraft during the operation. Purchasing additional military aircraft to provide similar capability would cost from $15 to $50 billion, according to Air Force officials, depending on assumptions used for aircraft replacement cost.

Activation Surfaced Carrier Concerns

Many carriers have participated in the CRAF program for years, gaining the advantage of a guaranteed share of DOD's peacetime business but never expecting an actual activation. The Operation Desert Shield/Storm activation—the first ever for the CRAF program—brought to light many issues that the carriers had not considered at length. Issues include business losses during activation, compensation for extraordinary expenses and underutilization of the aircraft, insurance language, and joint venture liability. Many carriers told us they were considering reducing future aircraft commitments unless changes were made to the CRAF program.

As a result, AMC has had difficulty drafting changes to the upcoming CRAF contracts that will satisfy all carriers' concerns. Carrier opinions on the program and changes they wish to make to the program vary substantially by type of carrier. For example, scheduled passenger carriers generally want short-term contracts, while charter carriers favor longer contracts. Scheduled passenger carriers generally believe that cargo carriers get too much DOD peacetime business, while cargo carriers believe they get too little. As a result of differences among the carriers as well as difficulties with compensation, insurance, and joint ventures, the contracting process has been delayed several times, and the current contracts have been extended by 3 months. Also, the length of the next contracts have been shortened from 3 years, as originally anticipated, to 9 months.

Business Losses During Activation

Because their air passenger business was depressed during the activation period due to the ongoing recession and public concerns about the Gulf War, some charter carriers were happy to receive additional government business through the CRAF program. Scheduled passenger carriers, however, pointed out that the activation coincided with their heavy Thanksgiving and Christmas holiday season traffic. During these times, scheduled passenger carriers had no excess aircraft for CRAF flights, though the carriers still honored CRAF commitments. One small package carrier told us its business did not decrease during the activation and the holidays are peak periods for this type of carrier as well. However, this carrier leased aircraft to maintain existing business while at the same time honoring its commitment of aircraft to the program.

Many carriers that we visited told us they lost business to either foreign competition or non-CRAF competitors during the activation. In addition, according to two cargo carriers, some of their former international customers were required to sign long-term contracts with foreign carriers in order to have their products shipped during the activation period. As a result, these customers could not immediately return after the activation ended. While some carriers complained of lost business, they were unable to quantify these losses for us, noting that it was difficult to separate losses due to CRAF activation from losses due to the generally poor economic climate that existed in the airline industry during that time.

Claims for Extraordinary Expenses

Many of the carriers that operated during Operation Desert Shield/Storm believed that DOD's compensation rates did not cover all costs incurred. Under current rules, AMC pays carriers at the normal peacetime rate during activation. However, all carriers we visited told us costs for such things as hazardous duty pay, routing delays, and establishing en route bases in

Europe were higher during the activation than during peacetime. Thus, carriers have filed claims with AMC for reimbursement of extraordinary expenses amounting to $99.1 million, or about 7 percent of the $1.5 billion cost of contracted airlift by the carriers during the activation period. Of the total claims filed, 22 claims totaling $26.3 million have been settled for $18.7 million and 10 claims totaling $72.8 million were outstanding as of September 21, 1992.

Many of the carriers we visited were concerned about the length of time taken to settle the claims, the need for extensive documentation of the claims, and the denial of some claims by AMC that they believed to be legitimate. An AMC official told us that some of the delays occurred because the contracts did not have provisions that discussed what kinds of extraordinary expenses incurred during an activation would be allowed. Delays were also caused by carriers' submitting claims with incomplete documentation. Once the claims had been received, AMC used its judgment, along with general government contracting principles, to decide if individual claims would be paid. To be as consistent as possible with the carrier claims, AMC determined the general types of claims that would be allowed and disallowed. AMC decided that costs incurred for routing delays, hazardous duty pay, insurance, security, crew relocation, and landing fees would be generally allowable. Claims for spare parts, missed backhaul[8] opportunities, and leased aircraft to maintain existing business were usually unallowable. In addition, the government would not compensate carriers for lost market share and opportunity costs.

AMC is considering paying carriers a higher compensation rate during future CRAF activations, which could reduce the number of claims for extraordinary activation expenses. While the carriers visited favored a higher rate of compensation during an activation, there was some concern within AMC that it cannot predict where the next activation will occur and what sort of extraordinary costs will be involved.

Aircraft Utilization

According to AMC officials, many carriers participating in Operation Desert Shield/Storm complained that, once activated, AMC did not fully utilize their aircraft. When the aircraft are not being used, they are not generating revenue for the carriers. In addition, the cargo carriers cited substantial delays in loading and unloading cargo, with ground times between flights often in the 5- to 7-hour range, which is also a compensation issue since

[8]Backhaul refers to the use of the aircraft's capacity during the return trip to the United States.

the aircraft earns no revenue sitting idle on the ground. Officials of one carrier told us they regard about 2 to 3 hours ground time as normal.

AMC officials have recognized both of these problems and have proposed changes to the upcoming CRAF contracts to address them. For subsequent activations, the new contracts are expected to guarantee minimum aircraft utilization of 8 hours per day and to provide for payment for ground times in excess of 3 hours due to government controllable delays such as those resulting from airport congestion or lack of adequate unloading equipment. The upcoming contracts are also expected to raise the one-way compensation rate during activations to compensate for the lack of commercial backhaul opportunities.

War Risk Insurance

Normal commercial insurance policies generally exclude coverage for air carriers operating within war zones or have specific exclusions for coverage during CRAF activation periods. Thus, commercial carriers operating CRAF flights, or volunteering flights prior to CRAF activation, must generally rely on supplemental insurance programs provided by the government. Although carriers suffered no aircraft losses during the Operation, carriers were concerned that they were flying without insurance coverage in some situations and were dissatisfied with the coverage and benefits provided under two government insurance programs—the Aviation War Risk Insurance Program and the Air Force Indemnification Program.

The Aviation War Risk Insurance Program insures aircraft that provide international commercial air service essential to the United States if commercial insurance is unavailable on reasonable terms and conditions. This insurance program is incorporated in title XIII of the Federal Aviation Act of 1958 and is administered by the Federal Aviation Administration. This program generally covers losses for war, capture, seizure, nuclear detonation, hijacking, strikes, and vandalism.

The Air Force Indemnification Program, authorized under Public Law 85-804, as amended,[9] covers war risks during a CRAF activation that are not covered by title XIII insurance. However, there is no separate insurance fund available for claims resolution as there is under the title XIII program. Therefore, if a carrier files a claim for indemnification and insufficient

[9]50 U.S.C., sections 1431-1435 (1988); Executive Order No. 10789, 23 Fed. Reg. 8897 (1958), as amended.

funds are available for settling the claim, DOD would need to request additional funding from the Congress to reimburse the carrier.

Carriers experienced difficulties obtaining title XIII insurance prior to official CRAF activation and often had to obtain title XIII insurance on a flight by flight basis. As a result, carriers were launching some flights before insurance commitments were completed. Therefore, some carriers, unwilling to assume risks associated with lack of insurance, reduced the number of volunteer aircraft made available to AMC. Once CRAF was formally activated, insurance became available to all participants.

Carriers were also concerned about gaps in coverage for the domestic leg of a CRAF mission, which is the trip from wherever the aircraft is located to the passenger or cargo on-load point to begin the mission. According to Air Force officials, the commercial insurers and the Aviation War Risk Program would not cover the domestic leg, and there was no guarantee that the indemnification program would cover the domestic leg in all cases.

Legislation to reauthorize title XIII through September 30, 1997, was approved and signed into law in November 1992. Under the new law, insurance coverage was expanded to include the domestic leg of CRAF missions.

In addition, the Secretary of the Air Force did not approve the implementation of the indemnification program until CRAF activation on August 17, 1990, which again caused carriers that were voluntarily supporting AMC before CRAF activation to be occasionally without insurance coverage while flying Operation Desert Shield/Storm missions. Because unusually hazardous risks were not defined in the indemnification program, there could be gaps in coverage for some potential losses. Carriers were also concerned with the potential length of time that would be involved in receiving a settlement under the indemnification program if an aircraft is lost, and the Air Force has to request additional funding to reimburse for the loss.

To quickly respond to emergency situations, AMC has proposed changes that would permit implementation of the indemnification program prior to the Secretary of the Defense's approval of the CRAF activation. AMC has also identified specific risks covered by the indemnification program and has included a definition of unusually hazardous risks in the upcoming CRAF contracts.

Joint Ventures

Because AMC's greatest need in the CRAF program is for cargo aircraft, AMC provides greater rights to peacetime business to carriers that commit cargo aircraft to the program. As a result, a few cargo carriers have the rights to a large share of DOD's peacetime business. However, DOD's peacetime business is primarily for passenger aircraft services. To balance available business with the DOD commitments, the air carrier industry developed a system in which the cargo carriers with the rights to the DOD peacetime business team up with one or more passenger carriers. The cargo carriers sell their rights to DOD's peacetime passenger business to passenger carriers that are willing and capable of providing the business.

According to Air Force officials, many of the carriers have participated in these "joint ventures" since the early 1980s, and the system has worked well for both the government and the carriers. Joint ventures allow the government to transfer additional compensation to the joint venture leaders as a premium for their valuable cargo aircraft while not providing any direct subsidies. The passenger carriers in the joint ventures get larger shares of government business than they would otherwise be entitled to.

While this arrangement worked well in peacetime, problems arose when carriers submitted their extraordinary expense claims for Operation Desert Shield/Storm to AMC. The Air Force initially asserted that all members of a joint venture must certify the claims of the other carriers in that venture. The carriers objected, not wishing to share confidential cost information with their competitors. Adding to the carriers' concerns about joint ventures, one carrier in a joint venture went out of business owing about $600,000 to the government. The government asserted that, under standard definitions of a joint venture, all members of the joint venture are liable for the debts of any of the other members in the venture.

AMC subsequently clarified contract provisions regarding joint ventures, noting that the purpose of these arrangements had never been to hold members liable for each other's debts. AMC and the carriers agreed to change the term joint venture in the upcoming contracts to "contractor team arrangement."

CRAF Program Changes to Meet Future Threat Scenarios

In light of changes in the world situation and reduced resources devoted to the national defense, DOD is moving to a smaller military force. The national security strategy depends heavily on the ability of the United States to transport personnel and material in times of national emergency. CRAF is a key component of the U.S. airlift transportation capability.

Negotiations for the next CRAF contracts are underway, and preliminary indications from the Air Force are that the number of aircraft volunteered for the long-range international segment of the program will at least meet, if not exceed, most of DOD's requirements.

To address the changing world situation, AMC is proposing to change the number of aircraft for the program. Under the current contracts, the number of aircraft needed in each stage of the program was based upon airlift needs in a European-type war scenario. In the solicitation for the next contracts, AMC has increased the preliminary number of available cargo aircraft to both stages I and II and the number of passenger aircraft to stage I. For stage I, the number of aircraft will increase from the current 23 cargo and 18 passenger aircraft to 30 aircraft of each type. For stage II, the number of additional cargo aircraft will increase from the current 18 to 45 aircraft, but the number of additional passenger aircraft for stage II will decrease from 55 to 45. Air Force officials told us they want the additional aircraft in the most readily accessible, early stages of CRAF. These officials believe this change would more readily accommodate the future threat scenario, which they see as another Operation Desert Shield/Storm type operation, but with a shorter time frame.

AMC Considering Additional Incentives to Offset Declining Peacetime Business

In addition to possessing better knowledge about the direct and indirect costs of the program and the risks of future activation, the carriers realize that DOD peacetime business will decrease in the future as the military gets smaller and the need for peacetime airlift is reduced as a result. While activation risks are now more evident to carriers, the traditional incentives for program participation are decreasing. According to AMC projections, DOD peacetime business, the traditional incentive for carriers to participate in the CRAF program, is expected to decrease. Table 4 shows AMC's projections of its peacetime business through fiscal year 1995.

Table 4: Projected AMC Peacetime Contract Awards Through Fiscal Year 1995

Dollars in million

Fiscal year	Total contracts
1993	$439.2
1994	420.6
1995	425.0

To address the problem of decreasing peacetime incentives, AMC has proposed making the award of additional DOD and other governmental airlift business contingent on some form of commitment to the CRAF program. For example, DOD currently makes significant expenditures in both passenger and cargo businesses through the General Services Administration and the Military Traffic Management Command. AMC has suggested that the government require carriers wishing to participate in any of this expanded base of government business to commit a certain portion of their fleet to the CRAF program.

Agency Comments and Our Evaluation

DOD concurred with all of our findings and conclusions. DOD's comments on a draft of this report are in appendix III.

Scope and Methodology

We conducted our review primarily at AMC, Scott Air Force Base, Illinois. We interviewed various officials at AMC Headquarters and reviewed pertinent regulations, guidance, various reports, and studies pertaining to the CRAF program. We also reviewed AMC-developed information based on contacts with commercial carriers related to the issues discussed in the report. In addition, we discussed the CRAF program with U.S. Transportation Command officials.

We also conducted detailed interviews with 6 of 24 CRAF carriers that participated in Operation Desert Shield/Storm. The six carriers visited were United Air Lines, Northwest Airlines, Evergreen International Airlines, American Trans Air, Federal Express, and United Parcel Service, and they performed nearly 50 percent of the total CRAF missions during the operation. These carriers also represented different segments of the carrier industry: two scheduled passenger carriers, two small package carriers, a charter passenger carrier, and a charter cargo carrier. Although we discussed DOD's projected business reductions for the next several years, we did not review the need for DOD's peacetime business with the commercial carriers.

We conducted our review from June 1991 through September 1992 in accordance with generally accepted government auditing standards.

We are sending copies of this report to the Secretaries of Defense and the Air Force, the Director of the Office of Management and Budget, and other interested congressional committees. Copies will be made available to others upon request.

Please contact me at (202) 275-4268 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix IV.

Sincerely yours,

Nancy R. Kingsbury

Nancy R. Kingsbury
Director
Air Force Issues

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Abbreviations

AMC	Air Mobility Command
CRAF	Civil Reserve Air Fleet
DOD	Department of Defense

Long-Range Aircraft Committed to the CRAF Program as of October 1991

Cargo Aircraft

Cargo carriers	Stage I	Stage II	Stage III	Total
Air Transport International	1	1	2	4
Arrow Air	1	0	5	6
Buffalo Air	0	0	3	3
Connie Kalitta	1	1	6	8
Emery/Rosenbaum	4	3	15	22
Evergreen	2	1	11	14
Federal Express	7	4	20	31
Florida West	0	0	4	4
Northwest	2	1	5	8
Pan American	0	1	11	12
Southern Air	1	0	5	6
United Parcel	3	4	12	19
World	1	2	6	9
Transcontinental	0	0	1	1
Flagship Express	0	0	3	3
Total	**23**	**18**	**109**	**150**

Passenger Aircraft

Passenger carriers	Stage I	Stage II	Stage III
America West	0	0	3 3
Continental	2	4	17 23
Delta	0	0	4 4
Hawaiian	0	0	12 12
Sun Country	0	0	0 0
Trans World	2	10	17 29
United	4	17	38 59
Federal Express	0	0	1 1
Northwest	3	11	38 52
Pan American	3	3	32 38
Tower	1	0	3 4
American	2	6	4 12
World	0	1	1 2
American Trans Air	1	2	7 10
Evergreen	0	1	4 5
Rich International	0	0	2 2
Total	**18**	**55**	**183 256**

Civil Reserve Air Fleet Enhancement Program

The Civil Reserve Air Fleet (CRAF) Enhancement Program was authorized by Public Law 97-86, dated December 1, 1981. The program was designed to encourage air carriers to add cargo convertible features to their wide-body passenger aircraft to alleviate shortfalls in military cargo airlift capability. Under the program, the Department of Defense pays for modifications to increase a passenger aircraft's ability to carry the bulky and oversize cargo needed in war by installation of a cargo floor that is substantially stronger than the conventional floor. Other modifications include a cargo door and a roller and rail system to accommodate standard military cargo configurations. Participating carriers must commit their aircraft to the CRAF program for 12 to 16 years.

The Air Force awarded the first contract under the program to United Airlines to modify one DC-10 at a cost of $15.8 million for delivery in 1982. The Air Force awarded a second contract in 1983 to Pan American Airlines to modify 19 B-747 passenger aircraft to a cargo convertible configuration. The modifications were completed in February 1990 at a cost of $563 million. From 1986 to 1990, the Air Force awarded three additional contracts for a total of four aircraft at a cost of about $19 million. In 1989, the Congress expanded the CRAF Enhancement Program to allow incorporation of various defense features in addition to passenger-to-cargo conversion, which would make civilian aircraft more militarily useful. However, there have been no contract awards since that time.

With 18 of the 23 CRAF enhanced aircraft in the Pan American Airlines fleet,[1] the program was dealt a major blow when the airline declared bankruptcy in January 1991 and subsequently went out of business. Five of the 18 Pan Am aircraft are now owned by Evergreen Airlines, and they remain in the CRAF program. The remaining 13 aircraft are owned by various leasing agencies and are not currently in the CRAF program. The Air Mobility Command (AMC) is negotiating with the leasing companies to get these aircraft back into the hands of carriers and back into the CRAF program. AMC officials expect to regain one of these aircraft for the CRAF program in fiscal year 1993. The government has filed nearly $400 million in claims against Pan Am in bankruptcy court in an attempt to recover the modification costs for these aircraft. In addition, when Delta acquired some of Pan Am's former assets, Air Force officials stated that Delta agreed to commit 42 aircraft to the CRAF program to partially compensate the government for its loss.

[1]One of the CRAF enhanced aircraft in Pan Am's fleet crashed in Scotland in 1989.

Comments From the Department of Defense

PRODUCTION AND LOGISTICS

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-8000

December 15, 1992

Mr. Frank C. Conahan
Assistant Comptroller General
National Security and
International Affairs Division
U.S. General Accounting Office
Washington, DC 20548

Dear Mr. Conahan:

This is the Department of Defense (DoD) response to the General Accounting Office (GAO) draft report, "MILITARY AIRLIFT: Changes Underway to Ensure Continued Success of Civil Reserve Air Fleet," dated October 27, 1992 (GAO Code 392635), OSD Case 9249. The Department concurs with the GAO findings and recommendations and finds the subject report to be exceptionally well done.

The detailed DoD comments on the draft report are provided in the enclosure. In addition, the DoD separately provided technical changes to the draft for accuracy and clarification purposes. The Department appreciates the opportunity to comment on the draft report.

Sincerely,

David J. Berteau

David J. Berteau
Principal Deputy

Enclosure

GAO DRAFT REPORT - DATED OCTOBER 27, 1992
(GAO CODE 392635) OSD CASE 9249

"MILITARY AIRLIFT: CHANGES UNDERWAY TO ENSURE CONTINUED SUCCESS OF CIVIL RESERVE AIR FLEET"

FINDINGS TO BE ADDRESSED IN
THE DOD RESPONSE TO THE GAO DRAFT REPORT

DEPARTMENT OF DEFENSE COMMENTS

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FINDINGS

- FINDING A: Mission of the Civil Reserve Air Fleet. The GAO reported that the Civil Reserve Air Fleet program is managed by the Air Mobility Command--a component of the U.S. Transportation Command. The GAO explained the Civil Reserve Air Fleet is composed of U.S. civil air carriers that voluntarily commit cargo and passenger aircraft to support airlift requirements that exceed the capabilities of Air Force aircraft--at predetermined compensation rates based on negotiations with the carriers. The GAO indicated that the carriers pledge aircraft to one or more of three stages--i.e., Stage I - committed expansion; Stage II - defense airlift emergency; and Stage III - national emergency. The GAO observed that the Air Mobility Commander can call up Stage I aircraft on 24-hour notice, and the Secretary of Defense can activate Stages II and III.

  The GAO found that participating carriers have committed a total of 515 aircraft to five program segments--(1) long range international, (2) short range international, (3) domestic, (4) Alaskan, and (5) aeromedical evacuation. The GAO explained that, if all three stages were activated (i.e., I, II and III), the long range international segment would provide more than 50 percent of the Air Force strategic lift capability--32 percent of the cargo capability and 93 percent of the passenger capability. The GAO also observed that, as of October 1991, the participating carriers had committed 406 aircraft--150 cargo and 256 passenger--for the long range international segment. The GAO further indicated, however, that in most scenarios, only Stages I and II are expected to be activated, for a total of 114 aircraft. The GAO also noted that the Air Force comparable long range airlift fleet consists of 450 aircraft (including Reserves). (pp. 2-6/GAO Draft Report)

  Now on pp. 2-4.

  DOD COMMENTS: Concur. As a result of the February 14, 1992, Secretary of Defense memorandum, "Strengthening Department of Defense Transportation Functions," activation of any and all stages of the Civil Reserve Air Fleet is vested in the Commander-in-Chief, U.S. Transportation Command, with approval of the Secretary of Defense. The correct Air Force strategic long-range airlift fleet size should be 449 aircraft including Reserves.

1 Enclosure

- **FINDING B**: **Civil Reserve Air Fleet Experience and Lessons Learned in Operation Desert Shield/Storm**. The GAO reported that the Civil Reserve Air Fleet was activated for the first time on August 17, 1990, to provide additional airlift during Operation DESERT SHIELD/DESERT STORM. The GAO observed that, during Stage I, the carriers provided 18 passenger and 23 cargo aircraft as required by their contracts, and that many carriers volunteered more aircraft than required, hoping to avoid activation of Stage II. The GAO found, however, that as the need for airlift increased, Stage II was activated on January 17, 1991, for cargo aircraft; and in March 1991, about one-half of the passenger aircraft were activated to bring the troops home from the Persian Gulf. The GAO also observed that Stage II was deactivated on May 17, 1991, and that Stage I was deactivated on May 24, 1991.

  The GAO found that the number of Civil Reserve Air Fleet aircraft actually used varied according to the need for airlift. For example, the GAO observed that, during December 1990, an average of 24 cargo and 12 passenger aircraft were operating on a daily basis; whereas, by February 15, 1991, after Stage II had been activated, 71 cargo and 33 passenger aircraft were operating daily. The GAO also reported that, during the activation period, the Civil Reserve Air Fleet aircraft transported nearly 700,000 passengers and over 120,000 tons of cargo, or about 64 percent of the total passengers and 25 percent of the air cargo needed for the Operation.

  The GAO concluded that the Civil Reserve Air Fleet carriers made major contributions during Operation DESERT SHIELD/DESERT STORM, and that both the air carrier industry and the DoD regarded the Civil Reserve Air Fleet activation as a success. The GAO observed that the carriers responded promptly to the activation and played a key role in moving units, equipment, and resupply material to the Middle East, as well as bringing troops and material home after the Operation concluded. The GAO also reported that, according to the carriers--(1) the Civil Reserve Air Fleet activation was generally well managed by the Air Mobility Command, and (2) the program accomplished its mission with few problems. (pp. 6-9/GAO Draft Report)

  Now on pp. 4-6.

  DOD COMMENTS: Concur.

- **FINDING C**: **Costs and Benefits of the Civil Reserve Air Fleet Program to the Government**. The GAO observed that the Civil Reserve Air Fleet provides up to half of the nation's strategic airlift capability, without the Government having to purchase additional aircraft, pay personnel costs, or fly and maintain the aircraft during peacetime. The GAO observed that the only direct outlay of funds for the program, since its inception, has been the Civil Reserve Air Fleet Enhancement Program, under which the Air Mobility Command paid carriers for modifying passenger aircraft to make them capable of carrying military cargo. The GAO also found that the only recurring cost to the Government is for the peacetime DoD business--paid for at negotiated rates of compensation based on weighted-average carrier costs--awarded to the Civil Reserve Air

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Fleet carriers as incentives for their participation in the program. The GAO observed that the annual contracts have averaged about $508 million from FY 1986 through FY 1992. The GAO also observed that the Air Mobility Command paid the carriers about $1.5 billion for using their aircraft during Operation DESERT STORM, but purchasing additional military aircraft to provide similar capability would cost from $15 to $50 billion, depending on the assumptions used for aircraft replacement costs. (pp. 9-10/GAO Draft Report)

Now on pp. 6-7.

DOD COMMENTS: Concur. For purpose of accuracy, the funding for the Civil Reserve Air Fleet enhancement program was planned and budgeted for by the Air Force, not the Air Mobility Command.

- **FINDING D**: **Activation Surfaced Carrier Concerns**. The GAO reported that the Civil Reserve Air Fleet activation brought to light many issues that the carriers had not considered at length, such as business losses during activation, compensation for extraordinary expenses and under utilization of the aircraft, insurance language, and joint venture liability. The GAO concluded that, as a result, the Air Mobility Command has had difficulty drafting changes to the upcoming Civil Reserve Air Fleet contracts that will satisfy all the concerns of all carriers. For example, the GAO observed that scheduled passenger carriers generally want short-term contracts, while charter carriers favor longer contracts. The GAO also observed that scheduled passenger carriers generally believe that cargo carriers get too much DoD peacetime business, while cargo carriers believe they get too little. The GAO found that, as a result of differences among the carriers, the contracting process has been delayed several times and the current contract has been extended by 3 months. Also, the GAO noted that the length of the next contract has been shortened from 3 years, as originally anticipated, to 9 months. (p. 11/GAO Draft Report)

Now on pp. 7-8.

DOD COMMENTS: Concur.

- **FINDING E**: **Business Losses During Activation**. The GAO reported that, because air passenger business was depressed during the activation period, some charter carriers were happy to receive additional Government business through the Civil Reserve Air Fleet program. The GAO also reported, however, that passenger carriers pointed out the activation coincided with their heavy Thanksgiving and Christmas holiday season traffic, and that they had no excess aircraft for Civil Reserve Air Fleet flights, though the carriers still honored their commitments. The GAO also observed that one small-package carrier leased aircraft to maintain existing business, while honoring its commitment to the program.

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The GAO also found that many carriers lost business to either foreign competition or non-Civil Reserve Air Fleet competitors during the activation, and that some of their former international customers were required to sign long-term contracts with foreign carriers to have their products shipped during the activation period. The GAO concluded, however, that although some carriers complained of lost business, they were unable to quantify the losses, noting that it was difficult to separate losses due to the activation from losses due to the generally poor economic climate. (pp. 11-12/GAO Draft Report)

Now on p. 8.

DOD COMMENTS: Concur.

- **FINDING F**: Claims for Extraordinary Expenses. The GAO reported that many carriers believed the DoD compensation rates did not cover all costs incurred. Thus, the GAO found that carriers have filed claims with the Air Mobility Command for reimbursement of extraordinary expenses amounting to $99.1 million, or about 7 percent of the $1.5 billion cost of contracted airlift by the Civil Reserve Air Fleet carriers during the activation period. The GAO observed that, of the total claims filed, 22 claims (totaling $26.3 million) have been settled for $18.7 million, and 10 claims (totaling $72.8 million) were outstanding as of September 21, 1992.

The GAO also reported that carriers were concerned about the length of time it has taken to settle the claims, and the denial of some claims they believed to be legitimate. The GAO observed, however, that some of the delays occurred because (1) the contracts did not have provisions for extraordinary expenses incurred during an activation, and (2) the carriers submitted claims with incomplete documentation. The GAO noted that the Air Mobility Command is considering paying the carriers a higher compensation rate during future Civil Reserve Air Fleet activations, which could preclude the extraordinary expense claims. The GAO noted that, although the carriers favored a higher rate of compensation, there was some concern at the Air Mobility Command that it cannot predict where the next activation will occur--or what sort of extraordinary costs would be involved. (pp. 12-14/GAO Draft Report)

Now on pp. 8-9.

DOD COMMENTS: Concur.

- **FINDING G**: The Air Mobility Command Did Not Fully Utilize the Carrier Aircraft. The GAO reported that, because the Air Mobility Command did not fully utilize the carrier aircraft once they were activated, and because there were substantial delays in loading and unloading cargo, which resulted in extensive ground time between 5 and 7 hours, the carriers complained that the aircraft did not generate sufficient revenue. The GAO found that the Air Mobility Command has recognized both of the problems and has proposed changes to the upcoming Civil Reserve Air Fleet contract to address them, such as (1) guaranteeing minimum aircraft utilization of 8 hours per day, and (2) provide payment for ground times in excess of 3 hours, due to Government-controllable delays.

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The GAO also observed that the upcoming contract is expected to raise the one-way compensation rate during activations to compensate for the lack of commercial back-haul opportunities. (p. 14/GAO Draft Report)

Now on pp. 9-10.

DOD COMMENTS: Concur.

- **FINDING H**: **War Risk Insurance**. The GAO reported that normal commercial insurance policies generally exclude coverage for air carriers operating within war zones, or have specific exclusions for coverage during Civil Reserve Air Fleet activation periods. The GAO indicated that, thus, commercial carriers must generally rely on supplemental insurance programs provided by the Government. The GAO noted that, although the carriers suffered no aircraft losses during the Operation, they were concerned about flying without insurance coverage in some situations, and were dissatisfied with the coverage and benefits provided under the Aviation War Risk Insurance Program and the Air Force Indemnification Program. The GAO explained that the Aviation War Risk Insurance Program is incorporated in Title XIII of the Federal Aviation Act of 1958 and is administered by the Federal Aviation Administration, while the Air Force Indemnification Program covers war risks during Civil Reserve Air Fleet activation that are not covered by Title XIII insurance. The GAO also pointed out that there is no separate insurance fund available for claims resolution under the Air Force program as there is under the Title XIII program. The GAO indicated, therefore, that if a carrier files a claim for indemnification and insufficient funds are available for settling the claim, the DoD would need to request additional funding from the Congress to reimburse the carrier.

The GAO also found that carriers experienced difficulties obtaining Title XIII insurance prior to official activation, and often had to obtain insurance on a flight-by-flight basis. The GAO further found that the carriers were concerned about gaps in coverage for the domestic leg of a mission, which is the trip from wherever the aircraft is located to the passenger or cargo on-load point to begin the mission. The GAO observed that Title XIII expired on September 30, 1992, and that legislation awaiting passage by the Senate, will expand insurance coverage to include the domestic leg. The GAO also observed that the Air Mobility Command has proposed changing the Indemnification Program to allow the activation of the Civil Reserve Air Fleet program, without the Secretary of Air Force approval, in order to respond quickly to emergency situations. The GAO noted that, in addition, the Air Mobility Command has identified specific risks covered by the Indemnification Program and has included a definition of unusually hazardous risks in the upcoming Civil Reserve Air Fleet contract. (pp. 15-17/GAO Draft Report)

Now on pp. 10-11.

DOD COMMENTS: Concur. Legislation to reauthorize Title XIII through September 30, 1997, was passed by Congress and signed by the President in early November 1992, retroactive to October 1, 1992.

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- **FINDING I**: Civil Reserve Air Fleet Program Changes to Meet Future Threat Scenarios. The GAO reported that, in light of changes in the world situation and reduced resources devoted to national defense, the DoD is moving to a smaller military force. The GAO observed that the Civil Reserve Air Fleet is a key component of the U.S. airlift transportation capability and, accordingly, the Air Mobility Command is proposing to change the number of aircraft needed in Stages I and II of the program in the next contract. For example, the GAO found that Stage I will increase from 23 cargo and 18 passenger aircraft to 30 aircraft of each type, and Stage II will increase from 18 to 45 cargo aircraft, but the passenger aircraft will decrease from 55 to 45.

  The GAO also found that the Air Mobility Command is considering additional incentives to offset declining peacetime business. The GAO noted that, while activation risks are now more evident to carriers, the traditional incentives for program participation are decreasing. The GAO observed that the Air Mobility Command has proposed making the award of additional DoD and other Governmental airlift business contingent on some form of commitment to the Civil Reserve Air Fleet program. For example, the GAO indicated that the DoD currently makes significant expenditures in both passenger and cargo business through the General Services Administration and the Military Traffic Management Command. The GAO also observed that the Air Mobility Command suggested that the Government require carriers, desiring to participate in Government business, to commit a certain portion of their fleet to the Civil Reserve Air Fleet program. (pp. 18-20/GAO Draft Report)

  Now on pp. 12-13.

  DOD COMMENTS: Concur. The proposed changes in number of aircraft needed in Stages I and II of the program by Air Mobility Command are preliminary in the current contract solicitation and are subject to change.

- **FINDING J**: Civil Reserve Air Fleet Enhancement Program. The GAO reported that the Civil Reserve Air Fleet Enhancement Program was designed to encourage air carriers to add cargo-convertible features to their wide-body passenger aircraft, in order to alleviate shortfalls in military cargo airlift capability. The GAO explained that, under the program, the DoD pays for modifications to increase the ability of a passenger aircraft to carry the bulky and oversize cargo needed in war. The GAO noted that participants must commit their aircraft to the Civil Reserve Air Fleet program for 12 to 16 years.

  The GAO observed that the Air Force awarded the first contract to United Airlines to modify one DC-10 at a cost of $15.8 million for delivery in 1982, and a second contract to Pan American Airlines in 1983 to modify 19 B-747 passenger aircraft, at a cost of $563 million. The GAO also observed that the Air Force awarded three additional contracts, between 1986 and 1990, for a total of four aircraft, at a cost of about $19 million but there have been no contract awards since 1990. The GAO found that, with 18 of the 23 enhanced aircraft in the Pan American Airlines fleet, the program was dealt a major blow when the airline declared bankruptcy in January 1991, and subsequently went out of business. The GAO also observed that five of the 18 Pan American aircraft are

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now owned by Evergreen Airlines and remain in the program, and the remaining 13 aircraft are owned by various leasing agencies and are not in the program. The GAO noted, however, that the Air Mobility Command is negotiating with the leasing agencies to get the aircraft back, and that the Government has filed nearly $400 million in claims against Pan American in bankruptcy courts--in an attempt to recover the modification costs for the aircraft. The GAO also indicated that Delta Airlines agreed to commit 42 aircraft to the Civil Reserve Air Fleet program for partial compensation to compensate the Government for its loss. (pp. 25-26/GAO Draft Report)

Now on p. 19.

DOD COMMENTS: Concur.

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RECOMMENDATIONS

- **NONE**

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