

AIR WAR COLLEGE

AIR UNIVERSITY

IMPACT OF FOREIGN OWNERSHIP
ON THE
CIVIL RESERVE AIR FLEET

by

Donald M. Schauber Jr., Lt Col, USAF

A Research Report Submitted to the Faculty
In Partial Fulfillment of the Graduation Requirements

15 February 2008

[Cleared for public release 2/25/2008; AU 08-004]

DISCLAIMER

The views expressed in this academic research paper are those of the author and do not reflect the official policy or position of the US government or the Department of Defense. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

CONTENTS

	Page
Certificate.....	2
Contents.....	3
Illustrations.....	4
Abstract.....	5
Introduction.....	6
CRAF Overview.....	8
CRAF Basics.....	8
Criticality of CRAF.....	9
Specific CRAF Requirements and Restrictions.....	12
Foreign Ownership and CRAF.....	13
Foreign Ownership Background.....	13
National Security Concerns with Foreign Ownership.....	15
Foreign Ownership Options and Recommendations.....	21
Conclusion.....	27
Appendix A.....	29
Bibliography.....	30

ILLUSTRATIONS

	Page
Figure 1. May 2007 Civil Reserve Air Fleet Aircraft Numbers by Segment.....	9
Figure 2. SA-7 Damage to DHL Airbus 300, 22 Nov 2007.....	18

ABSTRACT

Since the beginning of manned flight, the movement of men and equipment by air has been critical to our nation's national security. This realization led to the establishment of the Civil Reserve Air Fleet (CRAF) in 1951 to augment the nation's military airlift fleet in times of national emergency. In the fifty-six years following its inception, CRAF has proven itself numerous times as a critical enabler to our military strategy. Recent changes within the military and trends towards a globalized economy have the Department of Defense (DOD) and U.S. airlines on diverging paths. The purpose of this paper is to examine these changes and their possible impact on our national security. Following a basic overview outlining CRAF and its criticality, the paper will examine the conflict of interest between our national economy and our national security regarding the push to liberalize airline ownership and control. The paper will conclude by examining some possible options and recommendations that may help address the concerns so as to ensure the CRAF program remains a viable and integral part of our military capability.

“We have learned and must not forget that, from now on, air transport is an essential of airpower, in fact, of all national power” – Hap Arnold¹

INTRODUCTION

The 2004 U.S. National Military Strategy is based on continued U.S. engagement and leadership abroad and calls for “rapidly deployable, employable, and sustainable” forces that can defeat a wide range of adversaries.”² Currently, two sources of strategic airlift, the Civil Reserve Air Fleet (CRAF) and the organic (military) fleet, are critical enablers in meeting this strategy. The CRAF was developed to supplement organic airlift with civil passenger, cargo, and aeromedical capabilities during times of national emergency. The latest planning factors state that the Department of Defense (DOD) relies on approximately one-third of its wartime airlift requirements to be handled by the CRAF.³ Most recently, the long-range passenger segment of CRAF was activated for Operation IRAQI FREEDOM (OIF), reinforcing DOD’s reliance on CRAF and its impact on national security.

As the United States remains the dominate nation in a world that continues to “globalize”, many dramatic changes are occurring within the DOD and the U.S. commercial air carrier industry. The DOD continues to deal with shrinking budgets, downsizing, decreasing overseas infrastructure and an increased ops tempo for manpower and equipment. The commercial air carriers also face economic uncertainty as they struggle to recover from the aftermath of 9/11 and the current skyrocketing fuel prices. These concerns coupled with a national and military strategy based on global engagement and an increasingly interdependent global community continues to make the DOD increasingly dependent on CRAF assets. At the same time globalization and international financial interdependence have sparked a push for U.S.

air carriers to seek new partnerships, markets, and sources of financial capital from foreign investors. This combination of globalization, economic pressure, and military change could easily disrupt the delicate balance that currently exists between the DOD and CRAF participants.

Recently the Department of Transportation (DOT), with the backing of the President and members of the European Union (EU), proposed new legislation to amend restrictions that limit foreign investor's ability to obtain and exercise control over U.S. commercial air carriers. While there is little argument that there are foreseeable economic benefits in allowing increased foreign investment, the issue remains that many of those who advocate relaxing foreign ownership restrictions are doing so from a strictly economic standpoint. This shortsightedness is dangerous and could place our nation's economic stability at odds with our military security. This paper contends that changes to allow increased foreign ownership and or control of U.S. commercial air carriers would threaten our national security strategy by impacting the military's availability to CRAF assets.

The paper will start with a brief background of the CRAF program, discuss some current laws and requirements for CRAF, and then transition to the issues and concerns of foreign ownership of U.S. air carriers. Finally, the paper will conclude by examining possible recommendations and options that provide the DOD continued CRAF support while at the same time allowing increased foreign ownership and control opportunities.

The scope of this paper is to present a brief overview of the CRAF/foreign ownership issue in hopes of providing a single source primer to help others better understand what I consider the most critical threat to our strategic mobility and the well-being of the CRAF program since its inception.

CRAF OVERVIEW

CRAF Basics

Our nation's reliance on civilian airlift can be traced back to WWII when commercial carriers voluntarily transported soldiers into the European Theatre. Recognizing our strategic need and dependence on supplemental airlift, President Truman issued an executive order in 1951 that established the CRAF specifically designed to augment military airlift during times of national emergency. Under the CRAF program, U.S. air carriers voluntarily enter into agreements that contractually commit them to supply aircraft in support of DOD airlift requirements in times of national emergency in return for peacetime business.⁴

Since its beginning, the program has maintained 100 percent enrollment, with 34 carriers and 1,364 aircraft enrolled as of May 2007.⁵ Enrollment in the program entitles the air carriers a share of the DOD's yearly passenger and cargo airlift contracts. The guaranteed contracts available for 2007 totaled over \$379 million with Air Mobility Command (AMC) estimating the possibility of an additional \$2.1 billion in "non-guaranteed" contracts that are necessary to fulfill unscheduled transportation requirements.⁶ Along with enrollment, the air carrier is placed under the oversight of AMC who performs semi-annual reviews and inspections of a carrier's safety, maintenance, financial, and contractual performance.⁷

CRAF is divided into three segments depending on carriers capabilities and assets: National (subdivided into domestic and Alaskan), International (subdivided into short-range and long-range), and Aeromedical Evacuation. The National section was specifically designed to provide the DOD with airlift primarily within the United States and more specifically to Alaska.⁸ The International section was designed to augment our C-5 and C-17 fleet in providing transoceanic capabilities (long-range) and "near offshore" capabilities.⁹ The Aeromedical

evacuation section consists of Boeing 767 aircraft that are converted to air ambulances to transfer wounded.¹⁰

Once an air carrier is registered into one of these segments, they are subject to activation in one of three progressive and tailored stages depending on the level of crisis. Stage I (Committed Expansion) is designed for small, regional conflicts; Stage II (Defense Airlift Emergency) is tailored for a major regional conflict; and Stage III (National Emergency) is utilized during a declaration of national emergency.¹¹ Following approval from the Secretary of Defense, activation for all three stages of CRAF fall under the authority of the commander, U.S. Transportation Command (USTRANSCOM) where the activation is tailored to the specific requirements as requested by AMC. Figure 1 below illustrates how the CRAF is divided into segments with an astonishing total of 1,364 aircraft.¹² (See Appendix A for additional details on CRAF carriers, aircraft type, and numbers)

CUMULATIVE NUMBER OF CRAF AIRCRAFT BY SEGMENT		
SEGMENT		
NATIONAL	DOMESTIC	37
	ALASKAN	4
INTERNATIONAL	SHORT-RANGE	283
	LONG-RANGE	990
AEROMEDICAL EVACUATION		50
TOTAL		1,364

Figure 1. May 2007 CRAF Aircraft Numbers by Segment¹³

Criticality of CRAF

Although formal activation of the CRAF has only occurred twice, it has been an integral force multiplier in every major U.S. conflict since its inception.¹⁴ Besides WWII, as mentioned above, CRAF voluntarily moved 67 percent of all passengers and 56 percent of our cargo requirements during the Korean War.¹⁵ Following Korea, CRAF again voluntarily stepped in

during the Vietnam War and transported over eleven million soldiers and over a million tons of cargo.¹⁶

It was not until the early 1990's that the CRAF was formally activated. The first activation was during Operation(s) DESERT SHIELD/DESERT STORM (DS/DS) where both Stage I and Stage II were activated. To highlight the capabilities of CRAF during DS/DS, the activated CRAF aircraft accounted for 67 percent of the passengers and 25 percent of the cargo during the deployment phase and 85 percent of the passengers and 42 percent of the cargo for the re-deployment phase.¹⁷ Viewed in a historical perspective, the airlift in DS/DS was equivalent to repeating the Berlin Airlift, a 56-week operation, every five weeks.¹⁸ The most recent activation occurred for OIF from 8 February 2003-18 June 2003. A selective group of 51 Stage I aircraft were activated that flew 1,625 missions and accounted for the transportation of 254,143 passengers, or 78 percent of the deploying troops and 85 percent of the re-deploying troops during this period.¹⁹ Finally, recent data reports that 70 percent of sustainment flights into U.S. Central Command's area of responsibility is provided by commercial carriers.²⁰

In March 2001, USTRANSCOM released the results of its comprehensive study detailing the wartime airlift requirements titled Mobility Requirements Study 2005 (MRS-05).²¹ Per MRS-05, the current wartime airlift requirement is 54.5 million ton-miles per day (MTM/D (the ability to move one ton of cargo one million miles in a day or one million tons of cargo one mile in a day)).²² Of this 54.5 MTM/D, CRAF is responsible for 20.5 MTM/D or approximately 38% of the DOD's total requirement.²³ With a release date early in 2001, it is obvious the planners did not foresee the attacks of 9/11 nor the on-going operations in both Afghanistan and Iraq so a new airlift requirements study, referred to as the Mobility Capabilities Study (MCS), was ordered to account for the changes required to meet our expanding National Security Strategy.²⁴

Initially briefed to Congress early in 2006, the MCS fell under extensive criticism for its methodology. The primary issue was that instead of measuring airlift requirements by MTM/D, it looked at our current and projected organic aircraft capabilities and determined that our capabilities were sufficient, assuming differing levels of “risk”.²⁵ With the tempo of overseas operations, the increasing age of our aircraft, and changes to our engagement strategy, many planners thought the gap between MRS-05 and current requirements would be at least 10 MTM/D, with some speculation upwards of 22 MTM/D.²⁶ With many concerns and shortfalls of the study documented by the Government Accounting Office (GAO), many have called for an independent follow-on study to clarify/resolve our airlift requirements.²⁷

From the examples above, it should be intuitively obvious that besides being hard to forecast future mobility requirements, our military is very dependant on civilian airlift during times of conflict. With an approximate cost of \$379 million dollars to the taxpayers in 2007, the CRAF program is an avenue for the military to obtain a large portion of critical lift capability at a minimal cost. These avenues to obtain mobility capabilities while minimizing costs have become increasing important as the military continues to work with shrinking budgets and decreased overseas bases all while transforming to a expeditionary force where engagements throughout the globe will undoubtedly continue to rise and so will the need for strategic lift. A 1999 Congressional report estimated it would cost over \$50 billion to procure and approximately \$1-3 billion annually to operate an organic fleet equivalent to the capabilities provided by the CRAF fleet.²⁸ In other words, it costs the military approximately \$152 to move one ton-mile per day while the CRAF cost is less than \$12.²⁹ These numbers are stark reminders of our reliance and the vital importance of CRAF to supplement our military airlift requirements and its importance to our nation’s security.

Specific CRAF Requirements and Restrictions

Due to the importance and monetary value of the CRAF program, there are numerous requirements/prerequisites that must be met to be eligible to participate. For the purpose of this paper, I will only mention a few of the specific requirements I believe are related to the foreign ownership issue. First, a carrier must commit at least 30 percent of its CRAF-capable passenger fleet, and 15 percent of its cargo capable fleet to be eligible.³⁰ On the personnel side, the air carrier must maintain and commit a minimum of four complete crews for each CRAF dedicated aircraft.³¹ In addition, current requirements state that each crewmember be a U.S. citizen and must be able to obtain a security clearance to the minimum level of SECRET.³² Finally, and most importantly, the air carrier must be U.S. registered.³³

To define a “U.S. registered” air carrier, we need to look back to 1926 when Congress first enacted citizenship requirements with the introduction of the Air Commerce Act. The Air Commerce Act required that for an air carrier to operate within the U.S., U.S. citizens must own the carrier.³⁴ Also, at least 51 percent of the air carriers voting stock must be owned or controlled by U.S. citizens in order to be registered in the United States.³⁵ In 1938, Congress raised the percentage from 51 percent to 75 percent to mirror the Shipping Act of 1916 that required 75 percent U.S. control and ownership, precluding what Congress believed an “inadequate cushion” against foreign ownership and control.³⁶ Also, current law also specifies for air carriers incorporated in the U.S., the company president, as well as at least two-thirds of the Board of Directors must be U.S. citizens.³⁷ Finally, it is critical to understand that the DOT defines the “OR” language in “owned OR controlled” as meaning “AND.”³⁸ Thus, to meet the U.S. citizenship requirements, 75 percent of the voting interest must be owned AND controlled by U.S. citizens.

FOREIGN OWNERSHIP AND CRAF

Foreign Ownership Background

According to a 1992 GAO report, the U.S. has limited ownership and control of U.S. airline companies to only U.S. citizens for four reasons: (1) the protection of the U.S. airline industry, (2) the regulation of international air service, (3) concern about foreign access to U.S. airspace, and (4) DOD's reliance on civilian carrier's supplemental airlift.³⁹ In the early 1990's there was a renewed push by the DOT to ease the foreign ownership investment restrictions. The DOT proposed legislation raising the foreign ownership restriction from 25 percent ownership to 49 percent.⁴⁰ This initial proposal was primarily focused on easing the financial losses suffered by the U.S. air carriers during this timeframe. Congress rejected these proposals and the issue remained fairly dormant until 2003.

In 2003, the DOT, with the backing of the Bush Administration, once again submitted formal proposals that would amend legislation to relax the restrictions on foreign-owned voting stock of U.S. airlines from 25 to 49 percent.⁴¹ Recently the EU has been applying pressure to the DOT insisting that the U.S. must increase the percentage of foreign ownership of U.S. airlines to match their ownership requirements of 49 percent.⁴² There are ongoing negotiations concerning the "open skies" agreements that are designed to increase air transportation between the U.S. and the 27 EU members by replacing many of the restrictive bilateral arrangements, most made during WWII.⁴³ Although foreign ownership is not currently part of "open skies," the EU stated "ownership and control of U.S. airlines would be an essential element for the deal to be completed."⁴⁴ The DOT's proposal was rejected by both houses of Congress.

In an attempt to circumnavigate Congress, on 7 November 2005, the DOT issued a notice of proposed rulemaking (NPRM) that would overturn the current policy that prohibited foreign carriers from gaining “actual control” of U.S. airlines.⁴⁵ According to the Air Line Pilots Association, although the NPRM would leave the 25 percent limit unchanged, the language would increase “control” opportunities for foreign investors to make economic decisions, fleet planning, route structure, pricing and marketing decisions.⁴⁶ While the NPRM would keep safety and security under U.S. citizen “control,” it is intuitively obvious that in such an industry it would be impossible to isolate safety and security from the financial and managerial decisions.⁴⁷ Again, pressure from the EU seems to be the driving factor behind the proposal.

Members of the U.S. House of Representatives quickly responded to the proposal in a letter of protest stating “We believe that the Department has overstepped its authority in this proposal with its revised interpretation of ‘actual control’ as it relates to the citizenship of a U.S. airline, and we urge the Department to withdraw the NPRM.”⁴⁸ The Senate also sent a letter of objection that stated “Any changes to current law on ownership and control of U.S. airlines would require extensive review and public debate...to consider the impacts any proposed changes to current law would have on U.S. jobs, our national defense, homeland security, and the financial stability of the U.S. airline industry.”⁴⁹ With congressional protests failing to quell the DOT proposal, both houses of Congress introduced legislation (H.R. 4542 and S. 2135) that banned DOT from finalizing any changes without Congressional review.

In an attempt to address congressional concerns with the NPRM, DOT issued a “supplemental” NPRM in May 2006.⁵⁰ Again, both houses of Congress overwhelmingly passed amendments prohibiting any funds to be utilized to implement any changes to foreign control rules and sent a letter to the Secretary of Transportation calling for the immediate termination

of the DOT's current pursuit to change U.S. airline foreign control rules.⁵¹ Despite the DOT's stubbornness towards the foreign ownership issue, pressure from Congress has not only postponed DOT's push for changes, but maybe more importantly, highlighted to the DOT the seriousness and potential effect on the airline industry and more importantly, national security.⁵² Captain Duane Woerth, Air Line Pilots Association representative, stated that the strong support by houses of Congress was an "undeniable signal that Congress is united in opposing this radical change because of its implications for our country's airline industry, national defense, and jobs."⁵³

National Security Concerns with Foreign Ownership

In the CRAF issue, the U.S. has a definite conflict of interest between national economy and national security. Although it may be economically beneficial to allow foreign ownership and U.S. airlines more access to global markets, we cannot avoid the fact that the U.S. military has become dependant on our U.S. airlines for a critical portion of our strategic airlift capability in times of national emergency.

A 1993 GAO Report identified five key issues affected by liberalizing airline ownership and control: (1) domestic competition, (2) national security, (3) employment, (4) safety, and (5) international competition.⁵⁴ With regards to CRAF, the DOD must focus on national security. Within national security, there are five sub-issues that are of primary concern and within the scope of this paper: (1) political and national interests, (2) legal leverage, (3) meeting CRAF timelines, (4) crew/security clearance requirements, and (5) certification/safety.

Sub-issue #1: Political / National Interest

The first and underlying most important sub-issue is the alignment, or more appropriately, the mismatch between political and national security interests. When CRAF is required for activation, the U.S. will be engaged in a conflict with a foreign adversary during a time of global instability. With this as a basic starting point, how could the DOD not have reservations of CRAF participation if foreign ownership were allowed? The relationship between foreign airlines and their home governments are often fundamentally different from the relationship between U.S. airlines and the U.S. government.

Unlike the United States, many foreign countries have a very limited number of airlines operating within their borders, with the majority having only one.⁵⁵ Being a single carrier within a foreign country makes a carrier very susceptible to political pressures from their government.⁵⁶ So, the primary concern is if the U.S. were to enter into an “unpopular” conflict, could a foreign owned carrier be counted on to participate if they or their respective government disagreed with our actions? An illustration of this is where seminar participants of the Fifth Worldwide Air Transport Conference, with the topic of OIF as a backdrop, made the following statement concerning foreign ownership:

“...the seminar discussion said [the effect of] unrestricted foreign ownership of a U.S. airline would be minimal on the Defense Dept.’s Civil Reserve Air Fleet program. An airline with a majority of investment from overseas would most likely be operated as a U.S. subsidiary, he said, subject to the same responsibilities as any other flagged carrier. Concerns could be allayed by applying existing regulations such as those related to licensing

Discussions on this issue prompted the seminar chairman...to question whether Air France, if it owned a U.S. subsidiary, would permit the subsidiary to operate supply missions to the Middle East. The query caused a wave of laughter through the hall packed with 600 participants.”⁵⁷

Sub-issue #2: Legal Leverage

Many argue, and I would agree, there are adequate laws and regulations in place to ensure current (U.S.) CRAF participants meet contractual obligations during activation such as the Exon-Florio provision that blocks financial transactions and investments of those refusing to participate.⁵⁸ The U.S. government has strong leverage over U.S. owned carriers (legal, economic, and political) to carry out their CRAF commitments.⁵⁹ If a U.S. carrier refused to fulfill its CRAF obligation during activation, the DOT has the authority to modify and regulate commercial air transportation to ensure the security needs of the country have priority.⁶⁰ That said, the first probable action would be to revoke the carriers operating certificate, essentially shutting down the air carrier. Although the carrier could protest, during a time of national emergency it is unlikely the courts would side with the carrier.⁶¹ In an extreme case, while the air carrier was shut down, the DOD could seize and utilize the commercial carrier's resources under the powers of the Defense Production Act.⁶² Although able to seize aircraft only, the DOD would likely utilize its National Guard and Reserve pilots to fly the seized aircraft.⁶³ Besides the Defense Production Act, the government could go as far as suing corporate officers and members of the board of directors individually for their noncompliance to CRAF obligations, and as a final possibility, the U.S. government could invoke the "Trading with the Enemies Act" that would allow the confiscation of all corporate assets.⁶⁴

The same can not be said of the U.S. government's influence or leverage over foreign carrier if they were enrolled in CRAF. Currently, the only leverage the U.S. would have over a carrier is the suspension of their operating permit.⁶⁵ Unlike a U.S. carrier's certificate, suspending a foreign carriers operating permit means they cannot operate within the U.S. but are still able to operate in other countries. Besides the U.S. governments leverage being limited,

foreign carriers could legally invoke the well-established “sovereign compulsion” defense to refuse their CRAF obligations due to their governments “compulsion.”⁶⁶ Another concern with foreign ownership is the possibility where a foreign carrier refuses to participate due to the fear of terrorist reprisals because of their partnership with the U.S. and them providing assets to CRAF.⁶⁷ This situation is a product of the on-going global war on terror and the multiple countries and organizations with anti-American sentiments. To add credibility to this concern, figure 2. illustrates the damage to a DHL Airbus A300 that was struck by an SA-7 surface to air missile six miles from the Baghdad International Airport in November 2003.⁶⁸ With the cost of these assets being so high and limited, this argument can not be ignored.



Figure 2. SA-7 Damage to DHL Airbus 300, 22 Nov 2007⁶⁹

Finally, a “worst-case” scenario would be if a foreign carrier, following activation, just pulls out of CRAF altogether and “re-flags” all of its aircraft back to its country of origin.⁷⁰ The best explanation of the legal concerns of U.S. government leverage over foreign carriers was expressed by an aviation lawyer who stated “...in a game of poker, the U.S. government has all the cards when playing with a U.S. carrier. The game is entirely different when there is a foreign airline aligned with its government...”⁷¹ Besides just speculation, our military has first-hand experience of foreign carriers not willing to participate or fulfill their commitments. Both DS/DS and OIF experienced instances where both sea and airlift committed foreign carriers

either refused or caused critical delays in the delivery of cargo into the area of operations. A stark example during DS/DS was following the initial Stage I activation where the combination of CRAF assets and organic capability were insufficient to meet requirements.⁷² The call went out from Mobility Airlift Command (MAC) seeking additional air carriers. Again, we must remember that DS/DS was a coalition force, backed by the UN. Early volunteers included Kuwait Airways, JAL (Japanese Airlines) and KAL (Korean Airlines). Repeated attempts and requests for additional foreign carrier assistance, especially from our European allies were unsuccessful.⁷³ Of special note, although JAL agreed to provide aircraft, JAL's aircrews refused to fly. In total, of the 5,061 sorties flown commercially during DS/DS, 185 were flown by foreign carriers.⁷⁴

Sub-Issue #3: CRAF Timelines

The third concern is the ability of foreign carriers to meet the CRAF activation timelines. Currently all CRAF committed aircraft, upon notification of a call-up, are required to have their aircraft stateside and ready for a CRAF mission within 24 to 48 hours depending on which "Stage" is being activated.⁷⁵ These strict timelines are primarily for two reasons. First, if CRAF is activated, the U.S. military is in dire need for airlift to get either troops or equipment when and where needed. Second, these timelines are critical to the strategy and capability factors utilized by our military planners to make critical assumptions.⁷⁶ With foreign carriers, their geographical locations would add numerous hours to this critically time-sensitive requirement.⁷⁷

Sub-Issue #4: Security / Crew Requirements

The fourth issue concerns foreign owned airlines meeting the crew and security requirements mandated by CRAF. First, airlines participating in CRAF agree to supply a

minimum of four fully qualified crewmembers per CRAF committed aircraft. In addition, each of these crewmembers must be able to obtain a U.S. SECRET security clearance.⁷⁸ The requirement that CRAF crews have a secret clearance is necessary primarily due to the fact that crews need access to SECRET aircraft identification security codes, devices capable of encoding and decoding messages, and secure communication equipment.⁷⁹ Since current restrictions do not allow foreign carriers to meet these requirements, the usefulness of foreign CRAF participants would be very limited without major changes to security procedures.⁸⁰

Sub-Issue #5: Safety

Many safety concerns are being raised concerning foreign ownership within CRAF. Besides the concerns over regulatory oversight, the primary safety concern mentioned in a GAO report was that by transferring large numbers of foreign aircraft to U.S. registry, the already “thinly stretched” Federal Aviation Administration (FAA) safety inspection workforce would become overwhelmed, thus endangering the overall health of the nation’s air carrier system.⁸¹ This burden would also impact the DOD survey teams who are required to perform comprehensive, on-site inspections of every carrier’s aircraft, training facilities, maintenance procedures, quality control measures, and must conduct a financial review before being approved for use in the CRAF.⁸² Finally, and most disturbing, is while the Brattle Group foreign ownership study admits the safety issue would be a challenge, FAA officials stated that decisions on this issue should be based primarily on economic policy, not safety.⁸³

FOREIGN OWNERSHIP OPTIONS / RECOMMENDATIONS

No one can deny the world is experiencing a shift to a globalized economy where almost every nation and business is interdependent upon one another. Along these same lines, the U.S. military has also seen a shift from a strategy of containment to one of global engagement. Unfortunately, as our military global strategy and engagement unfolds, we continue to face shrinking budgets and a fleet of organic aircraft insufficient in numbers to meet these requirements. With the ever-changing nature of war, evolving requirements, and unknown threats, planning and forecasting future airlift requirements is difficult to say the least. This issue is too important, too complicated, and has not had sufficient study for an educated, well informed risk assessment to be made. Opening U.S. air carriers to foreign investment is easy; it is guaranteeing that they fulfill their CRAF obligation that is hard. Unless we stand firm on a “U.S. only” CRAF program, the challenge for the DOD is to develop, convey, and execute workable solutions that will minimize the risks to our national security while at the same time improve our relationships with both the DOT and our civilian air carriers. I believe there are options that, if executed properly, may permit increased foreign ownership and/or investment opportunities without jeopardizing the fundamental principal of CRAF or our nation’s security.

Recommendation / Option #1: Formal Survey & Open Dialog⁸⁴

As has been mentioned throughout this paper, foreign ownership within the CRAF is a very complicated issue with numerous players on a global scale. The first recommendation would be to formally survey foreign and domestic carriers to assess willingness to participate in CRAF, relay concerns and evaluate compatibility. A formalized survey would help establish a baseline and an overall better understanding of the issues for the DOD, DOT and both domestic

and foreign carriers. The survey would help define, identify and clarify the full range of CRAF specific contractual and activation concerns while examining both national and international laws and policies that may impact CRAF participation.⁸⁵ A survey of this type would help the DOD, DOT and other appropriate agencies formulate specific guidelines and establish laws to ensure that if foreign investment into the CRAF program was allowed, that the U.S. could continue to meet the requirements for air mobility without jeopardizing our national security.⁸⁶

Recommendation / Option #2: Modify Current Policies / Laws

As discussed earlier, we have a double-standard with respect to legal leverage between U.S. and foreign carriers. Understandably, if the DOD is going to be comfortable with foreign carriers in the CRAF program, the U.S. government must have the same legal and regulatory authority over a foreign carrier as it does over a U.S. carrier. I am not an expert on international law so I do not know if this is possible or all the possible ramifications, but legal leverage with meaningful political or financial consequences are mandatory. One example mentioned in my research was “U.S. incorporation.” Although not totally risk free, incorporation would provide better protection to the CRAF program by giving the U.S. government similar legal leverage between foreign owned carriers and U.S. carriers by nullifying the “sovereign compulsion” defense.⁸⁷ In my opinion, this is the key to CRAF and foreign involvement. Unless we can find a way to negate foreign ownership equates to sovereignty and regulatory authority of another government, I do not believe there are any options that would guarantee foreign owned carriers could be relied upon during CRAF activation.

Recommendation / Option #3: CRAF Participation Mandatory for Foreign Investors⁸⁸

No one disputes that CRAF participation places numerous financial burdens and risks upon the carrier. So, why should the U.S. carriers carry this burden themselves? This third option would make it mandatory for foreign carriers to participate in CRAF (or U.S. carriers accepting foreign investment). This mandatory participation, backed by new and improved laws/policies would help ensure foreign investors truly understood the consequences of CRAF and are willing to accept the associated risk inherent to the program. On the other side, a close look on how domestic carriers would react would be warranted since this change may have unintended consequences. Since CRAF is very risky, some domestic carriers may not opt to renew their CRAF contracts in order gain a competitive advantage by avoiding possible CRAF activation, the burden that their new competitors must maintain.⁸⁹

Recommendation / Option #4: Compromise on Foreign Ownership Restrictions

According to s transportation group study, raising the investment opportunity to 40 percent would show good-faith while still allowing U.S. majority control.⁹⁰ Besides good-faith, this could also provide critical income to our economically struggling U.S. airlines who lost an estimated \$42 billion dollars in the first five years of this century alone.⁹¹ But as pointed out, by raising the investment opportunity you also increase the risk factor for the investor while providing them no increase of authority.⁹²

Recommendation / Option #5: DOT Adopt a “National Security” Criteria⁹³

This goes right to the heart of the argument that DOD has been somewhat remiss in its involvement concerning the foreign ownership issue within CRAF. The concept behind the “National Security” criterion is that the DOD would have a consultative role in either denying or

revoking an airlines authority due to their inputs.⁹⁴ A recent GAO report stated that the DOD must become more involved in shaping U.S. foreign investment policy.⁹⁵ Of course there are differing opinions between the DOD and DOT on interpretation of policy and coordination procedures in regards to foreign ownership and potential CRAF implications. In a perfect world, DOD should be notified by DOT whenever a review arises concerning a CRAF issue/asset. According to the GAO report, DOT does not currently solicit DOD inputs on foreign ownership issues.⁹⁶ This is understandable since there is currently no provision that allows the DOT to deny or revoke an airlines authorization due to national security.⁹⁷ Although the DOD is a member of the Committee on Foreign Investment in the United States (CFIUS), which can make recommendations to the President on foreign investments, they still lack that “national security” consultation piece.

Recommendation / Option #6: Adopt Voluntary Intermodal Sealift Agreement (VISA)

During my research, there were many references that foreign ownership was already working within the DOD as the VISA program. With so many categorizing it as a successful model, I thought I would be remiss if I did not address VISA as an option and provide some insight. VISA was established in 1997 and was benchmarked off the CRAF program. Basically, VISA is a sea-going CRAF (cargo only) that ensures DOD has U.S. flagged vessels during times of national emergency.⁹⁸ While it is easy to see the similarities, they are only superficial. Besides the huge difference in speed (3-4 weeks vs. 2 days), their activation is different. With CRAF, the entire asset (aircraft) is activated and under the control of the DOD. On the other hand, VISA is capacity-oriented which means that the carrier can combine military cargo with commercial cargo. Another key point as to why the U.S. utilizes foreign flagged ships that meet U.S. “citizenship” requirements is that unlike the thousands of U.S. aircraft, the majority of

civilian owned ships are foreign flagged.⁹⁹ Other unique differences that have considerable impact involve the basic logistics of sealift versus airlift. Sealift can act somewhat autonomously; avoiding many of the political barriers such as airport restrictions, international overflight clearances, crew security and communication requirements. Although formalized in 1997, the concept was utilized during DS/DS. While considered a success, USTRANSCOM's sealift experiences during this period illustrate the risks associated with foreign carriers "balking" during wartime. During the conflict, 13 foreign flagged vessels carrying critical wartime cargo either delayed or refused to deliver their cargo.¹⁰⁰ Finally, there has been some recent turbulence between foreign carriers and Congress concerning contractual terms and control issues, many similar to those currently facing CRAF.¹⁰¹

Recommendation / Option #7: Remain Status Quo

Many believe the laws enacted almost 70 years ago are obsolete in today's global economy and to a certain degree our airlines are already operating with foreign partners. With this perception, many foreign and domestic airlines are actively campaigning for increased liberalization of foreign investment restrictions while at the same time exploring ways to work around current laws. A 20 October 2007 article in the *Salt Lake Tribune* discussed that foreign and domestic airlines are beginning to form alliances in a sort of "end-run" around foreign ownership laws.¹⁰² Most recently, Delta and Air France-KLM formed an alliance that will allow them to share an estimated \$8 billion in revenues in trans-Atlantic flights.¹⁰³ Airline analyst Michael Derchin stated this is as close to a merger that you can get with the airlines now able to sit down and legally collude pricing, scheduling, and marketing.¹⁰⁴ Although not legally owned or controlled by foreign companies, these alliances, mergers, agreements and codesharing are a clear indicator of future trends in commercial air transportation.

While maintaining “status quo” is an option, I would reemphasize that our position as the global hegemon puts the U.S. in a unique situation where national security considerations must come before economics. As our civilian counterparts continue to press for liberalization, they fail to realize that they themselves are jeopardizing the very blanket of security that they rely on for their survival.

Recommendation / Option #8: Reduce CRAF Dependency

Worst case, if increased foreign ownership restrictions are lifted by the DOT, and Congress does not block it, how can the U.S. military mitigate the risk of insufficient airlift capabilities, or more importantly, how do we wean ourselves from our dependency of CRAF? A recently generated Congressional report concerning strategic airlift provided multiple options that are worth mentioning.

First, modernize our aging organic mobility assets and/or purchase additional C-17's.¹⁰⁵ Of course, as we mentioned at the beginning, the cost of procuring and operating the required number of aircraft to fill the CRAF gap, in today's budget, would be cost prohibitive. A second option is to seek new alternatives to commercial and organic aircraft. An area of study that has shown great promise in moving large payloads over long distances is the hybrid airship.¹⁰⁶ Recent developments and advances in technology make hybrid airships a promising alternative with payloads ranging from 500 tons and speeds exceeding 100 miles per hour.¹⁰⁷ Not bound by either expensive or specialized infrastructure as needed for aircraft, airships could deliver large payloads closer “to the fight” and with greater flexibility, to include landing on water in support of the Navy.¹⁰⁸ A third, and arguably the most common sense option, is to reduce our airlift requirements.¹⁰⁹ All services must continue to make a concerted effort to explore options that would reduce their airlift mobility footprint. This can be accomplished with either increased

prepositioning or by reducing the weight, size, or equipment requirements. It is imperative that we, as a military, continue to study and focus on speed, agility, and flexibility. By examining ways to improve in these areas should help lead us to reductions in airlift deployment requirements. A final option offered by the congressional report is for the military to operate solely within its organic airlift capability.¹¹⁰ The report debates whether the current requirements in MRS-05 are realistic as it is based off a worst case scenario. This option will require a huge “assumed risk” factor and a monumental effort on military planners to reevaluate and replan mobility requirements.

CONCLUSION

The issue of foreign ownership and its impact on CRAF should be a major concern for the DOD. There are a multitude of factors of why this problem is not going away, and they include slow recapitalization of aircraft, aging mobility fleet, decreasing budgets, changing force structures, expanding missions and the global security and economic environments to name just a few. The U.S. has been in conflict for the last seventeen years with estimates of at least ten more years of sustained involvement in the CENTCOM AOR alone.¹¹¹ At best, the DOD is in a reactive mode as major decisions on foreign ownership have already been set in motion and one GAO report goes as far as to say our senior military leadership has “no official position” on the subject.¹¹² With many believing that globalization is unavoidable, combined with our military's appetite and reliance on civilian airlift increasing, we must find ways to manage and mitigate the inherent risks associated with foreign ownership within CRAF. These concerns are warranted but I also believe that no problem is insurmountable with creative thinking, additional research and proactive consultation among principles. The United States can ill afford to have its national

security jeopardized by adopting policy based on an untested, economically based initiatives.

Finally, the primary barrier to successful resolution of the CRAF issue is a stronger working relationship between the DOT and DOD. The DOT and DOD must team together to resolve and balance our countries military and economic health...our nation's future depends on it.

Appendix A

CRAF Monthly Allocations – May 2007¹¹³

May
2007

OFFICE OF EMERGENCY TRANSPORTATION
CIVIL RESERVE AIR FLEET (CRAF) MONTHLY ALLOCATIONS

Enclosure 1

INTERNATIONAL LONG-RANGE PASSENGER (ILP)

ILP Segment	AAL	AMT	COA	DAL	HAL	NAO	NWA	OAE	RYN	UAL	USA	WOA	TOTAL
A-300 Series	34						26				9		43
DC-10-30								9				1	10
B-747-200							3						3
B-747-400							16			30			46
B-757 Series	123	10	48			5			2	84			272
B-767-200ER	71		14			4		2			1		92
B-767-300 Series				29	7	1				23			60
B-767-400				21									21
B-777-200	47			8						52			107
L1011 Series		4											4
MD-11												6	6
TOTAL	275	14	62	58	7	10	45	11	2	189	10	7	690

INTERNATIONAL SHORT-RANGE PASSENGER (ISP)

ISP Segment	AAL	ASA	AMT	BSK	CCP	COA	DAL	GWY	JBU	RYN	SCX	SWG	SWI	UAL	TOTAL
A-319															0
A-320-200									21						21
B-727-200/B					8										8
B-757 Series		52	12	6							4				74
B-757-200								73							89
MD-80 Series	50	15													65
TOTAL	50	67	28	6	8	0	73	0	21	0	4	0	0	13	270

INTERNATIONAL SHORT-RANGE CARGO (ISC)

ISC Segment	ABX	DHL	EIA	LYC	NAC	XNA	TOTAL
A-300-B4F		9					9
B-727-100F							0
B-727-200F					1		1
B-737-200	1						1
B767-200	1						1
DC-9-33F							0
L-100-30				1			1
TOTAL	2	9	0	1	1	0	13

NATIONAL-DOMESTIC (DOM)

DOM Segment	AWE	FFT	MEP	SWA	TRS	TOTAL
A-319-100	3					3
A-320-200	7					7
B-737-300				23	1	24
B-757-200	1					1
MD-80 Series		2				2
TOTAL	8	3	2	23	1	37

NATIONAL-ALASKA (AAC)

AAC Segment	LYC	NAC	TOTAL
DC-6 Series	2	2	4
L-100-30	2	2	4
TOTAL	2	2	4

AEROMEDICAL (AERO)

AERO Segment	AAL	DAL	UAL	USA	TOTAL
B-767-200ER				9	0
B-767-300ER		29	12		9
TOTAL	0	29	12	9	9

INTERNATIONAL LONG-RANGE CARGO (ILC)

ILC Segment	ABX	APW	ATN	CKS	DAL	DHL	EIA	FDX	GCO	GTI	MUA	NWA	PAC	SOO	UPS	WOA	TOTAL
DC-8-62 CB			3														3
DC-8-63 F	3	3									1						7
DC-8-70F Series			15		8						1						24
DC-10-10CF								19									19
DC-10-30F		2							7							2	11
B-747-100F			6			5									2		13
B-747-200F			10			8				14		14		9	3		58
B-747-300F										1							1
B-747-400F										11			6				17
B-767-200SF	11																11
B-767-400ER																	0
L-1011-200F																	0
MD-10/11F-CF							118	4							9	5	136
TOTAL	14	5	18	16	0	8	13	137	11	26	2	14	6	9	14	7	300

CARRIER LEGEND

AAL - AMERICAN AIRLINES	COA - CONTINENTAL	JBU - JET BLUE	SCX - SUN COUNTRY AIRLINES
ABX - ABX AIR	DAL - DELTA AIRLINES	LYC - LYNDEN AIR CARGO	SOO - SOUTHERN AIR
AMT - ATA AIRLINES	DHL - DHL AIRWAYS	MEP - MIDWEST AIRLINES	SWA - SOUTHWEST
APW - ARROW AIR	EIA - EVERGREEN	MUA - MURRAY AIR	SWI - SUNWORLD INTERNATIONAL
ASA - ALASKA AIRLINES	FDX - FEDERAL EXPRESS	NAC - NORTHERN AIR CARCO	UAL - UNITED AIRLINES
ATN - AIR TRANSPORT INTL	FFT - FRONTIER AIRLINES	NAO - NORTH AMERICAN AIRLINES	UPS - UNITED PARCEL
AWE - AMERICA WEST AIRLINES	GCO - GEMINI AIR CARGO	NWA - NORTHWEST	USA - U.S. AIRWAYS
BSK - MIAMI AIR INTL.	GTI - ATLAS AIR	OAE-OMNI AIR INTERNATIONAL	WOA - WORLD
CCP - CHAMPION AIR	GWY - USA 3000 AIRLINES	PAC - POLAR AIR CARGO	XNA - EXPRESS.NET
CKS - KALITTA AIR	HAL - HAWAIIAN AIRLINES	RYN - RYAN INTNL AIRLINES	

NEW CARRIER in BOLD **= CARRIER DROPPED OUT

SUMMARY

	Past Mo.		Current Mo.	
	April	Change	May	
ILP	690		690	
ILC	299	1	300	
ISC	270		270	
ISP	12	1	13	
DOM	37		37	
AAC	4		4	
AERO	50		50	
TOTAL	1362		1364	

U.S. DOT, Office of the Secretary of Transportation

Bibliography

- Boaz Moselle, et al. "The Economic Impact of an Eu-US Open Aviation Area." Washington DC: Brattle Group, 2002.
- House Armed Services Committee. *Air Force and Army Airlift and Aerial Re-Fueling Fixed-Wing Aircraft Programs*, 2007.
- Bolkcom, Christopher. "Civil Reserve Air Fleet." In *CRS Report for Congress*, edited by Congressional Research Service. Washington D.C.: Library of Congress, 2006.
- . "Strategic Airlift Modernization: Background, Issues and Options." edited by Defense National Defense Foreign Affairs, and Trade Division, 6: Congressional Research Service, 2005.
- Charles M. Westenhoff, Col., USAF, Retired. *Military Airpower: A Revised Digest of Airpower Opinions and Thoughts*. Maxwell Air Force Base, Alabama: Air University Press, 2007.
- Command, Air Mobility. "U.S. Air Force Fact Sheet: Civil Reserve Air Fleet." Air Mobility Command, <http://www.amc.af.mil/library/factsheets>.
- Coulter, Daniel V. "The Voluntary Intermodal Sealift Agreement: Strategic Transportation for National Defense." (2000), <http://www.allbusiness.com/operations/shipping/716306-1.html>.
- Subcommittee on Aviation. *Current Situation and Future Outlook of U.S. Commercial Airline Industry*, First Session, 28 September 2005.
- David D. Banholzer, Major, USAF. "The Civil Reserve Air Fleet: A Vulnerable National Asset." 32. Newport, RI: Naval War College, 2006.
- Dorothy Robyn, James Reitzes, Boaz Moselle. "Beyond Open Skies: The Economic Impact of an Us-Eu Open Aviation Area " The Brattle Group http://transatlantic.sais-jhu.edu/open_skies.pdf.
- Armed Services Committee, Seapower Committee. *Force Structure Impacts on Fleet and Strategic Lift Operations*, 13 October 1999.
- Furlan, Christopher. "Air Cargo Foreign Ownership Restrictions in the United States." 31. Miami: University of Miami School of Law.
- GAO. "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*." 75. Washington DC: United States General Accounting Office, 1992.
- . "*Issues Relating to Foreign Investment and Control of U.S. Airlines*." 30. Washington DC: United States General Accounting Office, 2003.
- Graham, David. "Sustaining the Civil Reserve Air Fleet Program." 55. Alexandria, VA: Institute for Defense Analyses, 2003.
- Grassi, Diane M. "Eu Renews Pressure over U.S. Airline Ownership " *Newsback* (2006), www.newsback.com/forums/news-5570.
- Greco, Kristie. "Lawmakers Urge Administration to Drop Proposed Foreign Ownership of Port Operations & U.S. Airlines." In *3 March 2006*, 2, 2006.
- International, Air Line Pilots Association. "Timeline of Opposition to Foreign Control of U.S. Airlines " www.alpa.org/desktopmodules/alpa_documents.
- Kauchak, Marty. "Filling the Gaps." *Military Logistics Forum*, no. 4 (2007), <http://www.military-logistics-forum.com/article.cfm?DocID=2066>.
- Mason, Jeff. "Eu Backs "Open Skies" Pact." Association of Flight Attendants-CWA, <http://www.uniteddafa.org/cmt/gov/ownership>.

Matthews, James K. *So Many, So Much, So Far, So Fast*. Forth ed. Washington D.C.: U.S. Government Printing Office, 1996.

Michael Spehar, Kevin Spradling. "White Paper on Increased Foreign Ownership of U.S. Airlines." 8. Scott AFB, IL: Air Mobility Command, 2007.

Office, Congressional Budget. "Moving U.S. Forces: Options for Strategic Mobility." 82: U.S. Government Printing Office, 1997.

Priddy, Ronald N. "A History of the Civil Reserve Air Fleet in Operations Desert Shield, Desert Storm, and Desert Sortie ", edited by DOD Policy Board on Federal Aviation (U.S.): Volpe National Transportation Systems Center.

Richard B. Meyers, Gen., USAF. "The National Military Strategy of the United States of America." edited by Department of Defense, 38: Office of the Chairman of the Joint Chiefs of Staff, 2004.

Robert Agnew, L. Nicholas Lacey, Larry Knickerbocker. "Alternatives to Sustain the Civil Reserve Air Fleet." 101. Alexandria, VA: Institute for Defense Analyses, 2003.

Service, Combined News. "Air France, Delta Fly High under Open Skies." *The Salt Lake Tribune* (2007), http://sltrib.com/ci_7235900.

Armed Services Committee. *Strategic Initiatives*, 24 Oct 2007.

Students, Transportation Industry Study. "2004 Transportation Industry." 31. Washington DC: The Industrial College of the Armed Forces National Defense University, 2004.

Sturch, James P. "Strategic Airlift: Strength and Weaknesses." 37. Carlisle Barracks, PA: Army War College, 1999.

Tefteller, William R. "Strategic Airlift Support for U.S. Forces Deployment to Operation Desert Shield." 94. Washington D.C.: industrial College of the Armed Forces, 1991.

Tirpak, John A. "The Airlift Gap." *Air Force Magazine* October 2004.

Transportation, Department of. "Transportation Emergency Management." <http://www.dot.gov/ost/oet/craf/index.html>.

-
- ¹ Col. Charles M. Westenhoff, USAF, Retired, *Military Airpower: A Revised Digest of Airpower Opinions and Thoughts* (Maxwell Air Force Base, Alabama: Air University Press, 2007), p. 31.
- ² Gen. Richard B. Meyers, USAF, "The National Military Strategy of the United States of America," ed. Department of Defense (Office of the Chairman of the Joint Chiefs of Staff, 2004), p. 23.
- ³ Christopher Bolkcom, "Strategic Airlift Modernization: Background, Issues and Options," ed. Defense National Defense Foreign Affairs, and Trade Division, CRS Report to Congress (Congressional Research Service, 2005), p. 3.
- ⁴ David Graham, "Sustaining the Civil Reserve Air Fleet Program," (Alexandria, VA: Institute for Defense Analyses, 2003), p.1.
- ⁵ Air Mobility Command, "U.S. Air Force Fact Sheet: Civil Reserve Air Fleet," Air Mobility Command, <http://www.amc.af.mil/library/factsheets.>, p. 1.
- ⁶ *Ibid.*, p.1.
- ⁷ Christopher Bolkcom, "Civil Reserve Air Fleet," in *CRS Report for Congress*, ed. Congressional Research Service (Washington D.C.: Library of Congress, 2006), p. crs-1.
- ⁸ *Ibid.*, p. crs-1.
- ⁹ *Ibid.*, p. crs-1.
- ¹⁰ *Ibid.*, p. crs-1.
- ¹¹ Graham, "Sustaining the Civil Reserve Air Fleet Program," p. 3.
- ¹² Department of Transportation, "Transportation Emergency Management," <http://www.dot.gov/ost/oet/craf/index.html>, p. 1.
- ¹³ *Ibid.*, p. 1.
- ¹⁴ Kevin Spradling Michael Spehar, "White Paper on Increased Foreign Ownership of U.S. Airlines," (Scott AFB, IL: Air Mobility Command, 2007), p. 1.
- ¹⁵ Ronald N. Priddy, "A History of the Civil Reserve Air Fleet in Operations Desert Shield, Desert Storm, and Desert Sortie ", ed. DOD Policy Board on Federal Aviation (U.S.) (Volpe National Transportation Systems Center), p. 13.
- ¹⁶ Congressional Budget Office, "Moving U.S. Forces: Options for Strategic Mobility," (U.S. Government Printing Office, 1997), p. 1.
- ¹⁷ Graham, "Sustaining the Civil Reserve Air Fleet Program," p. 3.
- ¹⁸ William R. Tefeller, "Strategic Airlift Support for U.S. Forces Deployment to Operation Desert Shield," (Washington D.C.: industrial College of the Armed Forces, 1991), Abstract.
- ¹⁹ Major David D. Banholzer, USAF, "The Civil Reserve Air Fleet: A Vulnerable National Asset," (Newport, RI: Naval War College, 2006), p. 3.
- ²⁰ Marty Kauchak, "Filling the Gaps," *Military Logistics Forum* 1, no. 4 (2007), <http://www.military-logistics-forum.com/article.cfm?DocID=2066>, p. 2.
- ²¹ House Armed Services Committee, *Air Force and Army Airlift and Aerial Re-Fueling Fixed-Wing Aircraft Programs*, 2007, p. 7.
- ²² *Ibid.*, p. 7.
- ²³ *Ibid.*, p. 7.
- ²⁴ *Ibid.*, p. 7.
- ²⁵ *Ibid.*, p. 7.
- ²⁶ John A. Tirpak, "The Airlift Gap," *Air Force Magazine* October 2004, p. 1.
- ²⁷ *Air Force and Army Airlift and Aerial Re-Fueling Fixed-Wing Aircraft Programs*, p. 8.
- ²⁸ Armed Services Committee, Seapower Committee, *Force Structure Impacts on Fleet and Strategic Lift Operations*, 13 October 1999., p. 6.
- ²⁹ James P. Sturch, "Strategic Airlift: Strength and Weaknesses," (Carlisle Barracks, PA: Army War College, 1999), p. 12.
- ³⁰ Command, "U.S. Air Force Fact Sheet: Civil Reserve Air Fleet.", p. 2.
- ³¹ *Ibid.*, p. 2.
- ³² GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," (Washington DC: United States General Accounting Office, 1992), p. 62.
- ³³ Graham, "Sustaining the Civil Reserve Air Fleet Program," p. 1.

-
- ³⁴ Christopher Furlan, "Air Cargo Foreign Ownership Restrictions in the United States," (Miami: University of Miami School of Law), p. 2.
- ³⁵ Ibid., p. 2.
- ³⁶ Ibid., p. 2.
- ³⁷ Michael Spehar, "White Paper on Increased Foreign Ownership of U.S. Airlines," p. 4.
- ³⁸ Ibid., p. 4.
- ³⁹ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 12.
- ⁴⁰ ———, "*Issues Relating to Foreign Investment and Control of U.S. Airlines*," (Washington DC: United States General Accounting Office, 2003).
- ⁴¹ Furlan, "Air Cargo Foreign Ownership Restrictions in the United States," p. 16.
- ⁴² Transportation Industry Study Students, "2004 Transportation Industry," (Washington DC: The Industrial College of the Armed Forces National Defense University, 2004), p. 12.
- ⁴³ Jeff Mason, "Eu Backs "Open Skies" Pact," Association of Flight Attendants-CWA, <http://www.uniteddafa.org/cmt/gov/ownership.>, p. 1.
- ⁴⁴ Diane M. Grassi, "Eu Renews Pressure over U.S. Airline Ownership " *Newsback* (2006), www.newsback.com/forums/news-5570., p. 2.
- ⁴⁵ Air Line Pilots Association International, "Timeline of Opposition to Foreign Control of U.S. Airlines " www.alpa.org/desktopmodules/alpa_documents., p. 1.
- ⁴⁶ Ibid., p. 1.
- ⁴⁷ Kristie Greco, "Lawmakers Urge Administration to Drop Proposed Foreign Ownership of Port Operations & U.S. Airlines," in *3 March 2006* (2006), p. 2.
- ⁴⁸ International, "Timeline of Opposition to Foreign Control of U.S. Airlines "., p. 2.
- ⁴⁹ Ibid., p. 2.
- ⁵⁰ Ibid., p. 2.
- ⁵¹ Ibid., p. 2.
- ⁵² Ibid., p. 3.
- ⁵³ Ibid., p. 3.
- ⁵⁴ Furlan, "Air Cargo Foreign Ownership Restrictions in the United States," p. 17.
- ⁵⁵ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 50.
- ⁵⁶ Ibid., p. 50.
- ⁵⁷ Michael Spehar, "White Paper on Increased Foreign Ownership of U.S. Airlines," p. 7.
- ⁵⁸ et al. Boaz Moselle, "The Economic Impact of an Eu-U.S. Open Aviation Area," (Washington DC: Brattle Group, 2002), p. 7-15.
- ⁵⁹ Ibid., p. 7-9.
- ⁶⁰ Ibid., p. 7-9.
- ⁶¹ Ibid., p. 7-9.
- ⁶² Ibid., p. 7-9.
- ⁶³ Ibid., p. 7-9.
- ⁶⁴ Ibid., p. 7-9.
- ⁶⁵ Ibid., p. 7-9.
- ⁶⁶ Ibid., p. 7-9.
- ⁶⁷ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 52.
- ⁶⁸ David D. Banholzer, "The Civil Reserve Air Fleet: A Vulnerable National Asset," p. 6.
- ⁶⁹ Ibid., p. 7.
- ⁷⁰ Boaz Moselle, "The Economic Impact of an Eu-U.S. Open Aviation Area," p. 7-11.
- ⁷¹ Ibid., p. 7-9.
- ⁷² Priddy, "A History of the Civil Reserve Air Fleet in Operations Desert Shield, Desert Storm, and Desert Sortie "., p. 221.
- ⁷³ Ibid., 234.
- ⁷⁴ Ibid., 238.
- ⁷⁵ Michael Spehar, "White Paper on Increased Foreign Ownership of U.S. Airlines," p. 2.
- ⁷⁶ Ibid., p. 2.
- ⁷⁷ Ibid., p. 3.
- ⁷⁸ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 62.
- ⁷⁹ Ibid., p. 62.

-
- ⁸⁰ Ibid., p. 63.
- ⁸¹ Ibid., p. 65.
- ⁸² Michael Spehar, "White Paper on Increased Foreign Ownership of U.S. Airlines," p. 3.
- ⁸³ James Reitzes Dorthy Robyn, Boaz Moselle, "Beyond Open Skies: The Economic Impact of an Us-Eu Open Aviation Area " The Brattle Group http://transatlantic.sais-jhu.edu/open_skies.pdf, p. 70.
- ⁸⁴ L. Nicholas Lacey Robert Agnew, Larry Knickerbocker, "Alternatives to Sustain the Civil Reserve Air Fleet," (Alexandria, VA: Institute for Defense Analyses, 2003), p. A-18.
- ⁸⁵ Ibid., p. A-18.
- ⁸⁶ Ibid., p. A-18.
- ⁸⁷ Boaz Moselle, "The Economic Impact of an Eu-US Open Aviation Area," p. 7-11.
- ⁸⁸ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 57.
- ⁸⁹ Ibid., p. 58.
- ⁹⁰ Students, "2004 Transportation Industry," p. 14.
- ⁹¹ Subcommittee on Aviation, *Current Situation and Future Outlook of U.S. Commercial Airline Industry*, First Session, 28 September 2005, p. 1.
- ⁹² Graham, "Sustaining the Civil Reserve Air Fleet Program," p. B-32.
- ⁹³ GAO, "Airline Competition *Impact of Changing Foreign Investment and Control Limits on U.S. Airlines*," p. 65.
- ⁹⁴ Ibid., p. 65.
- ⁹⁵ Ibid., p. 59.
- ⁹⁶ Ibid., p. 59.
- ⁹⁷ Ibid., p. 59.
- ⁹⁸ Daniel V. Coulter, "The Voluntary Intermodal Sealift Agreement: Strategic Transportation for National Defense," (2000), <http://www.allbusiness.com/operations/shipping/716306-1.html>, p. 1.
- ⁹⁹ Boaz Moselle, "The Economic Impact of an Eu-US Open Aviation Area," p. 7-14.
- ¹⁰⁰ James K. Matthews, *So Many, So Much, So Far, So Fast*, Forth ed. (Washington D.C.: U.S. Government Printing Office, 1996), p. 136.
- ¹⁰¹ Boaz Moselle, "The Economic Impact of an Eu-US Open Aviation Area," p. 7-13.
- ¹⁰² Combined News Service, "Air France, Delta Fly High under Open Skies," *The Salt Lake Tribune* (2007), http://sltrib.com/ci_7235900, p. 1.
- ¹⁰³ Ibid., p. 1.
- ¹⁰⁴ Ibid., p. 1.
- ¹⁰⁵ Bolkcom, "Strategic Airlift Modernization: Background, Issues and Options," p. crs-3.
- ¹⁰⁶ Ibid., p. crs-4.
- ¹⁰⁷ Ibid., p. crs-5.
- ¹⁰⁸ Ibid., p. crs-5.
- ¹⁰⁹ Ibid., p. crs-5.
- ¹¹⁰ Ibid., p. crs-6.
- ¹¹¹ Armed Services Committee, *Strategic Initiatives*, 24 Oct 2007, p. 1.
- ¹¹² GAO, "Issues Relating to Foreign Investment and Control of U.S. Airlines," p. 6.
- ¹¹³ Transportation, "Transportation Emergency Management," p. 1.